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A SUSTAINABLE TOMORROW.**  
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Good quality products and customer service, continuous improvement in processes, systems and capabilities are the hallmark of leaders in business.

The Electrical Standard Products (ESP) business and New Product Development (NPD) function of L&T Electrical & Automation (E&A) have been awarded the Deming Prize 2019, by JUSE (Union of Japanese Scientists and Engineers), Japan.


The Deming Prize is one of the highest awards on Total Quality Management (TQM) in the globe. It is presented to an organization that has implemented TQM suitable for its management philosophy, scope/type/scale of business and management environment.

The TQM activities of ESP were evaluated for establishment of customer oriented objectives and strategies & top management leadership, suitable utilisation and implementation of TQM, effects obtained regarding business objectives and demonstration of organizational capabilities.

E&A's ESP is the first low voltage switchgear manufacturer in India that has received this recognition.



# Contents

<b>Switching &amp; Control</b>	
» Contactors	03
» Accessories	08
» Spares	11
<b>Motor Protection Solutions</b>	
» Thermal Overload Relays	12
» Electronic Motor Protection Relays	14
» iMMR – Intelligent Motor Management Relay	16
» Motor Protection Circuit Breakers	18
<b>Starters</b>	
» Motor Starters	20
<b>Powergear</b>	
» Enclosed Automatic Transfer Switch	25
» On Load Changeover Switch-Disconnectors	26
» CZ Bypass Switch & Switch Disconnectors 	27
» Switch-Disconnecter-Fuse Units, HRC Fuses & SDs	30
» Moulded Case Circuit Breakers	35
» Sub - Main Distribution Boards	48
» Air Circuit Breakers	52
<b>Energy Management</b>	
» Power Quality Solutions	65
» Protection Relays	73
» Metering Devices	75
» Energy Management Solution	76
<b>Automation Solution</b>	
» AC Drives	88
» Digital Soft Starters	91
» Programmable Logic Controllers (PLC) & Human Machine Interface	93
<b>Final Distribution Products</b>	95
<b>Discontinued Products/Suggested Alternate Products</b>	112

**Note:**

[Green colour : HSN code]

Current GST 18%, subject to changes as per Govt. notification

**Please contact the nearest branch office for  
Prices of the following products :**

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- **Busbar Trunking Systems**
- **Rotary Switches**
- **Modular Remote Control Units & Indicating Units**
- **Timing Devices & Supply Monitors**
- **Cable Ducts & Load Break Switches**
- **Modular Switches and Sockets**
- **Medium Voltage AIS upto 36kV**
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**Note:** Product photographs shown, are for representative purposes only.



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### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

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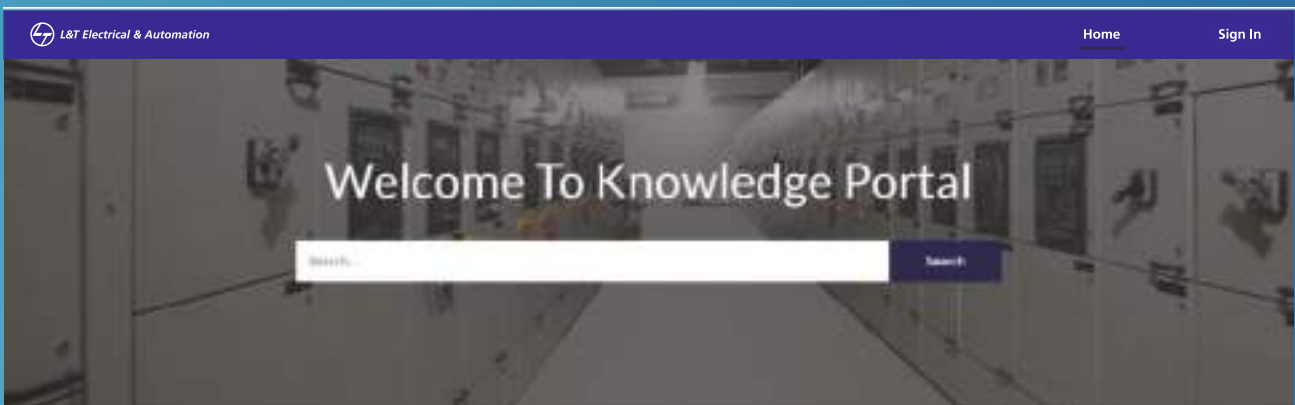
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# Contactors

## Power Contactors

### 1 Pole

- MR

### 2 Pole

- MNX
- MU-2P

### 3 Pole

- MO
- MNX
- MI
- MX Power
- ML
- MDX (DC Control/Electronic coil Control)
- MVO (Vacuum)

### 4 Pole

- MCX

## Control Relays (Auxiliary Contactors)

- MX0 (Mini) AC/DC
- MO0 AC/DC
- MN0 DC

## Capacitor Duty Contactors

- MO C

## MI Contactors 6-150A, AC-3 Rating

Optimum solution  
for your applications



Understanding customer requirements, we make sure that our range of contactors caters to their evolving needs. Considering the changing expectations of customers and a need for an optimum and reliable solution, we introduce MI range of contactors for applications upto 150 A AC3 rating.

### Features :

- Finger proof terminals upto 40A
- Can be used with existing MN Range of thermal overload relays
- Top mounting add-on blocks possible upto 80A
- Spares available for entire range
- Optimised for AC1/AC3 applications

### Applications :

- Street lighting
- VFD, Soft Starters applications
- UPS
- Solar and Wind inverters
- Resistive loads
- Battery charging
- Motor Starters

\* For accessories and more details please contact nearest branch.

### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

Type	Cat. No.	M.R.P. (₹) Per Unit
MI 6 (With 1 NO aux contact)	CS90401	Price on request*
MI 9 (With 1 NO aux contact)	CS90402	
MI 12 (With 1 NO aux contact)	CS90403	
MI 18 (With 1 NO aux contact)	CS90404	
MI 22 (With 1 NO aux contact)	CS90405	
MI 25	CS90406	
MI 32	CS90407	
MI 40	CS90408	
MI 45	CS90704	
MI 50	CS90705	
MI 70	CS90706	
MI 80	CS90707	
MI 95	CS90724	
MI 120	CS90725	
MI 150	CS90726	

### Notes:

- 1) Standard coil voltage: 110V, 220V, 240V and 415V, 50Hz
- 2) For ordering Suffix, please refer page No. 10

# 3 Pole Power Contactors [8536]

## 3 Pole Power Contactors - Type MNX

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650AAC-3
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Spares available for entire range



MNX 22



MNX 40



MNX 80



MNX 140



MNX 250



MNX 650

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MNX 9	1 NO	CS94106	955	20
				1 NC	CS94107	955	20
	12	30	MNX 12	1 NO	CS94108	1100	20
				1 NC	CS94109	1100	20
Fr 2	18	30	MNX 18	1 NO	CS94100	1305	20
				1 NC	CS94101	1305	20
	22	32	MNX 22	1 NO	CS94980	1515	20
				1 NC	CS94981	1515	20
Fr 3	25	45	MNX 25	#	CS94110	1540	20
	32	55	MNX 32	#	CS94111	3255	20
	40	55	MNX 40	#	CS94190	5125	20
Fr 4	50	85	MNX 50	#	CS97075	6770	1
	70	100	MNX 70	#	CS97076	9445	1
	80	100	MNX 80	#	CS97077	11900	1
Fr 5	95	160	MNX 95	2 NO + 2 NC	CS94136	18150	1
	110	160	MNX 110	2 NO + 2 NC	CS94137	22060	1
	140	160	MNX 140	2 NO + 2 NC	CS94138	27835	1
Fr 6	185	250	MNX 185	2 NO + 2 NC	CS94139	33525	1
	225	300	MNX 225	2 NO + 2 NC	CS94140	36915	1
	250	300	MNX 250	2 NO + 2 NC	CS94141	41640	1
Fr 7	300	400	MNX 300	2 NO + 2 NC	CS90280	50200	1
	400	425	MNX 400	2 NO + 2 NC	CS94144	70520	1
	550	650	MNX 550	2 NO + 2 NC	CS94145	105030	1
	650	800	MNX 650	2 NO + 2 NC	CS96327	157160	1

### Notes:

- 1) # Add-on blocks can be ordered separately
- 2) For ordering MNX/MO/MVO add-on aux contact blocks, please refer page No. 8
- 3) For ordering MNX/MO surge suppressor and MNX/MO MIL kit, please refer page No. 9
- 4) For ordering Suffix, please refer page No. 10
- 5) Standard coil voltage: MNX/MO - 110V, 220V, 240V and 415V, 50Hz.

▲ If using 16 sq mm cable for MO 45 use of spreader link kit is mandatory

▲ For ordering spreader link kit for MO 45, Please refer page No. 9

\* Universal AC/DC electronic coil version

## 3 Pole Power Contactors - Type MO

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A - 300AAC-3
- Range 140A-300A available with conventional / universal AC/DC electronic coil version
- Common coil for 50 & 60Hz application
- Low pick-up VA consumption
- Standardized accessories for 9A-110A and 140A-300A range
- Compact dimensions saving panel space
- Suitable for Lug as well as Lugless termination
- **RoHS** compliant

Now upgraded to AC-3e rating



MO 18



MO 45



MO 70



MO 110



MO 140



MO 300

Size	AC 3e Rating (A)	AC 1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 0	9	30	MO 9	1NO+1NC	CS94833	1615	10
	12	32	MO 12	1NO+1NC	CS94834	1825	10
	18	32	MO 18	1NO+1NC	CS94835	2045	10
Fr 1	25	45	MO 25	#	CS94567	2275	10
	32	50	MO 32	#	CS94568	4820	10
	40	50	MO 40	#	CS94569	7390	10
	45	50	MO 45▲	#	CS94570	9425	10
Fr 2	50	100	MO 50	#	CS94572	9845	1
	60	100	MO 60	#	CS94573	10725	1
	70	100	MO 70	#	CS94574	13240	1
Fr 3	80	125	MO 80	#	CS94576	16840	1
	95	125	MO 95	#	CS94577	19280	1
	110	140	MO 110	#	CS94578	23370	1
Fr 4	140	250	MO 140	2NO+2NC	CS95000	31815	1
	185	275	MO 185	2NO+2NC	CS95001	36905	1
	225	275	MO 225	2NO+2NC	CS95002	40620	1
Fr 4*	140	250	MO 140	2NO+2NC	CS95042	42680	1
	185	275	MO 185	2NO+2NC	CS95047	52855	1
	225	275	MO 225	2NO+2NC	CS95052	56515	1
Fr 5	250	400	MO 250	2NO+2NC	CS94441	45815	1
	300	500	MO 300	2NO+2NC	CS94440	55255	1
Fr 5*	250	400	MO 250	2NO+2NC	CS94456	61960	1
	300	500	MO 300	2NO+2NC	CS94464	71900	1

# Vacuum Contactors\$ [8536]

## 3 Pole Vacuum Contactors - Type MVO

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 400 – 820AAC-3
- With contact erosion indicator
- Wide band potted coil with built-in surge suppressor
- Coil on top design
- **RoHS** compliant



MVO 820

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
400	630	MVO 400	2 NO + 2 NC	CS90097	190605	1
500	630	MVO 500	2 NO + 2 NC	CS90098	247350	1
630	820	MVO 630	2 NO + 2 NC	CS90099	314340	1
820	1000	MVO 820	2 NO + 2 NC	CS90077	475765	1

\$ Available till stocks last



## 2 Pole Power Contactors [8536]

## 3 Pole Power Contactors [8536]

### 2 Pole Power Contactors - Type MNX

#### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650A AC-3
- DC ratings available
- Click fit type construction up to 40A
- Coil on top design in 95A and above
- Common spares and accessories as MNX 3P

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	9	25	MNX 9-2P	1 NO	CS90232	820	10
	12	30	MNX 12-2P	1 NO	CS90234	880	10
	18	30	MNX 18-2P	1 NO	CS90236	1050	10
	22	32	MNX 22-2P	1 NO	CS90238	1215	10
Fr 2	25	45	MNX 25-2P	#	CS90240	1270	10
	32	55	MNX 32-2P	#	CS90241	2720	10
	40	55	MNX 40-2P	#	CS90242	4095	10
Fr 3	50	85	MNX 50-2P	#	CS94061	5710	1
	70	100	MNX 70-2P	#	CS94062	7820	1
Fr 4	80	100	MNX 80-2P	#	CS94063	9540	1
	95	160	MNX 95-2P	#	CS94064	15665	1
	110	160	MNX 110-2P	#	CS94065	17340	1
Fr 5	140	160	MNX 140-2P	#	CS94066	22025	1
	185	250	MNX 185-2P	2 NO + 2 NC	CS94978	28425	1
	225	300	MNX 225-2P	2 NO + 2 NC	CS94979	30135	1
Fr 6	250	300	MNX 250-2P	2 NO + 2 NC	CS90301	33345	1
	300	400	MNX 300-2P	2 NO + 2 NC	CS90346	40540	1
	400	425	MNX 400-2P	2 NO + 2 NC	CS94069	56695	1
	550	650	MNX 550-2P	2 NO + 2 NC	CS90243	86360	1
	650	800	MNX 650-2P	2 NO + 2 NC	CS90578	124730	1

### 3 Pole Power Contactors - Type MDX

#### Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 9 - 110A AC-3
- Built in surge suppressor for MDX 9 - 110



MDX 25



MDX 38



MDX 110

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1 (DC Control Coil)	9	25	MDX 9	1 NO	CS96564	1835	1
	12	28	MDX 12	1 NO	CS96565	2170	1
	18	32	MDX 18	1 NO	CS96566	2535	1
Fr 2 (DC Control Coil)	25	32	MDX 25	1 NO	CS96567	3515	1
	32	56	MDX 32	#	CS96552	6795	1
Fr 3 (Electronic Coil-AC/DC)	38	56	MDX 38	#	CS96553	9260	1
	50	90	MDX 50	#	CS91584	13510	1
	65	110	MDX 65	#	CS91585	15295	1
	80	125	MDX 80	#	CS91586	18935	1
	95	125	MDX 95	#	CS91857	22655	1
	110	125	MDX 110	#	CS91858	25255	1

#### Notes:

- 1) # Add-on blocks can be ordered separately.
- 2) For ordering MDX/MNX add-on aux contact blocks, please refer page No. 8
- 3) For ordering MNX surge suppressor and MIL kit, please refer page No. 9
- 4) For ordering Suffix, please refer page No. 10
- 5) Standard coil voltage: MDX - 24V, 48V, 110V and 220V DC
- 6) Standard coil voltage: MNX 2P - 240V, 50Hz
- 7) For DC power ratings refer catalogue
- 8) For MDX side add-on and top add-on can not be mounted together

## 3 Pole Power Contactors [8536]

### 3 Pole Power Contactors - Type MX Mini

#### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- AC/DC Contactor in 45mm width
- Base as well as DIN Rail mounting facility
- Built-in Surge Suppressor in MX DC



MX 06

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For AC control (Std. Coil Voltage - 24, 110, 240, 415V, 50Hz)</b>						
6A	20A	MX 06	1 NO	CS94012	1175	10
6A	20A	MX 06	1 NC	CS94013	1175	10
9A	20A	MX 09	1 NO	CS94014	1215	10
9A	20A	MX 09	1 NC	CS94015	1215	10
12A	20A	MX 12	1 NO	CS94016	1325	10
12A	20A	MX 12	1 NC	CS94017	1325	10
<b>For DC control (Std. Coil Voltage - 24, 110, 220V)</b>						
6A	20A	MX 06	1 NO	CS94021	1840	10
6A	20A	MX 06	1 NC	CS94022	1840	10
9A	20A	MX 09	1 NO	CS94023	1890	10
9A	20A	MX 09	1 NC	CS94024	1890	10
12A	20A	MX 12	1 NO	CS94025	2040	10
12A	20A	MX 12	1 NC	CS94026	2040	10

### 3 Pole Power Contactors - Type ML

#### Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 25 - 300A AC-3
- Robust and suitable for hostile applications



ML 1.5



ML 3



ML 6



ML 12

Size	AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	25	25	ML 1.5	2 NO + 2 NC	SS91851	4280	1
Fr 2	32	40	ML 2	2 NO + 2 NC	SS90701	7945	1
	40	45	ML 3	2 NO + 2 NC	SS90721	11730	1
Fr 3	70	100	ML 4	2 NO + 2 NC	SS90910	19175	1
	110	125	ML 6	2 NO + 2 NC	SS90921	30270	1
Fr 4	300	400	ML 12	2 NO + 2 NC	SS91010	68565	1

#### Notes:

- 1) For ordering MX add-on aux contact blocks, please refer page No. 8
- 2) For ordering ML add-on aux contact blocks, please refer page No. 9
- 3) For ordering MX surge suppressor and MIL kit, please refer page No. 9
- 4) For Ordering Suffix, please refer page No. 10
- 5) Standard Coil Voltage : ML 1.5/2/3 - 110V, 240V and 440V, 50 Hz  
ML 4/6/12 - 110V, 240V and 415V, 50 Hz

4 Pole Power Contactors - Type MCX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 16A – 800A AC-1
- Wide operating band up to 130A AC-1



MCX 22



MCX 34



MCX 47

Size	AC-1 Rating (A)	Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	16	MCX 01	#	CS97009	1130	10
	25	MCX 02	#	CS97010	1195	10
	32	MCX 03	#	CS97011	1275	10
	40	MCX 04	#	CS97012	1770	10
Fr 2	50	MCX 11	#	CS97013	2345	1
	63	MCX 12	#	CS97014	4605	1
	80	MCX 13	#	CS97015	7785	1
Fr 3	100	MCX 22	#	CS97017	10180	1
	130	MCX 23	#	CS97018	12195	1
Fr 4	160	MCX 32	2 NO + 2 NC	CS97020	19895	1
	200	MCX 33	2 NO + 2 NC	CS97021	24545	1
	255	MCX 34	2 NO + 2 NC	CS97022	30165	1
Fr 5	325	MCX 41	2 NO + 2 NC	CS97023	49550	1
	360	MCX 42	2 NO + 2 NC	CS97024	53375	1
	400	MCX 43	2 NO + 2 NC	CS97025	61905	1
	500	MCX 44	2 NO + 2 NC	CS97026	78405	1
	600	MCX 45	2 NO + 2 NC	CS97027	92740	1
	700	MCX 46	2 NO + 2 NC	CS97028	104075	1
	800	MCX 47	2 NO + 2 NC	CS94291	133365	1

Automatic Transfer Controllers (ATC)



AuXC-2000 Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-2000 Controller	ATC20000000	30100	1

Can be used along with ACB, Motorised MCCBs, MCX contactors & Motorised Changeover switches

For AuXC 2000 programming videos and more details please scan the QR code or click here



Notes:

- 1) # Add on blocks can be ordered separately.
- 2) For ordering MCX add-on aux contact blocks, please refer page No. 8
- 3) For ordering MCX surge suppressor and MIL kit, please refer page No. 9
- 4) For Ordering Suffix, please refer page No. 10
- 5) Standard Coil Voltage: MCX - 220V, 240V and 415V 50Hz
- 6) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors
- 7) MCX 01-04 and MCX 11-13 available in 48V DC coil. Contact nearest branch for more details.
- 8) MCX 01-04 available with 2NO+2NC power contacts. Contact nearest branch for more details.

To avoid coil failure due to neutral floating, it is recommended to use 415V coil

Control Relays (Auxiliary Contactors) [8536]

Type MX0



MX0 40E

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Available with AC or DC control in 45mm width
- Inbuilt Surge Suppressor in MX DC

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz</b>				
AC-15 4A at 415V	MX0 40E (4 NO)	CS94018	1395	10
	MX0 31E (3 NO + 1 NC)	CS94019	1395	10
	MX0 22E (2 NO + 2 NC)	CS94020	1395	10
	MX0 13E (1 NO + 3 NC)	CS94041	1395	10
	MX0 04E (4 NC)	CS94042	1395	10
<b>For DC control std. Coil Voltage - 24, 110, 220V</b>				
AC-15 4A at 415V	MX0 40E (4 NO)	CS94027	1905	10
	MX0 31E (3 NO + 1 NC)	CS94028	1905	10
	MX0 22E (2 NO + 2 NC)	CS94029	1905	10
	MX0 13E (1 NO + 3 NC)	CS94043	1905	10
	MX0 04E (4 NC)	CS94044	1905	10

Notes:

- 1) For Ordering Suffix, please refer page No. 10
- 2) 5 NC & above combinations are not recommended for MX0 DC Control Contactors
- 3) 1 NO + 3 NC, 4 NC add on block combinations are not recommended for MX0 DC Control Contactors. For Example, In MX0 DC control Contactors, 4NO + 4NC combination can be achieved with 2NO + 2NC aux contactor and 2NO + 2NC add on block and not with 4NO standalone contactor and 4NC add on block
- 4) For ordering add-on contact blocks of MX0, MO0 & MN0 please refer page No. 8

Type MO0



MO0

Features

- Same add-on aux. contact block in MO0 as of MO power contactors
- Common coil for 50 & 60Hz application
- Inbuilt Surge Suppressor in MO0 DC

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz</b>				
AC-15 4A at 415V	MO0 40E (4NO)	CS91623	915	10
	MO0 31E (3NO + 1NC)	CS91624	915	10
	MO0 22E (2NO + 2NC)	CS91625	915	10
<b>For DC control std. Coil Voltage - 24, 48, 110, 220</b>				
AC-15 4A at 415V	MO0 40E (4NO)	CS90045	2085	10
	MO0 31E (3NO + 1NC)	CS90046	2085	10
	MO0 22E (2NO + 2NC)	CS90047	2085	10

Note: 1) 6NC & above combination is not recommended for MO0 AC  
2) 5NC & above combination is not recommended for MO0 DC

DC Control Contactor - MN0<sup>(S)</sup>

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>For DC control std. Coil Voltage - 24, 110, 220V</b>				
AC-15 4A at 415V	MN0 40E (4 NO)	SS94665	2085	10
	MN0 31E (3 NO + 1 NC)	SS94666	2085	10
	MN0 22E (2 NO + 2 NC)	SS94667	2085	10
	MN0 13E (1 NO + 3 NC)	SS94668	2085	10
	MN0 04E (4 NC)	SS94669	2085	10

\$ - Available till stock lasts

# Capacitor Duty Contactors [8536]

## Capacitor Duty Contactors - Type MO C



MO C25



MO C50



MO C100

Size	kVAr Rating @ 440V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	3	MO C3	1NO	CS96146	2020	1
	5	MO C5	1NO	CS96127	2110	1
	8.5	MO C8.5	1NO	CS96320	2325	1
	10	MO C10	1NO	CS96156	2480	1
	12.5	MO C12.5	1NO	CS96321	2595	1
	15	MO C15	1NO	CS90019	3610	1
	20	MO C20	1NO	CS90021	4095	1
	25	MO C25▲	1NO	CS96322	4630	1
Fr 2	30	MO C30\$	1NO	CS96148	7145	1
	40	MO C40	1NO	CS96147	11915	1
	50	MO C50	1NO	CS96324	12665	1
Fr 3	60	MO C60\$	1NO	CS96149	14430	1
	75	MO C75	1NO	CS96150	16965	1
	85	MO C85	1NO	CS96157	19170	1
	100	MO C100\$	1NO	CS96158	19765	1

### Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- MO C Range available from 3 - 100 kVAr, AC-6b
- Delatching type early make contacts
- Separate termination for damping resistors
- Encapsulated damping resistor assembly
- Common coil for 50 & 60Hz application
- Low pick-up VA consumption
- Standard accessories throughout the range in line with MO contactor
- Suitable for Lug as well as Lugless termination
- RoHS compliant

**For Power Quality Solutions,  
please refer page No. 65-72**

### Note :

- 1) For ordering add-on aux. contact block, please refer page No. 8
- 2) For ordering suffix, please refer page No.10
- 3) For ordering spare coils, please refer page No. 11
- 4) Standard coil voltage : 240V, 50/60 Hz
- 5) For ordering MO C surge suppressor, please refer page No. 9

- ▲ If using 16 sq mm cable use of spreader link kit is mandatory
- ▲ For ordering spreader link kit, Please refer page No. 9
- \$ Spreader link along with phase barrier included in packing

# Definite Purpose Contactors [8536]

## Single Pole Contactors - Type MR

### Features

- Wide and chatter free operating band
- High AC-1 rating for single phase applications



MR 11W  
(Wide band coil)



MR 13



MR 11NW  
SPN (Wide band coil)

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
25A	MR 11W	CS94176	1200	10
25A	MR 11NW	CS94178	1280	10
40A	MR 13	CS94992	1310	40

### Note:

- 1) Ordering Suffix BOOO - 240V, 50Hz
- 2) For ordering add-on aux. contact block, please refer page No. 9

## Two Pole Contactors - Type MU-2P

### Features

- Wide band potted coil
- Neutral isolation



MU 16-2P

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU16-2P	CS90117	940	10
25A	MU25-2P	CS90118	1150	10
40A	MU40-2P	CS90119	1460	10

### Note:

- 1) Coil voltages available for MU-2P are 220V, 240V, wide band coil 160-220V
- 2) Ordering suffix for wide band coil of MU-2P is NOOO
- 3) For ordering add-on aux. contact block, please refer page No. 8

# Accessories - Add-on Auxiliary Contact Blocks [8538]

	MNX 9-80	MNX 95-650	MO 9-110	MO 140-300	ML	MX	MDX 9-110	MCX 01-23	MCX 32-47	MX0	MN0	MO0	MO C	MR	MU-2P
Front add-on possible	Yes	No	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes
Side add-on possible	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No	No

**Note:** 1) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors  
2) Accessories are common for MNX 2P & MNX 3P contactors

## Front Mounting Add-on aux. Contact Block



**MNX / MCX**  
Front Add-on  
aux. contact Block



**MO / MO0**  
Front Add-on  
aux. contact Block



**MDX Front**  
Add-on  
aux. contact Block



**MX Front**  
Add-on  
aux. contact Block



**MU-2P**  
Front Add-on  
aux. contact Block



**MN0 Front**  
Add-on  
aux. contact Block

Front Mounting	Suitable for											
	MNX 9-80 / MCX 01-23	M.R.P. (₹) Per Unit	MO 9-110 / MO0	M.R.P. (₹) Per Unit	MDX# 9-110	M.R.P. (₹) Per Unit	MX 0/6/9/12	M.R.P. (₹) Per Unit	MU-2P	M.R.P. (₹) Per Unit	MN0 DC	M.R.P. (₹) Per Unit
4 NO	CS94112 <sup>^</sup>	595	CS94594 <sup>^</sup>	595	-	-	CS94033 <sup>^</sup>	560	-	-	SS94083 <sup>^</sup>	695
3 NO + 1 NC	CS94113 <sup>^</sup>	595	CS94595 <sup>^</sup>	595	-	-	CS94034 <sup>^</sup>	560	-	-	SS94084 <sup>^</sup>	695
2 NO + 2 NC	CS94114 <sup>^</sup>	595	CS94596 <sup>^</sup>	595	CS96569 <sup>~</sup>	780	CS94035 <sup>^</sup>	560	-	-	SS94085 <sup>^</sup>	695
1 NO + 3 NC	CS94115 <sup>^</sup>	595	CS94597 <sup>^</sup>	595	CS90906 <sup>~</sup>	780	CS94036 <sup>^</sup>	560	-	-	SS94086 <sup>^</sup>	695
4 NC	CS94116 <sup>^</sup>	595	CS94598 <sup>^</sup>	595	-	-	CS94037 <sup>^</sup>	560	-	-	SS94087 <sup>^</sup>	695
2 NO	CS94117 <sup>^</sup>	395	CS94591 <sup>^^</sup>	395	-	-	CS94030 <sup>^</sup>	360	CS90692 <sup>^</sup>	395	SS94080 <sup>^</sup>	445
1 NO + 1 NC	CS94118 <sup>^</sup>	395	CS94592 <sup>^^</sup>	395	CS96568 <sup>~</sup>	455	CS94031 <sup>^</sup>	360	CS90693 <sup>^</sup>	395	SS94081 <sup>^</sup>	445
2 NC	CS94119 <sup>^</sup>	395	CS94593 <sup>^^</sup>	395	-	-	CS94032 <sup>^</sup>	360	CS90694 <sup>^</sup>	395	SS94082 <sup>^</sup>	445
1 NO	CS94120 <sup>^</sup>	205	CS94585 <sup>^^</sup>	205	CS96586 <sup>~</sup>	250	-	-	CS90695 <sup>^</sup>	205	SS94715 <sup>^</sup>	255
1 NC	CS94121 <sup>^</sup>	205	CS94586 <sup>^^</sup>	205	-	-	-	-	CS90696 <sup>^</sup>	205	SS94716 <sup>^</sup>	255

# For MDX Side add-on and top add-on can not be mounted together



**MNX/MCX**  
Side Add-on aux. contact Block



**MO/MO C**  
Left Add-on aux. contact Block

## Side Mounting Add-on aux. Contact Block

Side Mounting	Suitable for								
	Aux Contact	MNX 9-40 / MCX 01-04	M.R.P. (₹) Per Unit	MCX 11-13	M.R.P. (₹) Per Unit	MNX 50-80 / MCX 22-23	M.R.P. (₹) Per Unit	MO 9-110 / MO C 3-100	M.R.P. (₹) Per Unit
First left	1 NO + 1 NC	CS94220 <sup>^</sup>	635	CS94201 <sup>^</sup>	680	CS94201 <sup>^</sup>	680	CS94580 <sup>^</sup>	635
First Right	1 NO + 1 NC	CS94221 <sup>^</sup>	635	CS94202 <sup>^</sup>	680	CS94202 <sup>^</sup>	680	CS94581 <sup>^</sup>	635
Second Left	1 NO + 1 NC	-	-	-	-	CS94203 <sup>^</sup>	680	CS94582 <sup>^</sup>	635
Second right	1 NO + 1 NC	-	-	-	-	CS94204 <sup>^</sup>	680	CS94583 <sup>^</sup>	635

**Note:** Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors  
For MO 9-18, only First left and Second left side add-on is allowed.



**MO**  
Left Add-on aux. contact Block



**MDX**  
Side Add-on aux. contact Block

## Side Mounting Add-on aux. Contact Block

Side Mounting	Suitable for								
	Aux Contact	MNX 95-650 / MCX 32-47	M.R.P. (₹) Per Unit	MO 140-300	M.R.P. (₹) Per Unit	MVO 400-820	M.R.P. (₹) Per Unit	MDX# 9-110	M.R.P. (₹) Per Unit
First left	1 NO + 1 NC	CS94205 <sup>^</sup>	775	CS95033 <sup>^</sup>	775	CS91208 <sup>^</sup>	775	ST94985 <sup>^</sup>	935
First Right	1 NO + 1 NC	CS94206 <sup>^</sup>	775	CS95034 <sup>^</sup>	775	CS91209 <sup>^</sup>	775		
Second Left	1 NO + 1 NC	CS94207 <sup>^</sup>	775	CS95035 <sup>^</sup>	775	CS95035 <sup>^</sup>	775	-	-
Second right	1 NO + 1 NC	CS94208 <sup>^</sup>	775	CS95036 <sup>^</sup>	775	CS95036 <sup>^</sup>	775	-	-

# For MDX Side add-on and top add-on can not be mounted together

~ Standard Packing is 1 ^Standard Packing is 10 ^^Standard Packing is 20

# Accessories - Add-on Auxiliary Contact Blocks [8538]

## Side Mounting Add-on aux. Contact Block - ML



ML Add-on aux. contact Block

Side Mounting	Suitable for				
	Aux Contact	ML 4/6	M.R.P. (₹) Per Unit	ML 12	M.R.P. (₹) Per Unit
Left	1 NO + 1 NC	SS91494 <sup>^</sup>	965	-	-
Right	1 NO + 1 NC	-	-	SS91474 <sup>^</sup>	965

Note: Ordering Suffix for Add-on aux. contact blocks : OOOO

## Add-on aux. Contact Block - MR



MR 1NO

Description	For Contactor	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit
Top add-on single pole	MR	1 NO	CS94179 <sup>^</sup>	315

~ Standard Packing is 1 <sup>^</sup>Standard Packing is 10 <sup>^^</sup>Standard Packing is 20

# Accessories - Surge Suppressors [8538]

## For MX, MNX, MCX, MO & MO C



Ordering Suffix \* 110-240V: BOOO, 415V: DOOO

# 110V: AOOO, 220-240V: BOOO, 360-525V: DOOO

^ 110V: AOOO, 220-320V: BOOO, 360-415V: DOOO

MVO, MDX 9-110, MNX 550-650, MCX 45-47, MX DC, MX0 DC & MO0 DC have built in surge suppressor

For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX 06 to MX 12 / MX 0 AC (S1)	CS94039 <sup>*</sup>	505	10
MNX 9 - 40 / MCX 01 - 04 (S1)	CS94166 <sup>*</sup>	510	10
MNX 50 - 80 / MCX 11 - 23 (S3)	CS94163 <sup>*</sup>	565	10
MNX 95 - 250 / MCX 32 - 34 (S4)	CS94164 <sup>#</sup>	1870	10
MNX 300 - 400 / MCX 41 - 44 (S6)	CS94165 <sup>#</sup>	2520	10
MO Frame 0/1, MO C Frame 1, MO0 Control	CS91706 <sup>^</sup>	510	10
MO/MO C - Frame 2	CS91707 <sup>^</sup>	565	10
MO/MO C - Frame 3	CS91708 <sup>^</sup>	1870	10
MO Frame - 4/5	CS91854 <sup>^</sup>	2520	10

# Accessories - Mechanical Interlock Kits & Spreader Link Kit [8538]

## Mechanical Interlock Kit for MX, MO, MDX, MNX & MCX



For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX 06 to MX 12 / MX 0	CS94038	505	10
MO 9 - 110*	CS94584	715	10
MDX 9 - 38	CS96572	565	1
MDX 50 - 110	CS96573	1730	1
MNX 9 - 40	CS94126	410	10
MNX 50 - 80	CS94197	2885	1
MNX 95 - 140	CS94198	4485	1
MNX 185 - 250	CS94199	5110	1
MNX 300 - 650	CS94200	5795	1
MCX 01 - 04	CS94126	410	10
MCX 11 - 13	ST50540	810	10
MCX 22 - 23	CS93095	3810	1
MCX 32 - 34	SS94992	3935	1
MCX 41 - 47	CS94301	6495	1

Note:

1) Ordering Suffix for Mechanical Interlock Kits : OOOO

2) \* MO MIL Kit contains inbuilt 2 NC Contacts

3) Mounting of side add-on aux. contact block is not recommended for mechanically interlocked MCX 11/12/13 contactors

4) MIL kit for MNX 50-80 comes with 2 left & 2 right side add-on aux. contact blocks i.e. 4 NO + 4 NC

5) MIL kit for MCX 22/23 comes with 2 left & 2 right side add-on aux. contact blocks i.e. 4 NO + 4 NC

## MO / MO C Spreader Link Kit



For Contactor	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MO 9 - 45 / MOC 3 - 30	CS94274	475	10
MO 50 - 70 / MOC 40 - 60	CS94093	750	10
MO 80 - 110 / MOC 75 - 100	CS94094	1090	1
MO 140 - 225	CS91057	3050	1
MO 250 - 300	CS90940	4755	1

Note:

1) If using 16 sq mm cable for MO 45/MO C25 use of spreader link is mandatory

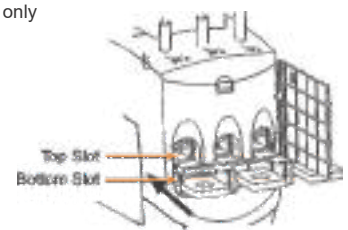
2) Spreader Link Kit consists of six terminals along with phase barrier

(Not applicable for MO 250-300)

3) In MO C 30, MO C 60 & MO C 100 spreader link is included in packing

4) Ordering Suffix: OOOO

5) Insert spreader link in top slot only



# Accessories - Connecting Links [8538]

## DOL Starter - Link



DOL Starter



Contactor MPCB Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	CS90396 #	395	10
MOG H1/S1 with MO 25-45	CS90391 #	395	10

## Reversing DOL Starter - Link



RDOL Starter



Reversing Starter



Paralleling Link



Contactor MPCB Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	CS90548 #	995	10
MOG H1/S1 with MO 25-45	CS90546 #	995	10

## Star Delta Starter - Link



Star Delta Starter



Reversing / star delta Link



Paralleling Link



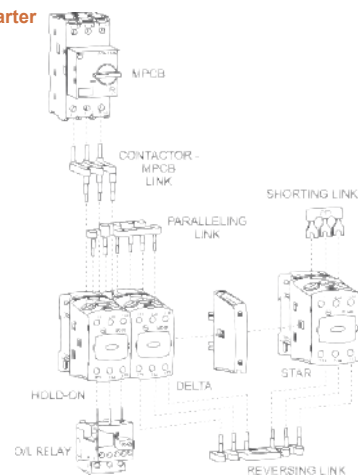
Contactor MPCB Link



Shorting Link

Suitable For	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MOG H1/S1 with MO 9-18	CS90549 #	1195	10
MOG H1/S1 with MO 25-45	CS90547 #	1195	10

### Example of Star Delta Starter Connection with Link



# Ordering Suffix OOOO For MPCB paralleling link refer page no.19

# Accessories - Mechanical Latch [8538]

## Mechanical Latch

### Features

- Keeps contactor in closed condition even after removal of coil supply
- Ideal for logical operations
- Suitable for sites where voltage fluctuation is frequent
- Saves energy as coil supply can be removed once contactor is picked up

Suitable For	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MO 9-70A, MO 0 control	Mechanical Latch	CS90136	2650	10

For Ordering Suffix refer below table  
Standard Coil Voltage of Mechanical Latch is 24V AC, 110V AC & 240V AC

## Ordering Suffix for Standard Coil Voltages

Ordering Suffix for Standard Coil Voltages			
AC Control		DC Control*	
Voltage (V)	Suffix	Voltage (V)	Suffix
24	G000	24	4000
110	A000	48	5000
220	K000	110	1000
240	B000	220	2000
415	D000		
440	P000		

Ordering suffix for Electronic coil Contactor		
AC / DC control		
Voltage (V)	Suffix	Contactor
20-48	J000	MDX 50-110
60-110	A000	MDX 50-110
110-240	B000	MDX 50-110 & MO 140-300
240-415	D000	MO 140-300

**Note:**  
1) \* For MX DC, MDX 9-38, MX0 DC, MO0 DC & MN0 DC  
2) For other coil voltages please contact nearest branch office

Spare Contact Kit and Spare Coil



ML Spare Kits



ML Spare Coils

Type	Spare Contact kit		Spare Coil	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
ML 1.5	SS95305 <sup>^</sup>	2205	SS90873 <sup>^</sup>	880
ML 2	SS95307 <sup>^</sup>	4040	SS90545 <sup>^</sup>	1620
ML 3	SS95309 <sup>^</sup>	6810		
ML 4	SS95311 <sup>^</sup>	10610	SS91258 <sup>~</sup>	3095
ML 6	SS95313 <sup>^</sup>	18680		
ML 10	SS95315 <sup>~</sup>	38055	SS91011 <sup>~</sup>	6785
ML 12	SS95317 <sup>~</sup>	41020		
MR	-	-	CS94102 <sup>^</sup>	665
MU16-2P	CS90217 <sup>^</sup>	275	CS90793 <sup>^</sup>	365
MU25-2P	CS90218 <sup>^</sup>	360		
MU40-2P	CS90219 <sup>^</sup>	525		
MO 0 AC	-	-	CS94841 <sup>^</sup>	475
MN 0 AC	-	-	SS94191 <sup>^</sup>	765
MN 0 DC	-	-	SS94651 <sup>~</sup>	1420

Note:  
 1) Coil voltages available for MU-2P are 220V, 240V, wide band coil 160-220V  
 2) Ordering suffix for wide band coil of MU-2P is NOOO

MO C Spare Coils		
Type	Cat. No.	M.R.P. (₹) Per Unit
MO C3 - 30	CS96317 <sup>^</sup>	590
MO C40 - 60	CS96318 <sup>^</sup>	1785
MO C75 - 100	CS96319 <sup>^</sup>	3090

Front housing & Moving bridge kit and Combination coil with timer for ML contactor



Front housing and moving bridge kit		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 1.5	ST28734 <sup>~</sup>	800
ML 2/ ML 3	ST23866 <sup>~</sup>	1095
ML 4/ ML 6	ST28735 <sup>~</sup>	1990
Combination coil with timer		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 2	SS90650 <sup>~</sup>	3765

Note :  
 1) Ordering Suffix for Spare Contact kit - OOOO  
 2) For Spare Coil Ordering Suffix refer page No. 10

~ Standard Packing is 1  
<sup>^</sup> Standard Packing is 5  
<sup>^</sup> Standard Packing is 10  
<sup>~</sup> Standard Packing is 50

Spare Contact Kit and Spare Coil



MNX Spare Coils

MCX Spare Kits

	Spare Contact kit			Spare Coil		
	Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
MO Contactors	MO 9 (1 NO + 1 NC)	CS94843 <sup>^</sup>	530	CS94841 <sup>^</sup>	475	
	MO 12 (1 NO + 1 NC)	CS94844 <sup>^</sup>	685			
	MO 18 (1 NO + 1 NC)	CS94845 <sup>^</sup>	750			
		MO 9	CS96380 <sup>^</sup> ~	530	CS96317 <sup>^</sup>	590
		MO 12	CS96381 <sup>^</sup> ~	685		
		MO 18	CS96382 <sup>^</sup> ~	750		
		MO 25	CS96383 <sup>^</sup> ~	860		
		MO 32	CS96384 <sup>^</sup> ~	1950		
		MO 40	CS96385 <sup>^</sup> ~	3295		
		MO 45	CS96386 <sup>^</sup> ~	3335		
		MO 50	CS96387 <sup>^</sup> ~	3370		
		MO 60	CS96388 <sup>^</sup> ~	4360		
		MO 70	CS96389 <sup>^</sup> ~	4845		
		MO 80	CS96390 <sup>^</sup> ~	6665	CS96318 <sup>^</sup>	1785
		MO 95	CS96391 <sup>^</sup> ~	8410		
		MO 110	CS96392 <sup>^</sup> ~	12300	CS96319 <sup>^</sup>	3090
		MO 140	CS90357 <sup>~</sup>	14795		
		MO 185	CS90358 <sup>~</sup>	17700	CS90356 <sup>~</sup>	7170
		MO 225	CS90359 <sup>~</sup>	20300		
		MO 250	CS94444 <sup>~</sup>	24395	CS94442 <sup>~</sup>	10685
		MO 300	CS94443 <sup>~</sup>	27545		
		MO 140 (electronic coil)	CS90357 <sup>~</sup>	14795	CS90855 <sup>~</sup>	12935
		MO 185 (electronic coil)	CS90358 <sup>~</sup>	17700		
		MO 225 (electronic coil)	CS90359 <sup>~</sup>	20300	CS90738 <sup>~</sup>	13065
		MO 250 (electronic coil)	CS94444 <sup>~</sup>	24395		
		MO 300 (electronic coil)	CS94443 <sup>~</sup>	27545	CS90174 <sup>~</sup>	29030
		MVO	-	-		
	MNX Contactors	MNX 9	CS94123 <sup>^</sup>	530	CS94105 <sup>^</sup>	475
		MNX 12	CS94124 <sup>^</sup>	685		
		MNX 18	CS94125 <sup>^</sup>	750		
MNX 22		CS94269 <sup>^</sup>	795			
MNX 25		CS94127 <sup>^</sup>	860			
		MNX 32	CS94128 <sup>^</sup>	1950	CS94192 <sup>^</sup>	1785
		MNX 40	CS94147 <sup>^</sup>	3295		
		MNX 50	CS94150 <sup>^</sup>	3370		
		MNX 70	CS94151 <sup>^</sup>	4845		
		MNX 80	CS94152 <sup>^</sup>	6665		
		MNX 95	CS94153 <sup>~</sup>	8410	CS94196 <sup>~</sup>	3090
		MNX 110	CS94154 <sup>~</sup>	12300		
		MNX 140	CS94155 <sup>~</sup>	14795	CS94194 <sup>~</sup>	7170
		MNX 185	CS94156 <sup>~</sup>	17700		
		MNX 225	CS94157 <sup>~</sup>	20300	CS94195 <sup>~</sup>	10685
		MNX 250	CS90310 <sup>~</sup>	24395		
		MNX 300	CS90283 <sup>~</sup>	27545	CS94193 <sup>~</sup>	21650
		MNX 400	CS94161 <sup>~</sup>	40350		
		MNX 550	CS94162 <sup>~</sup>	53200	CS94193 <sup>~</sup>	21650
		MNX 650	CS96336 <sup>~</sup>	82345		
MCX Contactors	MCX 01-04	-	-	CS94105 <sup>^</sup>	475	
	MCX 11	CS94077 <sup>^</sup>	1715	CS94009 <sup>^</sup>	660	
	MCX 12	CS94078 <sup>^</sup>	3360			
	MCX 13	CS90307 <sup>^</sup>	5155	ST91291 <sup>^</sup> ~	1575	
	MCX 22	CS94331 <sup>~</sup>	6040			
	MCX 23	CS90078 <sup>~</sup>	7555	CS94196 <sup>~</sup>	3090	
	MCX 32	CS94082 <sup>^</sup>	11690			
	MCX 33	CS94083 <sup>^</sup>	15120	CS94193 <sup>~</sup>	21650	
	MCX 34	CS94084 <sup>^</sup>	17140			
	MCX 41	CS94295 <sup>~</sup>	26790	CS94195 <sup>~</sup>	10685	
	MCX 42	CS94296 <sup>~</sup>	31465			
	MCX 43	CS94297 <sup>~</sup>	37750	CS94193 <sup>~</sup>	21650	
	MCX 44	CS94298 <sup>~</sup>	46240			
	MCX 45	CS94299 <sup>~</sup>	49370	CS94193 <sup>~</sup>	21650	
	MCX 46	CS94300 <sup>~</sup>	57360			
MCX 47	CS90308 <sup>~</sup>	77540				

\* Ordering Suffix for 240V AC - FOOO, 415V AC - ROOO

## Type MN - Suitable for MNX Contactor

### Features

- Available in 3 frame sizes from 0.2-570 A
- Ambient temperature compensated up to 55°C
- Built-in Single Phasing protection
- Manual and auto reset mode
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



MN 2

MN 5

MN 12

MN 12L

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN 2 (Directly Operated)	Direct Mounting on MNX 9 - 40			
	0.2 - 0.33	SS941410OEO	1640	10
	0.3 - 0.5	SS941410OGO	1640	10
	0.45 - 0.75	SS941410OJO	1640	10
	0.6 - 1	SS941410OKO	1640	10
	0.9 - 1.5	SS941410OMO	1650	10
	1.4 - 2.3	SS941410OPO	1650	10
	2 - 3.3	SS941410OQO	1650	10
	3 - 5	SS941410OSO	1650	10
	4.5 - 7.5	SS941410OUO	1650	10
	6 - 10	SS941420OVO	1650	10
	9 - 15	SS941420OBO	1660	10
	14 - 23	SS941440ODO	1810	10
	20 - 33	SS941450OEO	2665	10
24 - 40	SS941450OFO	2795	10	
MN 5 (Directly Operated)	Direct Mounting on MNX 50 - 80			
	9 - 15	SS941350OBO	3315	10
	14 - 23	SS941350ODO	3315	10
	20 - 33	SS941360OEO	3315	10
	30 - 50	SS941360OGO	4075	10
	36 - 60	SS941360OTO	4385	10
MN 12 (CT Operated)	Separate Mounting			
	28 - 46.5	SB942110OGO	7825	1
	42 - 69	SS941380OHO	7825	1
	60 - 100	SS941380OKO	7825	1
	90 - 150	SS941380OMO	7825	1
	135 - 225	SS941380OPO	9790	1
	180 - 300	SS941390OQO	10300	1
MN 12L # (CT Operated)	Separate Mounting			
	42 - 69	SS941270OHO	25190	1
	60 - 100	SS941270OKO	25190	1
	90 - 150	SS941270OMO	25190	1
	135 - 225	SS941270OPO	25190	1
	180 - 300	SS941270OQO	25190	1
340 - 570	SS941270OSO	25190	1	

