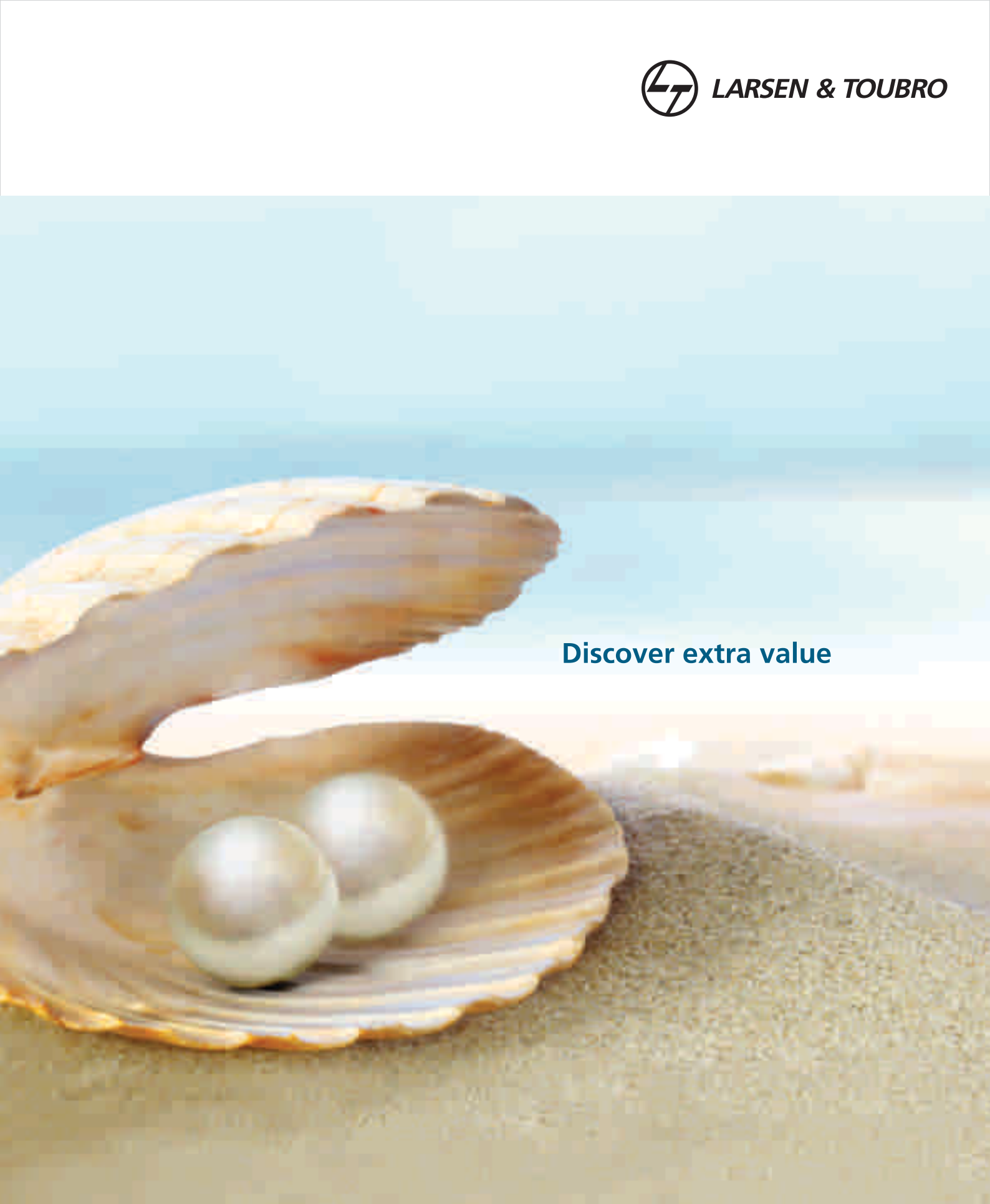




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Contents

Description	Page No.
Contactors	2
Bimetal Overload Relays	10
Control Accessories	13
Motor Protection Circuit Breakers	14
Motor Starters	17
Digital Soft Starters	20
Switch-Disconnecter-Fuse Units, SDs & HRC Fuses	23
On Load Changeover Switch-Disconnectors	28
Moulded Case Circuit Breakers	29
Air Circuit Breakers	44
Reactive Power Management Products	54
Digital Protective Relays	58
Electronic Metering Devices	61
Programmable Logic Controllers (PLC)	65
Human Machine Interface	66
Type 2 co-ordination selection charts for Fuse Protected System	68
Discontinued Products	71



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Contactors

Power Contactors

3 Pole

- MX Power (Mini)
- MNX
- MO
- MDX (DC Control)
- ML

4 Pole

- MCX

Control Relays (Auxiliary Contactors)

- MX0 (Mini)
- MN0

Capacitor Duty Contactors

- MO C

Definite Purpose Contactors

- Single Pole - MR
- MK1
- MU

3 Pole Power Contactors

3 Pole Power Contactors - Type MNX

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A – 650AAC-3
- Entire range is UL listed
- 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 70