# For motors with longer starting time (Trip class 30)

## Type RTO - Suitable for MO Contactor

### Features

- Ambient temperature compensated upto 55°C
- Built-in Single Phasing protection
- Manual and auto reset mode
- Front access to START and STOP/RESET buttons
- Sealable in OFF condition
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



RTO 1

RTO 2

RTO 3

RTO 4

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO - 1 (Directly Operated)	Direct Mounting on MO 9 - 45			
	0.23 - 0.41	CS963550OFO	2210	10
	0.31 - 0.55	CS963550OGO	2210	10
	0.55 - 0.85	CS963550OJO	2210	10
	0.78 - 1.2	CS963550OLO	2210	10
	1.2 - 2.0	CS963550ONO	2210	10
	1.9 - 2.8	CS963550OPO	2240	10
	2.4 - 3.6	CS963550OQO	2240	10
	3.5 - 5.2	CS963550OSO	2240	10
	4.6 - 6.7	CS963550OTO	2240	10
	6.7 - 9.7	CS963550OVO	2240	10
	8.5 - 12.5	CS963550OAO	2280	10
	12.5 - 18.5	CS963560OCO	2280	10
	17 - 25.5	CS963560ODO	2425	10
	25 - 37	CS963560OEO	3570	10
	35 - 45	CS963560OGO	3750	10
RTO - 2 (Directly Operated)	Direct Mounting on MO 50 - 70			
	5 - 7.5	CS963660OUO	4380	1
	7 - 11	CS963660OVO	4380	1
	10.5 - 16	CS963660OBO	4380	1
	15 - 21	CS963660OCO	4380	1
	20 - 31	CS963660OEO	4500	1
	30 - 43	CS963660OFO	5440	1
	40 - 57	CS963660OSO	6025	1
RTO - 3 (Directly Operated)	Direct Mounting on MO 80 - 110			
	23 - 30	CS908730OEO	7330	1
	29 - 38	CS963030OQO	7615	1
	37 - 49	CS963040OGO	7855	1
	47 - 62	CS963120OTO	8000	1
	60 - 78	CS963130OJO	9430	1
RTO - 4 (CT Operated)	Separate Mounting			
	23.4 - 36	CS970960OGO	10750	1
	36 - 60	CS970960OJO	10750	1
	57 - 84	CS970960OKO	10750	1
	72 - 108	CS970960OLO	10750	1
	105 - 156	CS970960OMO	10750	1
	138 - 201	CS970960ONO	13320	1
	201 - 291	CS970960OQO	13865	1
255 - 375	CS970960ORO	17120	1	



# Thermal Overload Relays [8536]

## Type RX



### Features

- Direct mounting on MX contactor
- Built-in single phasing protection
- Front access to START and STOP/RESET buttons

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RX (Directly Operated)	0.23-0.41	CS963570OFO	1300	10
	0.45-0.78	CS963570OJO	1300	10
	0.78-1.2	CS963570OLO	1300	10
	1.2-1.9	CS963570ONO	1300	10
Direct Mounting on MX Contactors	1.8-2.8	CS963570OPO	1300	10
	2.6-3.6	CS963570OQO	1300	10
	3.6-5.2	CS963570OSO	1300	10
	4.8-7	CS963570OTO	1300	10
	6.4-9.7	CS963570OVO	1300	10
	8.2-12.1	CS963570OAO	1300	10

## Type ML



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
ML 1 (Directly Operated)	<b>Direct Mounting on ML 1.5 Contactors</b>			
	0.15 - 0.25	SS918580ODO	2960	10
	0.25 - 0.4	SS918580OFO	2960	10
	0.4 - 0.65	SS918580OHO	2960	10
	0.6 - 1	SS918580OKO	2960	10
	1 - 1.6	SS918580OMO	2960	10
	1.5 - 2.5	SS918580OPO	2960	10
	2.5 - 4	SS918580ORO	2960	10
	4 - 6.5	SS918580OTO	2960	10
	6 - 10	SS918580OVO	2960	10
	10 - 16	SS918580OBO	2960	10
ML 2 / ML 3 (Directly Operated)	<b>Direct Mounting on ML 2/3 Contactors</b>			
	9 - 14	SS918590OAO	4370	10
	13 - 21	SS918590OCO	4370	10
	20 - 32	SS918590OEO	4370	10
	28 - 42	SS918590OFO	4370	10

## Type MU-2P (2 Pole)



MU-2P

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Direct Mounting on MU-2P Contactor	<b>MU 2P (2 Pole)</b>				Direct Mounting on MU-2P Contactor		<b>MU 2P (2 Pole)</b>		
	1 - 1.6A	CS902070OMO	695	1		11 - 18A	CS902070OCO	775	1
	1.5 - 2.5A	CS902070OPO	695	1		13 - 22A	CS902070ODO	775	1
	2.5 - 4A	CS902070ORO	695	1		16 - 26A	CS902070OBO	775	1
	4 - 6.5A	CS902070OTO	695	1		20 - 32A	CS902070OEO	970	1
	6 - 10A	CS902070OVO	695	1		26 - 40A	CS902070OFO	970	1
	9 - 14A	CS902070OAO	695	1					

# Accessories for Thermal Overload Relays [8538]

## Accessories for Thermal Overload Relays



Relay Mounting Kit Kit for Mounting MN5 Relay Din Rail Mounting Kit MN2 Relay

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Push button extn. unit for MN 2 Relays	SS949680000	60	100
Kit for Mounting MN 2 Relay on ML 1.5 contactor	SS947010000	215	50
Kit for Mounting MN 2 Relay separately (Direct Mounting Type)	SS947000000	215	50
Kit for Mounting MN 5 Relay on MNX 95 / 110 / 140 contactor	SS946380000	345	20
Kit for Mounting MN 5 Relay on ML 2 / ML 3 contactor	SS941510000	225	20
Kit for Mounting MN5 Relay on ML 4 / ML 6 contactor	SS941520000	305	20
DIN Rail Mounting Kit Relay on MN 2 Relay	SS918870000	165	50

## Relay Reset Cord for MN & RTO relay



400 mm 650 mm 900 mm 1200 mm

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN Relay reset cord - 400mm	SB942070000	780	1
MN Relay reset cord - 650mm	SB942080000	810	1
MN Relay reset cord - 900mm	SB942090000	835	1
MN Relay reset cord - 1200mm	SB942100000	935	1
RTO Relay reset cord - 400mm	CS909410000	780	1
RTO Relay reset cord - 650mm	CS909420000	810	1
RTO Relay reset cord - 900mm	CS909430000	835	1
RTO Relay reset cord - 1200mm	CS909440000	935	1

## Separate Mounting Kit for RTO Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO-1 Relay Separate Mounting Kit	CS963350000	290	1
RTO-2 Relay Separate Mounting Kit	CS963060000	690	1
RTO-3 Relay Separate Mounting Kit	CS963070000	980	1

# Electronic Motor Protection Relay [8536]

## Type REO - Direct Mounting on MO Contactor

### Features

- Protections:
  - Overload
  - Single Phasing, Phase unbalance
  - Locked Rotor
  - Earth Fault in REO 1.1G & REO 4G
- Trip indication
- Selectable Trip class - 10A, 10, 20, 30 as per IEC 60947-4-1
- Conforms IS/IEC 60947-4-1 & IEC 60947-4-1



To Experience the Benefits of REO Electronic Overload Relay



Click or Scan

Model	Type of Mounting	Relay Range (A)	REO 1.1/4		REO 1.1G/4G (With in built earth fault protection)		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
REO 1.1/1.1G	Direct Mounting on MO 9-45	0.15-0.75	CS9041800JO	4965	CS9042300JO	8280	10
		0.6-3	CS9041800QO	4965	CS9042300QO	8280	10
		2.4-12	CS9041800LO	4965	CS9042300LO	8280	10
		9-45	CS9041800GO	5585	CS9042300GO	8565	10
REO 4/4G	Separate Mounting	18-90	CS9041800UO	14700	CS9042300UO	16275	1
		72-360	CS9041800RO	23100	CS9042300RO	23415	1

## Accessories for REO - Electronic Overload Relay

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
REO Relay Reset Cord - 400mm	CS904250000	780	1
Separate Mounting Kit for REO 1.1/1.1G Relay	CS963350000	290	1

## MPR200nX Electronic Motor Protection Relay



- Protections:
  - Overload
  - Locked Rotor
  - Single Phasing, Current Unbalance, Phase Sequence Reversal
  - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 60947-4-1

Model	Aux. supply	Thermal O/L Range (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR200nX	240V AC	1 - 2.75	49, 51LR, 37, 46,	MPR200BE010	3600
		2 - 5.5		MPR201BE020	4200
		4 - 11		MPR202BE040	4800
		8 - 22		MPR203BE080	5400
		16 - 44		MPR204BE160	6000
		32 - 88		MPR205BE320	6600
	110V AC	1 - 2.75		MPR200BB010	3600
		2 - 5.5		MPR201BB020	4200
		4 - 11		MPR202BB040	4800
		8 - 22		MPR203BB080	5400
		16 - 44		MPR204BB160	6000
		32 - 88		MPR205BB320	6600

## MPR300 Electronic Motor Protection Relay With in-built Earth Fault Protection



- Protections:
  - Overload
  - Earth Fault
  - Locked Rotor
  - Single Phasing, Current Unbalance, Phase Sequence Reversal
  - Under Current
- Inbuilt CT's (1 A to 88 A)
- Trip indication
- Test facility
- Selectable trip class - 10A, 10, 20 and 30 as per IEC 60947-4-1

Model	Aux. supply	Thermal O/L Range (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR300	240V AC	1 - 2.75	49, 51LR, 64, 37, 46,	MPR300BE010	7900
		2 - 5.5		MPR301BE020	8500
		4 - 11		MPR302BE040	9100
		8 - 22		MPR303BE080	9700
		16 - 44		MPR304BE160	10300
		32 - 88		MPR305BE320	10900
	110V AC	1 - 2.75		MPR300BB010	7900
		2 - 5.5		MPR301BB020	8500
		4 - 11		MPR302BB040	9100
		8 - 22		MPR303BB080	9700
		16 - 44		MPR304BB160	10300
		32 - 88		MPR305BB320	10900

Note: MPR200nX / MPR300 must sense Line current in case of Star-Delta Starter.

# Electronic Motor Protection Relay [8536]

New

## MPR300 with Fail safe logic

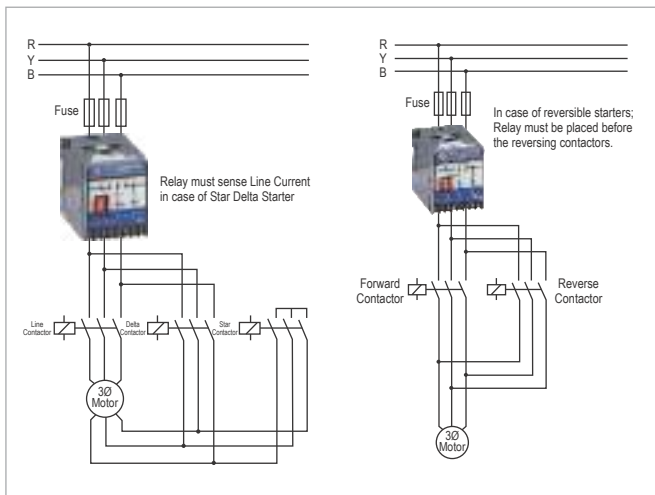
MPR300 with Fail safe logic will trip the Motor in case of Aux. supply failure



Model	Aux. Supply	Thermal Over load range	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MPR300	240 VAC	1 - 2.75	49, 51LR, 64, 37, 46	MPR300BF010	7900
		2 - 5.5		MPR301BF020	8500
		4 - 11		MPR302BF040	9100
		8 - 22		MPR303BF080	9700
		16 - 44		MPR304BF160	10300
		32 - 88		MPR305BF320	10900

Note : MPR300 must sense line current in case of Star-Delta Starter.

## MPR200nX / MPR300 Application Diagram



## MPR200nX / MPR300 Trip Time Characteristics

Trip class	Trip time delay		
	I = 120% of I <sub>m</sub>	I = 150% of I <sub>m</sub>	I = 720% of I <sub>m</sub>
10A	< 2 hours	< 2 min	2 - 10 secs
10	< 2 hours	< 4 min	4 - 10 secs
20	< 2 hours	< 6 min	6 - 20 secs
30	< 2 hours	< 12 min	9 - 30 secs

I<sub>m</sub> - Motor Full Load Current  
I - Actual current drawn by the Motor

## Compact Motor Protection Relay - MM10

### Features:

- Flush Mounting with display
- Last trip data recording
- Protections:
  - Thermal Overload with pre- alarm
  - Short Circuit
  - Earth fault
  - Phase loss, Unbalance, Phase reversal
  - Under Current
  - Prolong starting, Locked Rotor



Model	Aux. Supply	CT secondary	Device code	Cat. No.	M.R.P. (₹) Per Unit
MM10	110 - 240 V AC / DC	5 Amp	37, 46, 49, 50 / 51, 51LR, 64	MM10240E005	29000

New

## MC2 - 30M / MC2 - 30MW

### Comprehensive Motor Protection Relay for Medium and Large Sized Induction Motors

- Modbus RTU / IEC870-5-103 Communication Protocol
- MC2-30M offers Current based protections whereas, MC2-30MW offers Current + Voltage based protections



Product	Aux. Supply	CT Secondary	Cat. No.	M.R.P. (₹) Per Unit
MC2-30M	24 to 110VAC/DC	1 / 5 Ampere Site selectable	MC230MAOOO	105000
	80 to 220VAC/DC		MC230MBOOO	105000
MC2-30MW	24 to 110VAC/DC		MC230MWAOO	120000
	80 to 220VAC/DC		MC230MWB00	120000

# Your partner in digital transformation



## iMMR - Intelligent Motor Management Relay

Display Unit



"Besides control, protection and diagnostics, iMMR provides accurate real time data for analytics and insights into the performance of plant and process"



iMMR Main Unit



CT Unit



### Intelligent MCC's for enhanced plant efficiency and safety

#### TI - Motor Control Center

- Modular MCC's designed as per IEC 61439-1 & 2
- Internal arc resistance design of 70kA- 500msec.

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)



iMMR is a comprehensive Motor protection, control and monitoring relay for intelligent MCC's

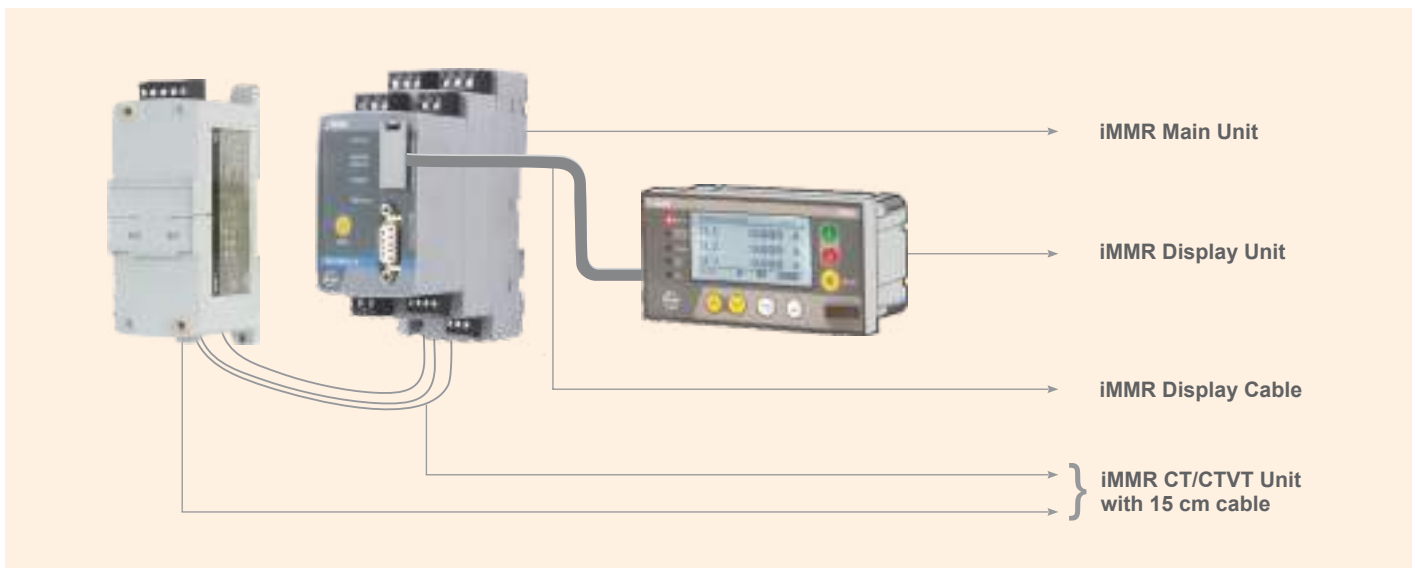
"Besides control, protection and diagnostics, iMMR provides accurate real time data for analytics and insights into the performance of plant and process"

**Features**

- Comprehensive Current & Voltage based Protections
- 20 nos. of last trip records, 100 event records and 20 IRF Records are available
- Preprogrammed Starter logics reduces manufacturing and commissioning time
- Software iMMR Suite is available for Easy and effective configuration and monitoring
- Modbus RTU, Modbus TCP/IP and Profibus-DP protocols available for seamless integration with DCS/PLC

Product	Description	Cat. No.	M.R.P. (₹) Per Unit
iMMR Main Unit	iMMR MODBUS RTU 85-265 VAC/DC	CS912440000	17000
	iMMR PROFIBUS / Modbus TCP IP	Available On Request	
CT Unit / CT+VT Unit	CT1 (0.3-3A) with 15 cm cable	CS912450000	4500
	CT2 (2.5-25A) with 15 cm cable	CS912460000	6000
	CT3 (7-70A) with 15 cm cable	CS912470000	9500
	CT1 (0.3-3A) + VT with 15 cm cable	CS912490000	10000
	CT2 (2.5-25A) + VT with 15 cm cable	CS912500000	11500
	CT3 (7-70A) + VT with 15 cm cable	CS912510000	15000
Display Unit	iMMR Display unit without cable	CS912530000	10000
	iMMR Display Cable - 1 meter	XK131280000	900
	iMMR Display Cable - 2 meter	XK131290000	1300

**Selection Guide**



# Motor Protection Circuit Breakers [8536]

## Rocker Type

- MOG-S1: upto 32A
- Short circuit + Overload protection
- Icu=100kA upto 10A, Icu=50kA for 13A & Icu=25kA for 16-32A

## Rotary Type

- MOG-H1M: upto 32A
- MOG-H2M: 32A-63A
- Short circuit protection
- Icu=100kA upto 13A & Icu=50kA from 16A-63A

## Rotary Type

- MOG-H1: upto 32A
- MOG-H2: 32A-63A
- Short circuit + Overload protection
- Icu=100kA upto 13A & Icu=50kA from 16A-63A

Rocker type and Rotary Type Motor Protection Circuit Breaker conforms to IEC 60947-4-1 & 60947-2

✓ Short circuit protection

✓ Over current protection

✓ Overload protection

✓ Phase loss protection

✓ Wide range of current adjustment dial

✓ Ambient temperature compensation

**MPCB**

✓ Compact

✓ High breaking capacity

✓ Short circuit protective coordination

✓ Reduction in wiring work

✓ High switching durability

✓ Padlocking feature available even without extended rotary handle

✓ Stand alone motor protection

✓ Common accessories

**MPCB**  
Overload + Short circuit protection

**Contactor**

No separate OLR - Saves cost of OLR

**Motor**

## Type MOG-S1 (Rocker Type)

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	2.1	ST418890000	2550	1
0.25	0.06	0.16 - 0.25	3.3	ST418900000	2550	1
0.40	0.09	0.25 - 0.40	5.2	ST418910000	2550	1
0.63	0.12	0.40 - 0.63	8.2	ST418920000	2895	1
1.00	0.25	0.63 - 1.00	13	ST418930000	2895	1
1.60	0.55	1.00 - 1.60	20.8	ST418940000	2915	1
2.50	0.75	1.60 - 2.50	32.5	ST418950000	2915	1
4.00	1.50	2.50 - 4.00	52	ST418960000	3020	1
6.30	2.20	4.00 - 6.30	81.9	ST418970000	3020	1
10.00	4.00	6.30 - 10.00	130	ST418980000	3230	1
13.00	5.40	9.00 - 13.00	169	ST418990000	3635	1
16.00	7.50	11.00 - 16.00	208	ST419000000	3970	1
20.00	9.00	14.00 - 20.00	260	ST419010000	4180	1
25.00	12.50	19.00 - 25.00	325	ST419020000	4395	1
32.00	15.00	24.00 - 32.00	416	ST419030000	7810	1

Breaking capacity: Icu = 100kA upto 10A, Icu = 50kA for 13A & Icu = 25kA for 16-32A

## Type MOG-H1 (Rotary Type) - Frame1

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	2.1	ST419040000	3245	1
0.25	0.06	0.16 - 0.25	3.3	ST419050000	3245	1
0.40	0.09	0.25 - 0.40	5.2	ST419060000	3245	1
0.63	0.12	0.40 - 0.63	8.2	ST419070000	3625	1
1.00	0.25	0.63 - 1.00	13	ST419080000	3625	1
1.60	0.55	1.00 - 1.60	20.8	ST419090000	3740	1
2.50	0.75	1.60 - 2.50	32.5	ST419100000	3740	1
4.00	1.50	2.50 - 4.00	52	ST419110000	3815	1
6.30	2.20	4.00 - 6.30	81.9	ST419120000	3845	1
10.00	4.00	6.30 - 10.00	130	ST419130000	4100	1
13.00	5.40	9.00 - 13.00	169	ST419140000	4540	1
16.00	7.50	11.00 - 16.00	208	ST419150000	4885	1
20.00	9.00	14.00 - 20.00	260	ST419160000	5275	1
25.00	12.50	19.00 - 25.00	325	ST419170000	5485	1
32.00	15.00	24.00 - 32.00	416	ST419180000	8900	1

Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

**Note:** Extended rotary handle cannot be fitted with MOG - S1

# Motor Protection Circuit Breakers [8536]

## Type MOG-H1M (Rotary Type) - Frame 1

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	2.1	ST419230000	2915	1
0.25	0.06	3.3	ST419240000	2915	1
0.40	0.09	5.2	ST419250000	2915	1
0.63	0.12	8.2	ST419260000	3295	1
1.00	0.25	13	ST419270000	3360	1
1.60	0.55	20.8	ST419280000	3360	1
2.50	0.75	32.5	ST419290000	3390	1
4.00	1.50	52	ST419300000	3425	1
6.30	2.20	81.9	ST419310000	3425	1
10.00	4.00	130	ST419320000	3525	1
13.00	5.40	169	ST419330000	3690	1
16.00	7.50	208	ST419340000	3690	1
20.00	9.00	260	ST419350000	3875	1
25.00	12.50	325	ST419360000	3995	1
32.00	15.00	416	ST419370000	6570	1

Breaking capacity: Icu = 100kA upto 13A & Icu = 50kA from 16A - 32A

## Type MOG-H2 (Rotary Type) - Frame 2

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	24.00 - 32.00	416	ST419190000	11345	1
40.00	20.00	28.00 - 40.00	520	ST419200000	12525	1
50.00	25.00	35.00 - 50.00	650	ST419210000	15610	1
63.00	34.00	45.00 - 63.00	819	ST419220000	15900	1

Breaking capacity: Icu = 50kA from 32A - 63A

## Type MOG-H2M (Rotary Type) - Frame 2

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Instantaneous Trip Current	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	416	ST419380000	10905	1
40.00	20.00	520	ST419390000	11015	1
50.00	25.00	650	ST419400000	11275	1
63.00	34.00	819	ST419410000	11575	1

Breaking capacity: Icu = 50kA from 32A - 63A

# Accessories for MOG [8538]



Short Circuit Alarm



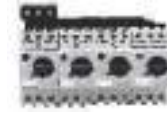
Auxiliary + Alarm



Extended Rotary Handle



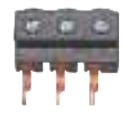
Shunt Trip



MPCBs with bus bar connection



Connecting Busbar link



3 Phase Feed in terminal

Mounting Position *	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
F1/F2	Auxiliary Contact Front mtg. 1NO	ST419420000	500	10
F1/F2	Auxiliary Contact Front mtg. 1NC	ST419430000	500	10
L	Auxiliary Contact Left side mtg. 2NO	ST419440000	695	1
L	Auxiliary Contact Left side mtg. 1NO + 1NC	ST419450000	695	1
L	Auxiliary Contact Left side mtg. 2NC	ST419460000	695	1
F2	Trip Alarm Contact Front mtg. 1NO	ST419470000	895	10
F2	Trip Alarm Contact Front mtg. 1NC	ST419480000	895	10
L	Auxiliary + Alarm Left side mtg. 2NO	ST419490000	955	1
L	Short circuit alarm Left side mtg. 1NO + 1NC	ST419500000	955	1
R	Shunt trip 24V DC	ST419510000	1830	1
R	Shunt trip 110V, 50Hz	ST419520000	1930	1
R	Shunt trip 230V, 50Hz	ST429520000	1930	1
R	Under Voltage release, 110V, 50Hz	ST419530000	1930	1
R	Under Voltage release, 415V, 50Hz	ST419540000	1930	1
-	External operating handle, (Black) Frame 1	ST419550000	1110	1
-	External operating handle, (Black) Frame 2	ST419560000	1110	1

\* F1- Front left slot F2- Front right slot L- Left side R- Right side

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Connecting Busbar link</b>			
2 MPCB 45 mm width w/o acc	ST419570000	580	5
3 MPCB 45 mm width w/o acc	ST419580000	640	5
4 MPCB 45 mm width w/o acc	ST419590000	690	5
5 MPCB 45 mm width w/o acc	ST419600000	880	5
2 MPCB 45 mm width with one acc 9 mm	ST419610000	680	5
3 MPCB 45 mm width with one acc 9 mm	ST419620000	735	5
4 MPCB 45 mm width with one acc 9 mm	ST419630000	790	5
5 MPCB 45 mm width with one acc 9 mm	ST419640000	845	5
2 MPCB 55 mm width w/o acc	ST419660000	1060	1
3 MPCB 55 mm width w/o acc	ST419670000	1210	1
4 MPCB 55 mm width w/o acc	ST419680000	1450	1
2 MPCB 55 mm width with one acc 9 mm	ST419690000	1155	1
3 MPCB 55 mm width with one acc 9 mm	ST419700000	1305	1
4 MPCB 55 mm width with one acc 9 mm	ST419710000	1545	1
2 MPCB 55 mm width with two acc 18 mm	ST419720000	1350	1
4 MPCB 55 mm width with two acc 18 mm	ST419730000	1500	1
Feed in terminal for 45 mm width Busbar	ST419650000	680	1
Feed in terminal for 55 mm width Busbar	ST419740000	1175	1
Bus bar safety cover 45 mm width Busbar	ST419750000	295	10
Bus bar safety cover 55 mm width Busbar	ST419760000	315	10

acc: Accessories

# Motor Starters [8536]

## Direct-on-Line Starters

in Sheet-Steel Enclosure Type MN / ML  
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MN 16



MN 45



ML 3

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
10.0	7.5	9 - 15	MN 16 DOL	SS94351	4815	1
15.0	11.0	14 - 23	MN 25 DOL	SS94352	7360	1
20.0	15.0	20 - 33	MN 32 DOL	SS94353	11875	1
30.0	22.5	30 - 50	MN 45 DOL	SS94017	20315	1
45.0	33.5	45 - 75	MN 65 DOL	SS94018	27815	1
30.0	22.5	28 - 42	ML 3 DOL	SS90722	24960	1

## Fully Automatic Star-Delta Starters [8536]



MN 16F

in Sheet-Steel Enclosure Type MN / ML  
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
17.5	13.0	9 - 15	MN 16 FASD	SS94362	16215	1
30.0	22.5	14 - 23	MN 25 FASD	SS94364	18130	1
40.0	30.0	20 - 33	MN 32 FASD	SS94366	29830	1
50.0	37.5	30 - 50	MN 45 FASD	SS94021	47910	1
75.0	55.0	45 - 75	MN 65 FASD	SS94022	79385	1
90.0	67.5	45 - 75	MN 80 FASD	SS94705	86775	1
150.0	110.0	66 - 110	MN 110 FASD	SS94706	113585	1
180.0	132.0	90 - 150	MN 140 FASD	SS94707	118895	1
50.0	37.5	28 - 42	ML3 FASD	SS90730	60180	1
75.0	55.0	45 - 75	ML4 FASD	SS90913	103140	1
125.0	90.0	66 - 110	ML6 FASD	SS90923	169100	1

## Spares for MN Starters [8538]

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Bracket for Mounting cont. MNX 25 - 32	SS940300000	150	20
MN DOL/FASD Push Button	SS939410000	260	10

## Timers

### Electronic Timers Type ST 100 [9107]



ST 100

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
<b>240 / 360 / 415V, 50Hz for</b>			
3 - 30 secs.	ST803280000	1890	1
12 - 120 secs.	ST803290000	1890	1

Note: ST 100 supplied with Mounting Kit, suitable for ET 100 replacement.  
For Complete range of Timing Devices, please refer the Panel Accessories Price List.

## Ordering Suffix for ML & MN Starters

Coil Voltages	Relay Range (A)	
	ML	MN
B - 240 V	A : 9 - 14	B : 9 - 15
C - 360 V	B : 10 - 16	D : 14 - 23
D - 415 V	C : 13 - 21	E : 20 - 33
P - 440 V	E : 20 - 32	G : 30 - 50
	F : 28 - 42	J : 45 - 75
	G : 30 - 50	K : 66 - 110
	J : 45 - 75	Q : 2 - 3.3
	K : 66 - 110	S : 3 - 5
	M : 90 - 150	T : 36 - 60
	P : 135 - 225	U : 4.5 - 7.5
	Q : 180 - 310	V : 6 - 10
	R : 2.5 - 4	M : 90 - 150
	T : 13 - 21	



# Selection as per Type 2 Co-ordination

All our type 2 charts are available on **Knowledge Portal & ProductWhiz.**



Access E&A's Knowledge Portal from  
[www.lntebg.com/KP](http://www.lntebg.com/KP)



L&T Electrical & Automation,  
ESP BizWhiz and ProductWhiz from  
Google Play Store/Apple App Store

## Following combination of Type 2 Charts available

Fuse Based Charts		Fuseless Charts			
IE2/IE3	IE2/IE3	IE2	IE2	IE3	IE3
DOL	SD	DOL	SD	DOL	SD
FN	FN	MPCB/MCCB	MPCB/MCCB	MPCB/MCCB	MPCB/MCCB
MNX/MO	MNX/MO	MNX/MO	MNX/MO	MNX/MO	MNX/MO

Charts available at Iq of

- 50kA
- 65kA
- 80kA
- 100kA

MCCB charts are available with  
Microprocessor Releases too



# DIGITAL SINGLE PHASE CONTROLLER

*The power of flexibility and versatility*



## Basic version

## FEATURES

## Auto version

- |  |                                  |
|--|----------------------------------|
| ● Microcontroller Based Solution               | ● All features of Basic Version  |
| ● Dry Run Protection                           | ● Inbuilt Water Level Controller |
| ● UV/OV Protection                             | ● Water tank status indication   |
| ● Current, Voltage Metering & Periodic Display | ● WLC bypass feature             |
| ● Start & Run Capacitor                        | ● Auto start capacitor switching |
| ● Bypass Mode (For bore cleaning)              | ● Power on delay                 |
| ● Off Timer                                    | ● Dry run auto reset timer       |
| ● Digital Display                              | ● Auto & Manual mode             |
| ● Capacitor cut-off                            | ● RTC based daily ON/OFF timer   |
| ● Water Tank Status Indication                 | ● Timer count down display       |
| ● Automatic Current Setting                    | ● Cyclic timer                   |
|  | ● Timer Compensation             |

• Refer Agricultural Electrical Product Pricelist for Agricultural Electrical Product Range



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# Digital Enabled Smart Agriculture



- Digital Products for effective monitoring & remote operation
- Agri products for all seasons and all crops
- Complete protection from all faults
- Maintenance free product life



## Complete your panel with our panel accessories



**Rotary Switches &  
Cable Ducts**



**Timing Devices &  
Supply Monitors**



**Modular Remote  
Control Units**



**Digital Panel  
Meters**

For Cam operated Rotary switches, Cable ducts, Load break switches, Timers, Time switches, Supply monitors, Ø22.5 mm range of Modular remote control & Indicating units please refer Panel Accessories Price List.

For Digital Panel Meter details please refer Pg.76

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# Enclosed Automatic Transfer Switch

Automatic Solution | Pre-wired | Flexible Settings



## Switch to **ATS**

Now, experience seamless transfer between two power sources...



### Convenience

- Ample Space for Cable Termination
- Ease of Generator Control(ON-OFF, Cooling Cycle Self-Test)
- Cyclic Event Logger: Logs 100 Events



### Performance

- Wide range: 125A to 630A, 415V ac.
- Double-Break Contact System offering High Short-time Withstand (1cw)
- High Mechanical and Electrical Life: Double than requirement of IS/IEC standard
- Suitable for Aluminum Termination



### Flexibility

- Priority Source Selection
- Adjustable Time Delay(0.1sec to 3 hours)
- Suitable for 3-Phase as well as 1-Phase Sources



### Safety

- Protections: UV/OV, Phase Sequence, Single Phasing, Frequency
- Authorized Access Control through Password Protection
- Terminal Shrouds, Phase Barriers & Source Separator

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Enclosed ATS, Frame 2, 125A	125A	<b>CK90161BSOO</b>	<b>76390</b>	1
Enclosed ATS, Frame 2, 160A	160A	<b>CK90162BSOO</b>	<b>84270</b>	1
Enclosed ATS, Frame 2, 200A	200A	<b>CK90163BSOO</b>	<b>91300</b>	1
Enclosed ATS, Frame 3, 250A	250A	<b>CK90164BSOO</b>	<b>104370</b>	1
Enclosed ATS, Frame 3, 315A	315A	<b>CK90165BSOO</b>	<b>111630</b>	1
Enclosed ATS, Frame 4, 400A	400A	<b>CK90166BSOO</b>	<b>123750</b>	1
Enclosed ATS, Frame 4, 630A	630A	<b>CK90167BSOO</b>	<b>150280</b>	1

Chapter ID [\[8537\]](#)

For AuXC 2000 programming videos and more details please scan the QR code or click here



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# On Load Changeover Switch - Disconnectors [8536]

## Changeover Switch-Disconnecter (Conforms to IEC 60947-3 , IS/IEC 60947-3)

### Features offered by Manual Changeover

- Range 63A to 2000A, 415V, AC 23A, 4P
- Enclosure version does not require separate cable gland box
- Terminal Shrouds, Source Separator and Phase Barriers included
- Staggered Terminals make cable termination easy
- Suitable for horizontal as well as vertical mounting



Open execution



SS enclosure



Motorised Changeover



Manual CO with fuse mounting kit\*

### Features offered by Motorised Changeover

- Range 125 A to 2000A, 415V, AC 23A, 4P (Control Voltage 240 Vac )
- No change in HxWxD dimension of motorised and manual changeover switch
- Padlocking in OFF position
- Option for selection between manual and auto mode

Size	Rated Current (A)	Type	Manual Changeover Open Execution		Manual Changeover In Sheet Steel Enclosure#		Motorised Changeover Open Execution		Std. Pkg. (Nos.)		
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit			
Fr 1	63	CO1-63	CO106300000	5040	CO106300S00	7780	-	-	1		
	63	CO1-63	CO10630000D ▲	4950							
	100	CO1-100	CO110000000	6670			CO110000S00	9920		-	-
	100	CO1-100	CO11000000D ▲	6430							
	125	CO1-125	CO112500000	8680			CO112500S00	12380		-	-
Fr 2	125	CO2-125	CO212500000	10420	CO212500S00	14710	CK90161B000	38270	1		
	160	CO2-160	CO216000000	11020	CO216000S00	16140	CK90162B000	47640	1		
	200	CO2-200	CO22000000A	13380	CO220000S00	18570	CK90163B000	50900	1		
Fr 3	250	CO3-250	CO325000000	19360	CO325000S00	25940	CK90164B000	62810	1		
	315	CO3-315	CO331500000	20170	CO331500S00	27060	CK90165B000	65690	1		
Fr 4	400	CO4-400	CO440000000	29760	CO440000S00	39820	CK90166B000	79100	1		
	630	CO4-630	CO463000000	34710	CO463000S00	46580	CK90167B000	90970	1		
Fr 5	630	CO5-630 <sup>α</sup>	CO563000000 <sup>α</sup>	41200	-	-	CK90168B000	99700	1		
	800	CO5-800	CO580000000	49400	CO580000S00	76150	CK90169B000	133330	1		
	1000	CO5-1000	CO510000000	87390	CO510000S00	122090	CK90170B000	174860	1		
Fr 6	1250	CO6-1250	CO612500000	118920	-	-	CK90081B000	216030	1		
	1600	CO6-1600	CO616000000	139270	-	-	CK90082B000	265220	1		
	2000	CO6-2000	CO620000000	214230	-	-	CK90083B000	316310	1		

▲ Direct handle version # Sheet Steel Enclosure version is with CO with extended handle \* Fuse mounting kit to be purchased separately. Refer below table  
<sup>α</sup> Fuse mounting kit CX56300000D is suitable for mounting on CO5-630 Changeover Switch

## Spares & Accessories for Changeover S-D [8538]



Auxiliary Contact



Operating Handle (63A to 200A)



Flip-able Handle (250A to 2000A)



Castell Type Lock

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (2 sets of C/O contact)	CO1-(63-125A)	CX100020000	450	1
	CO2-(125-200A)	CX200020000	850	1
	CO3-(250-315A)	CX300020000	1210	1
	CO4-(400-630A)	CX400020000	1290	1
	CO5-(630-1000A)	CX500020000	1460	1
	CO6-(1250-2000A)	CX600020000	1620	1
Operating Handle Kit (handle + shaft + center bush + bush clip)	CO1-(63-125A)	CX100010000	740	1
	CO2-(125-200A)	CX300010000	1510	1
	CO3-(250-315A)	CK903920000	1610	1
	CO4-(400-630A)	CX400010000	1650	1
	CO5-(630-1000A)	CX500010000	1770	1
Operating Handle	CO6-(1250-2000A)	CX600010000	2010	1
Castell Type Lock <sup>§</sup>	CO-(125-1000A)	CX400040000	2660	1
	CO6-(1250-2000A)	CX600040000	2660	1
Output shorting link	CO1-(63-125A) Top Side	CX10005000T	780	1
	CO1-(63-125A) Bottom Side	CX10005000B	780	1
Operating Handle for Motorised Changeover	C/O Frame 2 & 3 (125-315A)	CK903740000	1410	1
	C/O Frame 4 & 5 (400-1000A)	CK903780000	1770	1
	C/O Frame 6 (1250-2000A)	CK906450000	4400	1

§ Chapter ID [8301]

## Automatic Transfer Controllers (ATC) for Motorised Changeover [8538]



AST Controller with wire harness



AuXC-2000 Controller with wire harness



Illuminated Push Button assembly

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Automatic Transfer Controllers	AST Controller with wire harness	CK901920000	18880	1	
	AuXC - 2000 Controller with wire harness	AuXC - 2000 <sup>β</sup>	ATC20000000	30100	1
		CK900990000	3850	1	
Control Accessories	Illuminated Push Button assembly with Wire harness	CK901950000	3840	1	

<sup>β</sup> Chapter ID [9032]

## Fuse Mounting Kit [8538]



Description	Suitable fuse-link	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fuse Mounting Kit	HF 14x51	CO1-63	CX106300OCO	2380	1
	HN Size 000	CO2-125	CX212500ODO	4650	1
	HN Size 00	CO2-160	CX216000ODO	6600	1
	HN Size 1	CO3-250	CX325000ODO	9030	1
	HN Size 1	CO3-315	CX331500ODO	9450	1
	HN Size 2	CO4-400	CX440000ODO	13570	1
	HN Size 3	CO5-630	CX563000ODO	27320	1
	HN Size 3	CO5-800	CX580000ODO	31080	1



**New** **CZ Bypass Switches**

**125A to 630A**

Bypass Switches are meant for special application and help to maintain continuity of power supply to the load by simply 'bypassing' UPS or Servo stabilizer. Removal of the UPS or Servo, for maintenance or repair is safe, as it is isolated from both input and output sides in the 'bypass' mode.

**Time-Saving Convenient solution**  
No hassle of operating multiple devices for safe and positive isolation on both sides of Servo/UPS

**Phase Barriers**  
Easy to fit and long phase barriers for complete isolation between phases

**Suitable for Aluminum Termination**  
Entire range is suitable for Aluminum cable/link termination as per the size prescribed by the standards

**Safety interlock and padlocking**  
Door interlock is provided in ON position with defeat feature. Also, Bypass Switch can be padlocked in OFF position; upto 3 padlocks can be fitted

**Mounting flexibility**  
Suitable for mounting in horizontal as well as vertical orientation. Also, the shaft is 'cut-able' and can be adjusted to suit different panel depth requirements.

**Finger proof protection (IP30)**  
Terminal Shrouds provide protection against accidental contact with live terminals. As it is swivellable, there is no need to remove during termination/inspection

4P, Open Execution with extended handle				
Frame	Rating 440Vac, AC 23A	Cat No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1	125A	CK908130000	17000	1
CZ1	160A	CK908140000	17750	1
CZ1	200A	CK908150000	20250	1
CZ1	250A	CK908160000	27000	1
CZ1	315A	CK908170000	33000	1
CZ2	315A	CK908750000	36410	1
CZ2	400A	CK908760000	44500	1
CZ2	630A	CK908770000	53000	1

Accessories for CZ Bypass switch				
Frame	Description	Cat No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1/ CZ2	Auxiliary Contact Kit* (1 C/O contact)	CK908050000	485	1

**Chapter ID [8538]**  
\* Upto 2 C/O contacts can be installed for status /indication

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Chapter ID [8536]

# Multiple Applications, One Solution

## **New** CZ Switch Disconnectors



- ▶ Compact 2P, 3P & 4P configurations
- ▶ **1250Vac** Insulation Voltage
- ▶ **AC-23A @ 690Vac** without derating
- ▶ Suitable for 50°C ambient temperature
- ▶ **Direct termination** without the need of any extended links
- ▶ Extra assurance with visible contact system
- ▶ High electrical and mechanical life (double than requirement in IS/IEC standards)
- ▶ Terminal shrouds and phase barriers are provided as standard offering along with the product
- ▶ Higher ground clearance ensure safety at all times

**Versions: 690V/800Vac | 1000Vdc | 1500Vdc**

### Typical Applications



Switching of feeders in power distribution network



Switching of Machinery/Motors



VFD panels for switching and isolation of VFD (AC as well DC)



Isolation in String Inverter as well as Central Inverter Solar Systems



Battery Charging

4P AC Switch Disconnector					
Frame	Rating 690V, AC 23A	Handle Type	CAT No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1	125A	Extended	<b>CK907690000</b>	<b>7400</b>	1
CZ1	160A	Extended	<b>CK907700000</b>	<b>9350</b>	1
CZ1	200A	Extended	<b>CK907710000</b>	<b>10890</b>	1
CZ1	250A	Extended	<b>CK907720000</b>	<b>12840</b>	1
CZ1	315A	Extended	<b>CK907730000</b>	<b>13600</b>	1
CZ2	315A	Extended	<b>CK908570000</b>	<b>15090</b>	1
CZ2	400A	Extended	<b>CK908580000</b>	<b>19310</b>	1
CZ2	630A	Extended	<b>CK908590000</b>	<b>24200</b>	1
CZ1	125A	Direct	<b>CK907990000</b>	<b>7100</b>	1
CZ1	160A	Direct	<b>CK908000000</b>	<b>8930</b>	1
CZ1	200A	Direct	<b>CK908010000</b>	<b>10350</b>	1
CZ1	250A	Direct	<b>CK908020000</b>	<b>12200</b>	1
CZ1	315A	Direct	<b>CK908030000</b>	<b>12920</b>	1
CZ2	315A	Direct	<b>CK908720000</b>	<b>14340</b>	1
CZ2	400A	Direct	<b>CK908730000</b>	<b>18340</b>	1
CZ2	630A	Direct	<b>CK908740000</b>	<b>22990</b>	1

Chapter ID **[8536]**

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@lntebg.com Web: www.lntebg.com

4P AC Switch Disconnector in SS enclosure (with extended handle)				
Frame	Rating 690V, AC 23A	CAT No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1	125A	<b>CK908190000</b>	<b>13320</b>	1
CZ1	160A	<b>CK908200000</b>	<b>15430</b>	1
CZ1	200A	<b>CK908210000</b>	<b>17420</b>	1
CZ1	250A	<b>CK908220000</b>	<b>19900</b>	1
CZ1	315A	<b>CK908230000</b>	<b>21080</b>	1
CZ2	315A	<b>CK908780000</b>	<b>24900</b>	1
CZ2	400A	<b>CK908790000</b>	<b>29160</b>	1
CZ2	630A	<b>CK908800000</b>	<b>34120</b>	1

Chapter ID **[8536]**

Accessories for CZ Switch Disconnector				
Frame	Description	CAT No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
CZ1/CZ2	Auxiliary Contact Kit (1 C/O contact)	<b>CK908050000</b>	<b>485</b>	1

Chapter ID **[8538]**

#### Notes:

- 2P and 3P versions are also available. Please contact our nearest branch office for further details
- Separate versions suitable for DC applications (1000Vdc and 1500Vdc) also available. Please contact our nearest branch office for further details
- Please refer next page for details on offerings for Solar applications



# Dawn of a New Era...



## CZ Switch Disconnectors

- Designed for tough conditions at **solar sites**
- Separate versions for **800Vac** string inverter systems and upto **1500Vdc** for central inverter systems
- Suitable for Aluminum termination of double the size recommended by IEC standards
- **1250Vac** Rated Insulation Voltage
- **Direct termination** without the need of any extended links
- Terminal shrouds and phase barriers are provided as standard offering along with the product



### AC SD

- ▶ Operational Voltage upto 800Vac



### DC SD

- ▶ Operational Voltage 1000Vdc & 1500Vdc

#### 800Vac, 3P Switch Disconnectors

Frame	Rating	Handle Type	Cat. No.	M.R.P. (₹) Per Unit
CZ1	125A	Direct	CK907570000	*
CZ1	160A	Direct	CK907580000	*
CZ1	200A	Direct	CK907590000	*
CZ1	250A	Direct	CK907600000	*
CZ1	315A	Direct	CK907610000	*
CZ2	315A	Direct	CK908510000	*
CZ2	400A	Direct	CK908520000	*
CZ2	630A	Direct	CK908530000	*
CZ1	125A	Extended	CK907630000	*
CZ1	160A	Extended	CK907640000	*
CZ1	200A	Extended	CK907650000	*
CZ1	250A	Extended	CK907660000	*
CZ1	315A	Extended	CK907670000	*
CZ2	315A	Extended	CK908540000	*
CZ2	400A	Extended	CK908550000	*
CZ2	630A	Extended	CK908560000	*

#### DC Switch Disconnectors

Frame	Rating	Voltage	No. of Poles	Handle Type	Cat. No.	M.R.P. (₹) Per Unit
CZ1	125A	1000Vdc	2	Direct	CK907930000	*
CZ1	160A	1000Vdc	2	Direct	CK907940000	*
CZ1	200A	1000Vdc	2	Direct	CK907950000	*
CZ1	250A	1000Vdc	2	Direct	CK907960000	*
CZ1	315A	1000Vdc	2	Direct	CK907970000	*
CZ2	315A	1000Vdc	2	Direct	CK908690000	*
CZ2	400A	1000Vdc	2	Direct	CK908700000	*
CZ2	630A	1000Vdc	2	Direct	CK908710000	*
CZ1	125A	1500Vdc	2	Direct	CK907870000	*
CZ1	160A	1500Vdc	2	Direct	CK907880000	*
CZ1	200A	1500Vdc	2	Direct	CK907890000	*
CZ1	250A	1500Vdc	2	Direct	CK907900000	*
CZ1	315A	1500Vdc	2	Direct	CK907910000	*
CZ2	315A	1500Vdc	3	Direct	CK908660000	*
CZ2	400A	1500Vdc	3	Direct	CK908670000	*
CZ2	630A	1500Vdc	3	Direct	CK908680000	*

Chapter ID [8536]

Chapter ID [8536]

\*Available on Request

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

## Type TPN S-D-F suitable for DIN fuse-link (TPN & FP) in open execution

### Features offered by FN S-D-F

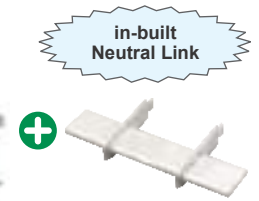
- Range 32A to 800A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Terminal Shrouds on both sides and Phase Barriers included
- Telescopic shaft for depth adjustment
- TPN SDF has isolable neutral
- 4P SDF has Switched Neutral Pole and is 100% rated
- Door interlock & padlock facility



FN - TPN S-D-F  
(Open Execution)



FN - 4P S-D-F  
(Open Execution)



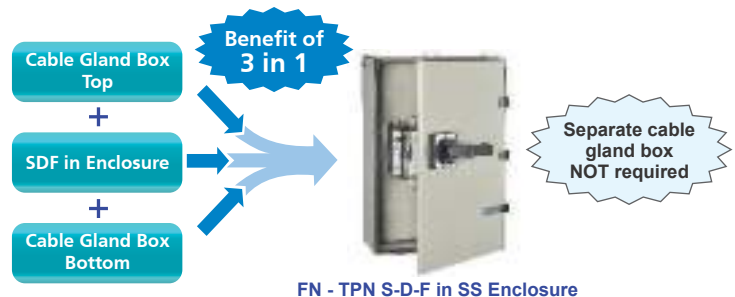
Size	Rated Current (A)	Suitable HRC fuse-link		Open Execution Type FN (TPN) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)	Open Execution Type FN S-D-F suitable for DIN fuse-link (4P)			Std. Pkg. (Nos.)
		Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit		Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF Size 14x51	2 to 32	FN 32 TPN / FP	SK95518	2650	1	FN 32 TPN/FP	SK95518	2650	1
	32	HF Size 14x51	2 to 32	FN 32 TPN / FP CE*	SK95703*	2320	1	FN 32 TPN/FP CE*	SK95703	2320	1
	63	HF Size 14x51	2 to 63	FN 63 TPN / FP	SK95421	3520	1	FN 63 TPN/FP	SK95421	3520	1
	63	HF Size 14x51	2 to 63	FN 63 TPN / FP CE*	SK95704*	3140	1	FN 63 TPN/FP CE*	SK95704	3140	1
Fr 2	100	HN Size 000/00	63 to 100	FN 100 TPN	SK95568	6670	1	FN 100 FP	SK90496	7440	1
	125	HN Size 000/00	63 to 125	FN 125 TPN	SK95001	8640	1	FN 125 FP	SK90497	9570	1
	160	HN Size 000/00	63 to 160	FN 160 TPN	SK95713	9300	1	FN 160 FP	SK90498	10380	1
Fr 3	200	HN Size 0	80 to 200	FN 200 TPN	SK95418	12550	1	FN 200 FP	SK90471	14570	1
	250	HN Size 1	125 to 250	FN 250 TPN	SK95642	14350	1	FN 250 FP	SK90472	17030	1
Fr 4	315	HN Size 1	125 to 315	FN 315 TPN	SK95461	17190	1	FN 315 FP	SK90473	21380	1
	400	HN Size 2	200 to 400	FN 400 TPN	SK95481	20790	1	FN 400 FP	SK90480	23510	1
Fr 5	630	HN Size 3	315 to 630	FN 630 TPN	SK95521	34750	1	FN 630 FP	SK90481	40130	1
	800	HN Size 3	315 to 800	FN 800 TPN	SK95679	37350	1	FN 800 FP	SK90482	43270	1

\* 'CE' handle has door interlock facility without defeat feature

## FN - TPN S-D-F in SS Enclosure

### Features offered by FN S-D-F in SS Enclosure:

- Range 32A to 800A, 415V, AC 23A
- Spacious Sheet Steel Enclosure
- Separate cable gland box not required
- Terminal Shrouds on both sides and Phase Barriers included
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Suitable for Cylindrical/DIN fuse-link
- Door interlock & padlock facility



FN - TPN S-D-F in SS Enclosure

Size	Rated Current (A)	Suitable HRC fuse-link		In Sheet Steel Enclosure Type FN (TPN) S-D-F suitable for DIN fuse-link			Std. Pkg. (Nos.)
		Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF Size 14x51	2 to 32	FN 32 TPN / FP CE*	SK90483*	6030	1
	63	HF Size 14x51	2 to 63	FN 63 TPN / FP CE*	SK90484*	7200	1
Fr 2	100	HN Size 000/00	63 to 100	FN 100 TPN	SK90485	11810	1
	125	HN Size 000/00	63 to 125	FN 125 TPN	SK90486	13350	1
	160	HN Size 000/00	63 to 160	FN 160 TPN	SK90487	14040	1
Fr 3	200	HN Size 0	80 to 200	FN 200 TPN	SK90488	20120	1
	250	HN Size 1	125 to 250	FN 250 TPN	SK90489	22120	1
Fr 4	315	HN Size 1	125 to 315	FN 315 TPN	SK90490	25550	1
	400	HN Size 2	200 to 400	FN 400 TPN	SK90491	28770	1
Fr 5	630	HN Size 3	315 to 630	FN 630 TPN	SK90492	44620	1
	800	HN Size 3	315 to 800	FN 800 TPN	SK90493	47440	1

\* 'CE' handle has door interlock facility without defeat feature

### Notes:

- 1) Type FN S-D-F range (Bolted fuse-link) suitable for harsh environment is also available. Please contact nearest branch office for further details
- 2) For 690V AC application, please contact nearest branch office
- 3) The prices for S-D-F range are without HRC fuses
- 4) The SDF units in SS enclosure version can be replaced with FN TPN SDF open execution units. Please refer point 5 for replacement of 250A unit
- 5) For replacement of FN 250 SDF unit in sheet steel enclosure version (Cat. No. SK904890000 & SK956810000), order Cat. No. ST978950000
- 6) Please refer Pg. 34 for Switch-Disconnectors

## Type FN S-D-F suitable for DIN fuse-link (2P) in open execution

Also for 220Vdc & 240Vac application

### Features offered by FN S-D-F

- Range 32A to 630A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Terminal Shrouds on both sides and Phase Barriers included
- Telescopic shaft for depth adjustment
- Door interlock & padlock facility



FN 2P S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Type FN (2P) S-D-F suitable for DIN fuse-link			Std. Pkg (Nos.)
			Open Execution			
			Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	HF Size 14x51	FN 32 2P	SK95594	2150	1
	63	HF Size 14x51	FN 63 2P	SK95595	3070	1
Fr 2	100	HN Size 000/00	FN 100 2P	ST35086	5060	1
	125	HN Size 000/00	FN 125 2P	ST35087	7730	1
	160	HN Size 000/00	FN 160 2P	ST35088	8060	1
Fr 3	200	HN Size 0	FN 200 2P	ST35089	10010	1
	250	HN Size 1	FN 250 2P	ST31674	11830	1
Fr 4	315	HN Size 1	FN 315 2P	ST38930	15050	1
	400	HN Size 2	FN 400 2P	ST31676	16810	1
Fr 5	630	HN Size 3	FN 630 2P	ST35090	28450	1

## Type FN S-D-F suitable for BS fuse-link (TPN) in open execution

### For BOLTED fuse-link

### Features offered by FN S-D-F

- Range 32A to 630A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Terminal Shrouds on both sides and Phase Barriers included
- Telescopic shaft for depth adjustment
- Door interlock & padlock facility



FN - TPN S-D-F

Size	Rated Current (A)	Suitable fuse-link type	Type FN (TPN) S-D-F suitable for BOLTED fuse-link			Std. Pkg (Nos.)
			Open Execution			
			Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	A1L	FN 32 TPN	SK95653	2470	1
	63	A1L	FN 63 TPN	SK95651	3390	1
Fr 2	100	A4	FN 100 TPN	SK95570	6600	1
	125	A4	FN 125 TPN	SK95009	8540	1
	160	A4	FN 160 TPN	SK95714	9080	1
Fr 3	200	B1 / B2	FN 200 TPN	SK95588	12760	1
	250	B2 / B3	FN 250 TPN	SK95682	14620	1
Fr 4	315	B3	FN 315 TPN	SK95590	17250	1
	400	B4	FN 400 TPN	SK95591	20660	1
Fr 5	630	C2	FN 630 TPN	SK95592	35860	1

## Type FNX S-D-F suitable for DIN fuse-link in open execution

### Features offered by FNX S-D-F

- Range 32A to 800A, 415V, AC 23A
- TPN and 4P version
- Suitable for Cylindrical / DIN fuse-link
- Telescopic shaft for depth adjustment
- DIN rail mounting up to 100A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility
- FNX 4-Pole with in-built Neutral Link



FNX TPN S-D-F



FNX 4P S-D-F

in-built Neutral Link



Size	Rated Current (A)	Suitable fuse-link type	Range (A)	Open Execution Type FNX (TPN) S-D-F suitable for DIN fuse-link				Open Execution Type FNX (4P) S-D-F suitable for DIN fuse-link				Std. Pkg. (Nos.)
				Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Fr 1	32	HF Size 14x51	2 to 32	FNX 32 TPN / FP	SK96903	*	1	FNX 32 TPN / FP	SK96903	*	1	
	63	HF Size 14x51	2 to 63	FNX 63 TPN / FP	SK96904	*	1	FNX 63 TPN / FP	SK96904	*	1	
Fr 2	100	HN Size 000	63 to 100	FNX 100 TPN / FP	SK96906	*	1	FNX 100 TPN / FP	SK96906	*	1	
Fr 3	125	HN Size 000/00	63 to 125	FNX 125 TPN	SK95806	*	1	FNX 125 FP	SK95814	*	1	
	160	HN Size 000/00	63 to 160	FNX 160 TPN	SK95807	*	1	FNX 160 FP	SK95815	*	1	
Fr 4	200	HN Size 0	80 to 200	FNX 200 TPN	SK95808	*	1	FNX 200 FP	SK95816	*	1	
	250	HN Size 1	125 to 250	FNX 250 TPN	SK95809	*	1	FNX 250 FP	SK95817	*	1	
Fr 5	315	HN Size 1	125 to 315	FNX 315 TPN	SK95810	*	1	FNX 315 FP	SK95818	*	1	
	400	HN Size 2	200 to 400	FNX 400 TPN	SK95811	*	1	FNX 400 FP	SK95819	*	1	
Fr 6	630	HN Size 3	315 to 630	FNX 630 TPN	SK95812	*	1	FNX 630 FP	SK95820	*	1	
	800	HN Size 3	315 to 800	FNX 800 TPN	SK95813	*	1	FNX 800 FP	SK95821	*	1	

\* Available on request

Notes : 1) For 690V AC application, please contact nearest branch office.  
2) The prices for S-D-F range are without HRC fuses

## Features offered by HRC fuse link

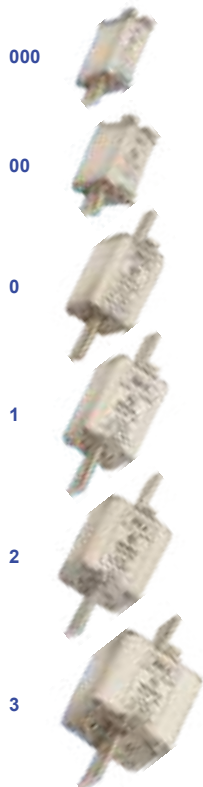
- Conforms to IEC 60269-2, IS 13703 part 2
- Range: 2A to 800A, 415V, AC 50Hz
- Type: Cylindrical (2A to 63A), DIN (63A to 800A) & Bolted (2A to 630A)
- High breaking capacity: 100kA for type HN and 80kA for type HF/HG/HQ

## Cylindrical fuse links Type HF



Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
14 X 51	2	Suitable for Type FN 32 / 63 / FNX 32 / 63 S-D-F & for HCO 32 Fuse base	SF90144	133	30
	4		SF90145	133	30
	6		SF90146	133	30
	8		SF90147	133	30
	10		SF90148	133	30
	16		SF90150	133	30
	20		SF90151	133	30
	25		SF90152	133	30
	32		SF90142	133	30
	40		SF90143	147	30
	50		SF90158	323	30
	63		SF90159	392	30

## DIN Type Fuse Links Type HN



Size	Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
000	63	Suitable for Type FN 100/125/160 / FNX 100/125/160 S-D-F & for HB 160 Fuse base	SF94940	420	3
	80		SF94941	450	3
	100		SF94942	450	3
	125		SF94946	515	3
00	63	Suitable for Type FN 100/125/160 / FNX 125/160 S-D-F & for HB 160 Fuse base	SF94027	535	3
	80		SF94028	535	3
	100		SF94029	535	3
	125		SF94030	560	3
	160		SF94939	575	3
0	80	Suitable for Type FN 200 / FNX 200 S-D-F & for HB 250 Fuse base	SF94128	735	3
	100		SF94129	735	3
	125		SF94130	735	3
	160		SF94131	745	3
1	200	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94132	765	3
	125		SF94230	780	3
	160		SF94231	790	3
	200		SF94232	795	3
	250		SF94233	885	3
2	315	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94234	1085	3
	200		SF94332	1090	3
	250		SF94333	1095	3
	315		SF94334	1165	3
3	400	Suitable for Type FN 400 / FNX 400 S-D-F & for HB 800 Fuse base	SF94335	1175	3
	315		SF94434	1650	1
	400		SF94435	1740	1
	500		SF94436	1875	1
	630		SF94437	1910	1
3	800	Suitable for Type FN 630/800 / FNX 630/800 S-D-F & for HB 800 Fuse base	SF94938	2320	1

## Fuse holders & Fuse bases suitable for Cylindrical / DIN fuse-links



Rated Current (A)	Type	Description	Suitable fuse-link		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
			Type	Range (A)			
32	HCO 32	Fuse holder	HF	2-32	SK91314	275	10
63	HC 63	Fuse holder	HF	2-63	SK91043	310	10
160	HB 160	Fuse base	HN-Size 000 & 00	63-160	SK90405	420	12
250	HB 250	Fuse base	HN-Size 0 & 1	80-250	SK90406	920	3
800	HB 800	Fuse base	HN-Size 2 & 3	200-800	SK91051	1795	3

**Bolted fuse links: Type HG and HQ**



Type	Fixing Method	Size	Rating (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HG	Offset, staggered	F1	2	Suitable for type HD 20H/20P/20B, HD 32H/32P/32B fuse base	ST30725	55	24
			4		ST30726	55	24
			6		ST30727	55	24
			10		ST30728	55	24
			16		ST30729	65	24
			20		ST30730	70	24
			25		ST30731	70	24
			32		ST30732	70	24
HQ	Offset	A1L	20	Suitable for type FN 32/63 S-D-F	ST34527	110	15
			25		ST34528	110	15
			32		ST34529	110	15
			50		ST35827	140	15
			63		ST35828	140	15
		A2	Suitable for type HK 32H/32B fuse base	4	ST30747	95	12
				6	ST30748	95	12
				10	ST30749	95	12
				16	ST30750	95	12
				20	ST30751	95	12
				25	ST30752	95	12
		A3	Suitable for type HK 63B/63H Fuse base	32	ST30753	95	12
				35	ST30759	140	12
				50	ST30760	150	12
		A4	Suitable for type FN 100/125/160 S-D-F & for HK 125H/125B Fuse base	63	ST30761	160	12
				80	ST30767	320	12
	100			ST30768	325	12	
	125			ST30769	355	12	
	Centre Tag, 2 holes	B1	Suitable for type FN 200 S-D-F	125	ST35829	405	12
				160	ST30774	360	12
				200	ST30775	360	12
		B2	Suitable for type FN 200/250 S-D-F	125	ST30776	420	12
				160	ST30777	440	3
				200	ST30778	445	3
		B3	Suitable for type FN 250/315 S-D-F	250	ST30779	480	3
				315	ST30781	715	3
				315	ST30782	740	3
		B4	Suitable for type FN 400 S-D-F	355	ST30783	1045	3
				400	ST30784	1100	3
				400	ST30785	2100	1
	Centre Tag, 4 holes	C2	Suitable for type FN 630 S-D-F	500	ST30786	2215	1
				630	ST30787	2430	1

**Fuse holders suitable for Bolted fuse-links**



Rated Current (A)	Type	Connection Method	Fuse Type	Suitable Fuse Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
20	HD 20H	Both side cable (Front)	F1	2-20	ST30772	155	12
	HD 20P	Both side busbar (Back)	F1	2-20	ST30773	240	12
	HD 20B	Top busbar & bottom cable	F1	2-20	ST30766	205	12
32	HD 32H	Both side cable (Front)	F1	2-32	ST30733	165	12
	HD 32P	Both side busbar (Back)	F1	2-32	ST30734	230	12
	HD 32B	Top busbar & bottom cable	F1	2-32	ST30735	220	12
	HK 32H	Both side cable (Front)	A2	4-32	ST30754	300	12
	HK 32B	Top busbar & bottom cable	A2	4-32	ST30755	360	12
63	HK 63H	Both side cable (Front)	A3	35-63	ST30762	370	6
	HK 63B	Top busbar & bottom cable	A3	35-63	ST30763	450	6
125	HK 125H	Both side cable (Front)	A4	80-125	ST30770	1120	3
	HK 125B	Top busbar & bottom cable	A4	80-125	ST30771	1190	3

# Switch-Disconnecter Units [8536]

## Type FN & C-Line Switch Disconnecter (2P/TPN/4P)



FN 2P S-D



FN TPN S-D

### Features offered by S-D

- Range 32A to 2000A, 415V, AC 23A
- Conforms to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility
- Telescopic shaft for depth adjustment
- Flip-able handle 1000A and above
- Terminal shrouds on both sides

Size	Rated Current (A)	Open Execution 2P S-D			Std. Pkg. (Nos.)	Open Execution TPN S-D*			Std. Pkg. (Nos.)
		Type	Cat. No.	M.R.P. (₹) Per Unit		Type	Cat. No.	M.R.P. (₹) Per Unit	
Fr 1	32	FN 32 2P	SK904180000	1970	1	FN 32 TPN / 4P	SK955410000	2590	1
	63	FN 63 2P	SK904190000	2590	1	FN 63 TPN / 4P	SK955400000	3270	1
Fr 2	100	FN 100 2P	SK904200000	4670	1	FN 100 TPN	SK955710000	5900	1
	125	FN 125 2P	SK904210000	5840	1	FN 125 TPN	SK954050000	6930	1
Fr 3	200	FN 200 2P	SK904500000	9580	1	FN 200 TPN	SK956070000	10890	1
	250	FN 250 2P	SK904540000	10150	1	FN 250 TPN	SK956830000	12490	1
Fr 4	315	FN 315 2P	SK904650000	13400	1	FN 315 TPN	SK956090000	14130	1
	400	FN 400 2P	SK904660000	14980	1	FN 400 TPN	SK956100000	18250	1
Fr 5	630	FN 630 2P	SK904670000	24170	1	FN 630 TPN	SK956110000	27910	1
	800	FN 800 2P	SK904680000	25100	1	FN 800 TPN	SK955510000	29230	1
	1000	FN 1000 2P	SK904690000	33810	1	FN 1000 TPN	SK957100000	49280	1
Fr 6	1000	-	-	-	-	C-Line SD 1000 4P <sup>§</sup>	COS10000040	51640	1
	1250	-	-	-	-	C-Line SD 1250 4P <sup>§</sup>	COS12500040	65580	1
	1600	-	-	-	-	C-Line SD 1600 4P <sup>§</sup>	COS16000040	87490	1
	2000	-	-	-	-	C-Line SD 2000 4P <sup>§</sup>	COS20000040	103850	1

§ For C-Line SD 3P (1000A to 2000A), please contact nearest branch office

\* For Switched Neutral Pole in FN TPN S-D, order Switched Neutral Kit separately. Refer 'Spares & Accessories for type FN' table

## Spares & Accessories for type FN<sup>X</sup> [8538]

## Spares & Accessories for type FN [8538]



Castell Type Lock



DIN Rail Assembly



Auxiliary Contact Kit



Handle Assembly



Handle Assembly



Earthing Link



Switched Neutral Kit



Auxiliary Contact Kit



Castell Type Lock

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FNX 32 / 63	SK91537	*	1
	FNX 100	SK91538	*	1
	FNX 125 / 160	SK91539	*	1
	FNX 200 / 250	SK91540	*	1
	FNX 315 / 400 / 630 / 800	SK91541	*	1
Handle Assembly	FNX 32 / 63 / 100	SK91524	*	1
	FNX 125 / 160 / 200 / 250	SK91525	*	1
	FNX 315 / 400 / 630 / 800	SK91526	*	1
Castell Type Lock <sup>§</sup>	FNX 32 / 63 / 100	SK91530	*	1
	FNX 125 / 160 / 200 / 250	SK91531	*	1
	FNX 315 / 400 / 630 / 800	SK91531	*	1
DIN Rail Assembly	FNX 32 / 63 / 100	SK91617	*	1

\* Available on request

### Fuse pulling handle [8538]



For Type HN fuse-link



For Type HF fuse-link

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fuse pulling handle for HF Fuse-link from 2A-63A	SK91185	220	1
Insulated fuse pulling handle for Type HN fuse-link from 63A-800A	SF90126	780	1

## Spares & Accessories for type COS Switch-Disconnecter [8538]

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1 sets of C/O contact)	CXS6002	940	1
Operating Handle	CXS6001	2010	1
Castell Type Lock <sup>§</sup>	CX60004	2660	1

§ Chapter ID [8301]

# Also suitable for Switch-Disconnecter FN 1000

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
Auxiliary Contact Kit (1NO + 1 NC)	FN 32 / 63	SK91302	560	1	
	FN 100 / 125 / 160	SK91328	670	1	
	FN 200 / 250	SK91329	900	1	
	FN 315 / 400 / 630 / 800	SK91330 <sup>#</sup>	950	1	
2 <sup>nd</sup> Aux. Contact (1NO + 1NC)	FN 32 / 63	SK90670	610	1	
	FN 100 to FN 1000	SK90696	700	1	
Earthing Link	FN 32 to FN 1000 <sup>@</sup>	CK90396	540	1	
Terminal Shroud Kit	FN 32 / 63	SK91190	190	1	
	FN 100 / 125 / 160	SK91137	240	1	
	FN 200 / 250	SK91335	680	1	
	FN 315 / 400	SK91346	700	1	
	FN 630 / 800	SK91347 <sup>#</sup>	740	1	
Handle Assembly - A	FN 32 / 63	SK91257	530	1	
	FN 100 to FN 250	SK91258	1130	1	
	FN 315 / 400 / 630 / 800	SK91259 <sup>#</sup>	1250	1	
Handle Assembly - B	FN 32 / 63	SK91277	530	1	
	FN 100 to FN 250	SK91278	1130	1	
	FN 315 / 400 / 630 / 800	SK91279 <sup>#</sup>	1250	1	
Handle Assembly - CE	FN 32 / 63	SK91337	310	1	
Interphase Barrier Kit	FN 200	SK91343	480	1	
	FN 315 / 400	SK91344	500	1	
	FN 630 / 800	SK91345 <sup>#</sup>	510	1	
Castell Type Lock <sup>§</sup>	FN 100 / 125 / 160 / 200 / 250	A	SK00333	2660	1
		B	SK00334	2660	1
		C	SK00335	2660	1
		D	SK00336	2660	1
	FN 315 / 400 / 630 / 800	A	SK00345 <sup>#</sup>	2660	1
		B	SK00346 <sup>#</sup>	2660	1
		C	SK00347 <sup>#</sup>	2660	1
		D	SK00348 <sup>#</sup>	2660	1
Switched Neutral Kit <sup>#</sup>	FN 100 / 125 / 160	SK95233	5040	1	
	FN 200 / 250	SK95516	5370	1	
	FN 315 / 400	SK95517	5810	1	
	FN 630 / 800	SK95546 <sup>#</sup>	8150	1	

@For terminating earth busbar upto 25mm width. Order Qty 1 for 10 earthing links

Communication  
Total Selectivity  
Advanced Protections  
Energy Metering

Choose the superhero. Choose **d sine** MCCB

**d sine** MCCBs



**Features**

Range: 20A to 1250A  
Breaking capacity: 25/36/50/70/**100kA**  
Variants: 3P/4P

Our new advanced MTX3.0 release fosters Energy Management along with most advanced protections. It also enables communication of various parameters for this automation era.

**d sine** range can now make Total Selectivity possible for uninterrupted healthy power network.

**d sine**-DZ MCCBs



**Features**

Range: 16A to 160A  
Breaking capacity: 36/50kA  
Variants: 3P/4P

Our new **d sine**-DZ range offers wide range of adjustable overload and short circuit settings with wide range of internal and external accessories.

**Why wait? Contact us today.**

**Customer Interaction Center (CIC)**

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

## DU/DY With Thermal - Magnetic Release :

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400
Icu (kA)															
10	DY125U														
18		DU100D								DU125D					
25											DU250C				
30		DU100H								DU125H					
36											DU250				
50														DU400N	

## DY125U MCCBs



- Conforms to IS/IEC 60947-2, IEC 60947-2 & EN 60947-2
- Range: 16A to 125A, 2P/3P/4P
- Ics=100% of Icu
- High Electrical & Mechanical life
- Thermal Magnetic Release
- No Load-Line Bias
- ON-TRIP-OFF indication
- Suitable for Isolation
- Common SS Enclosure for 3P & 4P

Type	Current Rating (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DY125U	16	AC : 25kA @ 240V AC, 50 Hz/60 Hz DC : 10kA @ 250V DC (2P in series)	EM90982O0BO	1700	AC : 10kA @ 415V AC, 50 Hz/60 Hz DC : 10kA @ 250V DC (3P in series)	EM90983O0BO	2220	EM90984O0BO	2950	1
	20		EM90982O0CO	1700		EM90983O0CO	2220	EM90984O0CO	2950	1
	25		EM90982O0DO	1700		EM90983O0DO	2220	EM90984O0DO	2950	1
	32		EM90982O0EO	1700		EM90983O0EO	2220	EM90984O0EO	2950	1
	40		EM90982O0FO	1700		EM90983O0FO	2220	EM90984O0FO	2950	1
	50		EM90982O0GO	1700		EM90983O0GO	2220	EM90984O0GO	2950	1
	63		EM90982O0HO	1660		EM90983O0HO	2160	EM90984O0HO	2870	1
	80		EM90982O0JO ▲	1830		EM90983O0JO ▲	2430	EM90984O0JO ▲	3320	1
			EM90812O0JO	1660		EM90813O0JO	2160	EM90814O0JO	2870	1
	100		EM90982O0KO ▲	1830		EM90983O0KO ▲	2430	EM90984O0KO ▲	3320	1
			EM90812O0KO	1660		EM90813O0KO	2160	EM90814O0KO	2870	1
125	EM90982O0LO ▲	2570	EM90983O0LO ▲	3560	EM90984O0LO ▲	4440	1			

▲ - Spreader Terminals are included

Note: 2 Pole in 3 Pole frame size

Phase barriers are supplied with all MCCBs

## Accessories for DY125U MCCBs [8538]



Auxiliary/Trip Alarm Contact



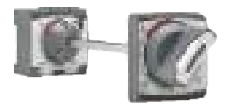
Shunt Release



Spreader Terminals



Direct ROM



Extended ROM

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary/Trip Alarm Contact</b>			
1C/O	EM90966O000	640	1
<b>Shunt Release</b>			
Short Rated 110/240/415V AC	EM90520O000	845	1
<b>Under Voltage Release</b>			
240V AC	EM90518B000	2565	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
2 Pole (upto 100A)	CM97785O002	260	Set of 4
3 Pole (upto 100A)	CM97785O000	395	Set of 6
4 Pole (upto 100A)	CM97921O000	625	Set of 8
<b>Rotary Handle</b>			
Direct ROM	EM90969O000	1260	1
Extended ROM	EM90970O000	1855	1
<b>SS Enclosure</b>			
Size I Enclosure for 3P & 4P	CM90996O000	2285	1



# DU MCCB Range [8536]

## 3 Pole / 4 Pole MCCBs

### DU100D/DU125D MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 125A, 3P & 4P
- Ics=100% of Icu
- Compact size
- Common SS Enclosure for 3P & 4P
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

Kindly refer page no. 45 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU100D	16-20	18	CM90517OOCO	4790	CM90518OOCO	6070	1
	20-25		CM90517OODO	4790	CM90518OODO	6070	1
	25-32		CM90517OOEO	4790	CM90518OOEO	6070	1
	32-40		CM90517OOF0	4790	CM90518OOF0	6070	1
	40-50		CM90517OOGO	4790	CM90518OOGO	6070	1
	50-63		CM90517OOHO	4640	CM90518OOHO	5870	1
	63-80		CM90517OOJO	4640	CM90518OOJO	5870	1
	80-100		CM90517OOKO	4640	CM90518OOKO	5870	1
DU125D	100-125		CM90676OOLO	5670	CM90677OOLO	7440	1

Note: DIN rail kit available as an accessory. Please refer DU100D/DU125D accessories table.

## 2 Pole / 3 Pole / 4 Pole MCCBs

### DU100H/DU125H MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 125A, 2P, 3P & 4P
- Compact size
- Common SS Enclosure for 2P, 3P & 4P
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

For DC application please refer catalogue

Type	Thermal Release Range (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU100H	16-20	AC : 65kA @ 240V AC, 50Hz	CM97898OOC2	3570	30	CM97894OOC2	5080	CM97933OOC2	6970	1
	20-25		CM97898OOD2	3570		CM97894OOD2	5080	CM97933OOD2	6970	1
	25-32		CM97898OEE2	3570		CM97894OEE2	5080	CM97933OEE2	6970	1
	32-40		CM97898OOF2	3570		CM97894OOF2	5080	CM97933OOF2	6970	1
	40-50	DC : 15kA @ 250V DC, (2P in Series) L/R < 15 msec.	CM97898OOG2	3570		CM97894OOG2	5080	CM97933OOG2	6970	1
	50-63		CM97898OOH2	3470		CM97894OOH2	4990	CM97933OOH2	6770	1
	63-80		CM97898OOJ2	3470		CM97894OOJ2	4990	CM97933OOJ2	6770	1
	80-100		CM97898OOK2	3470		CM97894OOK2	4990	CM97933OOK2	6770	1
DU125H	100-125		CM91198OOLO	5390		CM90678OOLO	6300	CM90679OOLO	8080	1

Note: 2 Pole in 3 pole frame size

DIN rail kit available as an accessory. Please refer DU100H/DU125H accessories table.

## Accessories for DU100D/DU125D/DU100H/DU125H MCCBs [8538]



Auxiliary Contact



ATAC



Shunt Release



UV Release



Spreader Terminals



Direct ROM



Extended ROM

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact</b>			
1 C/O - Right	CM97886O000	1000	1
2 C/O - Right	CM97887O000	1775	1
<b>Trip Alarm Contact</b>			
1 C/O - Right	CM97888O000	1000	1
2 C/O - Right	CM97889O000	1775	1
<b>Auxiliary + Trip Alarm Contact</b>			
1 C/O + 1C/O - Right	CM97890O000	1705	1
<b>Shunt Release</b>			
24V DC - Left	CM91402O400	1825	1
110V AC - Left	CM97883OAOO	1825	1
240/415V AC - Left	CM97883OMOO	1980	1
<b>Under Voltage Release</b>			
240V AC - Left	CM97892BOOO	3295	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
DU100H - 2 Pole	CM97785O002	260	Set of 4
DU125H - 2 Pole	CM91199O0LO	335	Set of 4
DU100D/DU100H - 3 Pole	CM97785O000	395	Set of 6
DU125D/DU125H - 3 Pole	CM90687O0LO	515	Set of 6
DU100D/DU100H - 4 Pole	CM97921O000	625	Set of 8
DU125D/DU125H - 4 Pole	CM90688O0LO	745	Set of 8
<b>Rotary Handle</b>			
DU100D/DU125D/	Direct ROM	CM97895O000	1280
DU100H/DU125H			
<b>DIN rail kit</b>			
DU100D/DU125D/DU100H/DU125H	CM90944O000	145	1
<b>SS Enclosure</b>			
Size I Enclosure	CM90996O000	2285	1

Note: Phase Barriers are supplied along with all MCCBs

# DU MCCB Range [8536]

## 2 Pole / 3 Pole / 4 Pole MCCBs

### DU250C/DU250/DU400N MCCBs



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 160A to 400A, 2P, 3P & 4P
- Common SS Enclosure for 2P, 3P & 4P\*
- Compact size
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In

Kindly refer page no. 45 for cost effective MCCB for motor starter application

Type	Thermal Release Range (A)	Breaking Capacity Icu (kA)	2 Pole		Breaking Capacity Icu (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DU250C	125-160	-	-	-	25	CM90631OOMO	8300	CM90634OOMO	10590	1
	160-200					CM90631OONO	9980	CM90634OONO	12750	1
	200-250					CM90631OPO	11090	CM90634OPO	14570	1
DU250	125-160	AC : 65kA @ 240V AC, 50Hz DC : 15kA for DU250 @250V DC & 25kA for DU400N @ 250V DC, (2P in Series) L/R < 15 msec.	CM90905OOMO	6530	36	CM98062O000	9390	CM98065OOMO	11630	1
	160-200		CM90905OONO	7550		CM98061O000	11520	CM98065OONO	15560	1
	200-250		CM90905OPO	8460		CM98060O000	12860	CM98065OPO	17350	1
DU400N	250-320		CM90886O0QO	15320	50	CM98402O0QO	19840	CM98404O0QO	24240	1
	320-400		CM90886OORO	15320		CM98402OORO	19840	CM98404OORO	24240	1

Note: 2 Pole in 3 Pole frame size \* For DU250/DU250C

### Accessories for DU250/DU250C MCCBs [8538]



Auxiliary Contact ATAC Shunt Release UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact</b>			
1 C/O - Right	CM97886O000	1000	1
2 C/O - Right	CM97887O000	1775	1
<b>Trip Alarm Contact</b>			
1 C/O - Right	CM97888O000	1000	1
2 C/O - Right	CM97889O000	1775	1
<b>Auxiliary + Trip Alarm Contact</b>			
1 C/O + 1C/O - Right	CM97890O000	1705	1
<b>Shunt Release</b>			
24V DC - Left	CM91402O400	1825	1
110V AC - Left	CM97883OAOO	1825	1
240/415V AC - Left	CM97883OMOO	1980	1
<b>Under Voltage Release</b>			
240V AC - Left	CM97892BOOO	3295	1



Spreader Terminals Direct ROM Extended ROM

Description	External			
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	
<b>Spreader Terminals</b>				
DU250 - 2 Pole	CM90960O000	1330	Set of 4	
DU250C/DU250 - 3 Pole	ST98053O000	1710	Set of 6	
DU250C/DU250 - 4 Pole	CM92007O000	2265	Set of 8	
<b>Rotary Handle</b>				
DU250C/DU250	Direct ROM	CM98040O000	1370	1
	Extended ROM	CM98041O000	1760	1
<b>SS Enclosure</b>				
Size II Enclosure	CM91003O000	5250	1	

Note: Phase Barriers are supplied along with all MCCBs

### Accessories for DU400N MCCBs [8538]



Auxiliary Contact TAC Shunt Release UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact</b>			
1 C/O	CM99801O000	1160	1
2 C/O	CM99802O000	2250	1
<b>Trip Alarm Contact</b>			
1 C/O - Right	CM99803O000	1230	1
<b>Auxiliary + Trip Alarm Contact</b>			
1 C/O + 1C/O - Right	CM99804O000	2255	1
<b>Shunt Release</b>			
110/240/415V AC, 220V DC	CM99805O000	2925@	1
24V DC	CM98976O400	2740@	1
<b>Under Voltage Release</b>			
240V AC - Left	CM99986BOOO	4060	1



Spreader Terminals Direct ROM Extended ROM

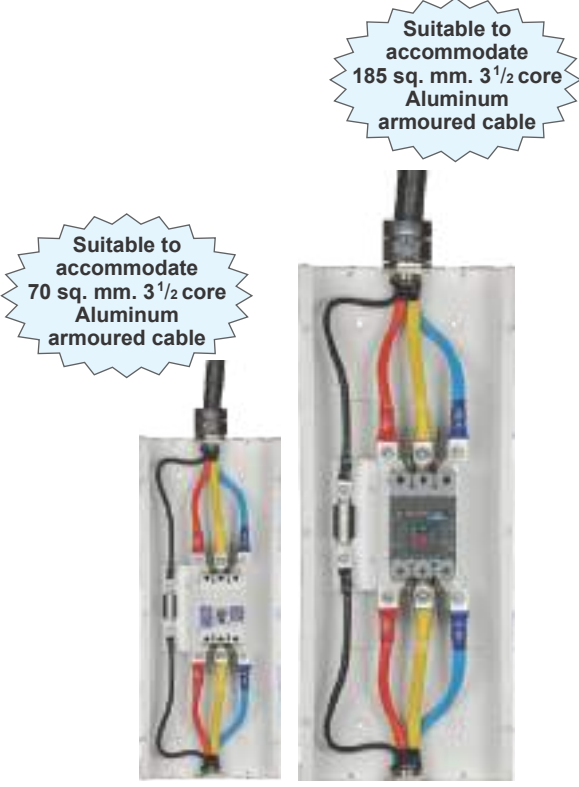
Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals</b>			
2 Pole	CM90964O000	2085	Set of 4
3 Pole	ST98065O000	3310	Set of 6
4 Pole	ST98066O000	4745	Set of 8
<b>Rotary Handle</b>			
Direct ROM	CM99860O000	2120	1
Extended ROM	CM99861O000	3485	1

Note: Phase Barriers are supplied along with all MCCBs  
All internal accessories & ROMs are common for 2P MCCBs  
@ - 'NO' of control contactor to be connected in series for DC control supply

# SS Enclosure for MCCBs [8538]

## Perfect home for your MCCB

Separate cable gland box NOT required



Size I & Size II Enclosures

- Superior Aesthetics
- Common Enclosure for 3P and 4P MCCBs
- Generous space for cable termination
- In-built neutral Link for TPN system
- IK08 and IP30 Protection
- Mounting holes for easy wall mounting
- Louvers for better heat dissipation
- Effortless Installation
- Size I suitable up to 125A MCCBs, 36kA
- Size II suitable from 160A to 250A MCCBs, 50kA



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Size I Enclosure for DU100H/DU125H/ DU100D/DU125D/DN0/DY125U	CM909960000	2285	1
Size II Enclosure for DU250C/DU250/DN1	CM910030000	5250	1

Note: Pictorial is for representation purpose only. Does not include cabling. MCCB to be purchased separately.



Easy wall Mounting      In-built Neutral Link      Better Heat Dissipation

# Ground Fault Module [8538]



- Provides protection against ground fault
- GF Module for ground fault protection can be used with all Thermal Magnetic MCCBs
- Adjustable ground fault sensitivity selection: 10% - 50% of In
- Adjustable time delay: 100ms / 200ms
- Test facility to check healthiness of ground fault protection system without tripping MCCB
- Suitable for 3 phase 3 wire & 3 phase 4 wire electrical distribution network with cable termination
- LED for earth fault indication

Ground Fault Protection					
Type	Range (A)	Cat. No.	M.R.P. (₹) Per Unit	CT	Std. Pkg. (Nos.)
GF1	100 - 200A	ST277450000	9770	Built in CBCT	1
GF2	200 - 400A	ST277460000	14970	Built in CBCT	1
GF11	up to 800A	ST285940000	9055 #	External CT required	1

# External CTs of 5P10 class with secondary rating of 1A or 5A

**d sine** With Thermal - Magnetic Release :

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630
Icu=Ics (kA)*																	
25	DN0-100C								DN1-C								
36	DN0-100D/125D										DN3B						
36/50	DZ1																
36/50/70	DN2										DN3						



dsine TM

- Conforms to IS/IEC 60947-2
- 20A to 630A, 3P & 4P
- 25kA, 36kA, 50kA & 70kA breaking capacities
- Ics= 100% of Icu\*
- Adjustable overload settings: 0.8 - 1.0 x In
- Adjustable short-circuit settings: 6 - 10 x In\*\*
- Manual, Rotary and Motorised versions available@
- Wide range of accessories



dsine-DZ1 TM

- Conforms to IS/IEC 60947-2
- 16A to 160A, 3P & 4P
- 36kA & 50kA breaking capacities
- Ics= 100% of Icu
- Adjustable overload settings: 0.67 - 1.0 x In
- Adjustable short-circuit settings: 6 - 12 x In\*\*\*
- Transparent sealable release cover
- Compact size
- Wide range of accessories

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN0-100D*	16-20	36	CM978930OC2OG	8010	CM979190OC2OG	11220	1
	20-25		CM978930OD2OG	8010	CM979190OD2OG	11220	1
	25-32		CM978930OE2OG	8010	CM979190OE2OG	11220	1
	32-40		CM978930OF2OG	8010	CM979190OF2OG	11220	1
	40-50		CM978930OG2OG	8010	CM979190OG2OG	11220	1
	50-63		CM978930OH2OG	7800	CM979190OH2OG	10920	1
	63-80		CM978930OJ2OG	7800	CM979190OJ2OG	10920	1
	80-100		CM978930OK2OG	7800	CM979190OK2OG	10920	1
DN0-125D*	100-125		CM90680OOL0OG	9520	CM90681OOL0OG	12680	1
DN0-100C	16-20	25	CM916120OCCOOG	8340	CM917120OCCOOG	11660	1
	20-25		CM916120ODDOOG	8340	CM917120ODDOOG	11660	1
	25-32		CM916120OEOOOG	8340	CM917120OEOOOG	11660	1
	32-40		CM916120OFOOOG	8340	CM917120OFOOOG	11660	1
	40-50		CM916120OOGOOG	8340	CM917120OOGOOG	11660	1
	50-63		CM916120OHOOG	8110	CM917120OHOOG	11360	1
	63-80		CM916120OJOOG	8110	CM917120OJOOG	11360	1
	80-100		CM916120OKOOG	8110	CM917120OKOOG	11360	1
DN1-250C	100-125		CM90638OOL0	11920	CM90642OOL0	14300	1
	125-160		CM90638OOMO	15200	CM90642OOMO	18450	1
	160-200		CM90638OONO	19070	CM90642OONO	22190	1
	200-250		CM90638OPO	21840	CM90642OPO	25260	1

Kindly refer page no. 45 for cost effective MCCB for motor starter application

**Note:**  
 Breaking Capacity : C = 25kA, D = 36kA, N = 50kA, S = 70kA  
 @ Motorised version available for DN2 and DN3 frames (please refer page No. 46)  
 \* DN0-100D/125D : Ics= 50% Icu  
 \*\* For DN0, DN1, DN3B-Short Circuit Setting: 9In  
 For DN1-250N (50kA) please contact nearest branch office  
 \*\*\* From 16A to 50A, Fixed Magnetic setting (375A)

dsine With Thermal - Magnetic Release :

Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DZ1-160D	11-16	36	DZ1T0016DXC1A	10890	DZ1F0016DXC1A	13790	1	
	14-20		DZ1T0020DXC1A	10890	DZ1F0020DXC1A	13790	1	
	17-25		DZ1T0025DXC1A	10890	DZ1F0025DXC1A	13790	1	
	22-32		DZ1T0032DXC1A	10890	DZ1F0032DXC1A	13790	1	
	27-40		DZ1T0040DXC1A	10890	DZ1F0040DXC1A	13790	1	
	34-50		DZ1T0050DXC1A	10890	DZ1F0050DXC1A	13790	1	
	43-63		DZ1T0063DXD1A	10700	DZ1F0063DXD1A	13550	1	
	54-80		DZ1T0080DXD1A	10700	DZ1F0080DXD1A	13550	1	
	67-100		DZ1T0100DXD1A	10700	DZ1F0100DXD1A	13550	1	
	84-125		DZ1T0125DXD1A	12380	DZ1F0125DXD1A	15370	1	
	108-160		DZ1T0160DXD1A	16390	DZ1F0160DXD1A	19470	1	
DN2-250D	100-125	36	CM92008OOL1OG	15480	CM92108OOL1OG	19210	1	
	125-160		CM92008OOM1OG	20490	CM92108OOM1OG	24340	1	
	160-200		CM92009OON1OG	22700	CM92109OON1OG	29000	1	
	200-250		CM92009OOP1OG	25480	CM92109OOP1OG	30740	1	
DN3B-400D	250-320		CM984010OQOOG	30750	CM984030OQOOG	37500	1	
	320-400		CM984010OROOG	30750	CM984030OROOG	37500	1	
DN3-400D	250-320		CM940050OQ1OG	*	CM941050OQ1OG	*	1	
	320-400		CM940050OR1OG	*	CM941050OR1OG	*	1	
DN3-630D	400-500		CM940060OS1OG	41980	CM941060OS1OG	51840	1	
	500-630		CM940060OT1OG	41980	CM941060OT1OG	51840	1	
DZ1-160N	11-16		50	DZ1T0016NXC1A	14110	DZ1F0016NXC1A	17320	1
	14-20	DZ1T0020NXC1A		14110	DZ1F0020NXC1A	17320	1	
	17-25	DZ1T0025NXC1A		14110	DZ1F0025NXC1A	17320	1	
	22-32	DZ1T0032NXC1A		14110	DZ1F0032NXC1A	17320	1	
	27-40	DZ1T0040NXC1A		14110	DZ1F0040NXC1A	17320	1	
	34-50	DZ1T0050NXC1A		14110	DZ1F0050NXC1A	17320	1	
	43-63	DZ1T0063NXD1A		13730	DZ1F0063NXD1A	16850	1	
	54-80	DZ1T0080NXD1A		13730	DZ1F0080NXD1A	16850	1	
	67-100	DZ1T0100NXD1A		13730	DZ1F0100NXD1A	16850	1	
	84-125	DZ1T0125NXD1A		18460	DZ1F0125NXD1A	21470	1	
	108-160	DZ1T0160NXD1A		20930	DZ1F0160NXD1A	25270	1	
DN2-250N	100-125	50	CM92005OOL1OG	21600	CM92105OOL1OG	26190	1	
	125-160		CM92005OOM1OG	24490	CM92105OOM1OG	30830	1	
	160-200		CM92006OON1OG	25080	CM92106OON1OG	34190	1	
	200-250		CM92006OOP1OG	27370	CM92106OOP1OG	35030	1	
DN3-400N	250-320		CM940030OQ1OG	33220	CM941030OQ1OG	40740	1	
	320-400		CM940030OR1OG	33220	CM941030OR1OG	40740	1	
DN3-630N	400-500		CM940040OS1OG	45290	CM941040OS1OG	57340	1	
	500-630		CM940040OT1OG	45290	CM941040OT1OG	57340	1	
DN2-250S	100-125		70	CM92002OOL1OG	30750	CM92102OOL1OG	35580	1
	125-160			CM92002OOM1OG	32230	CM92102OOM1OG	38020	1
	160-200			CM92003OON1OG	36560	CM92103OON1OG	44980	1
	200-250	CM92003OOP1OG		37710	CM92103OOP1OG	45390	1	
DN3-400S	250-320	CM940010OQ1OG		40010	CM941010OQ1OG	46540	1	
	320-400	CM940010OR1OG		40010	CM941010OR1OG	46540	1	
DN3-630S	400-500	CM940020OS1OG		53100	CM941020OS1OG	63860	1	
	500-630	CM940020OT1OG		53100	CM941020OT1OG	63860	1	

For DC application please refer catalogue

Kindly refer page no. 45 for cost effective MCCB for motor starter application

\* Price on request Note: Add suffix as "OOOO" to all DZ1 cat. nos.

**General Information**

- Use of phase barriers is mandatory. These are supplied along with MCCBs
- It is recommended to use spreader terminals for enhancing termination capacity
- Spreader terminals are available as accessories, unless otherwise specified against cat. nos.