MNX 140



MNX 225



MNX 650

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	25	MNX 9	1 NO	CS94106	690	10
			1 NC	CS94107	690	10
12	30	MNX 12	1 NO	CS94108	780	10
			1 NC	CS94109	780	10
18	30	MNX 18	1 NO	CS94100	900	10
			1 NC	CS94101	900	10
22	32	MNX 22	1 NO	CS94980	1075	10
			1 NC	CS94981	1075	10
25	45	MNX 25	#	CS94110	1120	10
32	55	MNX 32	#	CS94111	2435	10
40	55	MNX 40	#	CS94190	3820	10
45	85	MNX 45	2 NO + 2 NC	ST19000	4995	1
50	85	MNX 50	2 NO + 2 NC	ST19001	5125	1
70	100	MNX 70	2 NO + 2 NC	ST19002	7025	1
80	100	MNX 80	2 NO + 2 NC	ST19003	8795	1
95	160	MNX 95	2 NO + 2 NC	CS94136	10600	1
110	160	MNX 110	2 NO + 2 NC	CS94137	12470	1
140	160	MNX 140	2 NO + 2 NC	CS94138	16540	1
185	250	MNX 185	2 NO + 2 NC	CS94139	21965	1
225	300	MNX 225	2 NO + 2 NC	CS94140	24895	1
265	350	MNX 265	2 NO + 2 NC	CS94142	29480	1
325	400	MNX 325	2 NO + 2 NC	CS94143	34180	1
400	425	MNX 400	2 NO + 2 NC	CS94144	43285	1
550	650	MNX 550	2 NO + 2 NC	CS94145	64025	1
650	800	MNX 650	2 NO + 2 NC	CS96327	81980	1

3 Pole Power Contactors - Type MO

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Range from 9A - 110AAC-3
- Compact dimensions saving precious panel space
- DIN Rail mounting facility up to 110A
- Unique styling and visual appeal
- Lug less termination for frame 2, 3
- Standardized accessories throughout the range
- Low VA consumption
- RoHS compliant



MO 9



MO 45



MO 70



MO 110

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	30	MO 9	#	CS94564	695	10
12	35	MO 12	#	CS94565	800	10
18	40	MO 18	#	CS94566	945	10
25	45	MO 25	#	CS94567	1325	10
32	50	MO 32	#	CS94568	2880	10
40	50	MO 40	#	CS94569	4345	10
45	50	MO 45	#	CS94570	4635	10
50	65	MO 50	#	CS94572	4765	1
60	80	MO 60	#	CS94573	5765	1
70	100	MO 70	#	CS94574	6665	1
80	125	MO 80	#	CS94576	8435	1
95	125	MO 95	#	CS94577	10240	1
110	140	MO 110	#	CS94578	12110	1

Notes:

- 1) # Add-on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 6
- 2) For ordering MNX & MO accessories please refer page No. 7
- 3) Standard coil voltage: MNX / MO - 110V, 220V, 240V and 415V, 50Hz.
- 4) For Ordering Suffix please refer page No. 7, Table B

2 Pole Contactors available on request.

3 Pole Power Contactors

3 Pole Power Contactors - Type ML

Features

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



ML 1.5



ML 3



ML 6



ML 12

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
25	25	ML 1.5	2 NO + 2 NC	SS91851	2125	1
32	40	ML 2	2 NO + 2 NC	SS90701	3945	1
40	45	ML 3	2 NO + 2 NC	SS90721	5820	1
70	100	ML 4	2 NO + 2 NC	SS90910	9515	1
110	125	ML 6	2 NO + 2 NC	SS90921	15020	1
200	250	ML 10	2 NO + 2 NC	SS90935	33180	1
300	400	ML 12	2 NO + 2 NC	SS91010	35725	1

Notes:

- 1) # Add-on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 6
- 2) Std. Coil Voltage: ML - 110V, 220V, 240V and 415V, 50Hz
- 3) For ordering ML & MX accessories please refer page No. 7
- 4) For Ordering Suffix please refer page No. 7, Table B

3 Pole Power Contactors - Type MX Mini

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Enclosed construction providing compactness and convenience
- Base as well as DIN Rail mounting facility



MX 06

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control (Std. Coil Voltage - 24, 110, 240, 415V, 50Hz)						
6A	20A	MX 06	1 NO	CS94012	635	10
6A	20A	MX 06	1 NC	CS94013	635	10
9A	20A	MX 09	1 NO	CS94014	670	10
9A	20A	MX 09	1 NC	CS94015	670	10
12A	20A	MX 12	1 NO	CS94016	740	10
12A	20A	MX 12	1 NC	CS94017	740	10
For DC control (Std. Coil Voltage - 24, 110, 220V)						
6A	20A	MX 06	1 NO	CS94021	950	10
6A	20A	MX 06	1 NC	CS94022	950	10
9A	20A	MX 09	1 NO	CS94023	1000	10
9A	20A	MX 09	1 NC	CS94024	1000	10
12A	20A	MX 12	1 NO	CS94025	1090	10
12A	20A	MX 12	1 NC	CS94026	1090	10

3 Pole Power Contactors (DC Control)

3 Pole Power Contactors - Type MDX New

Features

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Range from 9 - 110AAC-3
- Built in surge suppressor for MDX 9 - 38
- IP20 connection security for MDX 9 - 38



MDX 25



MDX 38



MDX 110

AC3 Rating (A)	AC1 Rating (A)	Type	Aux. Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
9	25	MDX 9	1 NO	CS96564	1390	1
9	25	MDX 9	1 NC	CS96548	1390	1
12	28	MDX 12	1 NO	CS96565	1470	1
12	28	MDX 12	1 NC	CS96549	1470	1
18	32	MDX 18	1 NO	CS96566	1730	1
18	32	MDX 18	1 NC	CS96550	1730	1
25	32	MDX 25	1 NO	CS96567	2210	1
25	32	MDX 25	1 NC	CS96551	2210	1
32	56	MDX 32	#	CS96552	4620	1
38	56	MDX 38	#	CS96553	5400	1
50	90	MDX 50	#	CS96554	7600	1
65	110	MDX 65	#	CS96555	8450	1
80	125	MDX 80	#	CS96556	10140	1
95	125	MDX 95	#	CS96557	12540	1
110	125	MDX 110	#	CS96558	13135	1