**Special Applications**

- dsine/DU/DY MCCBs with TM release can be used for DC application (2P/3P/4P)
- dsine/DU MCCBs can be used for Capacitor back-up protection
- For Motor back-up protection, use 'M' series of MCCBs such as DN0-M, DZ1-N, DN1-M, DN2-M, DN3-M
- For isolator applications, use SD version (without protection release)

**d sine With Microprocessor Release :**

Rating (A)	40	63	100	160	250	400	630	800	1000	1250
Icu (kA)	DZ1									
36/50	DN2					DN3				
36/50/70/100										
50/70/100	DN4									

**d sine With Microprocessor Release MTX1.0 & iTRP1 :**



dsine MTX1.0

- Conforms to IS/IEC 60947-2
- 40A to 1250A, 3P & 4P
- 36kA, 50kA, 70kA and 100kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.4 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 8 x Ir
- Inbuilt instantaneous Protection
- Switchable thermal memory
- Variable trip class
- Front LED Indication
- Manual, Rotary and Motorised versions available@
- Wide range of accessories



dsine-DZ iTRP1

- Conforms to IS/IEC 60947-2
- 16A to 160A, 3P & 4P
- 36kA & 50kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.25 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 12 x Ir
- OR Instantaneous setting from 1.5 to 12 x In
- Switchable thermal memory
- Variable trip class
- Transparent sealable release cover
- Compact size
- Wide range of accessories

Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DZ1-160D#	10-40	36	DZ1T0040DXF1A	18270	DZ1F0040DXF1A	22970	1	
	16-63		DZ1T0063DXF1A	18270	DZ1F0063DXF1A	22970	1	
	25-100		DZ1T0100DXF1A	18270	DZ1F0100DXF1A	22970	1	
	40-160		DZ1T0160DXF1A	23120	DZ1F0160DXF1A	32130	1	
DN2-250D	16-40		CM920630000X1	21920	CM921550000X1	27560	1	
	25-63		CM920710000X1	21920	CM921540000X1	27560	1	
	40-100		CM920510000X1	21920	CM921530000X1	27560	1	
	63-160		CM920740000X1	27740	CM921520000X1	38560	1	
	100-250		CM920540000X1	31910	CM921510000X1	43730	1	
DN3-400D	160-400		CM930010000X1	39580	CM930030000X1	48860	1	
DN3-630D	250-630		CM930050000X1	44120	CM930070000X1	57400	1	
DZ1-160N#	10-40		50	DZ1T0040NXF1A	21770	DZ1F0040NXF1A	30180	1
	16-63			DZ1T0063NXF1A	21770	DZ1F0063NXF1A	30180	1
	25-100			DZ1T0100NXF1A	21770	DZ1F0100NXF1A	30180	1
	40-160			DZ1T0160NXF1A	28480	DZ1F0160NXF1A	37270	1
DN2-250N	16-40			CM920640000X1	26120	CM921600000X1	34100	1
	25-63	CM920720000X1		26120	CM921590000X1	34100	1	
	40-100	CM920520000X1		26120	CM921580000X1	34100	1	
	63-160	CM920750000X1		34180	CM921570000X1	42120	1	
	100-250	CM920550000X1		36510	CM921560000X1	46740	1	
DN3-400N	160-400	CM930020000X1		43310	CM930040000X1	55860	1	
DN3-630N	250-630	CM930060000X1		47530	CM930080000X1	61990	1	
DN4-1250N	320-800	CM960210000X1		71400	CM961110000X1	89910	1	
	400-1000	CM960220000X1		99920	CM961120000X1	144590	1	
	500-1250	CM960230000X1		124680	CM961130000X1	168710	1	
DN2-250S	16-40	70		CM920650000X1	28050	CM921650000X1	35670	1
	25-63			CM920730000X1	28050	CM921640000X1	35670	1
	40-100		CM920590000X1	28050	CM921630000X1	35670	1	
	63-160		CM920760000X1	37800	CM921620000X1	48210	1	
	100-250		CM920560000X1	42140	CM921610000X1	54030	1	
DN3-400S	160-400		CM940530000X1	53750	CM941530000X1	69140	1	
DN3-630S	250-630		CM940790000X1	56810	CM941790000X1	79030	1	
DN4-1250S	320-800		CM960250000X1	91300	CM961150000X1	115640	1	
	400-1000		CM960260000X1	123610	CM961160000X1	180330	1	
	500-1250		CM960270000X1	151280	CM961170000X1	205800	1	

Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.

@ Motorised version available for DN2, DN3 and DN4 frames (please refer page No. 46)

Add suffix as "OOOO" to all DZ1 cat. nos. # For 25A, please contact nearest branch office

d sine With Microprocessor Release MTX2.0 & iTRP3 :



dsine MTX2.0

- Conforms to IS/IEC 60947-2
- 40A to 1250A, 3P & 4P
- 36kA, 50kA, 70kA and 100kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.4 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 8 x Ir
- Inbuilt instantaneous Protection
- Inbuilt ground fault protection from 20%-50% of In
- Adjustable neutral overload protection from 50% to 150% of Ir
- Switchable thermal memory
- Variable trip class
- Front LED Indication
- Panel mounted display for current metering & trip record
- Manual, Rotary and Motorised versions available@
- Wide range of accessories



dsine-DZ iTRP3

- Conforms to IS/IEC 60947-2
- 16A to 160A, 3P & 4P
- 36kA & 50kA breaking capacities
- Ics=100% Icu
- Adjustable overload setting from 0.25 to 1.0 x In
- Adjustable short-circuit setting from 1.5 to 10 x Ir
- Adjustable Instantaneous setting, 6 In & 12 In
- Inbuilt ground fault protection from 20%-70% of In
- Adjustable neutral overload protection from 50% to 200% of Ir
- Switchable thermal memory
- Provision for release testing
- Individual fault indication LEDs
- Transparent sealable release cover
- Compact size
- Wide range of accessories

Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit		
DZ1-160D#	10-40	36	DZ1T0040DXH1A	33510	DZ1F0040DXH1A	38580	1	
	16-63		DZ1T0063DXH1A	33510	DZ1F0063DXH1A	38580	1	
	25-100		DZ1T0100DXH1A	33510	DZ1F0100DXH1A	38580	1	
	40-160		DZ1T0160DXH1A	38070	DZ1F0160DXH1A	47200	1	
DN2-250D	16-40		CM920630000AG	37530	CM921550000AG	43210	1	
	25-63		CM920710000AG	37530	CM921540000AG	43210	1	
	40-100		CM920510000AG	37530	CM921530000AG	43210	1	
	63-160		CM920740000AG	42640	CM921520000AG	52860	1	
	100-250		CM920540000AG	44320	CM921510000AG	54490	1	
DN3-400D	160-400		CM930010000AG	53500	CM930030000AG	61980	1	
DN3-630D	250-630		CM930050000AG	57990	CM930070000AG	70940	1	
DZ1-160N#	10-40		50	DZ1T0040NXH1A	36440	DZ1F0040NXH1A	43480	1
	16-63			DZ1T0063NXH1A	36440	DZ1F0063NXH1A	43480	1
	25-100			DZ1T0100NXH1A	36440	DZ1F0100NXH1A	43480	1
	40-160			DZ1T0160NXH1A	43920	DZ1F0160NXH1A	52350	1
DN2-250N	16-40			CM920640000AG	40810	CM921600000AG	48700	1
	25-63	CM920720000AG		40810	CM921590000AG	48700	1	
	40-100	CM920520000AG		40810	CM921580000AG	48700	1	
	63-160	CM920750000AG		46990	CM921570000AG	56540	1	
	100-250	CM920550000AG		47320	CM921560000AG	57540	1	
DN3-400N	160-400	CM930020000AG		56760	CM930040000AG	66480	1	
DN3-630N	250-630	CM930060000AG		61660	CM930080000AG	79450	1	
DN4-1250N	320-800	CM960210000AG		98820	CM961110000AG	118460	1	
	400-1000	CM960220000AG		127280	CM961120000AG	170320	1	
	500-1250	CM960230000AG		149120	CM961130000AG	192910	1	
DN2-250S	16-40	70		CM920650000AG	42680	CM921650000AG	50780	1
	25-63			CM920730000AG	42680	CM921640000AG	50780	1
	40-100		CM920590000AG	42680	CM921630000AG	50780	1	
	63-160		CM920760000AG	51250	CM921620000AG	61040	1	
	100-250		CM920560000AG	57250	CM921610000AG	73590	1	
DN3-400S	160-400		CM940530000AG	71390	CM941530000AG	89330	1	
DN3-630S	250-630		CM940790000AG	77300	CM941790000AG	108100	1	
DN4-1250S	320-800		CM960250000AG	114860	CM961150000AG	143650	1	
	400-1000		CM960260000AG	154320	CM961160000AG	208910	1	
	500-1250		CM960270000AG	183170	CM961170000AG	240340	1	

Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.  
 @ Motorised version available for DN2, DN3 and DN4 frames (please refer page No. 46)  
 Add suffix "OOOO" to all DZ1 cat nos.  
 # For 25A, please contact nearest branch office  
 \*Price on request

Accessories for MTX2.0 [8538]

Modules for MTX2.0 release	Cat. No.	M.R.P. (₹) Per Unit
Current Metering Module (Display & Metering Module)	CM956980000	29520
Cable (2m length)	CM011960000	1540
Power Supply Module	CL907220000	*
UNCO Module for Status Indication & Control through communication	CL908520000	12500

Current Metering & latest trip record



Display Module



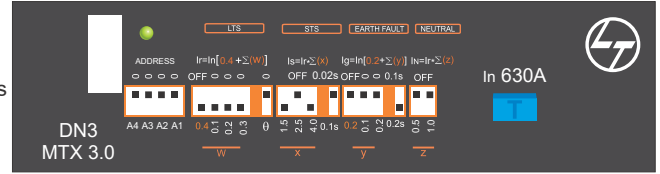
Metering Module

MTX2.0 with current metering module

d sine With Microprocessor Release MTX3.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA / 100kA breaking capacities
- Ics = 100% Icu
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x In
- Adjustable Short Circuit from 1.5 - 8 x Ir with selectable time delay
- Instantaneous protection with fine settings
- Inbuilt ground fault protection from 10% - 50% of In
- Adjustable neutral overload protection available : 50% to 150% of Ir
- Advanced Current, Voltage, Frequency & Power based protections
- Other Protections like Maximum Demand, Phase Sequence, THD etc.
- Comprehensive Current, Power, Energy, PF, MD, THD metering
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 1.5 Ir, 6 Ir & 7.2 Ir
- Front LED indication of Over Load, short circuit & earth fault
- Panel mounted display available for advanced protections & metering
- Communication capable release
- Manual, Rotary or Motorised versions available @
- For 3 phase 4 wire system, External neutral CTs available for 3P MCCBs
- Wide Range of snap fit Internal and External Accessories



Type	Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN2-250D	16 - 40	36	CM920630000BG	*	CM921550000BG	*	1
	25 - 63		CM920710000BG		CM921540000BG		1
	40 - 100		CM920510000BG		CM921530000BG		1
	63 - 160		CM920740000BG		CM921520000BG		1
	100 - 250		CM920540000BG		CM921510000BG		1
DN3-400D	160 - 400	CM930010000BG		CM930030000BG		1	
DN3-630D	250 - 630	CM930050000BG		CM930070000BG		1	
DN2-250N	16 - 40	50	CM920640000BG	*	CM921600000BG	*	1
	25 - 63		CM920720000BG		CM921590000BG		1
	40 - 100		CM920520000BG		CM921580000BG		1
	63 - 160		CM920750000BG		CM921570000BG		1
	100 - 250		CM920550000BG		CM921560000BG		1
DN3-400N	160 - 400	CM930020000BG		CM930040000BG		1	
DN3-630N	250 - 630	CM930060000BG		CM930080000BG		1	
DN4-1250N	320 - 800		CM960210000BG		CM961110000BG		1
	400 - 1000		CM960220000BG		CM961120000BG		1
	500 - 1250		CM960230000BG		CM961130000BG		1
DN2-250S	16 - 40	70	CM920650000BG	*	CM921650000BG	*	1
	25 - 63		CM920730000BG		CM921640000BG		1
	40 - 100		CM920590000BG		CM921630000BG		1
	63 - 160		CM920760000BG		CM921620000BG		1
	100 - 250		CM920560000BG		CM921610000BG		1
DN3-400S	160 - 400	CM940530000BG		CM941530000BG		1	
DN3-630S	250 - 630	CM940790000BG		CM941790000BG		1	
DN4-1250S	320 - 800		CM960250000BG		CM961150000BG		1
	400 - 1000		CM960260000BG		CM961160000BG		1
	500 - 1250		CM960270000BG		CM961170000BG		1

Note: dsine-V Version (Icu=Ics=100kA) MCCBs are available on request.  
 @ Motorised version available for DN2, DN3 and DN4 frames (please refer page No. 46)

Accessories for MTX3.0 [8538]

Modules for MTX3.0 release	Cat. No.	M.R.P. (₹) Per Unit
Communication Module	CM956800000	*
Voltage Module	CM956850000	
Display Module	CM956760000	
Power Supply Module	CL907220000	
UNCO Module for Status Indication & Control through communication	CL908520000	12500

\* Price on request

MCCB with MTX3.0 release



MTX3.0 with all modules



d sine MCCBs for Motor back-up Protection:



- Range: 32A to 630A, 50kA
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

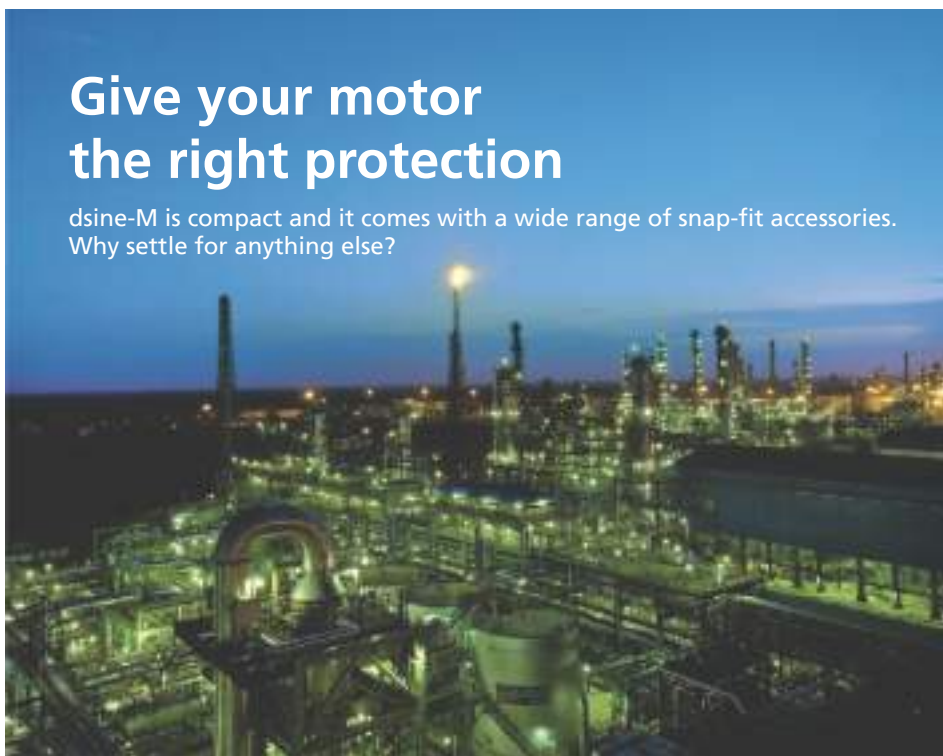
**Cost effective solution for motor starter protection**

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V. AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DN0-100M	32	50	CM98944OOEO	6020	1
	40		CM98944OOF0	6020	1
	50		CM98944OOGO	6020	1
	63		CM98944OOHO	6020	1
	80		CM98944OOJO	6020	1
	100		CM98944OOKO	6020	1
DZ1-160N	100		DZ1T0100NXM1A	8590	1
	125		DZ1T0125NXM1A	8740	1
	160		DZ1T0160NXM1A	10370	1
DN1-160M	100		CM90345OOKO	10040	1
	125		CM90345OOL0	10220	1
	160		CM90345OOMO	12130	1
DN2-250M	200		CM921710ON0OG	15540	1
	250		CM921710OP0OG	20780	1
DN3-400M	320		CM945160OQ0OG	26270	1
	400		CM945160OR0OG	27560	1
DN3-630M	500		CM945150OS0OG	30340	1
	630		CM945150OT0OG	30860	1

Note: Please contact nearest branch office for fuseless type 2 co-ordination selection chart  
 For lower HP motors, Please select MPCB. Details are given on page no. 18  
 Add suffix as "OOOO" to all DZ1 cat. nos.



Representative Application Image



# Give your motor the right protection

dsine-M is compact and it comes with a wide range of snap-fit accessories. Why settle for anything else?



Cost Effective

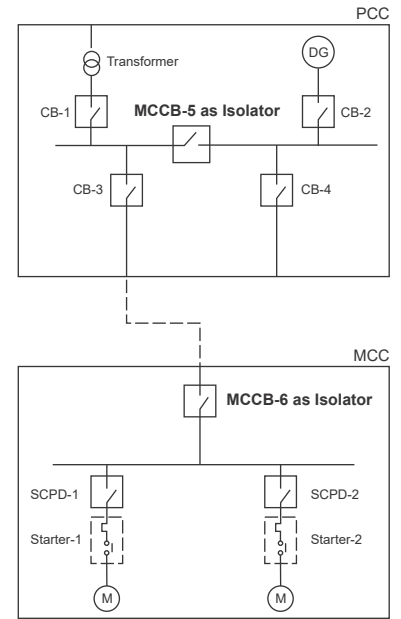
**d sine**  
dsine-M range

d sine Switch Disconnecter - SD (MCCBs without protection release):



- Used as switching devices for isolation
- Range: 32A to 1250A, 3P & 4P
- Suitable for isolation
- Wide Range of snap fit Internal and External Accessories

Type	Current Rating (A)	3 Pole		4 Pole		Std. Pkg. (Nos.)
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DN0-160SD	32	CM907160OEO	6280	CM907170OEO	8520	1
	63	CM907160OHO	6280	CM907170OHO	8520	1
	100	CM907160OKO	7500	CM907170OKO	9910	1
	125	CM907160OLO	8290	CM907170OLO	11040	1
	160	CM907160OMO	8970	CM907170OMO	11760	1
DN2-250SD	200	CM968140ONOG	18070	CM968150ONOG	24050	1
	250	CM968020OPOG	19100	CM968030OPOG	26240	1
DN3B-400SD	320	CM984100OQOG	28810	CM984120OQOG	36670	1
	400	CM984100OROG	28810	CM984120OROG	36670	1
DN3-630SD	500	CM968060OSOG	32670	CM968070OSOG	43750	1
	630	CM968060OTOOG	32670	CM968070OTOOG	43750	1
DN4-1250SD	800	CM930410OUO	68820	CM930420OUO	84900	1
	1000	CM930410OVO	91430	CM930420OVO	117010	1
	1250	CM930410OAO	121900	CM930420OAO	150790	1



Representative Application Image

## Automatic Source Transfer System (ASTS)

- 128x80 pixel, backlit LCD screen with 4 grey levels
- Advanced programmable I/O function
- Management of automatic generator start/stop
- Controls of UV, OV, phase loss, asymmetry, minimum frequency, maximum frequency, with independent enabling and time delay

### Automatic Transfer Controllers (ATC) [9032]

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-2000 controller	ATC20000000	30100	1

Can be used along with ACB, Motorised MCCBs, MCX contactors & Motorised Changeover switches



AuXC-2000

2 d sine MCCBs + 2 SE-EOM + 2 ATAC + 1 MIL kit

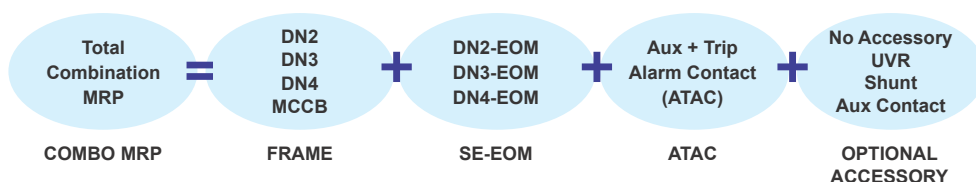
For AuXC 2000 programming videos and more details please scan the QR code or click here



Frame	Accessories	Total Set M.R.P. (₹)	Remarks
DN2	2 Nos : SEOMs with Aux + Trip Alarm Contact	103355	Add MRPs of Similar 2 MCCBs of DN2 of desired no. of Poles, Breaking Cap. & Release to arrive at ASTS Solution.
DN3-400	+ 1 No. : MIL	122650	Add MRPs of Similar 2 MCCBs of DN3 of desired no. of Poles, Breaking Cap. & Release to arrive at ASTS Solution.
DN3-630	+ 1 No. : AuXC2000	123420	

Note: Picture shown is for representation purpose only, MCCB + EOM + ATAC combination, MIL kit & AuXC-2000 to be purchased separately & assembled at site.

## d sine Motorised MCCB MRP Computation



Note:  
Default MCCB Combination includes → MCCB + SEEOM + ATAC  
For SE-EOM & its accessories MRPs refer to page no. 47

# Accessories for MCCBs [8538]



Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Auxiliary Contact [8538]</b>			
DN0, DN1 - 1 C/O - Right	CM978860000	1000	1
DN0, DN1 - 2 C/O - Right	CM978870000	1775	1
DZ1 - 1 C/O	EM901100000	1000	1
DN2, DN3B, DN3, DN4 - 1 C/O	CM998010000	1160	1
DN2, DN3B, DN3, DN4 - 2 C/O	CM998020000	2250	1
<b>Trip Alarm Contact [8538]</b>			
DN0, DN1 - 1 C/O - Right	CM978880000	1000	1
DN0, DN1 - 2 C/O - Right	CM978890000	1775	1
DZ1 - 1 C/O	EM901100000	1000	1
DN2, DN3B, DN3, DN4 - 1 C/O - Right	CM998030000	1230	1
<b>Auxiliary 1 C/O + TAC 1 C/O [8538]</b>			
DN0, DN1 - Right	CM978900000	1705	1
DN2, DN3B, DN3, DN4 - Right	CM998040000	2255	1
<b>Shunt Release [8538]</b>			
DN0, DN1 - 24V DC - Left	CM914020400	1825	1
DN0, DN1 - 110V AC - Left	CM978830A00	1825	1
DN0, DN1 - 240/415V AC - Left	CM978830M00	1980	1
DZ1 - 240V AC <sup>§</sup>	EM900320B00	2655	1
DN2, DN3B, DN3, DN4 - 110/240/415V AC, 220V DC	CM998050000	2925@	1
DN2, DN3B, DN3 - 24V DC	CM989760400	2740@	1
<b>Under Voltage Release [8538]</b>			
DN0, DN1 - 240V AC - Left	CM97892B000	3295	1
DZ1 - 240V AC <sup>§</sup>	EM90031B000	3345	1
DN2, DN3B, DN3 - 240V AC - Left	CM99986B000	4060**	1
DN4 - 240V AC - Left	CM999060000	4640**	1

@ - 'NO' of control contactor to be connected in series for DC control supply  
 \*\* Use these UV Cat. Nos. with Grey look MCCBs only.  
 § For other voltages, please contact nearest branch office  
 \* For additional accessories of DZ1 MCCBs, please contact nearest branch office

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>External Neutral CT [8504]</b>			
DZ1 - 40A, 63A	EM905070000	2030	1
DZ1 - 100A, 160A	EM905080000	2030	1
DN2 - 40A	CM999460000	1765	1
DN2 - 63A	CM999470000	1765	1
DN2 - 100A	CM999480000	1765	1
DN2 - 160A	CM999490000	2525	1
DN2 - 250A	CM999500000	2525	1
DN3 - 400A	CM999540000	5165	1
DN3 - 630A	CM999550000	5165	1
DN4 - 800A	CM998890000	7925	1
DN4 - 1000A	CM998900000	8270	1
DN4 - 1250A	CM998910000	9170	1
<b>Adaptor kit for External Neutral CT [8538]</b>			
DZ1-160 & DN2-250	CM999940000	760	Set of 2
DN3 - 400	CM999950000	1525	Set of 2
DN3 - 630	CM999970000	1535	Set of 2
DN4 - 800	CM999960000	2650	Set of 2
DN4 - 1000	CM909660000	5605	Set of 4
DN4 - 1250	CM999980000	9550	Set of 2
<b>Stored Energy Electrical Operating Mechanism [8538]</b>			
DN2-240V AC*	CM981320000	31100	
DN3-240V AC*	CM981300000	39000	
DN4-240V AC*	CM902840000	60100	

\* Available as customised factory-fitted solution, please contact nearest branch office  
 Note: For arriving at Motorised MCCB MRPs refer to page no. 46



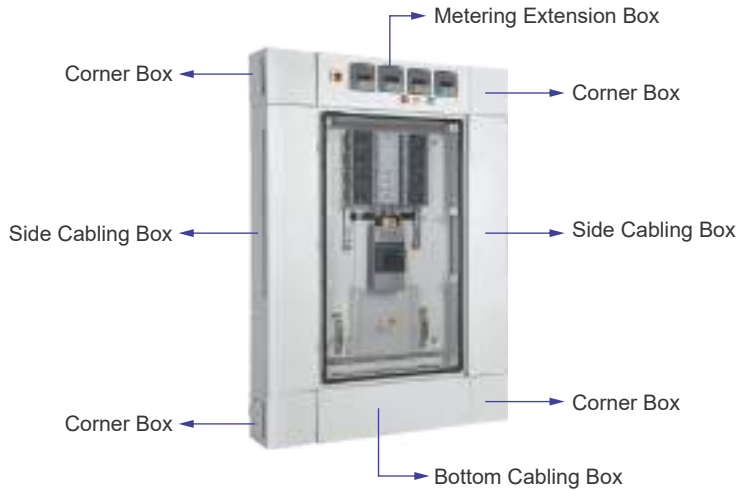
Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Rotary Handle [8538]</b>			
DN0 Direct ROM	CM978950000	1280	1
DN1 Direct ROM	CM980400000	1370	1
DZ1 Direct ROM	EM902070000	1400	1
DN2 Direct ROM	CM998290000	1415	1
DN3B, DN3 Direct ROM	CM998600000	2120	1
DN0 Extended ROM	CM978960000	1650	1
DN1 Extended ROM	CM980410000	1760	1
DZ1 Extended ROM	EM902090000	1890	1
DN2 Extended ROM	CM998300000	2135	1
DN3B, DN3 Extended ROM	CM998610000	3485	1
DN4 Extended ROM	CM998840000	4420	1
<b>Panel door mounted Key lock for Extended ROM # [8301]</b>			
Type 1	CM99958T0000	5780	1
Type 2	CM99958T000A	5780	1
Type 3	CM99958T000B	5780	1
Type 12	CM99958T000C	5780	1
Type 23	CM99958T000D	5780	1

# - Can be used with dsine & DU new look extended ROM



Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Spreader Terminals [8538]</b>			
DN0-100 - 3 Pole	CM977850000	395	Set of 6
DN0-125D - 3 Pole	CM906870OLO	515	Set of 6
DZ1 - 160 - 3 Pole	EM906090000	1605	Set of 6
DN1, DN2 - 250 - 3 Pole	ST980530000	1710	Set of 6
DN3B/DN3 - 400 - 3 Pole	ST980650000	3310	Set of 6
DN3-630 - 3 Pole	ST980540000	3830	Set of 6
DN4-800 - 3 Pole	CM911610OUO	8065	Set of 6
DN4-1000 - 3 Pole	CM911610OVO	16130	Set of 12
DN4-1250 - 3 Pole	CM911610OAO	31865	Set of 6
DN0-100 - 4 Pole	CM979210000	625	Set of 8
DN0-125D - 4 Pole	CM906880OLO	745	Set of 8
DZ1 - 160 - 4 Pole	EM906100000	2110	Set of 8
DN1, DN2 - 250 - 4 Pole	CM920070000	2265	Set of 8
DN3B/DN3-400 - 4 Pole	ST980660000	4745	Set of 8
DN3-630 - 4 Pole	CM920040000	4860	Set of 8
DN4-800 - 4 Pole	ST903620000	10290	Set of 8
DN4-1000 - 4 Pole	CM900640OVO	20580	Set of 16
DN4-1250 - 4 Pole	ST980580000	40775	Set of 8
<b>Mechanical Interlock Kit - Base Plate [8538]</b>			
DN2-250	CM997310000	6545	1
DN3-400	CM997320000	10040	1
DN3-630	CM998540000	10810	1
<b>DIN rail kit [8538]</b>			
DN0	CM909440000	145	1

Note: Phase Barriers are supplied along with MCCBs



## Range Highlights

- Sub Main Distribution Board (SMDB) with MCCB as incomer and MCCBs as outgoing devices
- Conforms to IEC 61439-2
- DEKRA and ASTA certified
- Rating up to 630 A
- Short-time withstand current
  - 250A & 400A SMDB - 36 kA 1s
  - 630A SMDB - 50 kA 1s
- Ingress protection - IP 43
- Choice in number of outgoing ways - 4, 8, 12 and 16
- Ready to use, off the shelf solution
- Suitable for [d sine](#) range of MCCBs
- Metering & cabling extensions are available as accessories

## ENERSYS-S SMDB

Description	Cat. No.	No of ways		M.R.P. (₹) Per Unit	Height (H) (mm)	Width (W) (mm)	Depth (D) (mm)
		250A	100A				
SMDB - TN250D, O/G 100A 4 ways	DA20D1044CZZ0	-	4	51200	637	670	208.5
SMDB - TN250D, O/G 100A 8 ways	DA20D1084CZZ0	-	8	62270	787	670	208.5
SMDB - TN250D, O/G 100A 12 ways	DA20D1124CZZ0	-	12	78330	937	670	208.5
SMDB - TN250D, O/G 100A 16 ways	DA20D1164CZZ0	-	16	92050	1087	670	208.5
SMDB - TN400D, O/G 100A 4 ways	DA40D1044CZZ0	-	4	57370	937	670	208.5
SMDB - TN400D, O/G 100A 8 ways	DA40D1084CZZ0	-	8	65370	1087	670	208.5
SMDB - TN400D, O/G 100A 12 ways	DA40D1124CZZ0	-	12	84050	1237	670	208.5
SMDB - TN400D, O/G 100A 16 ways	DA40D1164CZZ0	-	16	99070	1387	670	208.5
SMDB - TN630D, O/G 100A 8 ways	DA60D1084CZZ0	-	8	108390	1287	870	208.5
SMDB - TN630D, O/G 100A 12 ways	DA60D1124CZZ0	-	12	146380	1507	870	208.5
SMDB - TN630D, O/G 100A 16 ways	DA60D1164CZZ0	-	16	160450	1507	870	208.5
SMDB - TN630D, O/G 250A 4 ways	DA62D1044CZZ0	4	-	105560	1067	870	208.5
SMDB - TN630D, O/G 250A 8 ways	DA62D1084CZZ0	8	-	118230	1287	870	208.5
SMDB - TN630D, O/G 250A 12 ways	DA62D1124CZZ0	12	-	152010	1507	870	208.5
SMDB - TN630D, O/G 250A 16 ways	DA62D1164CZZ0	16	-	170310	1727	870	208.5
SMDB - TN630D, O/G COMBI 4 ways	DA6AD1044CZZ0	2	2	103450	1067	870	208.5
SMDB - TN630D, O/G COMBI 8 ways	DA6AD1084CZZ0	2	6	112600	1287	870	208.5
SMDB - TN630D, O/G COMBI 12 ways	DA6AD1124CZZ0	2	10	149190	1507	870	208.5
SMDB - TN630D, O/G COMBI 16 ways	DA6AD1164CZZ0	2	14	164670	1507	870	208.5

Incoming Device [8536]			
SMDB Type	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D*	DN1-250C 3 Pole MCCB - 160A	CM90638OOMO	15200
	DN1-250C 3 Pole MCCB - 200A	CM90638OONO	19070
	DN1-250C 3 Pole MCCB - 250A	CM90638OPO	21840
TN400D	DN3-400D 3 Pole MCCB - 320A	CM94005OOQ1OG	32600
	DN3-400D 3 Pole MCCB - 400A	CM94005OOR1OG	32600
TN630D	DN3-630D 3 Pole MCCB - 500A	CM94006OOS1OG	41980
	DN3-630D 3 Pole MCCB - 630A	CM94006OOT1OG	41980

Outgoing Device [8536]			
SMDB Type	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D, TN400D & TN630D	DN0-100C 3 Pole MCCB - 20A	CM91612OOCOOG	8340
	DN0-100C 3 Pole MCCB - 25A	CM91612OODOOG	8340
	DN0-100C 3 Pole MCCB - 32A	CM91612OOEOOG	8340
	DN0-100C 3 Pole MCCB - 40A	CM91612OOF0OG	8340
	DN0-100C 3 Pole MCCB - 50A	CM91612OOGOOG	8340
	DN0-100C 3 Pole MCCB - 63A	CM91612OOHOOG	8110
	DN0-100C 3 Pole MCCB - 80A	CM91612OOJOOG	8110
	DN0-100C 3 Pole MCCB - 100A	CM91612OOKOOG	8110
TN630D	DN1-250C 3 Pole MCCB - 160A	CM90638OOMO	15200
	DN1-250C 3 Pole MCCB - 200A	CM90638OONO	19070
	DN1-250C 3 Pole MCCB - 250A	CM90638OPO	21840

### Note:

- While ordering SMDB, incoming and outgoing MCCBs have to be ordered separately.
- Prices of MCCBs are not included in SMDB prices.
- \* TN250D - Suitable for DN1-250N, DU250 & DU250C MCCB as incomer.

DN0, DU100D & DU100H MCCBs are suitable as outgoing devices up to 100 A  
 DN1-250N, DU250 & DU250C MCCBs are suitable as outgoing devices up to 250 A

## Metering, Bottom Cabling & Corner Box

- Provision of 3 nos of 1-phase ammeter (96\*96), 1 nos of 1-phase voltmeter (96\*96) with selector switch and indicating lamps.

SMDB Type	Description	Cat. No.	M.R.P. (₹) Per Unit
TN250D & TN400D	Metering Extension Box	CM9043900PO	8300
	Bottom Cabling Box	CM904370000	7780
TN630D	Metering Extension Box	CM9106400TO	8750
	Bottom Cabling Box	CM910620000	8230
TN250D, TN400D & TN630D	Corner Box	CM910890000	2890
	Mounting base	CM702600000	3900



### Note:

- Ammeter, voltmeter, selector switch and indicating lights have to be ordered separately.
- Mounting base to be used without bottom cabling box.

## Side Cabling Box

SMDB Type	No. of Ways		Left		Right	
	250A	100A	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
TN250D	-	4	CM910850DOO	7960	CM910860DOO	7960
	-	8	CM910850FOO	10280	CM910860FOO	10280
	-	12	CM910850HOO	12320	CM910860HOO	12320
	-	16	CM910850KOO	14380	CM910860KOO	14380
TN400D	-	4	CM910870DOO	12320	CM910880DOO	12320
	-	8	CM910870FOO	14380	CM910880FOO	14380
	-	12	CM910870HOO	15750	CM910880HOO	15750
	-	16	CM910870KOO	17800	CM910880KOO	17800
TN630D	-	8	CM911200OFO	14920	CM911210OFO	14920
	-	12	CM911200OHO	17380	CM911210OHO	17380
	-	16				
	4	-	CM911200ODO	13370	CM911210ODO	13370
	8	-	CM911200OFO	14920	CM911210OFO	14920
	12	-	CM911200OHO	17380	CM911210OHO	17380
	16	-	CM911200OKO	18940	CM911210OKO	18940
	2	2	CM911200ODO	13370	CM911210ODO	13370
	2	6	CM911200OFO	14920	CM911210OFO	14920
	2	10	CM911200OHO	17380	CM911210OHO	17380
	2	14				



## Engineered to the Highest Standards



### Presenting Ti & Enersys – the new, design-verified power distribution solution from L&T Electrical & Automation (E&A)

The Ti & Enersys range of distribution boards are backed by many years of knowledge and experience in systems and switchgear, as well as feedback from consulting engineers, electrical contractors and end-users. With Ti & Enersys, you are assured of cutting-edge performance, superior safety, higher reliability, effective use of your capital and space, and high-class protection for your power distribution systems.

Ti & Enersys are design verified solution complying with latest IEC-61439 standard and available up to 5000A & 4000A rating respectively. It offers unique blend of quality, safety and standardization.

Ti & Enersys offering through E&As authorized franchisee network further gives edge as cost competitiveness and localized support for all future needs. Moreover, these systems feature a fully-compartmentalized design, with an option of aluminum or copper busbars – ensuring quicker delivery and easier installation.

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lnitebg.com](mailto:cic@Lnitebg.com) Web: [www.Lnitebg.com](http://www.Lnitebg.com)

# Smart is in Connected Products



SmartComm Power Management Solutions | Integration | Monitoring | Protection | Control | Reporting

SmartComm PMS is an unified software platform for device communication, integration, data acquisition, data management, monitoring & control.

SmartComm PMS has built-in features of Energy Monitoring, Controlling and Monitoring Switchgears and Management functionality.

This single platform integrates E&A's complete communicable product offerings ranging from Digital Panel Meters, Circuit Breakers, Protection Relays, AC Drives, Soft Starters to Final Distribution Products.



**Key Features:**  
Dashboards  
SLDs  
Reports  
Trends  
Alerts  
Web Clients  
OPC Driver  
Redundancy

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Tel: 022 6774 5858 Email: cic@lntebg.com Web: www.lntebg.com

**SmartComm**  
Power Management Solutions



U-POWER

## OMEGA Range of Air Circuit Breakers

Air Circuit Breakers

- Complete range conforms to IS/IEC 60947-2 & IEC 60947-2
- Current Rating from **400A to 6300A in 3 Frame sizes** for application voltages **upto 690V AC**
- Special ACB range available for Voltage Applications **upto 800V AC and 1000V AC#**
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed/Draw-out version
- Common Height & Depth across the range
- High short time fault withstand capacity,  $I_{cu} = I_{cs} = I_{cw}$  for 1 sec for total selectivity
- High mechanical and electrical operating life
- Neutral pole is 100% rated, option of 50% & 200% rated neutral also available
- Available in standard NRYB & RYBN/NBYR/BYRN configurations in 4 Pole ACBs **with on-site change facility**
- In-built Electrical & Mechanical Anti-Pumping
- Modular & snap-fit accessories
- Ease of on-site conversion from Fixed to Draw-out version
- Pollution Degree 4 suitability
- Best in Class Overlap with Bus bars
- Break Time of 25msec
- RoHS Compliant

### Matrix Protection & Control Units:

- Available in versions - MTX1.0/1G/1Gi/1.5G/1.5Gi, MTX3.5/3.5EC/3.5H & MTX4.5
- Unique O-LED display for metering
- Touch screen technology in UW-MTX4.5
- Unique withdrawable Communication & Power metering modules
- Dual protection curve settings & Password protection
- Soft-rating plug for precise protection at lower load currents
- Provision for on-load self-diagnosis of Releases & modules
- Data communication on Modbus, Profibus & wireless Zigbee protocols
- Power & Harmonics measurement
- Temperature rise monitoring & protection
- Easy to integrate with HMI & PLC
- Add-on modules for advance protections
- Protection Releases conform to EMI/EMC standard



UW-MTX1.0



UW-MTX1G



UW-MTX1Gi



UW-MTX1.5G



UW-MTX1.5Gi



UW-MTX3.5/3.5EC/3.5H



UW-MTX4.5

### Breaking Capacities Offered:

at 415V/440V AC (Please refer Catalogue for Breaking Capacities above 440V AC)

		I <sub>cu</sub> = I <sub>cs</sub> = I <sub>cw</sub> for 1 sec									
Rated current		800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Frame-1	N : 50kA	■	■	■	■	■	■	■	■	■	■
	S : 65kA	■	■	■	■	■	■	■	■	■	■
	H : 80kA	■	■	■	■	■	■	■	■	■	■
		UW1-08	UW1-10	UW1-12	UW1-16	UW1-20	UW1-25				
Frame-2	N : 50kA	■	■	■	■	■	■	■	■	■	■
	S : 65kA	■	■	■	■	■	■	■	■	■	■
	H : 80kA	■	■	■	■	■	■	■	■	■	■
		UW2-08	UW2-10	UW2-12	UW2-16	UW2-20	UW2-25	UW2-32	UW2-40		
Frame-3	H : 80kA	■	■	■	■	■	■	■	■	■	■
	V : 100kA	■	■	■	■	■	■	■	■	■	■
		UW3-08	UW3-10	UW3-12	UW3-16	UW3-20	UW3-25	UW3-32	UW3-40	UW3-50	UW3-63

Note: 400A & 630AACBs are also available on request. # Please contact the nearest branch office for more details of 1000V AC ACBs



## OMEGA ACB ordering information:

Air Circuit Breakers

**UW 1 08 N X D 1 2 9 0 0# UW1 800N 3P ED 1.5G BotV**

Frame Size	
Frame - I	1
Frame - II	2
Frame - III	3

Current Ratings	
400A	04
630A	06
<b>800A</b>	<b>08</b>
1000A	10
1250A	12
1600A	16
2000A	20
2500A <sup>(4)</sup>	25
3200A	32
4000A	40
5000A	50
6300A	63

Selection for Breaking Capacity (Icu=Ics) <sup>(1)</sup>	
50kA (Fr-I upto 2000A & Fr-II upto 3200A)	N
65kA (Fr-I & Fr-II)	S
80kA (Fr-I, Fr-II & Fr-III)	H
100kA (Fr-III)	V

**Please Note :**

- <sup>(1)</sup> For Icu values please refer product catalogue
- <sup>(2)</sup> Other options of control voltage are available as accessory
- <sup>(3)</sup> Temperature protection is available in UW-MTX3.5/3.5EC/3.5H/4.5
- <sup>(4)</sup> For Fr-1, 2500A selection, please contact the nearest branch office
- <sup>(5)</sup> For system requiring 690V metering, kindly order separate Power Metering module with MTX 3.5 (refer page 58)

Selection for Termination (For Drawout ACBs Only)	
Standard Termination	0
For Top Horizontal (Long), Bottom Vertical for Fr2 & Fr3	X
For Top & Bottom Horizontal (Long) for Fr3	Y

Note: X is applicable for 4000A (Fr2 & Fr3) and 5000A (Fr3).  
Y is applicable for 4000A (Fr3) & 5000A (Fr3).  
X & Y recommended for Buscoupler only.

Temperature Rise Monitoring <sup>(3)</sup>	
Not Required	0
Required	1

Selection for P&C Units	
B/C (w/o protection)	0
UW - MTX1.0	7
UW - MTX1G	8
UW - MTX1Gi	B
<b>UW - MTX1.5G</b>	<b>9</b>
UW - MTX1.5Gi	C
UW-MTX3.5	3
UW-MTX3.5EC <sup>(5)</sup>	4
UW-MTX4.5	5
UW-MTX3.5H	6

Type	
Manually Operated	1
<b>Electrically Operated</b>	<b>2</b>

Selection for control voltage <sup>(2)</sup>	
For Manually Operated	0
<b>240V AC/DC ECD &amp; CR + 240V AC/DC SR</b>	<b>1</b>
240V AC/DC ECD & CR + 24V DC SR	2
110V AC/DC ECD & CR + 110V AC/DC SR	3
240V AC/DC ECD & CR + 110V AC/DC SR	4

Version	
Draw-out	<b>D</b>
Fixed	F

Selection for No. of Poles	
<b>3 Pole</b>	<b>X</b>
4 Pole 100% N	F
4 Pole 50% N (in Fr-III only)	H
4 Pole 200% N (upto 2500A)	D

## OMEGA ACBs are offered with following standard features:

Air Circuit Breakers

- Draw-out Version :** Omega ACBs with UW-MTX release will have inbuilt-  
Current Metering (MTX 1.5G/1.5Gi/3.5/3.5EC/3.5H/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Smart-racking shutter, Safety shutter assembly, Racking Handle, Door sealing frame, Pad-locking arrangement for ON/OFF button, Rating Error Preventer, Arc shield.
- A) For ratings upto 1600A, one side vertical terminal adaptors (Bottom) for Frame 1, 2 & 3.
  - B) For ratings 2000A & above, both side vertical terminal adaptors (Top & Bottom) for Frames 1, 2 & 3.
  - C) For rating 4000A and above operation counter inbuilt for Frames 2 & 3 both.
- Fixed Version :** Omega ACBs with UW-MTX release will have inbuilt-  
Current Metering (1.5G/1.5Gi/3.5/3.5EC/3.5H/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Door sealing frame & Pad-locking arrangement for ON/OFF push button.
- A) For ratings upto 1600A, one side vertical terminal adaptors (Bottom) for Frames 1, 2 & 3.
  - B) For ratings 2000A & above, both side vertical terminal adaptors (Top & Bottom) for Frames 1, 2 & 3.
  - C) For ratings 4000A & above, operation counter inbuilt for Frames 2 & 3 both.
- Electrically operated ACB includes ECD, CR & SR as per selection of above mentioned control voltage options.