Notes:

- 1) # Add-on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 6
- 2) Standard coil voltage: MDX - 24V, 48V, 110V and 220V DC.
- 3) For ordering MDX accessories please refer page No. 7
- 4) For Ordering Suffix please refer page No. 7, Table B

4 Pole Power Contactors & AST System Components

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 100A AC-1



MCX 22



MCX 34



MCX 47

AC-1 Rating (A)	Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16	MCX 01	#	CS97009	975	10
25	MCX 02	#	CS97010	1095	10
32	MCX 03	#	CS97011	1175	10
40	MCX 04	#	CS97012	1830	10
50	MCX 11	#	CS97013	2150	1
63	MCX 12	#	CS97014	4265	1
80	MCX 21*	2 NO + 2 NC	CS97016	6915	1
100	MCX 22*	2 NO + 2 NC	CS97017	7125	1
130	MCX 31	1 NO + 1 NC	CS97019	10230	1
160	MCX 32	1 NO + 1 NC	CS97020	14395	1
200	MCX 33	1 NO + 1 NC	CS97021	17710	1
255	MCX 34	1 NO + 1 NC	CS97022	18975	1
325	MCX 41	2 NO + 2 NC	CS97023	34215	1
360	MCX 42	2 NO + 2 NC	CS97024	37110	1
400	MCX 43	2 NO + 2 NC	CS97025	43855	1
500	MCX 44	2 NO + 2 NC	CS97026	54505	1
600	MCX 45	2 NO + 2 NC	CS97027	64940	1
700	MCX 46	2 NO + 2 NC	CS97028	77695	1
800	MCX 47	2 NO + 2 NC	CS94291	100150	1

Auto Source Transfer Controller



AuXC-1000L



AuXC-1000

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000L	ST800240000	39790	1
AuXC-1000	ST802300000	47950	1

Can be used along with U-POWER Omega ACBs, MCCBs, & MCX contactors

4 Pole Mechanically Interlocked Contactors



Two MCX 12

Type	Aux Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Two MCX 11	#	CS94362	5560	1
Two MCX 12	#	CS94365	9790	1
MCX 11 - MCX 12	#	CS94363	7675	1

Notes:

- 1) # Add on blocks can be ordered separately.
For Add-on block Cat No. refer page No. 6
- 2) For ordering MCX accessories please refer page No. 7
- 3) Std. Coil Voltage: MCX - 220V, 240V and 415V 50Hz
- 4) For Ordering Suffix please refer page No. 7, Table B
- 5) *Ordering Suffix for MCX21 / MCX22; F000 - 240V AC, R000 - 415V AC

Control Relays (Auxiliary Contactors)

Type MX0



MX0 40E

Features

- Conforms to IS / IEC 60947-4-1 & IEC 60947-4-1
- Alphanumeric terminal markings
- Available with AC or DC control

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz				
AC-15 4A	MX0 40E (4 NO)	CS94018	795	10
	MX0 31E (3 NO + 1 NC)	CS94019	795	10
	MX0 22E (2 NO + 2 NC)	CS94020	795	10
	MX0 13E (1 NO + 3 NC)	CS94041	795	10
	MX0 04E (4 NC)	CS94042	795	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A	MX0 40E (4 NO)	CS94027	1010	10
	MX0 31E (3 NO + 1 NC)	CS94028	1010	10
	MX0 22E (2 NO + 2 NC)	CS94029	1010	10
	MX0 13E (1 NO + 3 NC)	CS94043	1010	10
	MX0 04E (4 NC)	CS94044	1010	10

Type MN0



MN0 22E



MN0dc 22E

Rated Current	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
For AC control std. Coil Voltage - 24, 110, 240, 415V, 50Hz				
AC-15 4A	MN0 40E (4 NO)	SS94660	955	10
	MN0 31E (3 NO + 1 NC)	SS94661	955	10
	MN0 22E (2 NO + 2 NC)	SS94662	955	10
	MN0 13E (1 NO + 3 NC)	SS94663	955	10
	MN0 04E (4 NC)	SS94664	955	10
For DC control std. Coil Voltage - 24, 110, 220V				
AC-15 4A	MN0 40E (4 NO)	SS94665	1580	10
	MN0 31E (3 NO + 1 NC)	SS94666	1580	10
	MN0 22E (2 NO + 2 NC)	SS94667	1580	10
	MN0 13E (1 NO + 3 NC)	SS94668	1580	10
	MN0 04E (4 NC)	SS94669	1580	10

For Ordering Suffix please refer page No. 7, Table B

Notes:

- 1) For Ordering Suffix please refer page No. 7, Table B
- 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 plus 4NC add on block

Capacitor Duty Contactors

Capacitor Duty Contactors - Type MO C



MO C25



MO C50



MO C70

kVAR Rating @ 415V, 3Ph, 50Hz	Type	Built-in Auxiliary Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
8.5	MO C8.5	1NO	CS96320	1740	1
		1NC	CS96337	1740	1
12.5	MO C12.5	1NO	CS96321	1955	1
		1NC	CS96338	1955	1
15	MO C15	1NO	CS90019	2760	1
		1NC	CS90020	2760	1
20	MO C20	1NO	CS90021	3185	1
		1NC	CS90022	3185	1
25	MO C25	1NO	CS96322	3610	1
		1NC	CS96339	3610	1
33.5	MO C33.5	1NO	CS96323	6490	1
		1NC	CS96340	6490	1
50	MO C50	1NO	CS96324	9750	1
		1NC	CS96341	9750	1
70	MO C70	1NO	CS96325	11715	1
		1NC	CS96342	11715	1
80	MO C80	1NO	CS96326	12690	1
		1NC	CS96343	12690	1