# Please contact the nearest branch office for more details of 1000V AC ACBs

## 3 Pole ACBs upto 690V AC with UW-MTX1G (LSING - BCD Switches) [8536]



Current Rating	Version	3 Pole Manual Draw-out ACB with UW-MTX1G							
		N (50kA @ 415 AC)		S (65kA @ 415 AC)		H (80kA @ 415 AC)		V (100kA @ 415 AC)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NXD01800	*	UW108SXD01800	*	UW108HXD01800	*	UW308VXD01800	*
1000A		UW110NXD01800		UW110SXD01800		UW110HXD01800		UW310VXD01800	
1250A		UW112NXD01800		UW112SXD01800		UW112HXD01800		UW312VXD01800	
1600A		UW116NXD01800		UW116SXD01800		UW116HXD01800		UW316VXD01800	
2000A		UW120NXD01800		UW120SXD01800		UW120HXD01800		UW320VXD01800	
2500A		UW225NXD01800		UW225SXD01800		UW225HXD01800		UW325VXD01800	
3200A		UW232NXD01800		UW232SXD01800		UW232HXD01800		UW332VXD01800	
4000A		-		UW240SXD01800		UW240HXD01800		UW340VXD01800	
4000A		-		-		UW340HXD01800		UW340VXD01800	
5000A		-		-		UW350HXD01800		UW350VXD01800	
6300A		-		-		UW363HXD01800		UW363VXD01800	

3 Pole Manual Fixed ACB with UW-MTX1G									
800A	MF	UW108NXF01800	*	UW108SXF01800	*	UW108HXF01800	*	UW308VXF01800	*
1000A		UW110NXF01800		UW110SXF01800		UW110HXF01800		UW310VXF01800	
1250A		UW112NXF01800		UW112SXF01800		UW112HXF01800		UW312VXF01800	
1600A		UW116NXF01800		UW116SXF01800		UW116HXF01800		UW316VXF01800	
2000A		UW120NXF01800		UW120SXF01800		UW120HXF01800		UW320VXF01800	
2500A		UW225NXF01800		UW225SXF01800		UW225HXF01800		UW325VXF01800	
3200A		UW232NXF01800		UW232SXF01800		UW232HXF01800		UW332VXF01800	
4000A		-		UW240SXF01800		UW240HXF01800		UW340VXF01800	
4000A		-		-		UW340HXF01800		UW340VXF01800	
5000A		-		-		UW350HXF01800		UW350VXF01800	
6300A		-		-		UW363HXF01800		UW363VXF01800	

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
MDO to EDO or MF to EF Conversion kit (ECD + CR + SR)	*
Buscoupler (without protection release)	
UW-MTX1.0 (LSI - BCD Switches)	
UW-MTX1Gi (LSING + Inbuilt ZSI - BCD Switches)	
UW-MTX1.5G (LSING + Current Metering - BCD Switches)	
UW-MTX1.5Gi (LSING + Current Metering + Inbuilt ZSI - BCD Switches)	
UW-MTX3.5 (LSING + Current Metering) + can be upgraded for Power Metering & Communication	
UW-MTX3.5EC (LSING + Power Metering + Communication)	
UW-MTX3.5H (LSING + Power Metering + Harmonic Metering)	
UW-MTX4.5 (LSING + Power Metering + Harmonic Metering + Communication with Touch Screen navigation + UW-PS Module)	
UW-PS (Auxiliary power supply module for display in No-load or OFF condition) <sup>§</sup>	
COM Module (MODBUS) for communication <sup>§</sup>	
PM Module for power metering <sup>§</sup>	

\* Available on request

§ Chapter ID [8538]

## 4 Pole ACBs upto 690V with UW-MTX1G (LSING - BCD Switches) [8536]



Current Rating	Version	4 Pole Manual Draw-out ACB with UW-MTX1G							
		N (50kA @ 415 AC)		S (65kA @ 415 AC)		H (80kA @ 415 AC)		V (100kA @ 415 AC)	
		Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	MDO	UW108NFD01800	*	UW108SFD01800	*	UW108HFD01800	*	UW308VFD01800	*
1000A		UW110NFD01800		UW110SFD01800		UW110HFD01800		UW310VFD01800	
1250A		UW112NFD01800		UW112SFD01800		UW112HFD01800		UW312VFD01800	
1600A		UW116NFD01800		UW116SFD01800		UW116HFD01800		UW316VFD01800	
2000A		UW120NFD01800		UW120SFD01800		UW120HFD01800		UW320VFD01800	
2500A		UW225NFD01800		UW225SFD01800		UW225HFD01800		UW325VFD01800	
3200A		UW232NFD01800		UW232SFD01800		UW232HFD01800		UW332VFD01800	
4000A		-		UW240SFD01800		UW240HFD01800		UW340VFD01800	
4000A		-		-		UW340HFD01800		UW340VFD01800	
5000A		-		-		UW350HFD01800		UW350VFD01800	
6300A	-	-	UW363HFD01800	UW363VFD01800					

4 Pole Manual Fixed ACB with UW-MTX1G									
800A	MF	UW108NFF01800	*	UW108SFF01800	*	UW108HFF01800	*	UW308VFF01800	*
1000A		UW110NFF01800		UW110SFF01800		UW110HFF01800		UW310VFF01800	
1250A		UW112NFF01800		UW112SFF01800		UW112HFF01800		UW312VFF01800	
1600A		UW116NFF01800		UW116SFF01800		UW116HFF01800		UW316VFF01800	
2000A		UW120NFF01800		UW120SFF01800		UW120HFF01800		UW320VFF01800	
2500A		UW225NFF01800		UW225SFF01800		UW225HFF01800		UW325VFF01800	
3200A		UW232NFF01800		UW232SFF01800		UW232HFF01800		UW332VFF01800	
4000A		-		UW240SFF01800		UW240HFF01800		UW340VFF01800	
4000A		-		-		UW340HFF01800		UW340VFF01800	
5000A		-		-		UW350HFF01800		UW350VFF01800	
6300A	-	-	UW363HFF01800	UW363VFF01800					

\* Available on request

## Accessories of OMEGA Air Circuit Breakers [8538]

Air Circuit Breakers

### Terminal Adaptor configuration upto 690V AC



Draw-out ACBs Terminal Adaptors



Fix ACBs Terminal Adaptors

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Terminal Adaptor for Draw-out Omega ACBs</b>		
Frame-1 400-2000A N/S/H (Vertical / Horizontal)	CL609630000	*
Frame-1 2500A S/H (Vertical)	CL609640000	
Frame-2 400-3200A N/S/H (Vertical / Horizontal)		
Frame-2 4000A S/H (Vertical)	CL604200000	
Frame-2 4000A S/H (Horizontal)	CL603160000	
Frame-3 400-4000A H/V (Vertical) #	CL601280000	
Frame-3 400-4000A H/V (Horizontal-Long)	CL600730000	
Frame-3 5000A H/V (Horizontal-Long)	CL609660000	
Frame-3 5000A H/V (Vertical)#	CL600670000	
Frame-3 6300A H/V (Vertical) #	CL609650000	

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Terminal Adaptor for Fixed Omega ACBs</b>		
Frame-1 400-2000A N/S (Vertical / Horizontal)	CL609670000	*
Frame-1 400-2000A H (Vertical / Horizontal)	CL609680000	
Frame-1 2500A S/H (Vertical)	CL609760000	
Frame-2 400-2500A N/S (Vertical / Horizontal)	CL601220000	
Frame-2 400-3200A H, 3200A N/S (Vertical / Horizontal)	CL609770000	
Frame-2 4000A S/H (Vertical)	CL604170000	
Frame-3 400-4000A H/V (Vertical)#	CL604180000	
Frame-3 5000A H/V (Vertical)#	CL603470000	
Frame-3 400-5000A H/V (Horizontal-Long)	CL603730000	

# : Please consider 4 terminal adaptors per phase.

# : Please consider 4 terminal adaptors per phase.



## 800V AC ACBs with UW-MTX1G (LSING - BCD Switches) [8536]

Breaking Capacity @ 800V AC (Icu=Ics=Icw for 1s)



800V AC Manual Fix/Draw-out ACB with UW-MTX1G										
Current Rating	Frame	Breaking Capacity @ 800V AC	3P				4P			
			Fix		Draw-out		Fix		Draw-out	
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	1	50kA	UW108NXF0180ZM	*	UW108NXD0180ZM	*	UW108NFF0180ZM	*	UW108NFD0180ZM	*
1000A			UW110NXF0180ZM		UW110NXD0180ZM		UW110NFF0180ZM		UW110NFD0180ZM	
1250A			UW112NXF0180ZM		UW112NXD0180ZM		UW112NFF0180ZM		UW112NFD0180ZM	
1600A			UW116NXF0180ZM		UW116NXD0180ZM		UW116NFF0180ZM		UW116NFD0180ZM	
2000A			UW120NXF0180ZM		UW120NXD0180ZM		UW120NFF0180ZM		UW120NFD0180ZM	
2000A	2	50kA	UW220NXF0180ZM	*	UW220NXD0180ZM	*	UW220NFF0180ZM	*	UW220NFD0180ZM	*
2500A			UW225NXF0180ZM		UW225NXD0180ZM		UW225NFF0180ZM		UW225NFD0180ZM	
3200A			UW232NXF0180ZM		UW232NXD0180ZM		UW232NFF0180ZM		UW232NFD0180ZM	
4000A			-		UW240NXD0180ZM		-		UW240NFD0180ZM	
3200A	3	50kA	UW332NXF0180ZM	*	UW332NXD0180ZM	*	UW332NFF0180ZM	*	UW332NFD0180ZM	*
4000A			UW340NXF0180ZM		UW340NXD0180ZM		UW340NFF0180ZM		UW340NFD0180ZM	
5000A			UW350NXF0180ZM		UW350NXD0180ZM		UW350NFF0180ZM		UW350NFD0180ZM	
3200A	3	65kA	UW332SXF0180ZM	*	UW332SXD0180ZM	*	UW332SFF0180ZM	*	UW332SFD0180ZM	*
4000A			UW340SXF0180ZM		UW340SXD0180ZM		UW340SFF0180ZM		UW340SFD0180ZM	
5000A			UW350SXF0180ZM		UW350SXD0180ZM		UW350SFF0180ZM		UW350SFD0180ZM	

- Note: 1. Above mentioned Cat. No. of ACBs are without Terminal Adaptors. Please consider Terminal Adaptors from below table.  
 2. Phase-Barrier are mandatory to be used with 800V AC ACBs:  
 (a) For Draw-out ACBs, Phase-Barrier are provided as standard supply along with ACBs  
 (b) For Fix ACBs, kindly consider Phase-Barrier from below table

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
Buscoupler (without protection release)	*
UW-MTX1.0 (LSI - BCD switch for selection)	
UW-MTX1G (LSING - BCD switch for selection)	
UW-MTX1.5G (LSING + display - BCD switch for selection)	
UW-MTX3.5 (LSING + Display + Option for other features)	
UW-TM - Temperature Rise Module ( for MTX3.5)	
<b>MDO to EDO or MF to EF Conversion kit (ECD + CR + SR)</b>	
COM Module (MODBUS) for communication	
UW-PS (Auxiliary power supply module for display in No-load or OFF condition)	

## Terminal Adaptors for 800V ACBs [8538]

Current Rating	Frame	Fix			Draw-out		
		Cat. No.	M.R.P. (₹) Per Unit	Qty (3P/4P)	Cat. No.	M.R.P. (₹) Per Unit	Qty (3P/4P)
630A	1	CL609670000	*	(6/8)	CL609630000	*	(6/8)
800A		CL609670000		(6/8)	CL609630000		(6/8)
1000A		CL609670000		(6/8)	CL609630000		(6/8)
1250A		CL609670000		(6/8)	CL609630000		(6/8)
1600A		CL609670000		(6/8)	CL609630000		(6/8)
2000A		CL601220000		(6/8)	CL609640000		(6/8)
2000A	2	CL609770000	*	(6/8)	CL609640000	*	(6/8)
2500A		CL603180000		(6/8)	CL609640000		(6/8)
3200A		CL604170000		(6/8)	CL604190000		(6/8)
4000A		-		-	CL604200000		(6/8)
3200A	3	CL604180000	*	(12/16)	CL601280000	*	(12/16)
4000A		CL604180000		(12/16)	CL600670000		(12/16)
5000A		CL603470000		(12/16)	CL609650000		(12/16)



## Phase-Barrier for 800V AC Fix ACBs [8538]

Cat. No.	Type	Pole	M.R.P. (₹) Per Unit	Qty. per ACB
CL912580000	Fix	3P	*	2
CL912590000	Fix	4P		2

Note: Please contact the nearest branch office for more details of 1000V AC ACBs

\* Available on request

U-POWER  
Accessories of **OMEGA** Air Circuit Breakers  
Air Circuit Breakers



Operation Counter



Door Interlock

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Other Accessories [8538]</b>		
Operation Counter	CL909830000#	*
Door Interlock	CL909780000	
Electrical Position Indication (EPI)	CL958260000	
<b>Microswitches for Indication [8536]</b>		
Microswitch for Common Fault Indication (CFI)	CL909490000	*
Microswitch for Ready To Close Indication (RTC)	CL909530000^	
Microswitch for Shunt Release	CL909510000	
Microswitch for Undervoltage Release	CL909470000	
Microswitch for Spring Charging Indication	ST426720000	

^ Cradle SIC block CL958250000 needs to be ordered separately, If EPI not installed in same ACB

# Operation Counter inbuilt for rating 4000A to 6300A



R-Lock



C-Lock

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Mechanical Interlock using Key &amp; Lock\$</b>		
R - Lock Type - 1	CL006590000	*
R - Lock Type - 2	CL006600000	
R - Lock Type - 3	CL006610000	
R - Lock Type - 12	CL006620000	
R - Lock Type - 23	CL006630000	
Locking arrangement for OFF button with R - Lock (on breaker)	CL908150000	
Locking arrangement for ISO position with R - Lock (on Cradle)	CL908650000	
Locking arrangement for ANY position with R - Lock (on Cradle)	CL909270000	
C - Lock Type - S	CL006640000	
C - Lock Type - T	CL006650000	
C - Lock Type - ST	CL006660000	
C - Lock Type - SS	CL006670000	
C - Lock Type - TT	CL006680000	
Locking arrangement for OFF button with C - Lock (on breaker)	CL908140000	
Locking arrangement for ISO position for C - Lock (on Cradle)	CL909820000	
Locking arrangement for ANY position with C - Lock (on Cradle)	CL909810000	

**Note:** For Mechanical Interlock using Key & Lock please order combination of Lock and Locking arrangement.

\* Available on request \$ Only locks [8301] Locking arrangement [8538]



Closing Release



Shunt Release



UV Release

Description	Cat. No.	M.R.P. (₹) Per Unit	
<b>Electrical Charging Device (ECD) [8501]</b>			
24-30V DC	CL903620000	*	
48/60V DC	CL903630000		
110V AC / 110-125V DC	CL903600000		
220V AC / 200V DC	CL903640000		
240V AC / 250V DC	CL903590000		
415V AC / 400V DC	CL903610000		
<b>Closing Release (CR) [8538]</b>			
24-30V DC	CL908174000	*	
48/60V DC	CL908175000		
110V AC / 110V DC	CL90817A000		
125/127V DC	CL908171000		
220 - 240V AC / 220 - 250V DC	CL90817B000		
415V AC	CL90817D000		
<b>Shunt Release (SR) [8538]</b>			
24-30V DC	CL908160400		*
48/60V DC	CL908160500		
110V AC / 110V DC	CL908160A00		
125/127V DC	CL908160100		
220 - 240V AC / 220 - 250V DC	CL908160B00		
415V AC	CL908160D00		
<b>Under Voltage Release (UVR) with time delay (0-1-3-5 sec) [8538]</b>			
24-30V DC	CL908184000	*	
48V DC	CL908185000		
110V AC / 110V DC	CL90818A000		
240V AC / 220V DC	CL90818B000		
415V AC	CL90818D000		



NCT

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>External Neutral CT for UW-MTX Releases [8504]</b>		
Frame-1, 2 & 3 400-800A	CL007170000	*
Frame-1, 2 & 3 1000-1600A	CL007180000	
Frame-1 2000-2500A	CL007190000	
Frame-2 & 3 2000-4000A	CL007200000	
Frame-3 5000-6300A	CL007210000	

**Automatic Transfer Controllers (ATC) [9032]**



AuXC-2000 Controller

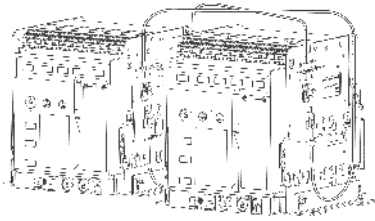
Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-2000 controller	ATC20000000	30100	1

Can be used along with ACB, Motorised MCCBs, MCX contactors & Motorised Changeover switches



For AuXC 2000 programming videos and more details please scan the QR code or click here

U-POWER  
Accessories of **OMEGA** Air Circuit Breakers  
Air Circuit Breakers



**Mechanical Interlock using Bowden Cable [8538]**

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Mechanical Interlock using Bowden Cable (5 meters length)</b>		
Between 2 Incomers	CL906630000	*
Between 3 Incomers	CL906640000	
Between 2 Incomers & 1 Standby	CL906650000	
Between 2 Incomers & 1 Buscoupler	CL906660000	
<b>Mechanical Interlock using Bowden Cable (3 meters length)</b>		
Between 2 Incomers	CL906590000	*
Between 3 Incomers	CL906600000	
Between 2 Incomers & 1 Standby	CL906610000	
Between 2 Incomers & 1 Buscoupler	CL906620000	
<b>Mechanical Interlock using Bowden Cable (2 meters length)</b>		
Between 2 Incomers	CL908100000	*
Between 3 Incomers	CL908110000	
Between 2 Incomers & 1 Standby	CL908120000	
Between 2 Incomers & 1 Buscoupler	CL908130000	

**Note:** Common from 400A to 6300A and can be interlocked between Fixed / Draw-out / Mixed version

\* Available on request



**MODBUS Module**



**Power Metering Module**

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>MATRIX Releases &amp; Modules [8538]</b>		
UW-MTX1.0	CL919660000	*
UW-MTX1G	CL919710000	
UW-MTX1Gi	CL905620000	
UW-MTX1.5G	CL919650000	
UW-MTX1.5Gi	CL905520000	
UW-MTX3.5	CL906450000	
UW-MTX3.5EC	CL906440000	
UW-MTX3.5H	CL906460000	
UW-MTX4.5	CL906470000	
Power supply module	CL907220000	
Relay Module	CL907160000	
MODBUS Module	CL907090000	
Profibus Module	CL902950000	
Matrix Smart Card Module	CL907050000	
Power Metering Module (415V)	CL906490000	
Power Metering Module (690V)	CL906850000	
ZSI Module	CL907180000	
TCS Module	CL907190000	
EL Module	CL907200000	
REF Module	CL907210000	
Simulation Kit	CL907240000	

For Energy Management Communication Software Please contact the nearest branch office

## Upgrade to the new-age OMEGA ACB with Minimal Modifications



**Pre-Engineered Retrofit Solution**  
Upgrade E&A CNCS ACB to OMEGA ACB



### Presenting the pre-engineered L&T Electrical & Automation (E&A) CNCS to OMEGA Retrofit kit

The E&A CNCS to OMEGA Retrofit kit is a pre-engineered solution which allows you to upgrade from the old CNCS ACB to the advanced E&A OMEGA ACB - with minimal modification. All installations are done by trained Engineers from the nearest E&A Authorised Service Centre to ensure total reliability and minimum shut-down time.

#### Specifications

- ETP grade Copper links with Silver Plating
- CNCS to OMEGA Retrofit solution is available from 800A to 3200A



For more details please scan the QR code or click here

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

For retrofitting of any ACB to Omega ACB please contact the nearest branch office

# C-POWER Air Circuit Breakers

## C-POWER S1 Range of Air Circuit Breakers

- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 3200A
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- High short time withstand capacity,  $I_{cu} = I_{cs} = I_{cw}$  for 1 sec for total selectivity
- High mechanical and electrical operating life
- 100% rated neutral pole
- Common height and depth across the range
- Protection through Thermal - Magnetic (DN1) & Microprocessor releases (SR18G, SR18G+D & SR18Gi+D)
- Self diagnostic Microprocessor based Releases with on-load testing through TEST button
- Inbuilt thermal memory
- Protection Releases conform to EMI/EMC standards
- Breaker Status and Control through MODBUS protocol (UN-CO module)



C-POWER S1 ACB



C-POWER ACB

## C-POWER Range of Air Circuit Breakers

- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Current rating from 800A to 6300A
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- High short time fault withstanding capacity,  $I_{cu} = I_{cs} = I_{cw}$  for 1 sec for total selectivity
- High mechanical and electrical operating life
- 100% rated neutral pole
- Protection through Thermal - Magnetic (DN1) & Microprocessor releases (SR18G, SR18G+D, SR18Gi+D & SR71)
- Self diagnostic Microprocessor based Releases with on-load testing through TEST button
- Inbuilt thermal memory
- Protection Releases conform to EMI/EMC standards
- Data communication & Power Management
- Breaker Status and Control through MODBUS protocol (UN-CO module)

## C-POWER HE ACBs for Harsh Environment

- Designed to operate at peak efficiency in Sulphur-rich environments
- Range 1250A to 5000A, 415/690V ac
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed and Draw-out versions
- Protection through Microprocessor release
- Operates reliably in 3C4 environmental conditions of SO<sub>2</sub> and H<sub>2</sub>S

Please contact the nearest branch office for Details & product Selection



C-POWER HE Range

## Breaking Capacities Offered:

		I <sub>cu</sub> = I <sub>cs</sub> = I <sub>cw</sub> for 1 sec										
		630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
CN-CS : E / G		50kA	50kA	50kA	50kA	50kA	50kA					
	Frame-1											
CN-CS : S1		50kA	50kA	50kA	50kA	50kA	50kA	60kA	60kA			
	Frame-1							Frame-2				
CN-CS : C			50kA	50kA	50kA	50kA	55kA	60kA			95kA	95kA
CN-CS : H			65kA	65kA	65kA	65kA	75kA	75kA				
CN-CS : H2									75kA	75kA		
CN-CS : H / H1									100kA	100kA		
CN-CS : HE					50kA		60kA		75kA		95kA	
	Frame-1					Frame-2		Frame-3		Frame-4		

For technical & dimension details please refer product catalogue. 400AACB also available on request.

# C-POWER Air Circuit Breakers [8536]



## C-POWER S1 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
630A	50kA	MDO
		EDO
800A	50kA	MDO
		EDO
1000A	50kA	MDO
		EDO
1250A	50kA	MDO
		EDO
1600A	50kA	MDO
		EDO
2000A	50kA	MDO
		EDO
2500A	60kA	MDO
		EDO

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL96041	186980	SL96061	234640
SL96051	233480	SL96071	281140
SL96042	186980	SL96062	234640
SL96052	233480	SL96072	281140
SL96043	194470	SL96063	245750
SL96053	240970	SL96073	292250
SL96044	214530	SL96064	270720
SL96054	261030	SL96074	317220
SL96045	243990	SL96065	300070
SL96055	290490	SL96075	346570
SL96046	286590	SL96066	352020
SL96056	333090	SL96076	398520
SL96047	354290	SL96067	426940
SL96057	400790	SL96077	473440

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95331	181480	SL95351	229140
SL95341	227980	SL95361	275640
SL95332	181480	SL95352	229140
SL95342	227980	SL95362	275640
SL95333	188970	SL95353	240250
SL95343	235470	SL95363	286750
SL95334	209030	SL95354	265220
SL95344	255530	SL95364	311720
SL95335	238490	SL95355	294570
SL95345	284990	SL95365	341070
SL95336	281090	SL95356	346520
SL95346	327590	SL95366	393020
SL95337	348790	SL95357	421440
SL95347	395290	SL95367	467940

Note : Add a Suffix "OOOO" for all the above mentioned cat. nos.

## C-POWER S1 3 & 4 Pole Fixed ACBs

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
630A	50kA	MF
		EF
800A	50kA	MF
		EF
1000A	50kA	MF
		EF
1250A	50kA	MF
		EF
1600A	50kA	MF
		EF

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95561	116600	SL95581	148550
SL95571	163100	SL95591	195050
SL95562	116600	SL95582	148550
SL95572	163100	SL95592	195050
SL95563	127340	SL95583	160610
SL95573	173840	SL95593	207110
SL95564	146620	SL95584	183290
SL95574	193120	SL95594	229790
SL95565	162650	SL95585	209080
SL95575	209150	SL95595	255580

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95481	111100	SL95501	143050
SL95491	157600	SL95511	189550
SL95482	111100	SL95502	143050
SL95492	157600	SL95512	189550
SL95483	121840	SL95503	155110
SL95493	168340	SL95513	201610
SL95484	141120	SL95504	177790
SL95494	187620	SL95514	224290
SL95485	157150	SL95505	203580
SL95495	203650	SL95515	250080

Note : Add a Suffix "OOOO" for all the above mentioned cat. nos.

M.R.P. changes for product customization w.r.t. SR18G ACB M.R.P.		M.R.P. (₹) Per Unit
Bus - Coupler (w/o protection)	Reduce	14200
Microprocessor based SR18G+D (LSING + Current Metering)	Add	13000
Microprocessor based SR18Gi+D (LSING + Current metering + ZSI)	Add	14500

**C-POWER S1 Draw-Out ACBs** will have inbuilt - 2NO+2NC Aux contact for MDO & 6NO+6NC Aux contact for EDO breakers, Safety shutter assembly, Racking handle, Door sealing frame, Push-button cover & Rating error preventor.

**C-POWER S1 Fixed ACBs** will have inbuilt - 2NO+2NC Aux contact for MF & 6NO+6NC Aux contact for EF breakers, Door sealing frame & Push-button cover.

Electrical version includes 240V AC Shunt trip coil, Closing coil and Motor for electrical charging.

**Note:** 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.

In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

## CN-CS...E Range 3 Pole Manual Fixed

Rating	Breaking Capacity Icu=Ics=Icw (1 sec)	Version
400A	50kA	3P MF
630A	50kA	3P MF
800A	50kA	3P MF
1000A	50kA	3P MF
1250A	50kA	3P MF
1600A	50kA	3P MF
2000A	50kA	3P MF

Thermal-Magnetic Release Type DN1	
Cat. No.	M.R.P. (₹) Per Unit
SL957210000	76570
SL957220000	77250
SL957230000	81750
SL957240000	83850
SL957250000	109840
SL957260000	115650
SL932970000	132710



# C-POWER Air Circuit Breakers [8536]



## C-POWER 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity I <sub>cu</sub> =I <sub>cs</sub> =I <sub>cw</sub> (1 sec)	Version	Type	Microprocessor Based SR18G				Thermal-Magnetic DN1			
				3 Pole		4 Pole		3 Pole		4 Pole	
				Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	65kA	MDO	H	SL95311	306020	#	396500	#	300520	#	391000
		EDO	H	SL95321	352520	#	443000	#	347020	#	437500
1000A	65kA	MDO	H	SL95312	311570	#	421400	#	306070	#	415900
		EDO	H	SL95322	358070	#	467900	#	352570	#	462400
1250A	65kA	MDO	H	SL95313	340700	#	451870	#	335200	#	446370
		EDO	H	SL95323	387200	#	498370	#	381700	#	492870
1600A	65kA	MDO	H	SL95314	383410	#	497480	#	377910	#	491980
		EDO	H	SL95324	429910	#	543980	#	424410	#	538480
2000A	75kA	MDO	H	SL95315	431890	#	527710	#	426390	#	522210
		EDO	H	SL95325	478390	#	574210	#	472890	#	568710
2500A	75kA	MDO	H	SL95316	440960	#	532030	#	435460	#	526530
		EDO	H	SL95326	487460	#	578530	#	481960	#	573030
3200A	75kA	MDO	H2	SL94822	447610	SL94826	549380	SL94814	442110	SL94818	543880
		EDO	H2	SL94824	494110	SL94828	595880	SL94816	488610	SL94820	590380
4000A	75kA	MDO	H2	SL94823	518210	SL94827	672170	SL94815	512710	SL94819	666670
		EDO	H2	SL94825	564710	SL94829	718670	SL94817	559210	SL94821	713170
5000A	95kA	MDO/EDO	C	#	*	#	*	#	*	#	*
6300A	95kA	MDO/EDO	C	#	*	#	*	#	*	#	*

**Note:** For higher breaking capacities & 690V AC application please contact the nearest branch office  
Add a Suffix "OOOO" for all the above mentioned cat. nos.

## C-POWER 3 & 4 Pole Manual Fixed ACBs

Rating	Breaking Capacity I <sub>cu</sub> =I <sub>cs</sub> =I <sub>cw</sub> (1 sec)	Version	Type	Microprocessor Based SR18G				Thermal-Magnetic DN1			
				3 Pole		4 Pole		3 Pole		4 Pole	
				Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
800A	50kA	MF	C	*							
1000A	50kA			*							
1250A	50kA			*							
1600A	50kA			*							
2000A	55kA			*							
2500A	60kA			*							
				SL97635	214450	#	278170	SL93005	208950	#	272670
				SL97636	236300	#	318560	SL93006	230800	#	313060

**Note:** For higher breaking capacities & 690V AC application please contact the nearest branch office  
Add a Suffix "OOOO" for all the above mentioned cat. nos.

M.R.P. changes for product customization w.r.t. SR18G M.R.P.		M.R.P. (₹) Per Unit
Bus-Coupler (w/o protection)	Reduce	14200
Microprocessor based SR18G+D (LSING + Current Metering)	Add	13000
Microprocessor based SR18Gi+D (LSING + Current metering + ZSI)	Add	14500
Microprocessor based SR71 (LSING + Current metering + Advance protection + PS Module)	Add	*
Communication Module (MODBUS) for SR71 release (SR71 - COM) <sup>§</sup>	SL94698OOOO	
Power Metering Module for SR71 release (SR71 - PM) <sup>§</sup>	SL94699OOOO	

<sup>§</sup> Chapter ID [8538]

**C-POWER Draw-Out ACBs** will have inbuilt - 6NO+6NC Aux contact, Safety shutter assembly, Racking handle, Door sealing frame, Push-button cover & Rating Error preventor. Option of horizontal & vertical termination upto 4000A also available. Operation counter for 4000A & above.  
EDO version includes 240V AC Shunt trip coil, Closing coil and Motor for electrical charging.

**C-POWER Fixed ACBs** will have inbuilt - 6NO+6NC Aux contact, Door sealing frame & Push-button cover. Operation counter for 4000A & above.

**Note:** 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.

In electrically operated breaker with DN1 release, either earth fault or undervoltage protection can be used.

**Note:** Electrical Fixed type breakers are available on request.

# Available on "Made to order" basis. \* Available on request

# Accessories of C-POWER Air Circuit Breakers

## Accessories (Common for C-POWER Family)



AN1 Module



LTPB



LIP



Shunt Release



UV Release

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Lockable Trip Push Button (LTPB) [8301]</b>		
Type AA	SL93148000A	4360
Type BB	SL93148000B	4360
Type CC	SL93148000C	4360
Type DD	SL93148000D	4360
Lockable Trip Push Button kit (3 I/C & 2 B/C)	SL919360000	21780
<b>Locking of ACB in Isolated position (LIP) [8301]</b>		
Type A	SL93146000A	4360
Type B	SL93146000B	4360
Type C	SL93146000C	4360
Type D	SL93146000D	4360
<b>Locking of ACB in Any position (LAP) [8301]</b>		
Type A	SL93147000A	4660
Type B	SL93147000B	4660
Type C	SL93147000C	4660
Type D	SL93147000D	4660
<b>Racking Interlock [8301]</b>		
Type AA	SL93149000A	6010
Type BB	SL93149000B	6010
Type CC	SL93149000C	6010
Type DD	SL93149000D	6010
<b>Padlock [8301]</b>		
Racking Padlock Assembly	CL900250000	2040
<b>Other Accessories [8538]</b>		
Door Interlock	SL931500000	3200
Mechanical Operation Counter*	XM808370000	3160
Mounting Kit for Front Mounted Counter	SL958820000	1120
Spring Charge Indication Microswitch	SL960000000	2540

\* For mounting the Operation counter, mounting kit "SL958820000" needs to be ordered separately. Operation Counter inbuilt for rating 4000A to 6300A.



Vertical Terminal Adaptor

Description & Rating	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>Vertical Terminal Adaptors for Draw out C-POWER ACB [8538]</b>			
400-1250 S1/800-1000 C	SL932810000	5440	1
1600-2000 S1/1250-1600 C/800-1600 H	SL932820000	6600	1
2000 C	SL932840000	9740	1
2000 H/2500 C/H	SL932850000	10180	1
2500 S1	SL932890000	10180	1
3200 S1	SL932860000	12530	1
3200H2/H1, 4000H2/H	SL932880000	30380	1

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Shunt Release (SR) [8538]</b>		
Type EA : 24/48V DC	SL927180400	3410
Type EA : 110V DC	SL927180100	3410
Type EA : 220V DC	SL927180200	3410
Type EA1 : 110V AC	SL927180A00	3410
Type EA1 : 240V AC	SL927180B00	3410
Type EA1 : 415V AC	SL927180D00	3410
<b>Under Voltage Release (UVR) [8538]</b>		
Type MV : 24V DC	ST368770000	4920
Type MV : 240V AC	SL92720B000	4920
Type MV : 415V AC	SL92720D000	4920
<b>Earth Fault Release ( for DN1) [8538]</b>		
Type EF1 (10%, 20% In )	SL913400000	4350
Type EF2 (30%, 40%, 50% In)	SL913410000	4350
<b>Remote Fault Indication [8538]</b>		
AN1 Remote Annunciation Module for SR18G/SR18G+D/SR18Gi+D : 240V AC	SL946540000	10560
<b>Microswitches for Indication [8536]</b>		
Microswitch for Voltmetric Releases (2) each	SL927030000	2700
Microswitch for Common Indication of O/L & S/C (3) each	SL927040000	2700
Microswitch for Separate Indication of O/L & S/C (3) each (for DN1 release)	SL927050000	4510
Service Position Microswitch - Right (2)	SL931420000	1830
Service Position Microswitch - Left (2)	SL931430000	1830
Test or Isolated Position Microswitch - Right (2)	SL931440000	1830
Test or Isolated Position Microswitch - Left (2)	SL931450000	1830

### Note :

- The Numerical in brackets, against various accessories indicate the SICs required for wiring purpose in Draw-Out breakers
- Shunt release requires one set of auxiliary contacts
- Maximum 24 SICs can be fitted on an ACB. In Electrical ACBs 5 SICs are prewired for control circuit purpose



UN-CO module [8538]

### Features

- Remote Status & Control of ACB
- Communicates on MODBUS Protocol
- Inbuilt RS485 Port

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
UN-CO module for Breaker control	CL908520000	12500	1

# Spares of C-POWER Air Circuit Breakers

## Protection Releases



SR71



SR18G+D/SR18Gi+D



SR18G



DN1



Universal Test Kit



CT

Description	Cat. No.	M.R.P. (₹) Per Unit
<b>Protection Releases [8538]</b>		
Microprocessor based type SR71	<b>On Request</b>	
Microprocessor based type SR18Gi+D	SL948130000	55450
Microprocessor based type SR18G+D	SL948120000	53950
Microprocessor based type SR18G	SL960300000	40950
Thermal-Magnetic Release type DN1	SL931520000	35450
Universal Test Kit	CL904620000	100320

### Universal Test Kit

Compatible with following L&T Protection Releases:

- SR protection releases of C-Power ACB family
- UNRS protection releases of U-Power ACB family
- MTX and RC releases of D-Sine MCCB family

### Upgrade to high end communicable Release SR71

Retrofit kit solutions are available

For further details please contact the nearest branch office

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
<b>CTs for SR18G / SR18G+D / SR18Gi+D [8504]</b>			
400 S1 Fix & Draw-out	SL015230000	6430	1
630 S1 Fix & Draw-out	ST374950000	6430	1
800 C/H/S1 Fix & Draw-out	SL018570000	6430	1
1000 C/H/S1 Fix & Draw-out	SL018580000	6430	1
1250 C/H/S1 Fix & Draw-out	SL905710000	7780	1
1600 C/H/S1 Fix & Draw-out	SL905720000	7780	1
2000 C/H Fix & Draw-out	SL905650000	8630	1
2000 S1 Draw-out	SL932100000	8630	1
2500 C/H Fix & Draw-out	SL905660000	8630	1
2500 S1 Draw-out			
3200 H2/H1 Draw-out	SL017400000	9920	1
4000 H2/H Draw-out	SL017390000	11900	1

For External Neutral C.T.s please use the above Cat. No.

Protect your equipment  
in Sulphur-rich environments



### C-POWER HE Air Circuit Breaker

- Range 1250A to 5000A, 415/690V ac
- Available in 3 Pole/4 Pole, Manually & Electrically operated, Fixed & Draw-out versions
- Protection through Microprocessor release



### FN BOLTED HE Switch-Disconnecter-Fuse

- Range 32A to 630A, 415V ac, AC 23A
- TPN version suitable for Bolted Fuse Link
- Door Interlocking & Padlocking facility



L&T Electrical & Automations HE range of Air Circuit Breakers (ACBs) and Switch-Disconnecter-Fuse (S-D-F) are designed to ensure that they operate at peak efficiency for their entire lifespan in harsh, Sulphur-rich environments.

For more details please  
scan the QR code or click here



### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

## Where continuity is crucial

The Henikwon S-Line Busbar Trunking System from L&T Electrical & Automation provides reliable, safe and economic distribution solutions for commercial spaces.



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### Key Features:

- Minimum transmission loss when compared to cables
- Current Rating: 400A to 6300A
- Rated Insulation Voltage - 1100V
- Class-F Halogen free insulation with RoHS compliance
- Maintenance free block set joints
- Enclosure: G.I. or Aluminium
- Ingress protection: IP-54, IP-55, IP-65, IP-66
- Plug-in boxes with interlocking
- Excellent short circuit ratings up to 100kA

**HENIKWON S-Line**  
Busbar Trunking System

### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@lntebg.com](mailto:cic@lntebg.com) Web: [www.lntebg.com](http://www.lntebg.com)

# Toughest Construction, Highest Dependability

Best in class LTXL Capacitors.  
Available in Cylindrical & Box Configurations



## Salient features :

- Industry's only Ultra Heavy Duty Capacitors in Cylindrical Configuration
- Proven Performance even under harsh Power Quality Conditions
- Highest Inrush Current Withstand Ability
- Highest Life with Optimised Space
- Maximum Ambient Temperature upto 70 °C
- Space Economy in APFC panels with cylindrical design

### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@lntebg.com](mailto:cic@lntebg.com) Web: [www.lntebg.com](http://www.lntebg.com)

## Power Factor Correction Capacitors [8532]

Parameters	Standard Duty		Heavy Duty		Gas Filled	Super Heavy Duty	APP	LTXL Ultra Heavy Duty	
	Cylindrical	Box	Cylindrical	Box	Cylindrical	Cylindrical	Box	Cylindrical	Box
Over current withstand capability	1.5 x In	1.5 x In	1.8 x In	1.8 x In	1.8 x In	2.5 x In	2.5 x In	3 x In	3 x In
Operating losses	0.45 W/kVAr	0.45 W/kVAr	0.5 W/kVAr	0.35 W/kVAr	0.35 W/kVAr	0.45 W/kVAr	0.5 W/kVAr	0.45 W/kVAr	0.35 W/kVAr
Peak Inrush current withstand capability	200 x In	200 x In	250 x In	300 x In	250 x In	350 x In	300 x In	500 x In	500 x In
Number of switching operations per year	5000	5000	7500	8000	8000	15000	10000	18000	20000
Max. Temperature	55°C	55°C	55°C	55°C	55°C	65°C	55°C	65°C	70°C
Operating life	100000 hrs.	100000 hrs.	130000 hrs.	150000 hrs.	150000 hrs.	200000 hrs.	200000 hrs.	300000 hrs.	300000 hrs.

### Standard Duty Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical 1 to 6 kVAr - Series : LTCCF 7.5 to 33.1 kVAr - Series : LTCCD	1 to 25	440	266
	1.2 to 27.7	480	280
	1.3 to 33.1	525	286
Box 1 to 6 kVAr - Series : LTBCF 7.5 to 33.1 kVAr - Series : LTBCD	1 to 30	440	304
	11.1 to 27.7	480	318
	13.2 to 33.1	525	325

### Heavy Duty Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series: LTCCH	1 to 4	440 V	508
	5 to 15		467
	20 to 30		455
	5.5 to 16.6	480 V	481
	22.1 & 27.7		468
	6.6 to 16.6	525 V	490
20 to 33.1	478		
Box Series: LT BCH	1 to 4		440 V
	5 to 15	479	
	20 to 50	469	
	5.5 to 15	480 V	503
	20 to 27.7		493
	6.6 to 15	525 V	513
20 to 33.1	501		

### Gas Filled Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series: LTCCN	3 to 5	440	606
	7.5 to 15		495
	20 & 25		460
	7.5 to 15	480	542
	20 to 30		483
	7.5 to 15	525	552
	20 to 33.1		492

### Standard Duty Prime Capacitors

Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series: LTCCV	5 to 25	440 V	300

## The 3-in-1 solution!



### The brand new Standard duty Box capacitor with inbuilt MCB and LED indication

- **Correction** of power factor by Standard duty capacitor
- **Indication** of capacitor health status by LED
- **Protection** and isolation by inbuilt MCB

#### Convenient & Suitable for

- Transformer compensation
- Direct motor compensation

kVAr Rating	Voltage	Cat. No.	M.R.P. (₹) Per Unit
5	440 V	LTBCM305B2	3915
7.5		LTBCM307B2	4355
8.33		LTBCM308B2	4615
10		LTBCM310B2	5125
12.5		LTBCM312B2	5890
15		LTBCM315B2	6670
20		LTBCM320B2	8960
25		LTBCM325B2	10500

## Super Heavy Duty Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series: LTCCR	3 to 5	440 V	<b>613</b>
	7.5 to 15		<b>501</b>
	20 & 25		<b>474</b>
	1.2 to 5.5	480 V	<b>644</b>
	11.1 & 15		<b>548</b>
	20 to 27.7		<b>497</b>
	1.3 to 5	525 V	<b>656</b>
	6.6 to 15		<b>558</b>
	20 to 33.3		<b>507</b>

## APP Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Box Series: LTBCP	5 to 15	440 V	<b>808</b>
	20 to 50		<b>782</b>
	5.5 to 13.8	480 V	<b>850</b>
	16.6 to 55.3		<b>821</b>
	6.6 & 13.2	525 V	<b>866</b>
	16.6 to 66.2		<b>837</b>

## LTXL - Ultra Heavy Duty Capacitors



Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Cylindrical Series : LTCCU	5 to 15	440V	<b>1004</b>
	20 & 25		<b>987</b>
	7.5 to 15	480V	<b>1056</b>
	20		<b>1039</b>
	7.5 to 15	525V	<b>1075</b>
20	<b>1056</b>		
Box Series: LTBCU	5 to 15	440V	<b>1113</b>
	20 to 50		<b>1091</b>
	7.5 to 15	480V	<b>1169</b>
	20 to 30		<b>1146</b>
	7.5 to 15	525V	<b>1191</b>
	20 to 33.1		<b>1168</b>

## Ordering Information for Capacitors

C - Cylindrical, B - Box

Duty: D/F – Standard\*

M - Standard duty Box with MCB & LED Indication

H - Heavy

N - Gas Filled

R - Super Heavy

P - APP

U - Ultra Heavy

kVAr Rating	Sample ratings
	01 - 1 kVAr
	07 - 7.5 kVAr
	10 - 10 kVAr
12 - 12.5 kVAr	

**Voltages:**B-440V, C-480V, M- 525V

\*\* F - 1 to 6 kVAr. D - 7.5 kVAr & above

L	T	C	3			2
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Catalogue Number

Capacitor Series	kVAr ratings		
	440 V	480 V	525 V
LTCCF	1, 2, 3, 4, 5, 6	1.2, 2.2, 3.3, 4.4, 5.5	1.3, 2.6, 3.9, 5.3, 6.6
LTBCF	1, 2, 3, 4, 5, 6	-	-
LTCCD/LTBCD	7.5, 8.33, 10, 12.5, 15, 20, 25, 30*	11.1, 13.8, 16.6, 22.1, 27.7	13.2, 16.6, 20, 26.5, 30, 33.1
LTBCM	5, 7.5, 8.33, 10, 12.5, 15, 20, 25	-	-
LTCCCH	1, 2, 3, 4, 5, 7.5, 10, 12.5, 15, 20, 25, 30	5.5, 11.1, 13.8, 16.6, 22.1, 27.7	6.6, 13.2, 16.6, 20, 26.5, 30, 33.1
LTBCH	1, 2, 3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25, 30, 50	5.5, 11.1, 15, 20, 25, 27.7	6.6, 13.2, 15, 20, 25, 30, 33.1
LTCCN	3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25	7.5, 12.5, 15, 20, 25, 30	7.5, 12.5, 15, 20, 25, 30, 33.1
LTCCR	3, 4, 5, 7.5, 8.33, 10, 12.5, 15, 20, 25	1.2, 2.2, 3.3, 4.4, 5.5, 11.1, 15, 20, 25, 27.7	1.3, 2.6, 3.9, 5, 6.6, 13.2, 15, 20, 25, 30, 33.3
LTBCP	5, 7.5, 10, 12.5, 15, 20, 25, 50	5.5, 11.1, 13.8, 16.6, 22.1, 27.7, 55.3	6.6, 13.2, 16.6, 20, 26.5, 30, 33.1, 66.2
LTCCU	5, 7.5, 8.33, 10, 12.5, 15, 20, 25	7.5, 10, 12.5, 15, 20	7.5, 10, 12.5, 15, 20
LTBCU	5, 7.5, 8.33, 10, 12.5, 15, 20, 25, 30, 50	7.5, 10, 12.5, 15, 20, 25, 30	7.5, 12.5, 15, 20, 25, 30, 33.1

\* Only LTBCD is available at 30 kVAr

## Detuned Reactors, 440 V, 50 Hz [8504]

- Copper & Aluminium wound reactors
- Lower operating losses
- 180% linearity\*
- Thermal cut off
- Better Harmonic Blocking Capability [Quality Factor > 35]



kVAr Rating	7% Copper Reactor		7% Aluminium Reactor		14% Copper Reactor		14% Aluminium Reactor	
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
1	LTFR0701B2	9185	LTAL0701B2	6665	LTFR1401B2	17855	LTAL1401B2	11000
2	LTFR0702B2	10030	LTAL0702B2	7270	LTFR1402B2	19465	LTAL1402B2	11980
3	LTFR0703B2	11370	LTAL0703B2	8235	LTFR1403B2	22075	LTAL1403B2	13575
4	LTFR0704B2	12085	LTAL0704B2	8755	LTFR1404B2	23470	LTAL1404B2	14440
5	LTFR0705B2	13075	LTAL0705B2	9465	LTFR1405B2	25375	LTAL1405B2	15620
10	LTFR0710B2	18535	LTAL0710B2	13435	LTFR1410B2	35970	LTAL1410B2	22155
12.5	LTFR0712B2	20340	LTAL0712B2	14740	LTFR1412B2	39460	LTAL1412B2	24320
15	LTFR0715B2	21755	LTAL0715B2	15770	LTFR1415B2	42220	LTAL1415B2	26015
20	LTFR0720B2	25930	LTAL0720B2	18785	LTFR1420B2	50285	LTAL1420B2	30990
25	LTFR0725B2	27435	LTAL0725B2	19875	LTFR1425B2	53215	LTAL1425B2	32805
50	LTFR0750B2	43525	LTAL0750B2	31535	LTFR1450B2	84440	LTAL1450B2	52035
75	LTFR0775B2	64695	LTAL0775B2	46895	LTFR1475B2	125515	LTAL1475B2	77365
100	LTFR0700B2	88945	LTAL0700B2	64440	LTFR1400B2	172435	LTAL1400B2	106325

\* Prices of 200% linearity reactors are available on request.

For industries with High Voltage Harmonics, special solutions are available on request. Contact your nearest sales office for the customised solutions.