Features

- MO C Range available from 8.5 - 80 Kvar
- Delatching auxiliary contacts
- Encapsulated resistor assembly
- Separate termination for damping resistors
- Lug less termination for MO C33.5 to MO C80
- **RoHS** compliant

Note :

- 1) # Add on blocks can be ordered separately
For Add on block Cat No. refer page No. 6
- 2) For ordering suffix please refer page no. 7, Table B
- 3) For ordering spare coils please refer page No. 7
- 4) For Power Factor Correction Capacitors refer page No. 54

Definite Purpose Contactors

Type MU



MU 1



MU 2

AC3 Rating (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
16A	MU 1	CS94007	1495	10
25A	MU 2	CS94008	2005	10

For Overload Relays type MU refer page No.11
For Ordering Suffix please refer page No. 7, Table B

Type MK1



MK 1

Type	AC3 Rating (A)	Motor Output 3 Phase 415V, 50Hz		Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
		HP	KW			
MK 1	11A	5.5	7.5	SS95200	955	10

For Overload Relays type MK1 please refer page No. 11
For Ordering Suffix please refer page No. 7, Table B
(For 360V wide band, Ordering Suffix - SOOO)

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	630	10
25A	MR 11NW	CS94178	675	10
40A	MR 13	CS94992	690	40

Ordering Suffix BOOO - 240V, 50Hz

Accessories - Add-on Blocks

Add-on Auxiliary Contact Blocks for MNX & MCX



**MNX / MCX
Top Add-on Block**

Mounting Position	Contacts	Contactor	Cat. No.	M.R.P. (₹) Per Unit
Top	4 NO	MNX 9 - 40/ MCX 01 - 12	CS94112	360
	3 NO + 1 NC		CS94113	360
	2 NO + 2 NC		CS94114	360
	1 NO + 3 NC		CS94115	360
	4 NC		CS94116	360
	2 NO		CS94117	240
	1 NO + 1 NC		CS94118	240
	2 NC		CS94119	240
	1 NO		CS94120	120
	1 NC		CS94121	120
First Left	1 NO + 1 NC	MNX 9 - 40/ MCX 01 - 04	CS94220	360
First Right	1 NO + 1 NC		CS94221	360
First Left	1 NO + 1 NC	MNX 45 - 80/ MCX 11 - 22	CS94201	375
First Right	1 NO + 1 NC		CS94202	375
Second Left	1 NO + 1 NC		CS94203	375
Second Right	1 NO + 1 NC		CS94204	375
First Left	1 NO + 1 NC	MNX 95 - 650/ MCX 31 - 46	CS94205	420
First Right	1 NO + 1 NC		CS94206	420
Second Left	1 NO + 1 NC		CS94207	420
Second Right	1 NO + 1 NC		CS94208	420

Add-on Auxiliary Contact Blocks for MDX



**MDX Top
Add-on Block**

Mounting Position	Contacts	Contactor	Cat. No.	M.R.P. (₹) Per Unit
Top	1 NO + 1 NC	MDX 9 - 110	CS96568	305
	2 NO + 2 NC		CS96569	525
Side	1 NO + 1 NC	MDX 9 - 110	ST94985	630
Top	1 NO/1 NC reversible	MDX 50 - 110	CS96586	170

Add-on Auxiliary Contact Blocks for ML



**ML
Add-on Block**

Mounting Position	Contacts	Contactor	Cat. No.	M.R.P. (₹) Per Unit
Side Left / Right	1 NO + 1 NC	ML 4/6	SS91494	490
Side Left / Right	2 NO + 2 NC	ML 10/12	SS91474	490

Add-on Auxiliary Contact Blocks for MR & MU



MR 1NO

Description	For Contactor	Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Add-on Single pole	MR	1 NO	CS94179	165	10
Side mounted auxiliary contact block	MU 1 / MU 2	1 NO + 1 NC	SS94072	145	10
		1 NC	SS94074	120	10

Note: Ordering Suffix for Add-on blocks : OOOO

Add-on Auxiliary Contact Blocks for MO & MO C



**MO
Top Add-on Block**



**MO/MO C
Left Add-on Block**

Mounting Position	Contacts	Contactor	Cat. No.	M.R.P. (₹) Per Unit
Top	4 NO	MO 9 - 110	CS94594	360
	3 NO + 1 NC		CS94595	360
	2 NO + 2 NC		CS94596	360
	1 NO + 3 NC		CS94597	360
	4 NC		CS94598	360
	2 NO		CS94591	240
	1 NO + 1 NC		CS94592	240
	2 NC		CS94593	240
	1 NO		CS94585	120
	1 NC		CS94586	120
First Left	1 NO + 1 NC	MO 9 - 110/ MO C	CS94580	360
First Right	1 NO + 1 NC		CS94581	360
Second Left	1 NO + 1 NC		CS94582	360
Second Right	1 NO + 1 NC		CS94583	360

Add-on Auxiliary Contact Blocks for MN0



1 NO + 1 NC



2 NO + 2 NC

Contacts Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
4 NO	SS94083	330	10
3 NO + 1 NC	SS94084	330	10
2 NO + 2 NC	SS94085	330	10
1 NO + 3 NC	SS94086	330	10
4 NC	SS94087	330	10
2 NO	SS94080	220	10
1 NO + 1 NC	SS94081	220	10
2 NC	SS94082	220	10
1 NO	SS94715	110	10
1 NC	SS94716	110	10

Add-on Auxiliary Contact Blocks for MX & MX0



MX - A1 22 E

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MX - A1 02E - 2 NO	CS94030	200	10
MX - A1 11E - 1 NO + 1 NC	CS94031	200	10
MX - A1 02E - 2 NC	CS94032	200	10
MX - A1 40E - 4 NO	CS94033	315	10
MX - A1 31E - 3 NO + 1 NC	CS94034	315	10
MX - A1 22E - 2 NO + 2 NC	CS94035	315	10
MX - A1 13E - 1 NO + 3 NC	CS94036	315	10
MX - A1 04E - 4 NC	CS94037	315	10

Accessories - Surge Suppressors

Surge Suppressor for MX, MNX, MDX & MCX



For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MX 06 to MX 09 / MX 0 AC	CS94039*	330
MNX 9 - 40 / MCX 01 - 04	CS94166*	345
MNX 45 - 80 / MCX 11 - 22	CS94163*	360
MNX 95 - 225 / MCX 31 - 34	CS94164*	1240
MNX 265 - 400 / MCX 41 - 44	CS94165*	1675
MDX 50 - 110	CS96571**	350

Ordering Suffix * 110-240V: BOOO, 415V: DOOO ** : OOOO
110V: AOOO, 220-240V: BOOO, 360-525V: DOOO

Surge Suppressor for MN0



Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN0 AC	SS94623	345	1
MN0 DC	SS94781	345	1

Ordering Suffix 110-240V : BOOO
415V : DOOO

24-48VDC : 5000
110-220VDC : 2000

Accessories - Mechanical Interlock Kits & Spreader Link Kit

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



For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MX 06 to MX 09 / MX 0	CS94038	330
MO 9 - 110*	CS94584	430
MDX 9 - 38	CS96572	400
MDX 50 - 110	CS96573	1225
MNX 9 - 40	CS94126	370
MNX 45 - 80	CS94197	1495
MNX 95 - 140	CS94198	2360
MNX 185 - 225	CS94199	2695
MNX 265 - 650	CS94200	3055
MCX 01 - 04	CS94126	370
MCX 21 - 22	CS93095	2365
MCX 31 - 34	SS94992	2540
MCX 41 - 46	CS94301	4115

* MO MIL Kit contains inbuilt 2 NC Contacts

Note: Ordering Suffix for Mechanical Interlock Kits : OOOO

MO Spreader Link Kit



For Contactor	Cat. No.	M.R.P. (₹) Per Unit
MO 9 - 45	CS94274OOOO	355

Note: Spreader Link Kit consists of six terminals

Ordering Suffix for Standard Coil Voltages

Table B

Ordering Suffix for Standard Coil Voltages			
AC Control		DC Control*	
Voltage (V)	Suffix	Voltage (V)	Suffix
24	G000	24	4000
42	H000	48	5000
48	J000	110	1000
110	A000	220	2000
220	K000		
240	B000		
360	C000		
380	L000		
415	D000		
440	P000		
525	M000		

* for MX DC, MDX, MX0 DC & MN0 DC

Spare Contact Kit and Spare Coil



ML Spare Kits



ML Spare Coils

Spare Contact kit			Spare Coil	
Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MU 1	CS94010	-	CS94009	440
MU 2	CS94011	-		
ML 1.5	SS95305	1415	SS90873	590
ML 2	SS95307	2170	SS90545	915
ML 3	SS95309	3485		
ML 4	SS95311	5650	SS91258	1750
ML 6	SS95313	9750		
ML 10	SS95315	18265	SS91011	3835
ML 12	SS95317	23715		
MN 0 ac	-	-	SS94191	460
MN 0 dc	-	-	SS94651	850

MO C Spare Coils		
Type	Cat. No.	M.R.P. (₹) Per Unit
MO C8.5 - 25	CS96317	440
MO C33.5 - 50	CS96318	1295
MO C70 - 80	CS96319	1875

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 0	ST28732	375
ML 1	ST28733	375
ML 1.5	ST28734	375
ML 2/ ML 3	ST23866	510
ML 4/ ML 6	ST28735	940
Combination coil with timer		
Type	Cat. No.	M.R.P. (₹) Per Unit
ML 2	SS90650	1800

Note :

- 1) Ordering Suffix for Spare Contact kit - OOOO
- 2) For Spare Coil Ordering Suffix refer page No. 7, Table B