## Selection of capacitors for detuned harmonic filter application

Step Size & 440 V Reactor rating (kVAr)	With 7% detuned reactor			With 14% detuned reactor		
	Capacitor series	480 V Capacitor (kVAr)	525 V Capacitor (kVAr)	Capacitor series	525 V Capacitor (kVAr)	
1	LTCCF, LTCCR	1.2	1.3	LTCCF, LTCCR	1.3	
2	LTCCF, LTCCR	2.2	2.6	LTCCF, LTCCR	2.6	
3	LTCCF, LTCCR	3.3	3.9	LTCCF, LTCCR	3.9	
4	LTCCF	4.4	5.3	LTCCF	5.3	
	LTCCR		5	LTCCR	5	
5	LTCCF, LTCCH, LTCCR, LTBCB, LTBCP	5.5	6.6	LTCCF, LTCCH, LTCCR, LTBCB, LTBCP	6.6	
	LTCCN, LTCCU, LTBCU	7.5	7.5	LTCCN, LTCCU, LTBCU	7.5	
10	LTCCD, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP	11.1	13.2	LTCCD, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP	13.2	
	LTCCN, LTCCU, LTBCU	12.5	12.5	LTCCN, LTCCU, LTBCU	12.5	
12.5	LTCCN, LTCCR, LTCCU, LTBCB, LTBCU	15	15	LTCCN, LTCCR, LTCCU, LTBCB, LTBCU	15	
	LTCCD, LTCCH, LTBCD, LTBCP	13.8	16.6	LTCCD, LTCCH, LTBCD, LTBCP	16.6	
15	LTCCN, LTCCR, LTCCU, LTBCB, LTBCU	20	20	LTCCD, LTCCN, LTCCH, LTCCR, LTCCU, LTBCD, LTBCB, LTBCP, LTBCU	20	
	LTCCD, LTCCH, LTBCD, LTBCP	16.6				
20	LTCCN, LTCCR, LTBCB, LTBCU	25	25	LTCCN, LTCCR, LTBCB, LTBCU	25	
	LTCCD, LTCCH, LTBCD, LTBCP	22.1	26.5	LTCCD, LTCCH, LTBCD, LTBCP	26.5	
	LTCCU	7.5 + 15	2 x 12.5	LTCCU	2x12.5	
25	LTCCD, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP	27.7	33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP, LTBCU	30	
	LTBCU, LTCCN	30				
	LTCCU	12.5 + 15		15 + 20	LTCCU	(10+20)
50	LTCCD, LTCCH, LTCCR, LTBCD, LTBCB	2 x 27.7	2 x 33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP, LTBCU	2 x 30	
	LTBCU, LTCCN	2 x 30				
	LTCCU	2 x (12.5 + 15)		2 x (15 + 20)	LTCCU	3 x 20
	LTBCP	55.3		66.2		
75	LTCCD, LTCCH, LTCCR, LTBCD, LTBCB	3 x 27.7	3 x 33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP, LTBCU	3 x 30	
	LTBCU, LTCCN	3 x 30				
	LTCCU	3 x (12.5 + 15)		3 x (15 + 20)	LTCCU	(4 x 20) + 10
	LTBCP	27.7 + 55.3		33.1 + 66.2		
100	LTCCD, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP	4 x 27.7	4 x 33.1	LTCCD, LTCCN, LTCCH, LTCCR, LTBCD, LTBCB, LTBCP, LTBCU	4 x 30	
	LTBCU, LTCCN	4 x 30				
	LTCCU	4 x (12.5 + 15)		4 x (15 + 20)	LTCCU	6 x 20
	LTBCP	2 x 55.3		2 x 66.2		



## Capacitor Duty Contactors - Type MO C [8536]



MO C25



MO C50



MO C100

Size	kVAr Rating @ 440V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Fr 1	3	MO C3	1NO	CS96146	2020	1
	5	MO C5	1NO	CS96127	2110	1
	8.5	MO C8.5	1NO	CS96320	2325	1
	10	MO C10	1NO	CS96156	2480	1
	12.5	MO C12.5	1NO	CS96321	2595	1
	15	MO C15	1NO	CS90019	3610	1
	20	MO C20	1NO	CS90021	4095	1
	25	MO C25▲	1NO	CS96322	4630	1
Fr 2	30	MO C30 <sup>§</sup>	1NO	CS96148	7145	1
	40	MO C40	1NO	CS96147	11915	1
	50	MO C50	1NO	CS96324	12665	1
Fr 3	60	MO C60 <sup>§</sup>	1NO	CS96149	14430	1
	75	MO C75	1NO	CS96150	16965	1
	85	MO C85	1NO	CS96157	19170	1
	100	MO C100 <sup>§</sup>	1NO	CS96158	19765	1

## Thyristor Switching Module, 440V 50Hz [8538]

- High Peak Inverse Voltage (PIV) - 2.2 kV
- Lower operating losses
- Auto thermal cut off
- Compact Design
- No moving parts
- LEDs for various status/fault indications



kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
10	LTTSM10B2	25440
25	LTTSM25B2	36290
50	LTTSM50B2	41565

Note: Above prices include Quick Discharge Resistors (QDR)

### Note :

- 1) For ordering add-on aux. contact block, please refer page No. 8
- 2) For ordering suffix, please refer page No.10
- 3) For ordering spare coils, please refer page No. 11
- 4) Standard coil voltage : 240V, 50/60 Hz
- 5) For ordering MO C surge suppressor, please refer page No. 9

- ▲ If using 16 sq mm cable use of spreader link kit is mandatory
- ▲ For ordering spreader link kit, Please refer page No. 9
- § Spreader link along with phase barrier included in packing

## APFC Controller [8538]

### etaULTRA - APFC Controller - 3 CT inputs

#### Features:

- 3 Phase Current and Voltage measurement
- PF display - 3 Digit after decimal
- Individual harmonics measurement up to 31st order
- Dual PF setting for Mains - DG application
- Communication through Inbuilt MODBUS RS-485 Protocol

### Cascading (Master - Slave configuration) for APFC panel with more than 16 steps



2 & 4 Quadrant Operation for sites with / without Solar Plants

Model Name	No. of steps (For Contactor switching)	No. of steps (For Thyristor switching)	Voltage Input	Cat No.	Size	M.R.P. (₹) Per Unit
etaULTRA 8R	8	0	110 / 415	CS91050000	144 x 144	19000
etaULTRA 16R	16	0		CS910510000		25000
etaULTRA 14T+2R	2	14		CS910530000		25000
etaULTRA 8T+8R	8	8		CS910540000		19000

New

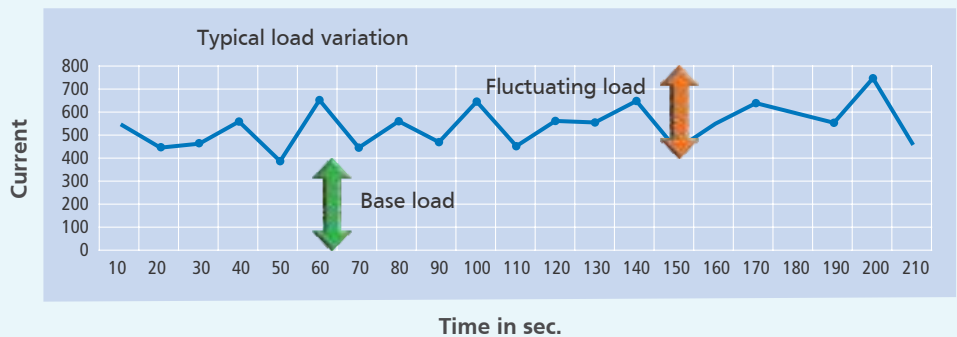
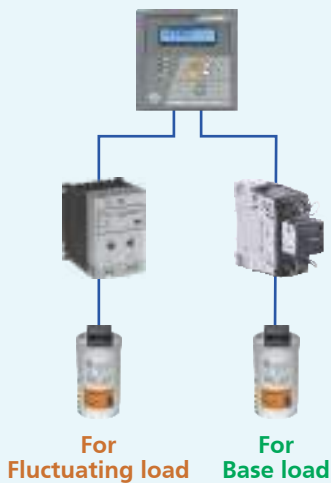
Last Two Contacts can be programmed for Capacitor Switching / Alarm Function / Fan Control

**Performance  
meets economy**



## Automatic power factor control solutions

### etaULTRA 8T + 8R APFC Controller for Thyristor + Contactor Switching



'Thyristor + Contactor' based APFC Panels for **performance** and **economy**



#### etaULTRA 8T + 8R controller offers:

- 8 Transistor outputs for Thyristor switching and 8 Relay outputs for Contactor switching
- 3-Phase Current and Voltage measurement to compensate PF in unbalanced load
- 4 Quadrant measurement to take care of Sites with Solar plants
- Individual harmonics measurement up to 31st order
- 3-digit Power Factor setting to obtain higher Accuracy
- Communication through inbuilt MODBUS RS-485 Protocol

#### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

# APFC Controller [8538]

## etaSMART - APFC Controller - 1 CT input

### Features:

- Simple and Smart Controller
- Auto programming function available
- CT secondary - 1 / 5 Amp site selectable



## etaSMART T - APFC Controller for Thyristor Switching with 1 CT input

No. of O/P steps (for Thyristor switching)	Size	Cat. No.	Single CT input	Voltage Input	M.R.P. (₹) Per Unit
6	96 x 96	CS916130000	1/5 Amp	415 V	13100
8	144 x 144	CS916140000			15600
12	144 x 144	CS916150000			19100
15	144 x 144	CS916160000			22600

One separate relay contact is available for Alarm

## etaCON M APFC Controller

### APFC controller for Contactor switching with 1 CT input

### Features:

- Modular and expandable steps
- CT secondary - 1 A / 5 A Site selectable
- Suitable for LT as well as HT side sensing
- Communicable on Modbus through RS485 Plug-in Module

Model	Single CT input	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
5 Step APFC Controller (96 x 96)	1 A / 5 A	415V / 110 V	ETACONM005R	15600
8 Step APFC Controller (144 x 144)			ETACONM008R	19400



2 & 4 Quadrant Operation for sites with / without Solar Plants

## etaSMART R - APFC controller for Contactor switching with 1 CT input

No. of steps (For Contactor Switching)	Size	Cat. No.	Single CT input	Voltage Input	M.R.P. (₹) Per Unit
4	96 x 96	CS908840000	1/5 Amp	415 V	9800
6	96 x 96	CS908850000			12500
8	96 x 96	CS909020000			14800
12	144 x 144	CS909030000			17900
14	144 x 144	CS909040000			19800
16	144 x 144	CS909050000			21800

Last Two Contacts can be Programmed for Capacitor Switching / Alarm Function / Fan Control



2 & 4 Quadrant Operation for sites with / without Solar Plants

### etaCON M Optional Plug-in Modules

Description	Model	Cat. No.	M.R.P. (₹) Per Unit
2 Steps Plug-in Module	2 Relays NO	ETACONEXP2R	2400
3 Steps Plug-in Module	3 Relays NO	ETACONEXP3R	3500
RS485 Plug-in Module	RS485 Plug-in Module	ETACONRS485	12000

Any 1 Plug-in module can to be added to ETACONM005R  
Any 2 Plug-in modules can to be added to ETACONM008R

# Active Harmonic Filter (AHF) [8543]

- Reduces THD within IEEE - 519 limits
- Dynamic correction of THD
- Improves both distortion & displacement Power Factor
- 3 Phase 3 Wire AHF to be used where 3<sup>rd</sup> Harmonic Mitigation is not required
- 3 Phase 4 Wire AHF to be used where 3<sup>rd</sup> Harmonic Mitigation is required
- Modular Design allowing for future expansion
- Ease of Monitoring using Touch Screen HMI
- Flexibility of Configuration in both open loop (load side sensing) & closed loop (source side sensing)



Filter Rating (A)	3 Phase 3 wire AHF Without Neutral Compensation		3 Phase 4 wire AHF With Neutral Compensation	
	Cat. No.*	M.R.P. (₹) Per Unit	Cat. No.*	M.R.P. (₹) Per Unit
30	AHF030331D2	On Request	AHF030341D2	On Request
60	AHF060331D2		AHF060341D2	
75	AHF075331D2		AHF075341D2	
100	AHF100331D2		AHF100341D2	
150	AHF150331D2		AHF150341D2	
200	AHF200331D2		AHF200341D2	
300	AHF300331D2		AHF300341D2	
400	AHF400331D2			
600	AHF600331D2			
800	AHF800331D2			

\* Standard CAT. No. Configuration

Contact your nearest sales office for customised solutions:

Customisable Options Available:

IP Class : IP20/IP40/IP42

Cable Entry : Bottom / Top / Additional Cable Alley

Communication : MODBUS RS485 Protocol Available

# Type Tested APFC Panels – Safe, Reliable and Smart solution to maintain Power Factor

## Type tested and certified design

- Engineered to the highest standards - Type tested as per IEC 61439-1&2, IEC61921 & IS13947
- Ingress Protection up to IP42 as per IEC 60529, IS2147 to protect equipment under harsh environments

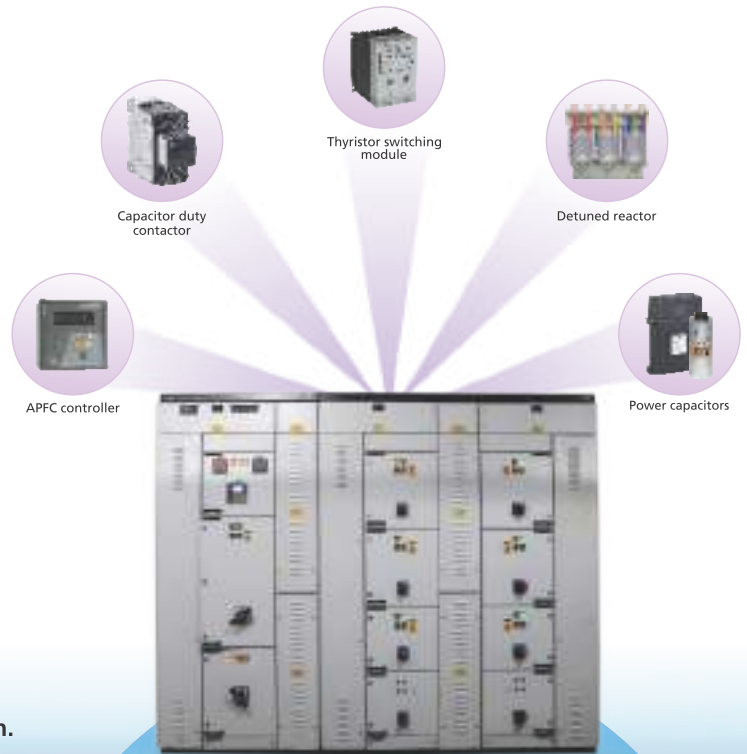
## Reliable

- Worry free PF management with 4 quadrant PF controller
- Certified for better thermal management as per IEC 61921
- Design verified assemblies of both constructional & permanence requirements
- Separate section for detuned reactors, capacitors & switchgear ensures longer life of components & less worry on maintenance

## Safety

- Form 3B separation (compartmentalized design for switchgear)
- Bus bars with more clearance than prescribed in standards
- A minimum of IP2X degree of protection even when the doors / covers in open condition
- Earthing of each and every door and structural members
- Zero stray voltage on doors & covers ensures both operator & equipment safety

Hybrid Harmonic Filters (AHF + APFC) can also be offered.  
Contact our nearest sales office for such customized solution.



## Suggested Step Ratings for APFC Panels

Panel Rating (kVAr)	Physical Step Size (kVAr)	No. of Physical Steps	Electrical Steps (All Possible Combination of Physical Steps)	No. of Electrical Steps
10	4 + 3 + 2 + 1	4	1,2,3,4...8,9,10	10
15	5 + 4 + 3 + 2 + 1	5	1,2,3,4...13,14,15	15
20	10 + 5 + 2x2 + 1	5	1,2,3,4...18,19,20	20
25	15 + 5 + 2x2 + 1	5	1,2,3,4...23,24,25	20
30	15 + 10 + 2x2 + 1	5	1,2,3,4...28,29,30	22
35	20 + 10 + 2x2 + 1	5	1,2,3,4...33,34,35	23
40	20 + 10 + 5 + 3 + 2	5	2,3,5,7...35,37,38,40	24
45	25 + 10 + 5 + 3 + 2	5	2,3,5,7...40,42,43,45	24
50	25 + 15 + 5 + 3 + 2	5	2,3,5,10...45,47,48,50	24
55	25 + 15 + 10 + 3 + 2	5	2,3,5,10...50,52,53,55	25
60	25 + 15 + 10 + 5 + 3 + 2	6	2,3,5,7...55,57,58,60	36
65	25 + 2x15 + 5 + 3 + 2	6	2,3,5,7...60,62,63,65	35
70	25 + 20 + 15 + 5 + 3 + 2	6	2,3,5,7...65,67,68,70	36
75	2x25 + 15 + 5 + 3 + 2	6	2,3,5,7...70,72,73,75	39
80	2x25 + 15 + 10 + 3 + 2	6	2,3,5,10...75,77,78,80	36
85	50 + 20 + 5 + 4 + 2x3	6	2,3,5,6...80,81,82,85	44
90	50 + 25 + 5 + 4 + 2x3	6	3,4,5,6...85,86,87,90	47
95	50 + 25 + 10 + 4 + 2x3	6	3,4,6,7...89,91,92,95	43
100	50 + 25 + 15 + 4 + 2x3	6	3,4,6,7...94,96,97,100	44
105	50 + 25 + 15 + 5 + 4 + 2x3	7	3,4,5,6...100,101,102,105	85
110	50 + 25 + 15 + 10 + 4 + 2x3	7	3,4,5,6...104,106,107,110	65
115	50 + 25 + 2x15 + 4 + 2x3	7	3,4,6,7...109,111,112,115	65

Panel Rating (kVAr)	Physical Step Size (kVAr)	No. of Physical Steps	Electrical Steps (All Possible Combination of Physical Steps)	No. of Electrical Steps
120	50 + 25 + 20 + 15 + 4 + 2x3	7	3,4,6,7...114,116,117,120	85
125	50 + 2x25 + 15 + 4 + 2x3	7	3,4,6,7...119,121,122,125	55
130	50 + 2x25 + 20 + 4 + 2x3	7	3,4,6,7...124,126,127,130	60
135	2x50 + 15 + 10 + 4 + 2x3	7	3,4,6,7...129,131,132,135	65
140	2x50 + 20 + 10 + 4 + 2x3	7	3,4,6,7...134,136,137,140	62
145	2x50 + 25 + 10 + 4 + 2x3	7	3,4,6,7...139,141,142,145	65
150	2x50 + 25 + 15 + 4 + 2x3	7	3,4,6,7...144,146,147,150	66
155	2x50 + 25 + 15 + 3x5	7	5,10,15,20...145,150,155	31
175	2x50 + 2x25 + 10 + 3x5	8	5,10,15,20...165,170,175	35
200	2x50 + 3x25 + 15 + 2x5	8	5,10,15,20...190,195,200	40
225	3x50 + 2x25 + 15 + 10	7	10,15,25,35...210,215,225	27
250	3x50 + 3x25 + 15 + 10	8	10,15,25,35...235,240,250	30
275	4x50 + 2x25 + 15 + 10	8	10,15,25,35...260,265,275	33
300	100 + 2x50 + 3x25 + 15 + 10	8	10,15,25,35...285,290,300	36
325	100 + 3x50 + 2x25 + 15 + 10	8	10,15,25,35...310,315,325	39
350	100 + 4x50 + 25 + 15 + 10	8	10,15,25,35...335,340,350	42
375	2x100 + 2x50 + 2x25 + 15 + 10	8	10,15,25,35...360,365,375	45
400	2x100 + 2x50 + 4x25	8	25,50,75,100...350,375,400	16
425	2x100 + 3x50 + 3x25	8	25,50,75,100...375,400,425	17
450	2x100 + 3x50 + 4x25	9	25,50,75,100...400,425,450	18
475	2x100 + 4x50 + 3x25	9	25,50,75,100...425,450,475	19
500	2x100 + 5x50 + 2x25	9	25,50,75,100...450,475,500	20

**Note :** Above mentioned steps are typical recommendations, suitable for most of the industries. For accurate compensation, step size selection may have to be decided after studying load profile of that industry.

## 3 Phase Over Current + Earth Fault Relay

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC31AnX	24 - 240V AC/ DC	2 NO + 2 NC	51, 51N	MC31ANX2200	21000
		4 NO		MC31ANX4000	

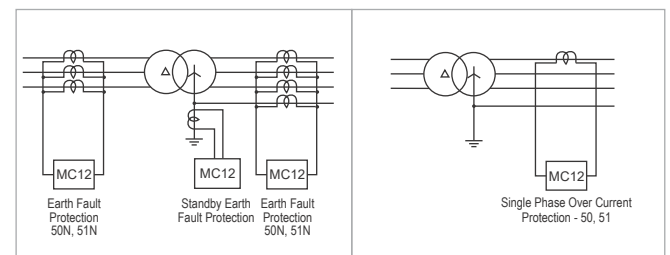
## Single Pole Over Current or Earth Fault Relay

C.T. Rating 1A or 5A, Not Field Selectable



- IDMT and Definite time characteristics

Model	Aux. Supply (V)	C.T. Secondary (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC12	20 - 110V AC/DC	1A	50, 51 or 50N, 51N	MC12AA10X00	14800
		5A		MC12AA50X00	
	88 - 264V AC/DC	1A		MC12AB10X00	
		5A		MC12AB50X00	



## 3 Phase Over Current + Earth Fault Relay with High Set

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC61AnX	24 - 240V AC/ DC	2 NO + 2 NC	51, 51N, 50, 50N	MC61ANX2200	23000
		4 NO		MC61ANX4000	

## Reverse Power Relay

C.T. Rating 1A or 5A, Not Field Selectable



- System Voltage is site selectable - 110V / 415V AC

Model	Aux Supply (V)	C.T. Secondary (A)	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MRP11	20 - 110V AC/DC	1A	32	MRP11A10X00	24500
		5A		MRP11A50X00	
	88 - 264V AC/DC	1A		MRP11B10X00	
		5A		MRP11B50X00	

## 3 Phase Over Current + Earth Fault Relay with High Set & RS - 485 Port

C.T. Rating 1A or 5A, Field Selectable



- IDMT & Definite time characteristics
- Last 30 trip data recording with date and time
- Password Protection

Model	Aux. Supply (V)	Output Contacts	Device Code	Cat. No.	M.R.P. (₹) Per Unit
MC61CnX	24 - 240V AC/ DC	4 NO	51, 51N, 50, 50N	MC61CNX4000	25500

## Trip Circuit Supervision Relay



- Static Relay.
- Monitors Trip Coil in Breaker ON & OFF condition
- Site selectable Trip Coil Voltage

Model	Aux. Supply (V)	Cat. No.	M.R.P. (₹) Per Unit
TCS01nX	20 - 110 V AC/ DC	TCS01NXA000	8500
	88 - 264 V AC/ DC	TCS01NXB000	

## MV12

### Single Phase Under Voltage or Over Voltage Relay

- System Voltage is site selectable - 110 / 240 / 415V AC



Model	Aux. Supply (V)	Device code	Cat. No.	M.R.P. (₹) Per Unit
MV12	20 - 110V AC/DC	27 or 59	<b>MV12AA00X00</b>	<b>14800</b>
	88 - 264V AC/DC		<b>MV12AB00X00</b>	

## Lockout Relay - LocR

### Features:

- Lockout Relays [Master Trip Relay] - LocR
- Designed to operate the circuit breaker trip coils at high speed
- Available with Hand reset contact (HRC) and hand reset Flag (HRF)



ANSI Code - 86

Description	Output contacts	Reset Contacts	Reset Flag	Coil Voltage	Cat. No.	M.R.P. (₹) Per Unit
Single element Lockout relay	3NO + 2NC	Hand	Hand	24VDC	L1H32DC024X	6000
				110VDC	L1H32DC110X	
				220VDC	L1H32DC220X	
				230VAC	L1H32AC230X	

\* Available on request only

## Auxiliary Relay - AuxR

### Features:

- AuxR relay provides additional contacts for interlocking, control and signal applications
- Available with hand reset or self-reset contacts and hand reset Flag



Description	Output contacts	Reset Contacts	Reset Flag	Coil Voltage	Cat. No.	M.R.P. (₹) Per Unit
Single element Auxiliary relay	4 N/O	Hand	Hand	24VDC	A1H40DC024X	5000
				110VDC	A1H40DC110X	
				220VDC	A1H40DC220X	
				230VAC	A1H40AC230X	
Single element Auxiliary relay	2 N/O + 2 N/C	Auto	Hand	24VDC	A1A22DC024X	5000
				110VDC	A1A22DC110X	
				220VDC	A1A22DC220X	
				230VAC	A1A22AC230X	

\* Available on request only

## Single Phase kWh meter with LCD display

Model EM101+ Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
1P LCD Meter 5-30A	WM101BC5DL0	1699
1P LCD Meter 5-30A with BOX	WM101BC5DL0BOX	2274
1P LCD Meter 5-30A with OPTICAL PORT	WM101BC5DDH	2333
1P LCD Meter 5-30A with Optical port + BOX	WM101BC5DDHBOX	2907
1P LCD Meter 10-60A	WM101BC7DL0	2010
1P LCD Meter 10-60A with BOX	WM101BC7DL0BOX	2535
1P LCD Meter 10-60A with Optical Port	WM101BC7DDH	2570
1P LCD Meter 10-60A with Optical Port + BOX	WM101BC7DDHBOX	2956

## 3 Phase 4 Wire kWh meter LCD type

Model ER300P Base Mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W kWh CT op base mtg 240V, /5A, Acc 0.5s	WR301BC3C00	5380
3Ph 4 W kWh Dir base mtg 240V 5- 30 A Acc 1	WR301BC4D20	4507
3Ph 4 W kWh Dir base mtg 240V 10- 40 A Acc 1	WR301BC6D20	4640
3Ph 4 W kWh Dir base mtg 240V 10- 60 A Acc 1	WR301BC7D10	5877
3Ph 4 W kWh Dir base mtg 240V 20- 100 A Acc 1	WR301BC8D10	8522

## Trivector Meter Class 0.5s

Model ER300P Class 0.5s (Base Mounting)

- Inform CT/PT ratio while ordering
- DLMS (IS 15959) Protocol meters is available on request



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V ( L-L) 1 A Class 0.5s BM	WR300BB1200	25754
3Ph, 4W TVM 110V ( L-L) 5 A Class 0.5s BM	WR300BB5200	25754
3Ph, 4W TVM 240V ( L-N) 5 A Class 0.5s BM	WR300BC5200	23735
3Ph, 4W TVM 110V ( L-L) 1 A Class 0.5s BM RS 485 Modbus	WR300BB12RS	30905
3Ph, 4W TVM 110V ( L-L) 5 A Class 0.5s BM RS 485 Modbus#	WR300BB52RS	30905
3Ph, 4W TVM 240V ( L-N) 5 A CI 0.5s BM RS 485 Modbus	WR300BC52RS	28482

# - available on request only

## Trivector Meter Class 1 whole current meter

Model ER300P Class 1 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 240 V 10 - 60A BM	WR300BC7300	8017
3Ph, 4W TVM 240 V 10 - 60A BM RS 485 Modbus*	WR300BC73RS485	11436
3Ph, 4W TVM 240 V 10 - 60A BM with Hinge type Box	WR300BC73BOXH	9930

\*- Available on request only & minimum order quantity is 100 Nos

## Trivector Meter Class 0.2s

Model ER300P Class 0.2s (Base Mounting)

- Inform CT/PT ratio while ordering
- DLMS (IS 15959) Protocol meters is available on request



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V ( L-L) 1 A Class 0.2s BM	WR300BB1100	62485
3Ph, 4W TVM 110V ( L-L) 5 A Class 0.2s BM	WR300BB5100	62485
3Ph, 4W TVM 110V ( L-L) 1 A Class 0.2s BM RS485 Modbus	WR300BB11RS	66657
3Ph, 4W TVM 110V ( L-L) 5 A Class 0.2s BM RS485 Modbus	WR300BB51RS	66657

## Pre-Payment & Smart Meter Solutions\$



For Pre-payment (IS 15884) and Smart Meter (IS 16444) solutions please contact our nearest Branch

## Net Meters\$



Net Meters for solar roof top application & solar generation plant

## ORION (40-200A)\$



Combine CT Meter - Thread Through Meter (Meter + CT+ Modem)

\$ For more details please contact nearest branch

## Meter Reading Instrument

[8471]



Description	Cat. No.	M.R.P. (₹) Per Unit
Meter Reading Instrument - (16.5 MB)	990MRIXX000	133146
Meter Optical port to USB cable	990PCXXUSB	1594

# The Energy Management System that fosters energy efficiency



Your trusted partner for the continued growth of your business – L&T Electrical & Automation (E&A) – presents SmartComm Energy Management System. It enables you to measure and monitor your electrical system, consequently helping you save energy. At the heart of this monitoring system are our digital panel meters, with host of benefits.

## SmartComm Energy Management System Software

- Simple and powerful energy monitoring software with multiple benefits that empowers the user to save money
- Glimpse of all entire energy consumption in the plant through dashboard
- Provision to generate multiple report types
- On-premise server or Web based access with cloud solution provision

## Digital Panel Meters

- Meters with Class 1, Class 0.5, 0.5S, Class 0.2, 0.2S accuracy
- Meters with THD and individual harmonics up to 31st
- Direct access to Basic, Power and Energy parameters through front keys
- RS485 or Ethernet communication available
- Analog, Digital inputs and outputs, Data logging options

For our DPM programming videos and more details on Energy Management Solutions please scan the QR code or click here



## Our metering solutions include:

- Single function meters
- VAF + PF meters
- Energy meters
- Dual Source meters
- Basic Multifunction meters
- Advanced Multifunction meters
- MD Controller

## Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@lntebg.com Web: www.lntebg.com



## Single Function Meters [9030]

### 1xxx Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- Inbuilt selector switch for 3 phase meters
- CT/PT site programmable
- Frequency parameter available in 3Ph Voltmeter additionally



Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph LED Ammeter CI 1	WL1110100000	925
1Ph LED Voltmeter CI 1	WL1120100000	925
3Ph LED Ammeter CI 1	WL1310100000	1395
3Ph LED Voltmeter CI 1	WL1320100000	1395
LED Freq meter CI 0.2	WL1130400000	925
1Ph LED Ammeter CI 0.5	WL1110200000	1245
1Ph LED Voltmeter CI 0.5	WL1120200000	1245
3Ph LED Ammeter CI 0.5	WL1310200000	1680
3Ph LED Voltmeter CI 0.5	WL1320200000	1680

## VAF + PF Meters [9030]

### 4110 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Parameters: VLL, VLN, A, F, PF, On Hrs, RPM, Apeak



Description	Cat. No.	M.R.P. (₹) Per Unit
VAF + PF meter, CI 1	WL4110100000	2380
VAF + PF meter with RS485, CI 1	WL4110110000	2980
VAF + PF meter, CI 0.5	WL4110200000	2735
VAF + PF meter with RS485, CI 0.5	WL4110210000	3310

## Counter type Energy Meter [9030]

### 4030 Series

#### Features

- Accuracy Class 1.0
- Flush mounting 96 x 96 mm
- Available with sealing arrangement
- Parameter : kWh



Description	Cat. No.	M.R.P. (₹) Per Unit
kWh Counter type meter CI 1 (3Ph 4W 240V 5A)	WL4030100000	3705

## Energy Meters [9030]

### 4000 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Auto scaling of Kilo, Mega and Giga
- Parameters: Site selectable kWh / kVA / PF / W, Old energy

kWh or kVAh is site selectable



Energy display in kWh in its lifetime#

Description	Cat. No.	M.R.P. (₹) Per Unit
kWh LED meter CI 1	WL4000100000	2680
kWh LED meter CI 1 with RS485	WL4000110000	3160
kWh LED meter CI 0.5	WL4000200000	3395
kWh LED meter CI 0.5 with RS485	WL4000210000	3870
kWh LCD meter CI 1	WC4000100000	3025
kWh LCD meter CI 1 with RS485	WC4000110000	3510
kWh LCD meter CI 0.5	WC4000200000	3750
kWh LCD meter CI 0.5 with RS485	WC4000210000	4240

# For 415V LL and CT Primary value of 400 and below

## DIN Basic Multifunction Meters [9030]

### 4000 Series

#### Features

- DIN mounting whole current operated meter
- Accuracy Class 1.0
- Inbuilt analytics with energy consumption without any additional software



- Push to push mode for variable kWh consumption monitoring
- Parameters: 1 Phase - Voltage, Current, kW, kWh  
3 Phase - Voltage, Current, kW, kWh + PF, kVA, kVAh, MD



Description	Cat. No.	M.R.P. (₹) Per Unit
Energy meter 1P 5-40A CI 1 DIN	WD4000101000	2630
Energy meter 3P 10-60A CI 1 DIN	WD4000103000	5975
Energy meter RS485 module	WD400010RS00	2630
Energy meter Wi-Fi module	WD400010WFO0	10640

## Dual Source Basic MFM [9030]

### 4040 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- DG sensing input 230 VAC
- Flush mounting 96 X 96 mm
- CT/PT site programmable
- Discrete LED for EB and DG
- True PF or Displacement PF site selectable
- Parameters: V, A, F, PF, kW, kVA, Run hours, kWh (EB and DG), Old energy, Site selectable kWh / kVAh

kWh or kVAh  
is site selectable



LCD offers better readability  
of parameters

Description	Cat. No.	M.R.P. (₹) Per Unit
Dualsource LED meter CI1	WL4040100000	4380
Dualsource LED meter CI1 with RS485	WL4040110000	5415
Dualsource LED meter CI0.5	WL4040200000	5205
Dualsource LED meter CI0.5 with RS485	WL4040210000	6405
Dualsource LCD meter CI1	WC4040100000	4820
Dualsource LCD meter CI1 with RS485	WC4040110000	5890
Dualsource LCD meter CI0.5	WC4040200000	5660
Dualsource LCD meter CI0.5 with RS485	WC4040210000	6795

## Basic Multifunction Meters [9030]

### 4400 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- True PF or Displacement PF site selectable
- V, A, F, PF, kW, kVA, Old energy, Load hours, site selectable kWh/ kVAh



LCD offers better readability  
of parameters

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4400 LED meter CI 1	WL4400100000	4220
MFM 4400 LED meter CI 1 with RS485	WL4400110000	5215
MFM 4400 LED meter CI 0.5 with RS485	WL4400210000	6165
MFM 4400 LED meter CI 0.5S with RS485	WL4400310000	6230
MFM 4400 LCD meter CI 1	WC4400100000	4650
MFM 4400 LCD meter CI 1 with RS485	WC4400110000	5675

## Basic Multifunction Meters [9030]

### 4405 Series

#### Features

- Accuracy Class 1.0, 0.5
- Input voltage measurement range 50-520 VAC
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- V, A, F, PF, kW, kVA, Old energy, On and Run hours, site selectable kWh/ kVAh
- True PF or Displacement PF site selectable

All parameters  
of 4400 series  
in 3 line  
LED display



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4405 LED meter CI 1	WL4405100000	5725
MFM 4405 LED meter CI 1 with RS485	WL4405110000	6785
MFM 4405 LED meter CI 0.5 with RS485	WL4405210000	7800
MFM 4405 LED meter CI 0.5S with RS485	WL4405310000	7865

## Multifunction Meters [9030]

#### Features

- Accuracy Class 1.0, 0.5, 0.5S, 0.2, 0.2S
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- 128 samples / cycle
- My favourite page in LCD multifunction meters site selectable for kWh + 2 parameters
- Dedicated buttons available for direct access to Basic, Power and Energy parameters

True and  
Displacement  
PF available

Constant Wh viewing in LCD  
MFM even in auto scroll mode.  
LCD offers better readability  
of parameters



### 4410 Series

- Parameters: V, A, F, PF, kW, kVA, kVAR, kWh, kVAh, kVARh, Runhours, On hours, Phase angle, Interrupts, THD, Events (High-Low), Neutral Current, K Factor

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4410 LED meter CI 1	WL4410100000	8015
MFM 4410 LED meter CI 1 with RS485	WL4410110000	9165
MFM 4410 LED meter CI 0.5 with RS485	WL4410210000	10880
MFM 4410 LED meter CI 0.5S with RS485	WL4410310000	12025
MFM 4410 LED meter CI 0.2 with RS485	WL4410410000	14315
MFM 4410 LED meter CI 0.2S with RS485	WL4410510000	18320
MFM 4410 LCD meter CI 1	WC4410100000	9425
MFM 4410 LCD meter CI 1 with RS485	WC4410110000	10595
MFM 4410 LCD meter CI 0.5 with RS485	WC4410210000	12360
MFM 4410 LCD meter CI 0.5S with RS485	WC4410310000	13540
MFM 4410 LCD meter CI 0.2 with RS485	WC4410410000	15890
MFM 4410 LCD meter CI 0.2S with RS485	WC4410510000	20005

## 4420 Series Max Demand Indicator (without Real time clock)

Parameters:

- All parameters of 4410 series
- Maximum Demand (kW & kVA)

2 Relay outputs for MD Alarm

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4420 LED meter CI 1	WL4420100000	11800
MFM 4420 LED meter CI 1 with RS485	WL4420110000	12920
MFM 4420 LED meter CI 0.5 with RS485	WL4420210000	14610
MFM 4420 LED meter CI 0.5S with RS485	WL4420310000	15735
MFM 4420 LED meter CI 0.2 with RS485	WL4420410000	17980
MFM 4420 LED meter CI 0.2S with RS485	WL4420510000	21915
MFM 4420 LCD meter CI 1	WC4420100000	13540
MFM 4420 LCD meter CI 1 with RS485	WC4420110000	14720
MFM 4420 LCD meter CI 0.5 with RS485	WC4420210000	16485
MFM 4420 LCD meter CI 0.5S with RS485	WC4420310000	17655
MFM 4420 LCD meter CI 0.2 with RS485	WC4420410000	20005
MFM 4420 LCD meter CI 0.2S with RS485	WC4420510000	24135

For Max Demand Controller (with Real time clock) please refer 6000 series

## 4430 Series MFM for IE

Parameters:

- All parameters of Model 4420 series
- Bi-directional (Import-Export)

2 Relay outputs for MD Alarm

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4430 LED meter CI 1	WL4430100000	16590
MFM 4430 LED meter CI 1 with RS485	WL4430110000	17660
MFM 4430 LED meter CI 0.5 with RS485	WL4430210000	19260
MFM 4430 LED meter CI 0.5S with RS485	WL4430310000	20330
MFM 4430 LED meter CI 0.2 with RS485	WL4430410000	22475
MFM 4430 LED meter CI 0.2S with RS485	WL4430510000	26220
MFM 4430 LCD meter CI 1	WC4430100000	17660
MFM 4430 LCD meter CI 1 with RS485	WC4430110000	18725
MFM 4430 LCD meter CI 0.5 with RS485	WC4430210000	20330
MFM 4430 LCD meter CI 0.5S with RS485	WC4430310000	21400
MFM 4430 LCD meter CI 0.2 with RS485	WC4430410000	23540
MFM 4430 LCD meter CI 0.2S with RS485	WC4430510000	27290

## 4440 Series

Parameters:

- All parameters of 4410 series
- Maximum Demand with Real Time Clock (RTC)
- Events (high-low) with time stamp

Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 4440 LED meter CI 1 with RS485	WL4440110000	14775
MFM 4440 LED meter CI 0.5 with RS485	WL4440210000	16610
MFM 4440 LED meter CI 0.2 with RS485	WL4440410000	20310
MFM 4440 LCD meter CI 1 with RS485	WC4440110000	16005
MFM 4440 LCD meter CI 0.5 with RS485	WC4440210000	17845
MFM 4440 LCD meter CI 0.2 with RS485	WC4440410000	21540

## 5000 Series

Features

- Datalog (8 MB)
- Bi-directional (Import - Export)
- 128 samples/ cycle
- Analog I/O, digital I/O variants available
- Meter with Ethernet port available

True and Displacement PF available

Parameters:

- V, A, F, kW, KVA, kVAR, kWh, kVAh, kVArh, PF, Runhr, Onhr, Interupts, Phase angle, THD, Neutral current, Max Demand (with RTC) K Factor
- Bi-directional (Import-Export)
- Events (high-low) with time stamp
- Individual Harmonics upto 31st.
- My favourite page in LCD multifunction meters site selectable for kWh + 2 parameters

Constant Wh viewing in LCD MFM even in auto scroll mode. LCD offers better readability of parameters



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 5000 LED meter CI 1 with RS485	WL5000110000	32730
MFM 5000 LED meter CI 1 with Ethernet	WL5000120000	37190
MFM 5000 LED meter CI 0.5 with Ethernet	WL5000220000	38785
MFM 5000 LED meter CI 0.5S with Ethernet	WL5000320000	39850
MFM 5000 LCD meter CI 1 with RS485	WC5000110000	33800
MFM 5000 LCD meter CI 1 with Ethernet	WC5000120000	38255
MFM 5000 LCD meter CI 0.5 with RS485	WC5000210000	35385
MFM 5000 LCD meter CI 0.5S with RS485	WC5000310000	36455
MFM 5000 LCD meter CI 0.5 with Ethernet	WC5000220000	39850
MFM 5000 LCD meter CI 0.5S with Ethernet	WC5000320000	40910
MFM 5000 LCD meter CI 0.2 with RS485	WC5000410000	38575
MFM 5000 LCD meter CI 0.2S with RS485	WC5000510000	42295
MFM 5000 LED meter CI 1 RS485 2A/O	WL5000110BOO	35380
MFM 5000 LED meter CI 0.5 RS485 2D/I	WL5000210OBO	36975
MFM 5000 LED meter CI 0.5 RS485 4D/O	WL5000210OOD	38040
MFM 5000 LCD meter CI 1 RS485 2A/O	WC5000110BOO	36450
MFM 5000 LCD meter CI 0.5 RS485 2D/I	WC5000210OBO	38040
MFM 5000 LCD meter CI 0.5 RS485 4D/O	WC5000210OOD	39105
MFM 5000 LCD meter CI 1 + RS485, 1AO, 1DO	WC5000110AOA	36685

5000 series with Digital outputs are preconfigured for I - THD% at 8% and True PF at 0.98.

Meter can be site selected for parameters and values - A THD, V THD, VA, W, under PF, under/over (VLL, A, F) with programmable trip time (1 to 180 sec) to protect the equipments from electrical abnormalities.

Parameters	Data Log Interval			
	15 Min	30 Min	45 Min	60 Min
No. of Days				
1	10230	20460	30690	40920
2	6820	13640	20460	27280
4	4092	8184	12276	16368
9	2046	4092	6138	8184
14	1364	2728	4092	5456
29	682	1364	2046	2728

# Advanced Multifunction Meters [9030]

## 5010 Series

True and Displacement PF available

### Features

- 128 samples / cycle
- Running demand, max demand, prediction demand in single page window

Parameters:

- V, A, F, kW, KVA, kVAh, kWh, kVAh, kVAh, PF, Runhr, Onhr, Interrupts, Phase angle, THD, Neutral current, Max Demand (with RTC)
- Bi-directional (Import-Export)
- Events (high-low) with time stamp
- Individual Harmonics upto 31st.



Description	Cat. No.	M.R.P. (₹) Per Unit
MFM 5010 LED meter CI 1	WL5010100000	12045
MFM 5010 LED meter CI 1 with RS485	WL5010110000	13145
MFM 5010 LED meter CI 0.5S	WL5010300000	14785
MFM 5010 LED meter CI 0.5S with RS485	WL5010310000	15880
MFM 5010 LED meter CI 0.2 with RS485	WL5010410000	18075

# Maximum Demand Controller [9030]

## 6000 Series

### Features

- Accuracy Class 1.0, 0.5S
- Input voltage measurement range 50-520 VAC (P-P)
- Aux supply 80-300 VAC/DC
- CT secondary site selectable 1A / 5A
- Flush mounting 96 x 96 mm
- CT/PT site programmable
- Datalog (8MB)
- 4 relay outputs for Max. demand controller
- Time of Day (TOD) 6 slots available
- Block/sliding window site selectable
- Running demand, max demand, prediction demand in single page window
- Individual harmonics upto 31st

8MB Datalog preconfigured for 9 parameters including kWh, Running demand and Max Demand for 15 mins interval

Parameters:

- V, A, F, kW, KVA, kVAh, kWh, kVAh, kVAh, PF, Runhr, Onhr, Intr, Phase angle, THD, Events, Neutral current, Max Demand (with RTC)



True and Displacement PF available

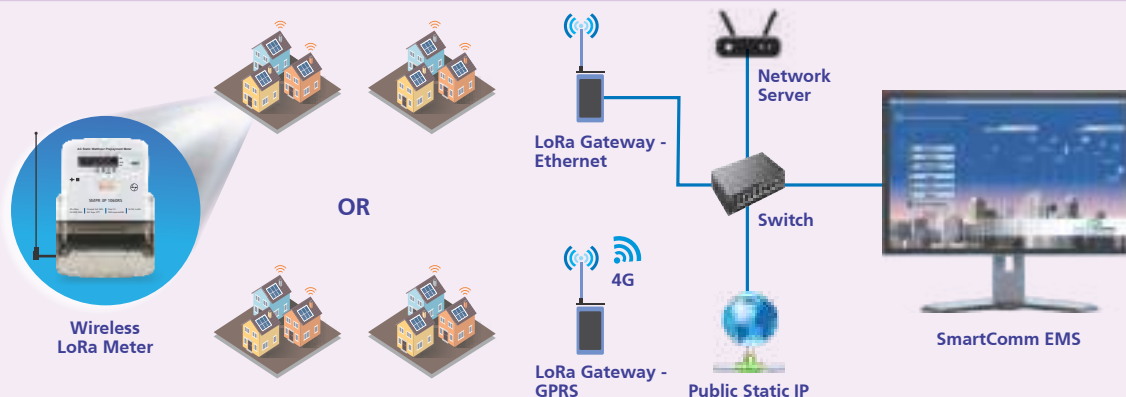
Description	Cat. No.	M.R.P. (₹) Per Unit
MDC 6000 LED meter CI 1 with RS485	WL6000110000	27990
MDC 6000 LED meter CI 0.5S with RS485	WL6000310000	30680
MDC 6000 LCD meter CI 1 with RS485	WC6000110000	29065
MDC 6000 LCD meter CI 0.5S with RS485	WC6000310000	31760

# Prepaid Metering Solutions with SmartComm EMS [9030]



- Dual source meters by default
- Class 1 accuracy as per IS 15884
- Ratings : 1P (10-60A) : 3P (10-60A, 20-80A, CT operated)
- Parameters: V, A, PF, W, VA, Wh - EB, DG
- Communication: Wired (Modbus RS485) or Wireless (LoRaWAN)
- Facility for connection or disconnection of electric supply based on the credit balance in the meter through relay
- Server maintained at site itself
- Optional
  - In RS485 model upto 4DI for water and gas meter
  - In LoRaWAN model upto 2DI for water and gas meters
- Wireless postpaid or prepaid metering solutions for large townships on SmartComm EMS Platform available.
- With LoRaWAN technology, meters upto 1 km approx from LoRa Gateway can be monitored without Line of sight.
- Prices available on request.

## Connect large townships with wireless energy meters on IoT based SmartComm EMS





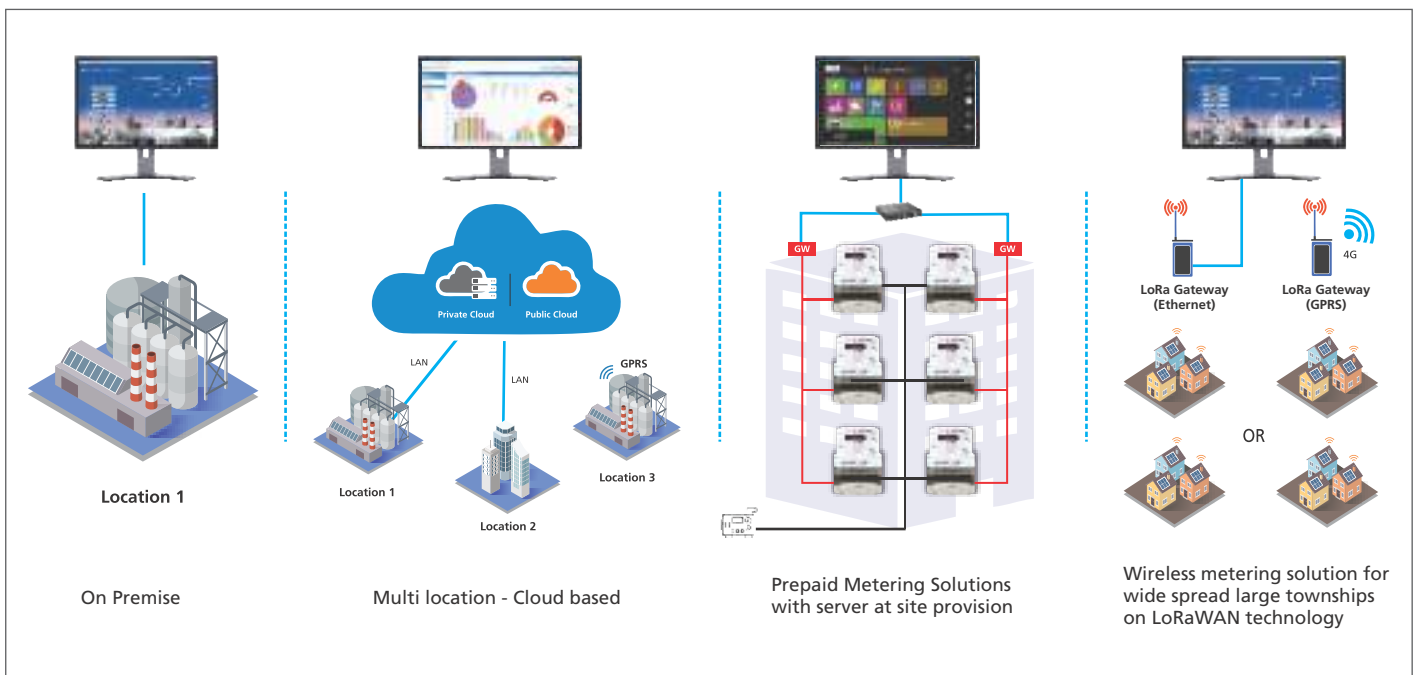
## SmartComm EMS

Simple and powerful energy monitoring software with multiple benefits that empowers the user to save money.

### Features:

- Glimpse of entire energy consumption in the plant through dashboard
- Quick understanding of energy consumption of today compared to yesterday, this month consumption compared to last month as well as yoy energy comparison through dashboard.
- Easy navigation through the modules
- Excel reports with charts
- All parameters in the device can be monitored from the software
- Multiple combination of devices and parameters for analysis
- Provision to generate multiple report types
- Specific Energy Consumption (SEC) report
- Access to features defined by user levels
- E&A meters preconfigured in the software
- Monitor ON, OFF, Trip, Ready to close status of circuit breaker through E&A's UNCO module with on premise solution
- Control Circuit breaker ON & OFF, provision for breaker On & Trip counter, last 20 trips date & time stamp with on premise solution
- Email & SMS notification
- SmartComm EMS license ordering is based on number of nodes i.e meters / UNCO module to be connected in the system.

Please scan the QR code and fill in the details on the webpage ([www.intebg.com/ems](http://www.intebg.com/ems)) to schedule a demo of SmartComm EMS to get started on your Energy Management journey.



Please contact nearest branch office for optimal Energy Monitoring Solution and network architecture with SmartComm EMS software.

# AC Drive Solutions from L&T Electrical & Automation

Based on experience. Backed by commitment.



## **Hx2000** HVAC Drive

Hx2000 AC drive adds a new dimension to our AC Drive Solutions.

Built to stringent quality standards, the Hx2000 is tested and certified to meet global benchmarks, thus giving you the assurance of total reliability.

It sets the standard for the drive industry by introducing Innovative Energy Reduction, Environment friendly features for HVAC System that incorporates the outstanding energy saving benefits for Fans & Pump application.