Spare Contact Kit and Spare Coil



MNX Spare Coils

MCX Spare Kits



MNX Spare Kits

Spare Contact kit			Spare Coil	
Type	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
MO 9	CS96380	490	CS96317	440
MO 12	CS96381	635		
MO 18	CS96382	695		
MO 25	CS96383	795		
MO 32	CS96384	1585		
MO 40	CS96385	2285	CS96318	1295
MO 45	CS96386	2590		
MO 50	CS96387	2700		
MO 60	CS96388	3005		
MO 70	CS96389	3560		
MO 80	CS96390	4135	CS96319	1875
MO 95	CS96391	4960		
MO 110	CS96392	5885		
MNX 9	CS94123	490	CS94105	440
MNX 12	CS94124	635		
MNX 18	CS94125	695		
MNX 22	CS94269	715		
MNX 25	CS94127	795		
MNX 32	CS94128	1485	CS94192	1335
MNX 40	CS94147	2190		
MNX 45	CS94149	2590		
MNX 50	CS94150	2805		
MNX 70	CS94151	3770		
MNX 80	CS94152	4800	CS94196	1910
MNX 95	CS94153	5660		
MNX 110	CS94154	6875		
MNX 140	CS94155	8610	CS94194	3640
MNX 185	CS94156	11635		
MNX 225	CS94157	13870		
MNX 265	CS94159	16385	CS94195	4180
MNX 325	CS94160	20495		
MNX 400	CS94161	25315		
MNX 550	CS94162	35410	CS94193	14385
MNX 650	CS96336	45630		
MCX 01-04	-	-	CS94105	440
MCX 11	CS94077	1590	CS94009	440
MCX 12	CS94078	2445		
MCX 21	CS94330	3855	CS94192	1335
MCX 22	CS94331	4440		
MCX 31	CS94081	6440	CS94196	1910
MCX 32	CS94082	7300		
MCX 33	CS94083	9015		
MCX 34	CS94084	9975		
MCX 41	CS94295	20075	CS94195	4180
MCX 42	CS94296	25475		
MCX 43	CS94297	28575		
MCX 44	CS94298	33000		
MCX 45	CS94299	37735	CS94193	14385
MCX 46	CS94300	42570		
MCX 47	-	-		

L&T Automatic Changeover Switch - with current limiter



Single Phase ACCL

Optimizes Genset Power Distribution

The new L&T changeover switch is smart. So when it switches to genset supply, you can choose which loads to run.

And of course, it is a Changeover switch with L&T's trust built into it. So you can be assured of performance.

It's time you change over to the smarter Changeover Switch. Ask for it at your nearest L&T Authorised Stockist.

Customer Interaction Centre (CIC)

BSNL / MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: +91 22 6774 5858 Fax: +91 22 6774 5859

E-mail: cic@Lntebg.com

Bimetal Overload Relays

Features : MN Relays

- 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

Type MN



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)	0.2 - 0.33	SS94141OOEO	1070	10
	0.3 - 0.5	SS94141OOGO	1070	10
	0.45 - 0.75	SS94141OOJO	1070	10
Direct mounting on MNX 9 / MNX 12 / MNX 18 / MNX 22 / MNX 25 / MNX 32 / MNX 40	0.6 - 1	SS94141OOKO	1070	10
	0.9 - 1.5	SS94141OOMO	1070	10
	1.4 - 2.3	SS94141OOPQ	1070	10
	2 - 3.3	SS94141OOQO	1070	10
	3 - 5	SS94141OOSO	1070	10
	4.5 - 7.5	SS94141OOUO	1070	10
	6 - 10	SS94142OOVO	1070	10
	9 - 15	SS94142OOBO	1090	10
	14 - 23	SS94144OODO	1165	10
	20 - 33	SS94145OOEO	1710	10
	24 - 40	SS94145OOFO	1710	10
MN 5				
(Directly Operated)	20 - 33	SS94136OOEO	1965	10
	30 - 50	SS94136OOGO	2250	10
Direct Mounting	45 - 75	SS94137OOJO	3240	10
	66 - 110	SS94137OOKO	3360	10
MN 12				
(CT Operated)	42 - 69	SS94138OOHO	6220	1
	60 - 100	SS94138OOKO	6220	1
	90 - 150	SS94138OOMO	6220	1
Separate Mounting	135 - 225	SS94138OOPQ	6220	1
	180 - 300	SS94139OOQO	7140	1
	270 - 450	SS94139OORO	7555	1
MN 12L#				
(CT Operated)	42 - 69	SS94127OOHO	8505	1
	60 - 100	SS94127OOKO	8505	1
	90 - 150	SS94127OOMO	8505	1
Separate Mounting	135 - 225	SS94127OOPQ	8505	1
	180 - 300	SS94127OOQO	8505	1
	340 - 570	SS94127OOSO	8505	1

For motors with longer starting time

Note :

1) MN 5 & MN 12 Relays of lower ratings available on request

Features : RTO Relays

- 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

Type RTO



Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO - 1				
(Directly Operated)	0.23 - 0.41	CS96355OOFO	1265	10
	0.31 - 0.55	CS96355OOGO	1265	10
	0.55 - 0.85	CS96355OOJO	1265	10
	0.78 - 1.2	CS96355OOLQ	1265	10
Direct Mounting on MO 9 / MO 12 / MO 18 / MO 25 / MO 32 / MO 40 / MO 45	1.2 - 2.0	CS96355OONO	1265	10
	1.9 - 2.8	CS96355OOPQ	1265	10
	2.4 - 3.6	CS96355OOQO	1265	10
	3.5 - 5.2	CS96355OOSO	1265	10
	4.6 - 6.7	CS96355OOTQ	1265	10
	6.7 - 9.7	CS96355OOVO	1265	10
	8.5 - 12.5	CS96355OOAO	1290	10
	12.5 - 18.5	CS96356OOCO	1375	10
	17 - 25.5	CS96356OODQ	1375	10
	25 - 37	CS96356OOEO	2020	10
	35 - 45	CS96356OOGO	2020	10



Modular Load Feeder

RTO Relays can be directly mounted onto MO contactors. This along with the standardized accessories of MO provides you a complete modular feeder solution.

Bimetal Overload Relays

Type MX-R0*



MX - R0

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.1 - 0.16	ST94074O0BO	835	10
	0.16 - 0.24	ST94074O0DO	835	10
	0.22 - 0.33	ST94074O0EO	835	10
	0.3 - 0.45	ST94074O0GO	835	10
	0.45 - 0.67	ST94074O0HO	835	10
	0.67 - 1.0	ST94074O0KO	835	10
	1.0 - 1.5	ST94074O0MO	835	10
Direct Mounting on MX Contactors	1.4 - 2.1	ST94074O0NO	835	10
	1.8 - 2.7	ST94074O0PO	835	10
	2.4 - 3.6	ST94074O0QO	835	10
	3.5 - 5	ST94074O0SO	835	10
	4.0 - 6.0	ST94074O0TO	835	10
	5.5 - 8.5	ST94074O0UO	835	10
	8.5 - 12.5	ST94074O0VO	835	10

* Available till stocks last

Type ML



ML

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	ML 1.5			
	0.15 - 0.25	SS91858O0DO	1490	10
	0.25 - 0.4	SS91858O0FO	1490	10
	0.4 - 0.65	SS91858O0HO	1490	10
	0.6 - 1	SS91858O0KO	1490	10
	1 - 1.6	SS91858O0MO	1490	10
	1.5 - 2.5	SS91858O0PO	1490	10
	2.5 - 4	SS91858O0RO	1490	10
	4 - 6.5	SS91858O0TO	1490	10
	6 - 10	SS91858O0VO	1490	10
Direct Mounting on ML Contactors	10 - 16	SS91858O0BO	1490	10
	ML 2 / ML 3			
	9 - 14	SS91859O0AO	2205	2
	13 - 21	SS91859O0CO	2205	2
	20 - 32	SS91859O0EO	2205	2
	28 - 42	SS91859O0FO	2205	2

Type MK1



MK1

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	0.15 - 0.25	SS90035O0DO	725	10
	0.25 - 0.4	SS90035O0FO	725	10
	0.4 - 0.65	SS90035O0HO	725	10
	0.6 - 1	SS90035O0KO	725	10
	1 - 1.6	SS90035O0MO	725	10
	1.5 - 2.5	SS90035O0PO	725	10
	2.5 - 4	SS90035O0RO	725	10
Direct Mounting on MK1 Contactors	4 - 6.5	SS90035O0TO	725	10
	6 - 10	SS90035O0VO	725	10
	9 - 14	SS90035O0AO	725	10
	11 - 18	SS90036O0CO	760	10
	13 - 22	SS91888O0DO	800	10

Type MU



MU1



MU2

Type of Mounting (Operation)	Relay Range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
(Directly Operated)	MU1			
	4 - 6.5	SS96557O0TO	990	1
	6 - 10	SS96557O0VO	990	1
	MU2			
Direct Mounting on MU Contactor	9 - 14	SS95979O0AO	1080	1
	13 - 21	SS95979O0CO	1150	1
	20 - 32	SS95979O0EO	1395	1
	28 - 42	SS95979O0FO	1650	1

Accessories for Bimetal Overload Relays

Accessories for Bimetal 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 unit for MK 1 / ML Relays	SS90004	120	1
Push button extn. unit for MN 2 Relays	SS94968	30	100
Kit for Mounting MN 2 Relay on ML 1.5 contactor	SS94701	110	50
Kit for Mounting MN 2 Relay separately (Direct Mounting Type)	SS94700	110	50
Kit for Mounting MN 5 Relay on MNX 95 / 110 / 140 contactor	SS94638	160	20
Kit for Mounting MN 5 Relay on ML 2 / ML 3 contactor	SS94151	130	20
Kit for Mounting MN5 Relay on ML 4 / ML 6 contactor	SS94152	170	20
DIN Rail Mounting Kit Relay on MN 2 Relay	SS91887	85	50

Relay Reset Cord for MN2 Relay



400 mm 650 mm 900 mm 1200 mm

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
MN2 Relay reset cord - 400mm	SB942070000	470	1
MN2 Relay reset cord - 650mm	SB942080000	490	1
MN2 Relay reset cord - 900mm	SB942090000	535	1
MN2 Relay reset cord - 1200mm	SB942100000	605	1

Separate Mounting Kit for RTO Relay



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
RTO Relay Separate Mounting Kit	CS963350000	190	1

Timers

Electronic Timers Type ET 100



ET 100

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
110 / 240V, 50Hz for			
3 - 10 secs.	SE92001	2975	1
9 - 30 secs.	SE92002	2975	1
36 - 120 secs.	SE92003	2975	1
240 / 360 / 415V*, 50Hz for			
3 - 10 secs.	SE92005	2975	1
9 - 30 secs.	SE92006	2975	1
36 - 120 secs.	SE92007	2975	1

Notes: 1) # 360V tap can be used for 240V connections
2) Ordering Suffix is OOOO

To order a Timer, please specify Type & Cat no.

Thermal Timers Type GT 200



GT 200

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Operating Voltages: 230 / 250V, 360V, 400 / 440V, 500V, 50 Hz for 5 - 18 secs. range	SS91270	2255	1

Ordering Suffix for GT 200 Timer

Voltage (V)	Suffix
250V	N000
320V	R000
360V	C000
380V	L000
400 / 440V	P000

Note:

For Complete range of Timing Devices, please refer the Panel Accessories Price List

Control Accessories

Actuator Units Type TK3

6A, 415V, 50 Hz (Suitable for 30.5mm Cutout Dia.)