**Range: 0.75kW to 90kW**

### Features:

- Built-in RTC for Scheduling
- Built-in EMC filter as default (C3)
- Built-in 4 PID (1 Main & 3 EPID)
- Multiple-Motor Control (1 main motor and 5 auxiliary motors)
- Built-in Payback Counter
- Pump Clean Control
- V/F, Slip Compensation
- Fire Mode
- Flow Compensation
- Password Protection
- Built-in RS485 Communication for HVAC - BACnet, Modbus-RTU, Metasys N2
- Lubrication Control
- Dry Pump Detection
- Global Compliant- UL Plenum Rated, CE

### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

# Nx2000<sup>+</sup>

High on compactness,  
Higher on functionality



- Complying to IEC 61800 - 3 Standard
- Reduced electrical noise and more immune to external noise



- LTOP-DOP-52 : Easy to mount on panel door
- Comes with 3 metre cable



- 2 Nos Multifunctional Relay Output
- Rating: 250VAC/30VDC-1A



- Easy to fix
- Allows quick installation for side by side mounting

# Fx2000

Internally mounted  
PLC optional module



- Digital Points: 6 Nos (NPN/PNP)
- Digital Output points: 4 Nos (Relay)
- RS-232 port to download program from KGLWIN
- RS485 (Modbus-RTU) port for Master/Slave Configuration
- 2 Nos LED indication (Green: RUN LED, Red: ERROR LED)
- 3 step switch for RUN, PAU/REM, STOP
- Built-in RTC (Real Time Clock) for various Clock functions
- Data of latch area and RTC data through using CR2032 lithium battery

# AC Drives [8504]



## New Series Nx2000 & Nx2000+



- Range: 0.2 kW to 11 kW
- Simplified sensorless vector control
- Built-in EMC filter to meet IEC 61800-3
- Built-in Potentiometer
- DIN Rail mounting for Side-by-Side installation
- Built-in PID
- Built-in Brake Control
- Conformal Coating complying to IEC 60721-3-3 class 3C3 Avg.
- Built-in RS485 Modbus RTU
- Interface:  
Nx2000: 5DI, 2DO (R), 2AI (V & V/I), 1AO (V)  
Nx2000+: 5DI, 2DO (R), 2AI (V & I), 1AO (V)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase 230VAC	Nx2000 230V 1Ph Drive 0.20 kW (HD)	LTVF-N101P4BAA	*
	Nx2000 230V 1Ph Drive 0.40 kW (HD)	LTVF-N102P4BAA	*
	Nx2000 230V 1Ph Drive 0.75 kW (HD)	LTVF-N104P2BAA	*
	Nx2000 230V 1Ph Drive 1.50 kW (HD)	LTVF-N107P5BAA	*
	Nx2000 230V 1Ph Drive 2.20 kW (HD)	LTVF-N110P0BAA	*
Three Phase 230VAC	Nx2000+ 230V Drive 0.40kW(HD)/0.75kW(ND)	LTVF-N203P1BAA	*
	Nx2000+ 230V Drive 0.75kW(HD)/1.50kW(ND)	LTVF-N206P0BAA	*
	Nx2000+ 230V Drive 1.50kW(HD)/2.20kW(ND)	LTVF-N209P6BAA	*
	Nx2000+ 230V Drive 2.20kW(HD)/3.70kW(ND)	LTVF-N212P0BAA	*
	Nx2000+ 230V Drive 4.00kW(HD)/5.50kW(ND)	LTVF-N218P0BAA	*
	Nx2000+ 230V Drive 5.50kW(HD)/7.50kW(ND)	LTVF-N230P0BAA	*
	Nx2000+ 230V Drive 7.50kW(HD)/11.0kW(ND)	LTVF-N240P0BAA	*
Three Phase 415VAC	Nx2000+ 415V Drive 0.40kW(HD)/0.75kW(ND)	LTVF-N402P0BAA	*
	Nx2000+ 415V Drive 0.75kW(HD)/1.50kW(ND)	LTVF-N403P1BAA	*
	Nx2000+ 415V Drive 1.50kW(HD)/2.20kW(ND)	LTVF-N405P1BAA	*
	Nx2000+ 415V Drive 2.20kW(HD)/3.70kW(ND)	LTVF-N406P9BAA	*
	Nx2000+ 415V Drive 4.00kW(HD)/5.50kW(ND)	LTVF-N410P0BAA	*
	Nx2000+ 415V Drive 5.50kW(HD)/7.50kW(ND)	LTVF-N416P0BAA	*
	Nx2000+ 415V Drive 7.50kW(HD)/11.0kW(ND)	LTVF-N423P0BAA	*

Note: \* For prices please contact nearest branch office

## Smart Series Sx2000



- Range: 0.75kW to 90kW
- Starting Torque: 150% at 3 Hz for V/F, 200% at 0.5Hz for Sensorless Vector Control
- Built-in Brake Control
- Built-in PLC functionality
- Peer to Peer Communication to share I/O's
- Conformal Coating complying to IEC 60721-3-3 Class 3C3 Avg.
- Built-in RS485 Modbus RTU
- Component Life Monitor
- Built-in Braking Chopper till 30kW ND
- Interface :  
Upto 30kW ND: 7DI, 2DO (R+T), 2AI (V & V/I), 1AO (V/I)  
From 37kW ND: 7DI, 3DO (2R+T), 2AI (V & V/I), 2AO (V & V/I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase 230Vac	Sx2000 VVVF 230V 1Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S10003BAA	*
	Sx2000 VVVF 230V 1Ph Drive 0.75 kW (HD) / 1.5 kW (ND)	LTVF-S10006BAA	*
	Sx2000 VVVF 230V 1Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-S10010BAA	*
	Sx2000 VVVF 230V 1Ph Drive 2.2 kW (HD) / 3.70 kW (ND)	LTVF-S10012BAA	*
Three Phase 230Vac	Sx2000 VVVF 230V 3Ph Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S20003BAA	*
	Sx2000 VVVF 230V 3Ph Drive 0.75 kW (HD) / 1.5 kW (ND)	LTVF-S20006BAA	*
	Sx2000 VVVF 230V 3Ph Drive 1.5 kW (HD) / 2.20 kW (ND)	LTVF-S20010BAA	*
	Sx2000 VVVF 230V 3Ph Drive 2.2 kW (HD) / 3.70 kW (ND)	LTVF-S20012BAA	*
	Sx2000 VVVF 230V 3Ph Drive 4.0 kW (HD) / 5.5 kW (ND)	LTVF-S20018BAA	*
	Sx2000 VVVF 230V 3Ph Drive 5.5 kW (HD) / 7.5 kW (ND)	LTVF-S20030BAA	*
	Sx2000 VVVF 230V 3Ph Drive 7.5 kW (HD) / 11 kW (ND)	LTVF-S20040BAA	*
	Sx2000 VVVF 230V 3Ph Drive 11 kW (HD) / 15 kW (ND)	LTVF-S20056BAA	*
	Sx2000 VVVF 230V 3Ph Drive 15 kW (HD) / 18.5 kW (ND)	LTVF-S20069BAA	*
	Sx2000 VVVF 230V 3Ph Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-S20091BAA	*
Three Phase 415Vac	Sx2000 VVVF 415V Drive 0.40 kW (HD) / 0.75 kW (ND)	LTVF-S40002BAA	*
	Sx2000 VVVF 415V Drive 0.75 kW (HD) / 1.50 kW (ND)	LTVF-S40003BAA	*
	Sx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-S40005BAA	*
	Sx2000 VVVF 415V Drive 2.20 kW (HD) / 3.7 kW (ND)	LTVF-S40007BAA	*
	Sx2000 VVVF 415V Drive 4.00 kW (HD) / 5.50 kW (ND)	LTVF-S40010BAA	*
	Sx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-S40016BAA	*
	Sx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-S40023BAA	*
	Sx2000 VVVF 415V Drive 11.0 kW (HD) / 15.0 kW (ND)	LTVF-S40030BAA	*
	Sx2000 VVVF 415V Drive 15.0 kW (HD) / 18.5 kW (ND)	LTVF-S40038BAA	*
	Sx2000 VVVF 415V Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-S40044BAA	*
	Sx2000 VVVF 415V Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-S40058BAA	*
	Sx2000 VVVF 415V Drive 30.0 kW (HD) / 37.0 kW (ND)	LTVF-S40075BAA	*
	Sx2000 VVVF 415V Drive 37.0 kW (HD) / 45.0 kW (ND)	LTVF-S40091BAA	*
	Sx2000 VVVF 415V Drive 45.0 kW (HD) / 55.0 kW (ND)	LTVF-S40107BAA	*
Sx2000 VVVF 415V Drive 55.0 kW (HD) / 75.0 kW (ND)	LTVF-S40142BAA	*	
Sx2000 VVVF 415V Drive 75.0 kW (HD) / 90.0 kW (ND)	LTVF-S40169BAA	*	

Note:

\* For prices please contact nearest branch office  
Drives are covered under HS code 8504 40 90 and are charged at 18% GST.



## Smart Series Sx2000 IP66



- Range: 0.40 to 22kW (HD)
- V/F, Slip Compensation, Sensorless Vector Control
- Starting Torque: 150% at 3Hz for V/F, 200% at 0.5Hz for Sensorless Vector Control
- Conformal Coating complying to IEC 60721-3-3, Class 3C3 Avg.
- Built-in RS485 Modbus
- Peer to Peer communication to share I/Os
- Built-in Brake Control
- Built-in PLC functionality
- Component Life Monitor
- Built-in PID
- Built-in Braking Chopper
- Interface: 5DI, 2DO (R+T), 2AI (V & I/I), 1AO (V/I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Sx2000 VVVF 415V IP66 Drive 0.40 kW (HD)	LTVF-S40001XAA	*
	Sx2000 VVVF 415V IP66 Drive 0.75 kW (HD)	LTVF-S40003XAA	*
	Sx2000 VVVF 415V IP66 Drive 1.50 kW (HD)	LTVF-S40004XAA	*
	Sx2000 VVVF 415V IP66 Drive 2.20 kW (HD)	LTVF-S40006XAA	*
	Sx2000 VVVF 415V IP66 Drive 4.00 kW (HD)	LTVF-S40009XAA	*
	Sx2000 VVVF 415V IP66 Drive 5.50 kW (HD)	LTVF-S40012XAA	*
	Sx2000 VVVF 415V IP66 Drive 7.50 kW (HD)	LTVF-S40016XAA	*
	Sx2000 VVVF 415V IP66 Drive 11.0 kW (HD)	LTVF-S40024XAA	*
	Sx2000 VVVF 415V IP66 Drive 15.0 kW (HD)	LTVF-S40030XAA	*
	Sx2000 VVVF 415V IP66 Drive 18.5 kW (HD)	LTVF-S40039XAA	*
Sx2000 VVVF 415V IP66 Drive 22.0 kW (HD)	LTVF-S40045XAA	*	

**Note:** \* For prices please contact nearest branch office

## Flexi Series Fx2000



- Range: 0.75kW to 375kW (HD)
- Ideal for Heavy Duty Applications - Crane, Winder, Textile Application, Plastic extruders
- Starting Torque: 250% at 0Hz for Closed Loop Vector Control
- Overload Capacity: 200% for 3 sec and 150% for 1 min
- Built-in Crane function
- Optional Smart PLC Card
- Conformal Coating complying to IEC 60721-3-3 Class 3C3 Avg.
- Built-in RS485 Modbus RTU
- Built-in DC Reactor from 22kW to 220kW HD
- Built-in Braking Chopper till 22kW HD
- Interface : 8DI, 3DO (2R+1T), 2AI (V & I), 2AO (V & I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Fx2000 VVVF 415V Drive 0.75 kW (HD) / 1.50 kW (ND)	LTVF-F40004CAA	*
	Fx2000 VVVF 415V Drive 1.50 kW (HD) / 2.20 kW (ND)	LTVF-F40006CAA	*
	Fx2000 VVVF 415V Drive 2.20 kW (HD) / 3.70 kW (ND)	LTVF-F40008CAA	*
	Fx2000 VVVF 415V Drive 3.70 kW (HD) / 4.00 kW (ND)	LTVF-F40012CAA	*
	Fx2000 VVVF 415V Drive 5.50 kW (HD) / 7.50 kW (ND)	LTVF-F40016CAA	*
	Fx2000 VVVF 415V Drive 7.50 kW (HD) / 11.0 kW (ND)	LTVF-F40024CAA	*
	Fx2000 VVVF 415V Drive 11.0 kW (HD) / 15.0 kW (ND)	LTVF-F40030CAA	*
	Fx2000 VVVF 415V Drive 15.0 kW (HD) / 18.5 kW (ND)	LTVF-F40039CAA	*
	Fx2000 VVVF 415V Drive 18.5 kW (HD) / 22.0 kW (ND)	LTVF-F40045CAA	*
	Fx2000 VVVF 415V Drive 22.0 kW (HD) / 30.0 kW (ND)	LTVF-F40061CAA	*
	Fx2000 VVVF 415V Drive 30.0 kW (HD) / 37.0 kW (ND)	LTVF-F40075CAA	*
	Fx2000 VVVF 415V Drive 37.0 kW (HD) / 45.0 kW (ND)	LTVF-F40091CAA	*
	Fx2000 VVVF 415V Drive 45.0 kW (HD) / 55.0 kW (ND)	LTVF-F40110CAA	*
	Fx2000 VVVF 415V Drive 55.0 kW (HD) / 75.0 kW (ND)	LTVF-F40152CAA	*
	Fx2000 VVVF 415V Drive 75.0 kW (HD) / 90.0 kW (ND)	LTVF-F40183CAA	*
	Fx2000 VVVF 415V Drive 90.0 kW (HD) / 110 kW (ND)	LTVF-F40223AAA	*
	Fx2000 VVVF 415V Drive 110 kW (HD) / 132 kW (ND)	LTVF-F40264AAA	*
	Fx2000 VVVF 415V Drive 132 kW (HD) / 160 kW (ND)	LTVF-F40325AAA	*
	Fx2000 VVVF 415V Drive 160 kW (HD) / 185 kW (ND)	LTVF-F40370AAA	*
	Fx2000 VVVF 415V Drive 185 kW (HD) / 220 kW (ND)	LTVF-F40432AAA	*
Fx2000 VVVF 415V Drive 220 kW (HD) / 285 kW (ND)	LTVF-F40547AAA	*	
Fx2000 VVVF 415V Drive 285 kW (HD) / 315 kW (ND)	LTVF-F40613AAA	*	
Fx2000 VVVF 415V Drive 315 kW (HD) / 375 kW (ND)	LTVF-F40731AAA	*	
Fx2000 VVVF 415V Drive 375 kW (HD) / 450 kW (ND)	LTVF-F40877AAA	*	

**Note:**

\* For prices please contact nearest branch office  
Drives are covered under HS code 8504 40 90 and are charged at 18% GST.

# AC Drives [8504]

## HVAC Series Hx2000



- Range: 0.75 to 90kW
- V/F, Slip Compensation
- Built-in RTC for Scheduling
- Built-in EMC filter class C3
- Password Protection
- Multi-motor Control
- Built-in Payback Counter
- Dry Pump Detection
- Built-in 4 PID (1 Main & 3 EPID)
- Built-in RS485 Communication, BACnet, Modbus-RTU, Metasys N2
- Global Specification Compliant - CE, UL (Plenum Rated)
- Conformal Coating complying to IEC 60721-3-3, Class 3C2 (3C3 Avg.)
- Interface: 7DI, 6DO (5R+1T), 2AI (V & V/I), 2AO (V & V/I)

Input Voltage	Description	Cat. No.	M.R.P. (₹) Per Unit
Three Phase 415Vac	Hx2000 VVVF 415V Drive 0.75 kW (ND)	LTVF-H40002BAA	*
	Hx2000 VVVF 415V Drive 1.50 kW (ND)	LTVF-H40004BAA	*
	Hx2000 VVVF 415V Drive 2.20 kW (ND)	LTVF-H40006BAA	*
	Hx2000 VVVF 415V Drive 3.7 kW (ND)	LTVF-H40008BAA	*
	Hx2000 VVVF 415V Drive 5.50 kW (ND)	LTVF-H40012BAA	*
	Hx2000 VVVF 415V Drive 7.50 kW (ND)	LTVF-H40016BAA	*
	Hx2000 VVVF 415V Drive 11.0 kW (ND)	LTVF-H40024BAA	*
	Hx2000 VVVF 415V Drive 15.0 kW (ND)	LTVF-H40030BAA	*
	Hx2000 VVVF 415V Drive 18.5 kW (ND)	LTVF-H40038BAA	*
	Hx2000 VVVF 415V Drive 22.0 kW (ND)	LTVF-H40045BAA	*
	Hx2000 VVVF 415V Drive 30.0 kW (ND)	LTVF-H40061BAA	*
	Hx2000 VVVF 415V Drive 37.0 kW (ND)	LTVF-H40075BAA	*
	Hx2000 VVVF 415V Drive 45.0 kW (ND)	LTVF-H40091BAA	*
	Hx2000 VVVF 415V Drive 55.0 kW (ND)	LTVF-H40107BAA	*
	Hx2000 VVVF 415V Drive 75.0 kW (ND)	LTVF-H40142BAA	*
Hx2000 VVVF 415V Drive 90.0 kW (ND)	LTVF-H40169BAA	*	

Note: \* For prices please contact nearest branch office

## Accessories for AC Drives [8504]

Drive Model	Description	Cat. No.	M.R.P. (₹) Per Unit
Nx2000	Nx2000 Remote Keypad with 3m cable	LTOP-DOP-51	*
Nx2000+	Nx2000+ Remote Keypad with 3m cable	LTOP-DOP-52	*
	CANOpen Comm Card for Nx2000+	LTCI-CAN-NP	*
	Eth.IP/Mod.TCP/RAPIDnet Opt for Nx2000+	LTCI-ETH-NP	*
	Profibus-DP Comm Card for Nx2000+	LTCI-PDP-NP	*
Sx2000	Sx2000 Remote Keypad with 3m cable	LTOP-DOP-150	*
	LCD Digital Operator	LTOP-DOP-200	*
	I/O Expansion Card for Sx2000	LTIO-EXP-S	*
	CANOpen Communication card	LTCI-CAN-S	*
	Profibus-DP Communication card	LTCI-PDP-S.	*
	Profinet option card for Sx2000	LTCI-PFN-S	*
	Ethernet IP - Modbus TCP Communication card	LTCI-ETH-S.	*
Fx2000	LCD Digital Operator	LTOP-DOP-200	*
	I/O Expansion Card 1 for Fx2000	LTIO-EX1-F	*
	I/O Expansion Card 2 for Fx2000	LTIO-EX2-F	*
	Synchronization Option Card	LTCN-SYN-F	*
	Position control option card for Fx2000	LTCN-PCN-F	*
	Incremental card for Open collector and Line Driver Encoder	LTEN-INC-F	*
	Application Development PLC Option card	LTAD-PLC-F	*
	Profibus-DP Communication Interface card	LTCI-PDP-F	*
	Profinet option card for Fx2000	LTCI-PFN-F	*
	CANOpen Communication Interface card	LTCI-CAN-F	*
	DeviceNet Communication Interface card	LTCI-DEN-F	*
Ethernet IP/Modbus TCP Communication Interface card	LTCI-ETH-F	*	
Hx2000	I/O Expansion Card for Hx2000	LTIO-EXP-H	*
	I/O Expansion Card 2 for Hx2000	LTIO-EXP2-H	*
DBU for Sx2000, Fx2000	Dynamic Braking Unit for 11 - 15kW	LTDBU-0150-4	*
	Dynamic Braking Unit for 18.5 - 22kW	LTDBU-0220-4	*
	Dynamic Braking Unit for 30 - 37kW	LTDBU-0370-4	*
	Dynamic Braking Unit for 45 - 55kW	LTDBU-0550-4	*
	Dynamic Braking Unit for 75kW	LTDBU-0750-4	*
	Dynamic Braking Unit for 75kW 100% ED	LTDBU-075H-4	*
Dynamic Braking Unit for 220 - 375kW	LTDBU-2200-4	*	

Note:

\* For prices please contact nearest branch office  
Drives are covered under HS code 8504 40 90 and are charged at 18% GST.

# Integrate your pumping solution with **EMX4** soft starters streamlined setup process



**PRODUCT RANGE:  
24A to 1250A**



## **Features :**

- Inbuilt Real Time Clock (RTC)
- Compact Design - Saves valuable space in panel
- On-board USB provides quick setup and backup
- Extensive voltage range - 200VAC to 525VAC, 380VAC to 690VAC
- IE3 Compatible and 99% energy efficient when running
- Smart cards Analog output Optional features for advanced applications
- Communication options: DeviceNet, Ethernet/IP, Modbus RTU, Modbus TCP, Profibus, Profinet

### **Customer Interaction Center (CIC)**

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)



## CSX Soft Starters



## CSXi Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSX-007-41	*
15	CSX-015-41	*
18	CSX-018-41	*
22	CSX-022-41	*
30	CSX-030-41	*
37	CSX-037-41	*
45	CSX-045-41	*
55	CSX-055-41	*
75	CSX-075-41	*
90	CSX-090-41	*
110	CSX-110-41	*

Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSXi-007-41	*
15	CSXi-015-41	*
18	CSXi-018-41	*
22	CSXi-022-41	*
30	CSXi-030-41	*
37	CSXi-037-41	*
45	CSXi-045-41	*
55	CSXi-055-41	*
75	CSXi-075-41	*
90	CSXi-090-41	*
110	CSXi-110-41	*

**Note:**

\* For prices please contact nearest branch office

The above CSX & CSXi ratings are based on 400% starting current, 10 starts per hour up to 30kW & 6 starts per hour for 37kW & above, 6 seconds starting time and ambient temperature of 45°C.

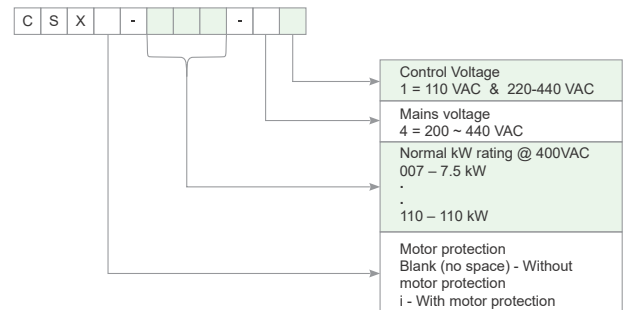
For proper sizing of soft starter based on the application parameters please use Winstart Software.

## Optional Modules/Cards for CSX / CSXi / EMX4



Description	Cat. No.	M.R.P. (₹) Per Unit
Modbus Interface	PIM-MB-01	*
Profibus Interface	PIM-PB-01	*
DeviceNet Interface	PIM-DN-01	*
USB Interface	PIM-USB-01	*
Modbus TCP Module	PIM-MT-01	*
Ethernet IP Module	PIM-EI-01	*
Profinet Module	PIM-PN-01	*
DeviceNet Card, EMX4	PIC-DN-01	*
Ethernet IP Card, EMX4	PIC-EI-01	*
Modbus RTU Card, EMX4	PIC-MB-01	*
Modbus TCP Card, EMX4	PIC-MT-01	*
Profibus Card, EMX4	PIC-PB-01	*
Profinet Card, EMX4	PIC-PN-01	*
Remote Keypad Card, EMX4	PIC-RC-01	*
Remote Keypad Card & Keypad EMX4	PIC-RC-02	*
Remote Keypad with cable & mounting kit, EMX4	PIC-RK-01	*
Smart Control Card Pump Application, EMX4	SCC-PC-01	*
Ground Fault + Ethernet IP Card EMX4	PIC-EI-02	*
Ground Fault + Modbus RTU Card EMX4	PIC-MB-02	*
Ground Fault + Modbus TCP Card EMX4	PIC-MT-02	*
Ground Fault + Profinet Card EMX4	PIC-PN-02	*

Ordering Information for CSX Series Soft Starter



CSX Soft Starters : For Standard Applications

- Inbuilt Bypass Contactor
- Soft Start / Soft Stop
- Compact
- Complements existing motor protection
- Truly plug & play
- Communication options available

CSXi Soft Starters : For standard applications

- Inbuilt Bypass Contactor
- Soft start / Soft stop / Adjustable current limit
- Essential motor protections against
  - Overload
  - Single phasing
  - Instantaneous overcurrent
  - Phase sequence reversal
  - Abnormality in supply
  - Unbalanced current
- Thermistor protection through PTC
- Excess start time setting
- Communication options available
- PC Interface as optional

We recommend the use of :

1. Line Contactor : This will isolate and protect the soft starter SCR's from any voltage transient while it's not in operation.
2. Bypass Contactor (For models without built-in bypass) : This will bypass and protect the soft starter SCR's while in running state from Current and Voltage transient's.
3. Semiconductor fuses : This will protect the starter SCR's during starting and stopping states from current transient's and excess I<sup>2</sup>T.

**Note:**

EMX3 soft starters will be available till stock lasts

\* For prices please contact nearest branch office

Soft Starters are covered under HS code 8504 40 90 and are charged at 18% GST.

Human Machine Interface

# iXP2 Series

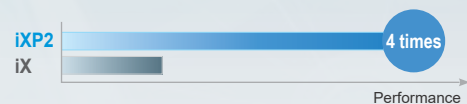
Intelligent XT Panel



iXP2 provides optimal performance for all industrial sites.

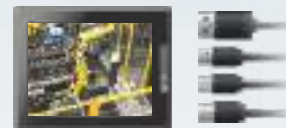
- **Dual-Core CPU offers high-speed communication and processing**

Better performance than ever with enhanced serial communication, CPU processing, memory access and vector/raster graphic processing



- **Multiple interface methods to cope with the Internet of Things**

Ethernet 2ch., HDMI / Audio output, USB host / device, multimedia (video)



- **Robust IP66 Aluminium frame**

Reinforced protection against water and dust. Conforms to NEMA 4X standard.



- **Screen gesture**

Flick to change screens.  
No extra switching button is needed to change screens.



- **Object gesture**

Select the object you want and then swipe and flick it.

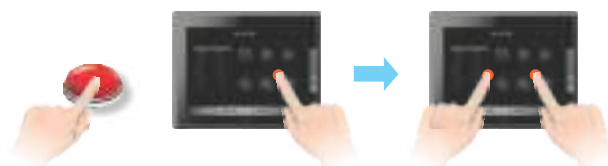
**Object list**

- Logging trend graph
- View logging history
- View history alarms



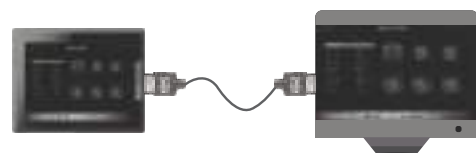
- **Multi-touch**

Use multi-touch to protect your system from undesired errors.

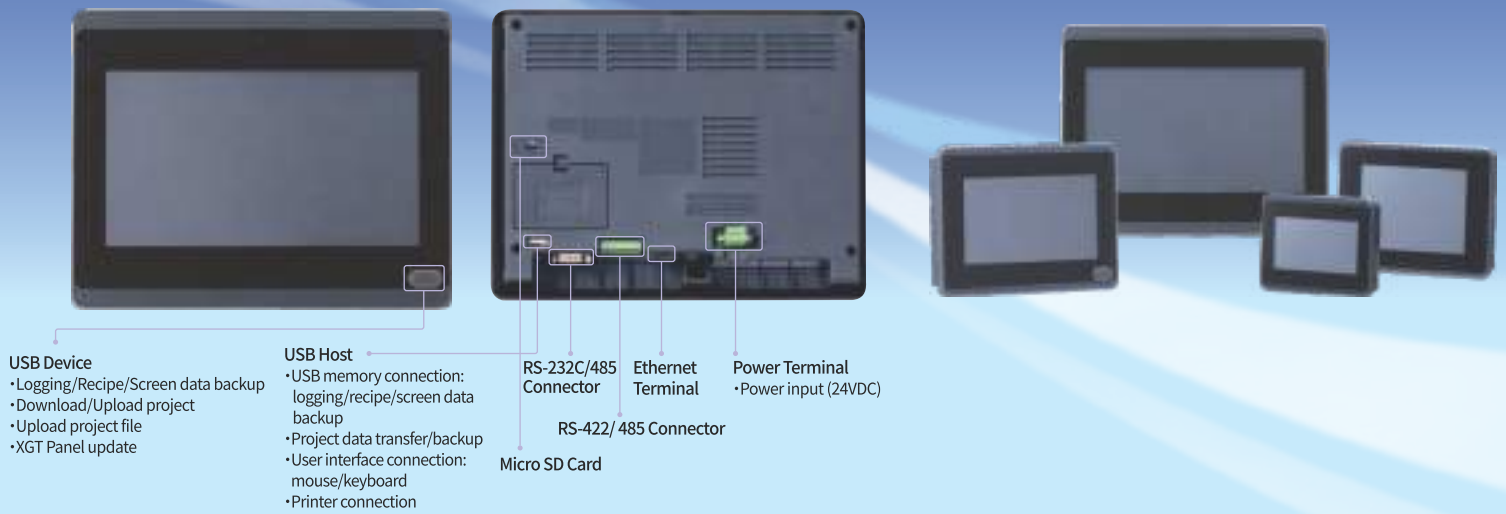


- **Dual monitor mode and extension mode**

Increase your convenience by duplicating or extending your screens.



# s-XT Reloaded



## ▶ Portrait Mode



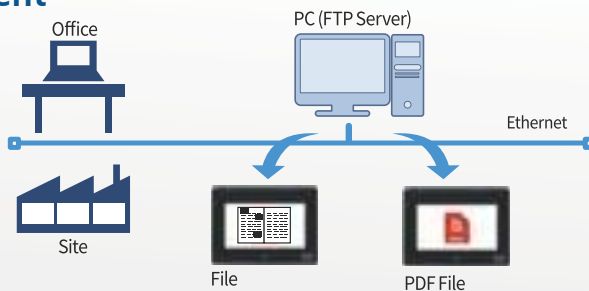
- Vertical mounting is available
- Setting in XP-Builder: [COMMON] - [Project Property Setting]

## ▶ PDF Viewer



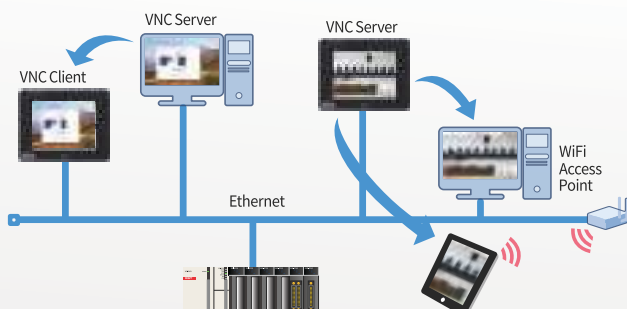
- PDF files can be displayed on XGT Panel.
- In the event of an alarm, the content of the alarm's trouble shooting can be checked on site as a PDF file.
- PDF files on an FTP sever can be displayed using a PDF viewer object.

## ▶ FTP Client



- FTP client is an object that can connect to the FTP sever, display the list of files and directories on the FTP server, and download the selected file.
- PDF files on an FTP server can be displayed using a PDF viewer object.

## ▶ VNC Viewer



- Remotely monitoring PC or HMI using VNC Viewer is available
  - Download VNC server to HMI using XP-Manager.
  - Install a universal VNC server on your PC. (Ultra VNC, Real VNC, etc.)
- Add 'VNC Viewer' object to the project screen.

# PLC

## Features:

- Processing speed: 0.06µs/step
- Expandable upto 10 modules
- Built-in Function: RTC, HSC, PTO, PID, Interrupt, Analog I/O
- Various communication Interface: Built-in USB / RS-232C / RS-485 / Ethernet, optional other communication modules
- Built-in Web-server, E-mail
- EtherCAT based motion control modules with Virtual Axis
- Built-in SD Card interface
- Smart Remote IO



## Range:

- Up to 352 local I/O points
- Up to 5728 remote I/O points

# HMI



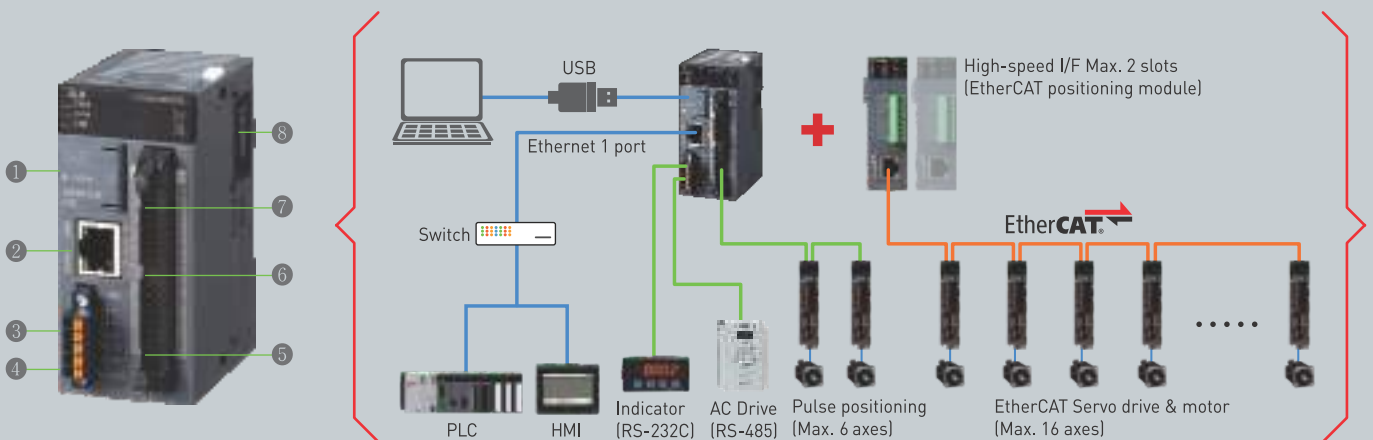
## Range:

- Text Display
- 4" ~ 15" TFT color LCD

## Features:

- Large Memory: Upto 128MB display data and 1MB back-up memory
- Various Communication Interface: Ethernet / RS-232C / RS-422/485
- USB host and device
- SD memory card interface
- Web server / Data monitoring
- Remote controlling and monitoring
- Presence sensor (within 1m)
- Sound Output

# XLB - HPL Series PLC



## Built in Function



1 Loader USB



2 Ethernet



3 RS-485 Cnet



4 RS-232 Cnet



5 Pulse positioning  
(Max. 6 axes)



6 DC input  
16 points



7 High-speed  
counter 4Ch



8 Network positioning  
Max. 16 axes (Option)



# XLB Series PLC - CPU [8537]



- Processing speed: 0.06μs/step
- Expandable upto 10 modules
- Built-in Function: RTC, HSC, PTO, PID, Interrupt, Analog I/O
- Various communication Interface: Built-in USB / RS-232C / RS-485 / Ethernet, optional other communication modules
- Built-in Web-server, E-mail
- EtherCAT based motion control modules with Virtual Axis
- Built-in SD Card interface
- Smart Remote IO

Category	Description	Cat. No.	M.R.P. (₹) Per Unit
E - Series	AC 110~220V, 6P DC Input, 4P TR (NPN) output	LTPCM-DN10E1	*
	AC 110~220V, 6P DC Input, 4P Relay output	LTPCM-DR10E1	*
	AC 110~220V, 8P DC Input, 6P TR(NPN) output	LTPCM-DN14E1	*
	AC 110~220V, 8P DC Input, 6P Relay output	LTPCM-DR14E1	*
	AC 110~220V, 12P DC Input, 8P TR(NPN) output	LTPCM-DN20E1	*
	AC 110~220V, 12P DC Input, 8P Relay output	LTPCM-DR20E1	*
	AC 110~220V, 18P DC Input, 12P TR(NPN) output	LTPCM-DN30E1	*
AC 110~220V, 18P DC Input, 12P Relay output	LTPCM-DR30E1	*	
CPU S - Series	AC 110~220V, 12P DC Input, 8P TR(NPN) output	LTPCM-DN20S1	*
	AC 110~220V, 12P DC Input, 8P Relay output	LTPCM-DR20S1	*
	AC 110~220V, 18P DC Input, 12P TR(NPN) output	LTPCM-DN30S1	*
	AC 110~220V, 18P DC Input, 12P Relay output	LTPCM-DR30S1	*
	AC 110~220V, 24P DC Input, 16P TR(NPN) output	LTPCM-DN40S1	*
	AC 110~220V, 24P DC Input, 16P Relay output	LTPCM-DR40S1	*
	AC 110~220V, 36P DC Input, 24P TR(NPN) output	LTPCM-DN60S1	*
AC 110~220V, 36P DC Input, 24P Relay Output	LTPCM-DR60S1	*	
U - Series	AC 110~220V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UB	*
	AC 110~220V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UA	*
	AC 110~220V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UP	*
	DC 24V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UB/DC	*
	DC 24V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UA/DC	*
DC 24V, 16P DC Input, 16P TR(NPN) output	LTPCM-DN32UP/DC	*	
HPL - Series	DC 24V, 16P DC Input, 16 Point TR (NPN) output	LTPCM-DN32HPL	*

# XT Series HMI [8537]

- Large Memory: Upto 128MB display data and 1MB back-up memory
- Various Communication Interface: Ethernet / RS-232C / RS-422/485
- USB host and device
- SD memory card interface
- Web server / Data monitoring
- Remote controlling and monitoring
- Presence sensor (within 1m)
- Sound Output

Category	Description	Cat. No.	M.R.P. (₹) Per Unit
b-XT Series 	4.1" Mono green LCD,DC24V	LTOP-B04DSAA	*
	4.1" Mono green LCD,DC24V,RTC	LTOP-B04DSAR	*
s-XT Series 	4" TFT, Ethernet, DC24V	LTOP-S04EDAA	*
	4" TFT, Ethernet, DC24V	LTOP-S04EDAB*	*
	7" TFT, Ethernet, DC24V	LTOP-S07EDAB*	*
	7" TFT, Ethernet, DC24V, SD Card slot	LTOP-S07EDAC**	*
	10.2" TFT, Ethernet, DC24V	LTOP-S10EDAB*	*
10.2" TFT, Ethernet, DC24V, SD card Slot	LTOP-S10EDAC**	*	
i-XT Series 	8.4" TFT, Ethernet, DC24V	LTOP-I08EDAA	*
	10.4" TFT, Ethernet,DC12/24V	LTOP-I10EDAA	*
	12.1" TFT, Ethernet, DC12/24V	LTOP-I12EDAA	*
	15" TFT, Ethernet, DC12/24V	LTOP-I15EDAA	*
iXP2 Series 	i-XP2 10.4" TFT,DC24V,WinCE	LTOP-A10EDAA	*
	i-XP2 12.1" TFT,DC24V,WinCE	LTOP-A12EDAA	*
	i-XP2 15" TFT,DC24V,WinCE	LTOP-A15EDAA	*

**Note:**

\* Upgraded version of our s-XT series HMI

\*\* Upgraded version with SD card slot for our existing s-XT series HMI

# Experience the robust performance of our ACCL

## Single Phase ACCL



Mains rating : 30A

Genset rating : 1A to 30A

## Three Phase ACCL With MCX contactors inside

Range : 32A to 125A



Settable overload current limit at DG side



Separate power consumption monitoring for Mains & Genset



Settable TPN / SPN mode for three phase and single phase DG supply



To Experience Scan or Click



Customer Interaction Center (CIC)

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

# Miniature Circuit Breaker (MCB) [8536]

## Range Highlights

- True contact indication for individual pole
- Label holder facility for all configurations
- Conforms to IS/IEC 60898 - 10kA
- Conforms to IEC 60947 - 2
  - 15kA C-curve till 40 A
  - 10kA C-curve for 50A, 63A
- Available in B, C & D curves
- Low watt loss - almost 50% of the values prescribed by IS/IEC 60898
- Trip free mechanism
- Design based on advanced current limiting hammer trip mechanism
- No Line-Load bias
- Suitable for accessory fitment

Rating	Modules 1 Mod = 17.5 mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>							
0.5A	1	-	-	BB10E50C	440	BB10E50D	445
1A	1	-	-	BB10010C	440	BB10010D	445
2A	1	-	-	BB10020C	440	BB10020D	445
3A	1	-	-	BB10030C	440	BB10030D	445
4A	1	-	-	BB10040C	440	BB10040D	445
6A	1	BB10060B	269	BB10060C	269	BB10060D	370
10A	1	BB10100B	269	BB10100C	269	BB10100D	370
16A	1	BB10160B	269	BB10160C	269	BB10160D	370
20A	1	BB10200B	269	BB10200C	269	BB10200D	370
25A	1	BB10250B	269	BB10250C	269	BB10250D	370
32A	1	BB10320B	269	BB10320C	269	BB10320D	370
40A	1	BB10400B	625	BB10400C	625	BB10400D	675
50A	1	BB10500B	625	BB10500C	625	BB10500D*	675
63A	1	BB10630B	625	BB10630C	625	BB10630D*	675



## Double Pole (DP)

0.5A	2	-	-	BB20E50C	1210	BB20E50D	1230
1A	2	-	-	BB20010C	1210	BB20010D	1230
2A	2	-	-	BB20020C	1210	BB20020D	1230
3A	2	-	-	BB20030C	1210	BB20030D	1230
4A	2	-	-	BB20040C	1210	BB20040D	1230
6A	2	BB20060B	865	BB20060C	865	BB20060D	895
10A	2	BB20100B	865	BB20100C	865	BB20100D	895
16A	2	BB20160B	865	BB20160C	865	BB20160D	895
20A	2	BB20200B	865	BB20200C	865	BB20200D	895
25A	2	BB20250B	865	BB20250C	865	BB20250D	895
32A	2	BB20320B	865	BB20320C	865	BB20320D	895
40A	2	BB20400B	1400	BB20400C	1400	BB20400D	1460
50A	2	BB20500B	1400	BB20500C	1400	BB20500D*	1460
63A	2	BB20630B	1400	BB20630C	1400	BB20630D*	1460



## Three Pole (TP)

0.5A	3	-	-	BB30E50C	1800	BB30E50D	1830
1A	3	-	-	BB30010C	1800	BB30010D	1830
2A	3	-	-	BB30020C	1800	BB30020D	1830
3A	3	-	-	BB30030C	1800	BB30030D	1830
4A	3	-	-	BB30040C	1800	BB30040D	1830
6A	3	BB30060B	1400	BB30060C	1400	BB30060D	1460
10A	3	BB30100B	1400	BB30100C	1400	BB30100D	1460
16A	3	BB30160B	1400	BB30160C	1400	BB30160D	1460
20A	3	BB30200B	1400	BB30200C	1400	BB30200D	1460
25A	3	BB30250B	1400	BB30250C	1400	BB30250D	1460
32A	3	BB30320B	1400	BB30320C	1400	BB30320D	1460
40A	3	BB30400B	2160	BB30400C	2160	BB30400D	2260
50A	3	BB30500B	2160	BB30500C	2160	BB30500D*	2260
63A	3	BB30630B	2160	BB30630C	2160	BB30630D*	2260



**Note:** Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.

\* For details, please contact nearest branch office

# Miniature Circuit Breaker (MCB) [8536]

Rating	Modules 1 Mod = 17.5 mm	B-Curve Cat. No.	M.R.P. (₹) Per Unit	C-Curve Cat. No.	M.R.P. (₹) Per Unit	D-Curve Cat. No.	M.R.P. (₹) Per Unit
<b>Four Pole (FP)</b>							
0.5A	4	-	-	BB40E50C	2235	BB40E50D	2240
1A	4	-	-	BB40010C	2235	BB40010D	2240
2A	4	-	-	BB40020C	2235	BB40020D	2240
3A	4	-	-	BB40030C	2235	BB40030D	2240
4A	4	-	-	BB40040C	2235	BB40040D	2240
6A	4	BB40060B	1885	BB40060C	1885	BB40060D	1935
10A	4	BB40100B	1885	BB40100C	1885	BB40100D	1935
16A	4	BB40160B	1885	BB40160C	1885	BB40160D	1935
20A	4	BB40200B	1885	BB40200C	1885	BB40200D	1935
25A	4	BB40250B	1885	BB40250C	1885	BB40250D	1935
32A	4	BB40320B	1885	BB40320C	1885	BB40320D	1935
40A	4	BB40400B	2670	BB40400C	2670	BB40400D	2865
50A	4	BB40500B	2670	BB40500C	2670	BB40500D*	2865
63A	4	BB40630B	2670	BB40630C	2670	BB40630D*	2865

Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.  
\* For details, please contact nearest branch office

## DC MCBs as per IEC 60947-2 [8536]

Rated Voltage: 130V DC (for SP), 250V DC (for DP)  
with breaking capacity of 6 kA - BB Series DC MCBs

Rating	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>			
0.5A	1	BB10E5DC	630
1A	1	BB1001DC	630
2A	1	BB1002DC	630
3A	1	BB1003DC	630
4A	1	BB1004DC	630
6A	1	BB1006DC	545
10A	1	BB1010DC	545
16A	1	BB1016DC	545
20A	1	BB1020DC	545
25A	1	BB1025DC	545
32A	1	BB1032DC	545
40A	1	BB1040DC	715
50A	1	BB1050DC	715
63A	1	BB1063DC	715

### Double Pole (DP)

0.5A	2	BB20E5DC	1345
1A	2	BB2001DC	1345
2A	2	BB2002DC	1345
3A	2	BB2003DC	1345
4A	2	BB2004DC	1345
6A	2	BB2006DC	1180
10A	2	BB2010DC	1180
16A	2	BB2016DC	1180
20A	2	BB2020DC	1180
25A	2	BB2025DC	1180
32A	2	BB2032DC	1180
40A	2	BB2040DC	1600
50A	2	BB2050DC	1600
63A	2	BB2063DC	1600

Rated Voltage: 250V DC (for SP), 500V DC (for DP)  
with breaking capacity of 10 kA - BJ Series DC MCBs

Rating	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>			
0.5A	1	BJ10E5DC	770
1A	1	BJ1001DC	770
2A	1	BJ1002DC	770
3A	1	BJ1003DC	770
4A	1	BJ1004DC	770
6A	1	BJ1006DC	630
10A	1	BJ1010DC	630
16A	1	BJ1016DC	630
20A	1	BJ1020DC	630
25A	1	BJ1025DC	630
32A	1	BJ1032DC	630
40A	1	BJ1040DC	870

### Double Pole (DP)

0.5A	2	BJ20E5DC	1610
1A	2	BJ2001DC	1610
2A	2	BJ2002DC	1610
3A	2	BJ2003DC	1610
4A	2	BJ2004DC	1610
6A	2	BJ2006DC	1360
10A	2	BJ2010DC	1360
16A	2	BJ2016DC	1360
20A	2	BJ2020DC	1360
25A	2	BJ2025DC	1360
32A	2	BJ2032DC	1360
40A	2	BJ2040DC	1935

Note: Standard Pack Quantity for MCB : SP - 12 Nos., DP - 6 Nos.

## Solar Combo MCBs [8536]

Description	Modules 1 Mod = 17.5mm	Cat. No.	M.R.P. (₹) Per Unit
1 AC 16A DP MCB <sup>^</sup> + 1 DC 16A DP 500V MCB	2+2	SC221616	1720
1 AC 25A DP MCB <sup>^</sup> + 1 DC 16A DP 500V MCB	2+2	SC222516	1720
1 AC 32A DP MCB <sup>^</sup> + 1 DC 16A DP 500V MCB	2+2	SC223216	1720
1 AC 32A DP MCB <sup>^</sup> + 1 DC 32A DP 500V MCB	2+2	SC223232	1720

<sup>^</sup>AC MCB with C-Curve



# Solar Combo MCBs

Complete Protection for Solar Rooftop Installations

**Combo Pack**

Tested for Reliable  
Performance



**DC MCB**



**AC MCB**

- [1 DP DC (500V) MCB] + [1 DP AC MCB] in a combo pack
- Provides complete protection for DC and AC sides of solar rooftop installations
- DC MCB : 10kA as per IEC 60947-2
- AC MCB : 10kA as per IS/IEC 60898-1



**Customer Interaction Center (CIC)**

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

# 2 Sec Termination

'Quick Connect' MCBs for faster installation



Time Saver



To Experience Scan or Click

## All-Rounder RCDs

Specially designed Adi RCCBs and RCBOs ensure **Safe** and **Reliable** protection for **All Applications** in AC networks with Pulsating DC along with Harmonics



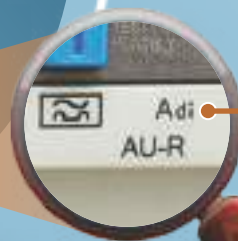
AC



Type A



Harmonics



Added Immunity

To Experience Scan or Click



Customer Interaction Center (CIC)

BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
Tel: 022 6774 5858 Email: cic@Lntebg.com Web: www.Lntebg.com

# Miniature Circuit Breaker (MCB) [8536]

## Auxiliary & Accessories for Exora MCBs [8538]



Description	Cat. No.	M.R.P. (₹) Per Unit
Auxiliary Contact - 6A, 240V AC, (1NO+1NC), 0.5 Mod	<b>BZA11006</b>	<b>845</b>
Shunt Release - 240V AC, 1 Mod	<b>BZS00240</b>	<b>2310</b>
Trip Alarm Contact - 6A, 240V AC, (1NO+1NC), 0.5 Mod	<b>BZT11006</b>	<b>990</b>

## MCBs (Miniature Circuit Breakers): Quick Connect [8536]

- Conforms to IS/IEC 60898 - 10kA
- Available in SP, DP, TP, FP, SPN & TPN version



Rating	Module	B Curve Cat. Nos.	M.R.P. (₹) Per Unit	C Curve Cat. Nos.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>					
6A	1	<b>AU10Q10063B</b>	<b>315</b>	<b>AU10Q10063C</b>	<b>315</b>
10A	1	<b>AU10Q10103B</b>	<b>315</b>	<b>AU10Q10103C</b>	<b>315</b>
16A	1	<b>AU10Q10163B</b>	<b>315</b>	<b>AU10Q10163C</b>	<b>315</b>
20A	1	<b>AU10Q10203B</b>	<b>315</b>	<b>AU10Q10203C</b>	<b>315</b>

**Note:** Standard Pack Quantity for MCB : SP - 12 Nos.,

## MCBs (Miniature Circuit Breakers) : 80A-125A [8536]

### Range Highlights

- Short circuit Breaking Capacity - 15kA (IEC 60947-2, EN 60947-2)
- C & D Characteristics
- Available in SP, DP, TP and FP

- Suitable for Isolation
- Protection Degree - IP 20
- Availability of wide Range of Site Mountable Accessories

Rating	Module	C Curve Cat. No.	M.R.P. (₹) Per Unit
<b>Single Pole (SP)</b>			
80A	1.5	<b>AU15S10803C</b>	<b>2430</b>
100A	1.5	<b>AU15S11003C</b>	<b>2720</b>
125A	1.5	<b>AU15S11253C</b>	<b>2925</b>
<b>Double Pole (DP)</b>			
80A	3	<b>AU15S20803C</b>	<b>5380</b>
100A	3	<b>AU15S21003C</b>	<b>5740</b>
125A	3	<b>AU15S21253C</b>	<b>6315</b>
<b>Three Pole (TP)</b>			
80A	4.5	<b>AU15S30803C</b>	<b>8490</b>
100A	4.5	<b>AU15S31003C</b>	<b>9050</b>
125A	4.5	<b>AU15S31253C</b>	<b>10045</b>
<b>Four Pole (FP)</b>			
80A	6	<b>AU15S40803C</b>	<b>11085</b>
100A	6	<b>AU15S41003C</b>	<b>11530</b>
125A	6	<b>AU15S41253C</b>	<b>13055</b>



D Curve Cat. No.	M.R.P. (₹) Per Unit
<b>AU15S10803D</b>	<b>2760</b>
<b>AU15S11003D</b>	<b>3090</b>
<b>AU15S11253D</b>	<b>3345</b>
<b>AU15S20803D</b>	<b>6125</b>
<b>AU15S21003D</b>	<b>6530</b>
<b>AU15S21253D</b>	<b>7180</b>
<b>AU15S30803D</b>	<b>9665</b>
<b>AU15S31003D</b>	<b>10290</b>
<b>AU15S31253D</b>	<b>11415</b>
<b>AU15S40803D</b>	<b>12585</b>
<b>AU15S41003D</b>	<b>13120</b>
<b>AU15S41253D</b>	<b>14845</b>

# RCCB (Residual Current Circuit Breaker) [8536]

### Range Highlights

- Conforms to IS 12640 (Part 1) / IEC 61008-1
- RCCBs are available in DP and FP versions from 25 to 100A ratings with 30 mA, 100 mA and 300 mA sensitivity



- Truly current operated - operation even at nominal voltage
- Operates on Core Balance Current Transformer (CBCT) principle
- Advanced neutral mechanism



Rating	Sensitivity	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Double Pole (DP)</b>				
25A	30 mA	2	<b>BG202503</b>	<b>3110</b>
	100 mA	2	<b>BG202510</b>	<b>3235</b>
	300 mA	2	<b>BG202530</b>	<b>3235</b>
40A	30 mA	2	<b>BG204003</b>	<b>3490</b>
	100 mA	2	<b>BG204010</b>	<b>3695</b>
	300 mA	2	<b>BG204030</b>	<b>3695</b>
63A	30 mA	2	<b>BG206303</b>	<b>4355</b>
	100 mA	2	<b>BG206310</b>	<b>4460</b>
	300 mA	2	<b>BG206330</b>	<b>4460</b>
100A	30 mA	2	<b>BG210003</b>	<b>7595</b>
	100 mA	2	<b>BG210010</b>	<b>7695</b>
	300 mA	2	<b>BG210030</b>	<b>7695</b>

Rating	Sensitivity	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Four Pole (FP)</b>				
25A	30 mA	4	<b>BG402503</b>	<b>4110</b>
	100 mA	4	<b>BG402510</b>	<b>4220</b>
	300 mA	4	<b>BG402530</b>	<b>4220</b>
40A	30 mA	4	<b>BG404003</b>	<b>4150</b>
	100 mA	4	<b>BG404010</b>	<b>4290</b>
	300 mA	4	<b>BG404030</b>	<b>4290</b>
63A	30 mA	4	<b>BG406303</b>	<b>4695</b>
	100 mA	4	<b>BG406310</b>	<b>4920</b>
	300 mA	4	<b>BG406330</b>	<b>4920</b>
100A	30 mA	4	<b>BG410003</b>	<b>8100</b>
	100 mA	4	<b>BG410010</b>	<b>8245</b>
	300 mA	4	<b>BG410030</b>	<b>8245</b>

# RCCBs (Residual Current Circuit Breakers) : Type-Adi (with Added immunity) [8536]

## Range Highlights

- Wide Range of Current Ratings - 25A to 100A
- Precise Sensitivities for variety of applications - from 30mA to 300mA
- 2P & 4P versions
- Suitable for Isolation
- Protection Degree - IP 20
- Availability of wide Range of Site Mountable Accessories
- Type Adi : Suitable for AC + Pulsating DC (Type A) + Harmonics



Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>2P Adi</b>				
25A	30mA	2	AURAD202503	4980
	100mA	2	AURAD202510	5205
	300mA	2	AURAD202530	5205
40A	30mA	2	AURAD204003	5285
	100mA	2	AURAD204010	5370
	300mA	2	AURAD204030	5370
63A	30mA	2	AURAD206303	6180
	100mA	2	AURAD206310	6295
	300mA	2	AURAD206330	6295
100A	30mA	2	AURAD210003	9130

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>4P Adi</b>				
25A	30mA	4	AURAD402503	6020
	100mA	4	AURAD402510	6135
	300mA	4	AURAD402530	6135
40A	30mA	4	AURAD404003	6250
	100mA	4	AURAD404010	6350
	300mA	4	AURAD404030	6350
63A	30mA	4	AURAD406303	6805
	100mA	4	AURAD406310	6945
	300mA	4	AURAD406330	6945
100A	30mA	4	AURAD410003	10840
	300mA	4	AURAD410030	10840

# Isolators [8536]

## Range Highlights

- Conforms to IEC 60947-3
- Utilization category AC-22A
- Available in DP, TP and FP versions in 40A, 63A, 80A & 100A ratings



Rating	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit	Modules 1 Mod = 17.5 mm	Cat. No.	M.R.P. (₹) Per Unit
<b>Double Pole (DP)</b>			<b>Three Pole (TP)</b>			<b>Four Pole (FP)</b>			
40A	2	BF204000	530	3	BF304000	920	4	BF404000	1190
63A	2	BF206300	680	3	BF306300	1070	4	BF406300	1245
80A	2	BF208000	865	3	BF308000	1175	4	BF408000	1395
100A	2	BF210000	905	3	BF310000	1250	4	BF410000	1505

**Note:** Standard Pack Quantity for Isolator : DP - 6 Nos., TP - 4 Nos., FP - 3 Nos.

# SPDs (Surge Protection Devices) [8536]

## Range Highlights

- Conforms to IEC 61643-11
- Available in Type 2 and Type 1+2
- Type 2 : Protection against indirect lightning and switching surges
  - Maximum Discharge Current - I<sub>max</sub> up to 70kA
- Type 1+2 : Protection against direct and indirect lightning surges
  - Maximum Discharge Current - I<sub>max</sub> up to 100kA



Description	I <sub>max</sub>	Configuration	Module	Cat. No.	M.R.P. (₹) Per Unit
Type 1+2, I <sub>imp</sub> 12.5kA	50kA	1P+N	2	AUSP121PN50	9390
		3P+N	4	AUSP123PN50	17975
Type 2	40kA	1P+N	1	AUSP021PN40	5865
		3P+N	2	AUSP023PN40	11725
Type 2	15kA	1P+N	1	AUSP021PN15	4690
		3P+N	2	AUSP023PN15	9230
Type 1+2, I <sub>imp</sub> 8kA	100kA	1P+N	2	AUSP121PN100	8440
		3P+N	4	AUSP123PN100	16580
Type 2	70kA	1P+N	2	AUSP021PN70	9385
		3P+N	4	AUSP023PN70	15640

## 800V Solar Application

Description	Configuration	Module	Cat. No.	M.R.P. (₹) Per Unit
Type 2, I <sub>max</sub> 40kA	3P	4	AUSP023P40-1500	12500



**Extend SPD life with Spare Cartridges**

Description	Cat. No.	M.R.P. (₹) Per Unit
Cartridge for AUSP021PN15	AUSC021PN15	2350
Cartridge for AUSP021PN40	AUSC021PN40	2930
Cartridge for AUSP021PN70 / AUSP023PN70	AUSC021PN70	3130
Cartridge for AUSP023PN15	AUSC023PN15	3075
Cartridge for AUSP023PN40	AUSC023PN40	3910
Cartridge for AUSP121PN100 / AUSP123PN100	AUSC121PN100	4690
Cartridge for AUSP121PN50 / AUSP123PN50	AUSC121PN50	5065



# RCBOs (Residual Current Breaker with Overcurrent Protection) [8536]

## Range Highlights\*

- Conforms to IEC 61009-1, IS 12640-2, EN 61009-1
- Short circuit Breaking Capacity - 10kA
- Precise Sensitivities for a variety of applications  
- from 10mA to 300mA
- Suitable for Isolation

- Availability of wide Range of Site Mountable Accessories
- Available in
  - Type AC : For standard AC installations
  - Type Adi : Suitable for AC + Pulsating DC (Type A) + Harmonics



## Type-AC

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>2P AC</b>				
6A	10mA	2	AUF3C200601	4605
	30mA	2	AUF3C200603	4605
	100mA	2	AUF3C200610	4705
	300mA	2	AUF3C200630	4755
10A	10mA	2	AUF3C201001	4605
	30mA	2	AUF3C201003	4605
	100mA	2	AUF3C201010	4705
	300mA	2	AUF3C201030	4755
16A	10mA	2	AUF3C201601	4605
	30mA	2	AUF3C201603	4605
	100mA	2	AUF3C201610	4705
	300mA	2	AUF3C201630	4755
20A	30mA	2	AUF3C202003	4605
	100mA	2	AUF3C202010	4705
	300mA	2	AUF3C202030	4755
25A	30mA	2	AUF3C202503	4605
	100mA	2	AUF3C202510	4705
	300mA	2	AUF3C202530	4755
32A	30mA	2	AUF3C203203	4605
	100mA	2	AUF3C203210	4705
	300mA	2	AUF3C203230	4755
40A	30mA	2	AUF3C204003	4605
	100mA	2	AUF3C204010	4705
	300mA	2	AUF3C204030	4755
63A	30mA	4	AUF3C206303	5765
	100mA	4	AUF3C206310	6115
	300mA	4	AUF3C206330	6165
<b>4P AC</b>				
16A	30mA	7.5	AUF3C401603	5215
	100mA	7.5	AUF3C401610	5805
	300mA	7.5	AUF3C401630	5920
20A	30mA	7.5	AUF3C402003	5215
	100mA	7.5	AUF3C402010	5805
	300mA	7.5	AUF3C402030	5920
25A	30mA	7.5	AUF3C402503	5215
	100mA	7.5	AUF3C402510	5805
	300mA	7.5	AUF3C402530	5920
32A	30mA	7.5	AUF3C403203	5385
	100mA	7.5	AUF3C403210	5810
	300mA	7.5	AUF3C403230	5935
40A	30mA	7.5	AUF3C404003	5470
	100mA	7.5	AUF3C404010	5810
	300mA	7.5	AUF3C404030	5955
63A	30mA	7.5	AUF3C406303	6555
	100mA	7.5	AUF3C406310	6675
	300mA	7.5	AUF3C406330	6675
80A	30mA	12	AUF3C408003	24935
	100mA	12	AUF3C408010	25495
	300mA	12	AUF3C408030	25495
100A	30mA	12	AUF3C410003	26660
	100mA	12	AUF3C410010	27295
	300mA	12	AUF3C410030	27295

## Type-Adi

Rating	Sensitivity	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>2P Adi</b>				
6A	30mA	2	AUF3D200603	6100
	100mA	2	AUF3D200610	6720
	300mA	2	AUF3D200630	6970
10A	30mA	2	AUF3D201003	6100
	100mA	2	AUF3D201010	6720
	300mA	2	AUF3D201030	6970
16A	30mA	2	AUF3D201603	6100
	100mA	2	AUF3D201610	6720
	300mA	2	AUF3D201630	6970
20A	30mA	2	AUF3D202003	6100
	100mA	2	AUF3D202010	6720
	300mA	2	AUF3D202030	6970
25A	30mA	2	AUF3D202503	6100
	100mA	2	AUF3D202510	6720
	300mA	2	AUF3D202530	6970
32A	30mA	2	AUF3D203203	6100
	100mA	2	AUF3D203210	6720
	300mA	2	AUF3D203230	6970
40A	30mA	2	AUF3D204003	6100
	100mA	2	AUF3D204010	6720
	300mA	2	AUF3D204030	6970
63A	30mA	4	AUF3D206303	7440
	100mA	4	AUF3D206310	7875
	300mA	4	AUF3D206330	7940
<b>4P Adi</b>				
16A	30mA	7.5	AUF3D401603	6725
	100mA	7.5	AUF3D401610	7480
	300mA	7.5	AUF3D401630	7630
20A	30mA	7.5	AUF3D402003	6725
	100mA	7.5	AUF3D402010	7480
	300mA	7.5	AUF3D402030	7630
25A	30mA	7.5	AUF3D402503	6725
	100mA	7.5	AUF3D402510	7480
	300mA	7.5	AUF3D402530	7630
32A	30mA	7.5	AUF3D403203	6940
	100mA	7.5	AUF3D403210	7485
	300mA	7.5	AUF3D403230	7640
40A	30mA	7.5	AUF3D404003	7045
	100mA	7.5	AUF3D404010	7485
	300mA	7.5	AUF3D404030	7675
63A	30mA	7.5	AUF3D406303	8440
	100mA	7.5	AUF3D406310	8610
	300mA	7.5	AUF3D406330	8610
80A	30mA	12	AUF3D408003	24935
	100mA	12	AUF3D408010	25495
	300mA	12	AUF3D408030	25495
100A	30mA	12	AUF3D410003	26660
	100mA	12	AUF3D410010	27295
	300mA	12	AUF3D410030	27295

\* For technical details, please contact nearest branch office

## Single Phase - ACCL [8536]

### Automatic Changeover with Current Limiter

#### Range Highlights

- Conforms to IEC 60947-6, IEC 60947-3
- Wide Range of Current Ratings
  - (Generator side) - 1A to 30A
  - (Electricity Board side) - 30A
- RoHS compliant



Description EB/DG	Module	CAT Nos.	M.R.P. (₹) Per Unit
<b>New!</b> 30A/1A	4	AUCL01030001	2445
30A/1.5A	4	AUCL010301E5	2445
<b>New!</b> 30A/2A	4	AUCL01030002	2445
30A/2.5A	4	AUCL010302E5	2445
30A/3A	4	AUCL01030003	2445
30A/4A	4	AUCL01030004	2445
30A/5A	4	AUCL01030005	2445
30A/6A	4	AUCL01030006	2445
30A/8A	4	AUCL01030008	2445
30A/10A	4	AUCL01030010	2445
30A/12A	4	AUCL01030012	2445
30A/15A	4	AUCL01030015	2445
30A/20A	4	AUCL01030020	2445
30A/30A	4	AUCL01030030*	2445

\* Non-current limiting variant

## Three Phase - ACCL [8536]

### Automatic Changeover with Current Limiter

#### Range Highlights

- Settable overload current limit at DG side
- Separate power consumption monitoring for Mains & Genset
- Settable overvoltage & undervoltage protection
- Settable TPN or SPN mode at DG side
- Protection against single phasing



Description (AC-1) EB/DG	Cat. No.	M.R.P. (₹) Per Unit
32A / 32A	AUCL03032032	9590
40A / 32A	AUCL03040032	9880
40A / 40A	AUCL03040040	10700
50A / 50A	AUCL03050050	15240
63A / 50A	AUCL03063050	16820
63A / 63A	AUCL03063063	19050
80A / 80A	AUCL03080080	29040
125A / 125A	AUCL03125125	48880

For 3 Phase ACCL programming video please scan the QR code or click here



## Changeover Switches [8536]

#### Range Highlights

- Conforms to IEC 60947-3 and IS/IEC 60947-3
- Available in 3 positions (I-O-II) with centre off position
- Utilization category AC-22A



Rating	Module	Cat. No.	M.R.P. (₹) Per Unit
<b>Double Pole</b>			
25A	2	AUC00202500	1550
40A	2	AUC00204000	2370
63A	3	AUC00206300	2760
<b>Four Pole</b>			
40A	4	AUC00404000	4085
63A	6	AUC00406300	4635

## Indicating Lights [8531]



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
RED	1	AUIL01RED00	985
YELLOW	1	AUIL01YEL00	985
BLUE	1	AUIL01BLU00	985
GREEN	1	AUIL01GRE00	985
RED-YELLOW-BLUE	1	AUIL01RYB00	1195

## Modular Contactors [8536]

#### Range Highlights

- Wide Range of Current Ratings:
  - 25A, 40A and 63A
- Conforms to:
  - IEC 61095, EN 61095
  - IEC 60947-4-1, EN 60947-4-1
  - IEC 60947-5-1
- Protection Degree IP 20



Description (AC-1)	Module	Cat. No.	M.R.P. (₹) Per Unit
25A-1NO	1	AUMC1002501	1690
25A-2NO	1	AUMC2002501	2115
40A-2NO	3	AUMC2004003	3625
40A-3NO	3	AUMC3004003	5195
40A-4NO	3	AUMC4004003	6100
63A-2NO+2NC	3	AUMC2206303	6445
63A-3NO	3	AUMC3006303	6605
63A-4NO	3	AUMC4006303	7270
<b>Accessory [8538]</b>			
Auxiliary Contact, 2NO	0.5	AUMCAUX240	1625

## Accessories [8538]



All Half Module and One Module Accessories are common for 80A-125A MCBs, RCBOs and Adi RCCBs

Description	Configuration	Module	Voltage	CAT Nos.	M.R.P. (₹) Per Unit
Auxiliary Contact	1NO+1NC	0.5	240V AC, 24V DC	AUAXAC240	895
AUX/TAC*	1NO+1NC	0.5	240V AC, 24V DC	AUATAC240	1050
Undervoltage Release	-	1	240V AC	AUUVAC240	2120
	-	1	24V DC	AUUVDC024	2120
Overvoltage Release	-	1	240V AC	AUOVAC240	2620
Shunt Release	-	1	240V AC	AUSRAC240	2430
	-	1	24V DC	AUSRDC024	2430
Padlock-Suitable for Lock Hasp 3.5 - 5 mm dia. max	Suitable for 1Pole=1Mod devices: RCCBs, RCBOs, Changeover Switches up to 40A			AUPD01	480
	Suitable for 1Pole-1.5Mod devices: MCBs 80A-125A, Changeover Switch 63A			AUPD02	545



Note: Standard Pack Quantity for Padlock - 2 Nos.

\* For 80A-125A MCBs please contact nearest branch office



# Reliable Protection for DC Installations

## 250/500V DC MCBs

- ◆ 250V(SP) & 500V(DP)  
10kA breaking capacity
- ◆ Conforms to IEC 60947-2
- ◆ Range : 0.5A to 40A
- ◆   compliant

### Customer Interaction Center (CIC)

BSNL / MTNL (toll free): 1800 233 5858 Reliance (toll free): 1800 200 5858  
Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

## Time Switches [9107]



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Analog time switch	1	AUTS01ANA00	4425
Analog time switch	3	AUTS03ANA00	5380
Digital time switch	2	AUTS02DIG00*	3425
Astro time switch	2	AUTS02AST00*	5750
Digital time switch	2	67DDT0.#	2245
Astro time switch	2	T2DDT7.#	4200

\*Available till stocks last # Substitute product

## Energy Meters [9030]

### Range Highlights

- Communication with additional RS485 & WiFi module
- Class 1 accuracy
- Direct current operated meter
- Reverse current indication for three-phase meter



Description	Module	Cat. No.	M.R.P. (₹) Per Unit
Single Phase (5-40A)	2	WD4000101000	2630
Three Phase (10-60A)	7	WD4000103000	5975

## EXORA DBs

*Specially Designed*

### Distribution Board suitable for Aluminum shuttering (Mivan) Construction



> To experience Scan or click



## DBs suitable for Aluminum Shuttering Construction [8537]

### SPN DBs

#### Highlights

- Available in CRCA sheet steel, RAL9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bar | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification label
- With provision for DP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer + Outgoing			
<b>IP 43 - Metal Door</b>				
4 way	2	2	LTSD04M	*
6 way	2	4	LTSD06M	*
8 way	2	6	LTSD08M	*
12 way	2	10	LTSD12M	*
16 way	2	14	LTSD16M	*

### TPN DBs

#### Highlights

- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer + Outgoing			
<b>IP 43 - Metal Door</b>				
4 way	8	4+4+4	LTTD04M	*
6 way	8	6+6+6	LTTD06M	*
8 way	8	8+8+8	LTTD08M	*

\* For details, please contact nearest branch office

**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bar | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification label
- With provision for DP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door      IP 43 - Metal Door      IP 43 - Glazed Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	2	2	DBSPN004SD	1445
6 way	2	4	DBSPN006SD	1510
8 way	2	6	DBSPN008SD	1745
12 way	2	10	DBSPN012SD	2060
16 way	2	14	DBSPN016SD	2555
18 way	2	16	DBSPN018SD	2950
<b>IP 43 - Metal Door</b>				
4 way	2	2	DBSPN004DD	1865
6 way	2	4	DBSPN006DD	2160
8 way	2	6	DBSPN008DD	2300
12 way	2	10	DBSPN012DD	2760
16 way	2	14	DBSPN016DD	3490
18 way	2	16	DBSPN018DD	3675
<b>IP 43 - Glazed Door</b>				
4 way	2	2	DBSPN004GD	2495
6 way	2	4	DBSPN006GD	2660
8 way	2	6	DBSPN008GD	2870
12 way	2	10	DBSPN012GD	3490
16 way	2	14	DBSPN016GD	4335
18 way	2	16	DBSPN018GD	4635
<b>IP 54 - Metal Door</b>				
4 way	2	2	DBSPN00454	6580
6 way	2	4	DBSPN00654	7340
8 way	2	6	DBSPN00854	7805
12 way	2	10	DBSPN01254	8935
16 way	2	14	DBSPN01654	9980
18 way	2	16	DBSPN01854	10200

**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door      IP 43 - Metal Door      IP 43 - Glazed Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	4	4+4+4	DBTPE004SD	3715
6 way	4	6+6+6	DBTPE006SD	4565
4 way	8	4+4+4	DBTPN004SD	3920
6 way	8	6+6+6	DBTPN006SD	4850
8 way	8	8+8+8	DBTPN008SD	5725
12 way	8	12+12+12	DBTPN012SD	8245
16 way	8	16+16+16	DBTPN016SD	10160
<b>IP 43 - Metal Door</b>				
4 way	4	4+4+4	DBTPE004DD	4370
6 way	4	6+6+6	DBTPE006DD	5430
4 way	8	4+4+4	DBTPN004DD	4595
6 way	8	6+6+6	DBTPN006DD	5725
8 way	8	8+8+8	DBTPN008DD	6870
12 way	8	12+12+12	DBTPN012DD	10285
16 way	8	16+16+16	DBTPN016DD	12750
<b>IP 43 - Glazed Door</b>				
4 way	4	4+4+4	DBTPE004GD	5940
6 way	4	6+6+6	DBTPE006GD	7135
4 way	8	4+4+4	DBTPN004GD	6175
6 way	8	6+6+6	DBTPN006GD	7470
8 way	8	8+8+8	DBTPN008GD	8875
12 way	8	12+12+12	DBTPN012GD	13605
16 way	8	16+16+16	DBTPN016GD	16320
<b>IP 54 - Metal Door</b>				
4 way	4	4+4+4	DBTPE00454	14900
6 way	4	6+6+6	DBTPE00654	17415
4 way	8	4+4+4	DBTPN00454	15825
6 way	8	6+6+6	DBTPN00654	19050
8 way	8	8+8+8	DBTPN00854	20830
12 way	8	12+12+12	DBTPN01254	29355
16 way	8	16+16+16	DBTPN01654	35235



**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing



**Horizontal PPI DBs**

IP 43 - Metal Door

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
<b>IP 43 - Metal Door</b>					
4 way	8	2+2+2	4+4+4	DBHPI004DD	8085
6 way	8	2+2+2	6+6+6	DBHPI006DD	9650
8 way	8	2+2+2	8+8+8	DBHPI008DD	11575
12 way	8	2+2+2	12+12+12	DBHPI012DD	15820
16 way	8	2+2+2	16+16+16	DBHPI016DD	18980
<b>IP 54 - Metal Door</b>					
4 way	8	2+2+2	4+4+4	DBHPI00454	18620
6 way	8	2+2+2	6+6+6	DBHPI00654	22185
8 way	8	2+2+2	8+8+8	DBHPI00854	24495
12 way	8	2+2+2	12+12+12	DBHPI01254	35550



**Tier PPI DBs**

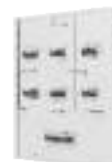
IP 43 - Metal Door

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
<b>IP 43 - Metal Door</b>					
6 way	8	2+2+2	6+6+6	DBTPI006DD	9960
8 way	8	2+2+2	8+8+8	DBTPI008DD	12490
10 way	8	2+2+2	10+10+10	DBTPI010DD	13095
12 way	8	2+2+2	12+12+12	DBTPI012DD	13870
16 way	8	2+2+2	16+16+16	DBTPI016DD	15820
12 way	MCCB*	2+2+2	12+12+12	DBTPL012DD	14840

\* Suitable for 3 Pole & 4 Pole DU100H, DU100D, DN0-100D & DN0-100C MCCB as incomer

**Highlights**

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs. IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for 1. Modular Incomer - FP MCB/Isolator/RCCB/RCBO as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing  
2. MCCB Incomer - MCCB\* as incomer, DP RCCB/RCBO as sub-incomer and SP MCBs as outgoing

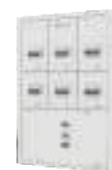


**With Modular Incomer**

IP 30 - Single Door

IP 43 - Metal Door

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Sub-Incomer	Outgoing		
<b>IP 30 - Single Door</b>					
4 way	8	4+4+4	4+4+4	DBPSG004SD	10780
6 way	8	4+4+4	6+6+6	DBPSG006SD	11660
8 way	8	4+4+4	8+8+8	DBPSG008SD	12600
12 way	8	4+4+4	12+12+12	DBPSG012SD	14505
<b>IP 43 - Metal Door</b>					
4 way	8	4+4+4	4+4+4	DBPSG004DD	12285
6 way	8	4+4+4	6+6+6	DBPSG006DD	13850
8 way	8	4+4+4	8+8+8	DBPSG008DD	15450
12 way	8	4+4+4	12+12+12	DBPSG012DD	19170



**With MCCB Incomer**

IP 30 - Single Door

IP 43 - Metal Door

Description	No. of Modules			Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer*	Sub-Incomer	Outgoing		
<b>IP 30 - Single Door</b>					
4 way	MCCB	4+4+4	4+4+4	DBPGL004SD	15095
6 way	MCCB	4+4+4	6+6+6	DBPGL006SD	17375
8 way	MCCB	4+4+4	8+8+8	DBPGL008SD	19955
<b>IP 43 - Metal Door</b>					
4 way	MCCB	4+4+4	4+4+4	DBPGL004DD	16895
6 way	MCCB	4+4+4	6+6+6	DBPGL006DD	19320
8 way	MCCB	4+4+4	8+8+8	DBPGL008DD	22345
12 way	MCCB	4+4+4	12+12+12	DBPGL012DD	25200

\* Suitable for 3 Pole & 4 Pole DU100H, DU100D, DN0-100D & DN0-100C MCCB as incomer

### Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with 3 nos. of 63A E&A rotary switches | 3 nos. of rocker switches for phase identification | 100A insulated phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for - FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing



IP 30 - Single Door

IP 43 - Metal Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	8	4+4+4	DBPSR004SD	14310
6 way	8	6+6+6	DBPSR006SD	15210
8 way	8	8+8+8	DBPSR008SD	16850
10 way	8	10+10+10	DBPSR010SD	17485
12 way	8	12+12+12	DBPSR012SD	18660
<b>IP 43 - Metal Door</b>				
4 way	8	4+4+4	DBPSR004DD	16595
6 way	8	6+6+6	DBPSR006DD	16860
8 way	8	8+8+8	DBPSR008DD	18060
10 way	8	10+10+10	DBPSR010DD	19295
12 way	8	12+12+12	DBPSR012DD	20340

### Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | cable ties | circuit identification labels
- With provision to mount modular devices as per requirement



IP 43 - Metal Door

IP 43 - Glazed Door

Description	No. of Modules Per Row	Cat. Nos.	M.R.P. (₹) Per Unit
<b>IP 43 - Metal Door</b>			
2 Row 28 Module	14	DBROW228DD	5930
3 Row 42 Module	14	DBROW342DD	7110
4 Row 56 Module	14	DBROW456DD	7730
4 Row 64 Module	16	DBROW464DD	8990
<b>IP 43 - Glazed Door</b>			
2 Row 28 Module	14	DBROW228GD	6380
3 Row 42 Module	14	DBROW342GD	7825
4 Row 56 Module	14	DBROW456GD	8870
4 Row 64 Module	16	DBROW464GD	9720

## DB Accessories

### Busbar - Fork Type [8538]

#### Highlights

- Available in Single Pole, Double Pole, Three Pole and Four Pole versions
- Material : Copper



Description	Cat. Nos..	M.R.P. (₹) Per Unit	Std. Pack Qty.
SP 13 Mod	BSP13	355	5
SP 56 Mod	BSP56	1465	5
DP 12 Mod	BDP12	640	5
TP 12 Mod	BTP12	685	5
FP 12 Mod	BFP12	1360	5
End Caps for SP	ECP01	25	10
End Caps for DP/TP	ECP03	45	10
End Caps for FP	ECP04	80	10

### Blanking Plates [8538]

#### Highlights

- Available in One module and Half module



Description	Cat. Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
One Module	BKP10	25	10
Half Module	BKP05	25	10

### Padlock [8301]

#### Highlights

- Version with standard lock and a common key



PDK02

Description	Cat. Nos.	M.R.P. (₹) Per Unit	Std. Pack Qty.
Lock and Key Kit	PDK02	625	5

# Vertical TPN DB with Modular Incomer [8537]

# Vertical TPN DB with MCCB Incomer [8537]

## Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with insulated vertical phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP/TP MCBs as outgoing

## Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- IK 08-for single door DBs, IK 09-for double door DBs
- Available in CRCA sheet steel, RAL 9003, powder coated
- Ready to use DBs - Provided with insulated vertical phase bus-bars | neutral bar/s with shroud/s | earth bar/s | sticking saddles | cement spill protector | color-coded interconnecting wire set | cable ties | blanking plates and circuit identification labels
- With provision for 3 pole and 4 Pole MCCB\* as incomer and SP/TP MCBs as outgoing



IP 30 - Single Door      IP 43 - Metal Door      IP 43 - Glazed Door



IP 30 - Single Door      IP 43 - Metal Door      IP 43 - Glazed Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	8	4+4+4	DBVTM004SD	10655
6 way	8	6+6+6	DBVTM006SD	11730
8 way	8	8+8+8	DBVTM008SD	12990
12 way	8	12+12+12	DBVTM012SD	18715
16 way	8	16+16+16	DBVTM016SD	21695
<b>IP 43 - Metal Door</b>				
4 way	8	4+4+4	DBVTM004DD	11330
6 way	8	6+6+6	DBVTM006DD	12730
8 way	8	8+8+8	DBVTM008DD	14770
12 way	8	12+12+12	DBVTM012DD	20025
16 way	8	16+16+16	DBVTM016DD	23665
<b>IP 43 - Glazed Door</b>				
4 way	8	4+4+4	DBVTM004GD	15355
6 way	8	6+6+6	DBVTM006GD	16855
8 way	8	8+8+8	DBVTM008GD	19515
12 way	8	12+12+12	DBVTM012GD	25990
16 way	8	16+16+16	DBVTM016GD	27635
<b>IP 54 - Metal Door</b>				
4 way	8	4+4+4	DBVTM00454	24045
6 way	8	6+6+6	DBVTM00654	26710
8 way	8	8+8+8	DBVTM00854	29095
12 way	8	12+12+12	DBVTM01254	37775
16 way	8	16+16+16	DBVTM01654	42280

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer*	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	MCCB	4+4+4	DBVTL004SD	11965
6 way	MCCB	6+6+6	DBVTL006SD	12880
8 way	MCCB	8+8+8	DBVTL008SD	13900
12 way	MCCB	12+12+12	DBVTL012SD	21085
16 way	MCCB	16+16+16	DBVTL016SD	24595
<b>IP 43 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTL004DD	13575
6 way	MCCB	6+6+6	DBVTL006DD	15435
8 way	MCCB	8+8+8	DBVTL008DD	16910
12 way	MCCB	12+12+12	DBVTL012DD	23115
16 way	MCCB	16+16+16	DBVTL016DD	27440
<b>IP 43 - Glazed Door</b>				
4 way	MCCB	4+4+4	DBVTL004GD	16375
6 way	MCCB	6+6+6	DBVTL006GD	18550
8 way	MCCB	8+8+8	DBVTL008GD	20925
12 way	MCCB	12+12+12	DBVTL012GD	27885
16 way	MCCB	16+16+16	DBVTL016GD	32000
<b>IP 54 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTL00454	28125
6 way	MCCB	6+6+6	DBVTL00654	32070
8 way	MCCB	8+8+8	DBVTL00854	34720
12 way	MCCB	12+12+12	DBVTL01254	45790
16 way	MCCB	16+16+16	DBVTL01654	53830

\* Suitable for 3 Pole & 4 Pole DU100H, DU100D, DU125D, DU125H & DNO MCCB as incomer



# Vertical TPN DB with MCCB Incomer [8537]

# Plug & Socket DB [8537]

## Up to 250A MCCB Incomer



IP 30 - Single Door

IP 43 - Metal Door

Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
	Incomer*	Outgoing		
<b>IP 30 - Single Door</b>				
4 way	MCCB	4+4+4	DBVTH004SD	15710
6 way	MCCB	6+6+6	DBVTH006SD	16485
8 way	MCCB	8+8+8	DBVTH008SD	18125
12 way	MCCB	12+12+12	DBVTH012SD	25140
16 way	MCCB	16+16+16	DBVTH016SD	30845
<b>IP 43 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTH004DD	17070
6 way	MCCB	6+6+6	DBVTH006DD	19390
8 way	MCCB	8+8+8	DBVTH008DD	21325
12 way	MCCB	12+12+12	DBVTH012DD	26555
16 way	MCCB	16+16+16	DBVTH016DD	34685
<b>IP 54 - Metal Door</b>				
4 way	MCCB	4+4+4	DBVTH00454	31970
6 way	MCCB	6+6+6	DBVTH00654	34910
8 way	MCCB	8+8+8	DBVTH00854	36105
12 way	MCCB	12+12+12	DBVTH01254	42270
16 way	MCCB	16+16+16	DBVTH01654	51390

\* Suitable for 3 pole and 4 pole DU250, DU250C & DN1 MCCB as incomer

## Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- Suitable for Surface and Flush mounting
- Available in CRCA sheet steel, RAL9003, powder coated
- Loose Metal Plugs & Sockets conforms to IS 8804; available in Single Phase & Three Phase



Metal Plug & Socket

Plastic Plug & Socket

Description	No. of Pins	No. of Modules	Cat. Nos.	M.R.P. (₹) Per Unit
<b>Metal Plug &amp; Sockets</b>				
10 A, 2 Pin + SC <sup>^</sup>	P + N	1	DBMPS110SD	1835
20 A, 2 Pin + SC <sup>^</sup>	P + N	1	DBMPS120SD	1970
20 A, 2 Pin + SC <sup>^</sup>	P + N	2	DBMPS220SD	2140
20 A, 3 Pin + SC <sup>^</sup>	3P	3	DBMPS320SD	3625
32 A, 3 Pin + SC <sup>^</sup>	3P	3	DBMPS332SD	4285
32 A, 3 Pin + SC <sup>^</sup>	3P	4	DBMPS432SD	4560
63 A, 5 Pin + SC <sup>^</sup>	3P+N+E	4	DBMPS463SD	15450
<b>Plastic Plug &amp; Sockets</b>				
16 A, 3 Pin	P+N+E	2	DBPPS316SD	3000
32 A, 3 Pin	P+N+E	4	DBPPS332SD	3240
32 A, 5 Pin	3P+N+E	8	DBPPS532SD	5410
63 A, 5 Pin	3P+N+E	8	DBPPS563SD	13545

## Metal Plug [8536]



Description	No. of Pins	Cat. Nos.	M.R.P. (₹) Per Unit
10 A, 2 Pin + SC <sup>^</sup>	P + N	MPS210P	175
20 A, 2 Pin + SC <sup>^</sup>	P + N	MPS220P	185
20 A, 3 Pin + SC <sup>^</sup>	3P	MPS320P	245
32 A, 3 Pin + SC <sup>^</sup>	3P	MPS332P	465

Note: Standard pack quantity - 20 nos.

## Metal Socket [8536]



Description	No. of Pins	Cat. Nos.	M.R.P. (₹) Per Unit
10 A, 2 Pin + SC <sup>^</sup>	P + N	MPS210S	180
20 A, 2 Pin + SC <sup>^</sup>	P + N	MPS220S	200
20 A, 3 Pin + SC <sup>^</sup>	3P	MPS320S	275
32 A, 3 Pin + SC <sup>^</sup>	3P	MPS332S	465

<sup>^</sup> SC-Scraping Earth

Note: Standard pack quantity - 20 nos.

# Enclosure [8537]

## Highlights

- Conforms to IS 8623-1 & 3, IEC 61439-1 & 3
- Suitable for Surface and Flush mounting
- Available in CRCA sheet steel, RAL9003, powder coated
- With provision to mount MCB/Isolator/RCCB/RCBO and other modular devices



IP 30 - Metal Door

Description	No. of Modules	Cat. Nos.	M.R.P. (₹) Per Unit
<b>IP 30 - Metal Door</b>			
2 way	2	DBENC002SD	745
3 way	3	DBENC003SD	745
4 way	4	DBENC004SD	745
6 way	6	DBENC006SD	1110

# DBs with provision for TV/ Telephone splitters [8537]

## Highlights

- Distribution Boards equipped with provisions to mount TV / Telephone splitters
- Available in SPN & TPN DBs



DB Type	Description	No. of Modules		Cat. Nos.	M.R.P. (₹) Per Unit
		Incomer + Outgoing			
<b>IP 43 - Metal Door</b>					
SPN	6 way	2	4	DBSPN006DDTV	4090
	8 way	2	6	DBSPN008DDTV	4395
	12 way	2	10	DBSPN012DDTV	5410
	16 way	2	14	DBSPN016DDTV	6270
	18 way	2	16	DBSPN018DDTV	7420
TPN	4 way	8	4+4+4	DBTPN004DDTV	8040
	6 way	8	6+6+6	DBTPN006DDTV	9280
	8 way	8	8+8+8	DBTPN008DDTV	11065

# Cable End Boxes [8537]

## Highlights

- Available in CRCA sheet steel, RAL9003, powder coated
- Can be either at the top or bottom of the distribution board



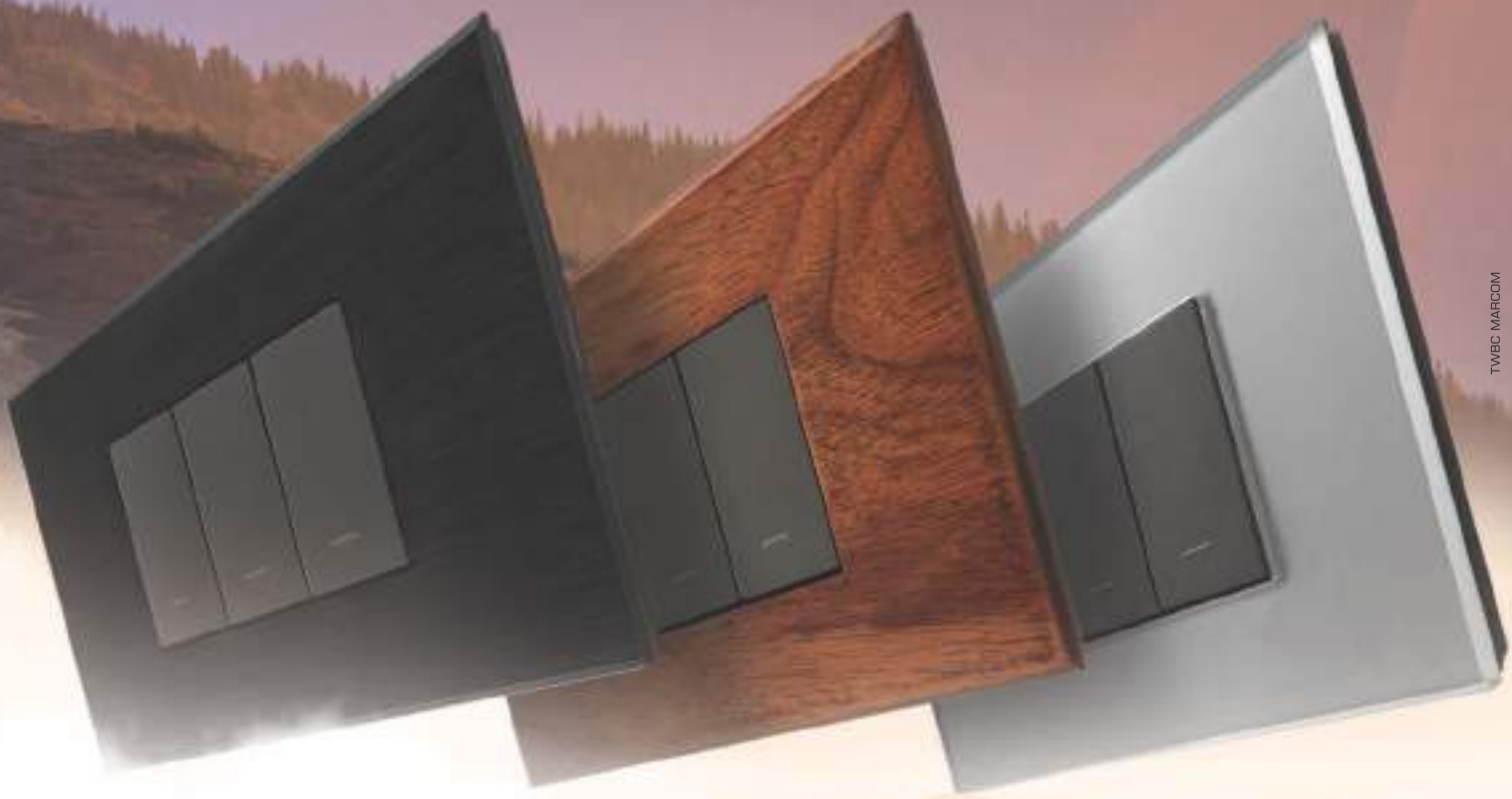
Description	Cat. Nos.	M.R.P. (₹) Per Unit
<b>CEB for SPN DBs</b>		
CEB-SPN Double Door, 4 way	DBSPN004CB	805
CEB-SPN Double Door, 6 way	DBSPN006CB	860
CEB-SPN Double Door, 8 way	DBSPN008CB	965
CEB-SPN Double Door, 12 way	DBSPN012CB	1075
CEB-SPN Double Door, 16 way	DBSPN016CB	1515
CEB-SPN Double Door, 18 way	DBSPN018CB	1565
<b>CEB for TPN DBs</b>		
CEB-TPN Double Door, 4 way	DBTPN004CB	1085
CEB-TPN Double Door, 6 way	DBTPN006CB	1525
CEB-TPN Double Door, 8 way	DBTPN008CB	1920
CEB-TPN Double Door, 12 way	DBTPN012CB	3185
CEB-TPN Double Door, 16 way	DBTPN016CB	3215
CEB-TPE Double Door, 4 way	DBTPE004CB	1040
CEB-TPE Double Door, 6 way	DBTPE006CB	1475
<b>CEB for Horizontal PPI DBs</b>		
CEB-Horz. PPI Double Door, 4 way	DBHPI004CB	1610
CEB-Horz. PPI Double Door, 6 way	DBHPI006CB	2005
CEB-Horz. PPI Double Door, 8 way	DBHPI008CB	2520
CEB-Horz. PPI Double Door, 12 way	DBHPI012CB	3155
CEB-Horz. PPI Double Door, 16 way	DBHPI016CB	3435
<b>CEB for Tier PPI DBs</b>		
CEB-Tier PPI Double Door, 6 way	DBTPI006CB	1450
CEB-Tier PPI Double Door, 8 way	DBTPI008CB	1520
CEB-Tier PPI Double Door, 10 way	DBTPI010CB	1840
CEB-Tier PPI Double Door, 12 way	DBTPI012CB	2255
CEB-Tier PPI Double Door, 16 way	DBTPI016CB	2395
CEB-Tier PPI Double Door, 12 way MCCB incomer	DBTPL012CB	2400

Description	Cat. Nos.	M.R.P. (₹) Per Unit
<b>CEB for VTPN DBs</b>		
CEB-VTPN Double Door, Modular Incomer	DBVTMXXCB	1075
CEB-VTPN Double Door, MCCB Incomer	DBVTXXXCB	3830
<b>CEB for FLEXI DBs</b>		
CEB for Flexi DBs with 14 Modules per Row	DBROWX14CB	1070
CEB for Flexi DBs with 16 Modules per Row	DBROWX16CB	1300
<b>CEB for Phase Segregated DBs</b>		
CEB-PSG Double Door, 4 way	DBPSG004CB	2815
CEB-PSG Double Door, 6 way	DBPSG006CB	3355
CEB-PSG Double Door, 8 way	DBPSG008CB	3720
CEB-PSG Double Door, 12 way	DBPSG012CB	4130
<b>CEB for Phase Selector DBs</b>		
CEB-Phase Selector Double Door, 4 way	DBPSR004CB	1190
CEB-Phase Selector Double Door, 6 way	DBPSR006CB	1340
CEB-Phase Selector Double Door, 8 way	DBPSR008CB	2175
CEB-Phase Selector Double Door, 10 way	DBPSR010CB	2505
CEB-Phase Selector Double Door, 12 way	DBPSR012CB	2715


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Product Group	Discontinued Products	Suggested Alternate Products
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Soft Starters	EMX3	EMX4



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