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
Selector actuator - 2 position (black only)	SS91516	400	30
Selector actuator - 3 position (black only)	SS91517	400	30
Mushroom push button actuator (red, green or black)	SS91518	245	30
Shrouded push button actuator (red, black, green, yellow, blue or grey)	SS91519	175	30
Unshrouded push button actuator (red, black, green, yellow, blue or grey)	SS91520	175	30
Key actuator - lockable in 1 position	SS91522 *	545	30
Key actuator - lockable in both positions	SS91521 *	545	30
Element with 2 fixing screws	SS90375 *	200	100

Ordering Suffix for Colour	
Black	OAOO
Red	OBOO
Green	OCOO
Yellow	ODOO
Blue	OEOO
Grey	OFOO
*	O000

Push Button Pendants

6A, 415V, 50 Hz

Description	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
With 2 push buttons	SS90502	930	30
With 4 push buttons	SS90504	1730	30
With 6 push buttons	SS90506	2325	30

Ordering Suffix is O000

Single Phase Preventor Relay



Sz5



SDz5

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
SDz5, SPPR + Timer, 360V	XM818080000	1845	1
SDz5, SPPR + Timer, 415V	XM818090000	1845	1
Single Phase Preventor Relay - Sz5 380V AC (6 wires)	CS94824L000	630	1
Single Phase Preventor Relay - Sz5 380V AC (7 wires)	ST921660000	630	1



To order Control Accessories, please specify
Type, Cat no. & Ordering Suffix for color



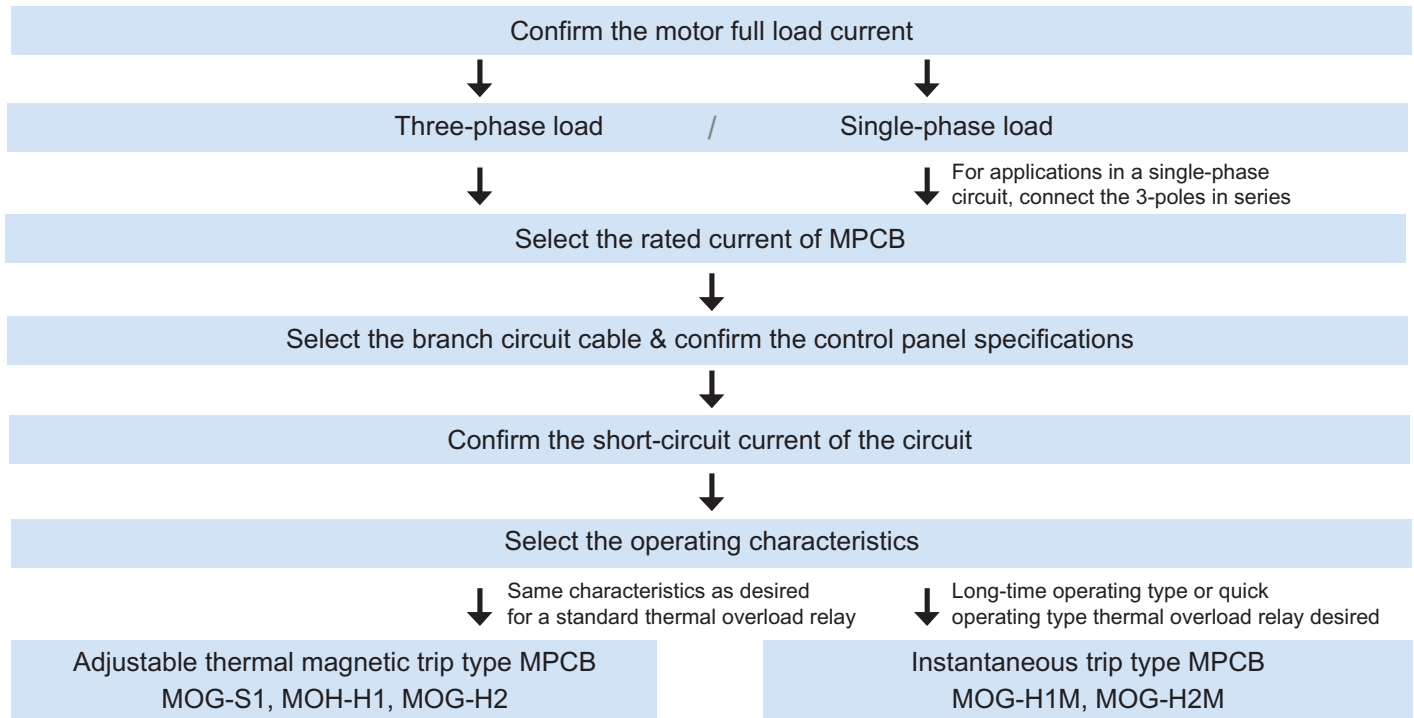
For Timing, Control Devices and Supply Monitors from GIC and 22.5 mm dia Range of Modular Remote Control & Indicating Units from ESBE, please refer Panel Accessories Price List.

Motor Protection Circuit Breakers

Features

- With compactness MPCB provides high-performance short-circuit current breaking
- Wide range of current adjustment dial for optimum protection
- Stand-alone motor protection
- With Single phasing protection
- All accessories are common for both frames and separate short circuit alarm is also available

Procedure for selecting the appropriate model:



Note: Please contact the nearest branch office for fuseless type 2 co-ordination selection chart.

Type MOG-S1 (Rocker Type)

(ROM cannot be fitted with MOG - S1)
With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	ST4188900000	2250	1
0.25	0.06	0.16 - 0.25	ST4189000000	2250	1
0.40	0.09	0.25 - 0.40	ST4189100000	2250	1
0.63	0.12	0.40 - 0.63	ST4189200000	2350	1
1.00	0.25	0.63 - 1.00	ST4189300000	2350	1
1.60	0.55	1.00 - 1.60	ST4189400000	2410	1
2.50	0.75	1.60 - 2.50	ST4189500000	2410	1
4.00	1.50	2.50 - 4.00	ST4189600000	2470	1
6.30	2.20	4.00 - 6.30	ST4189700000	2510	1
10.00	4.00	6.30 - 10.00	ST4189800000	2585	1
13.00	5.40	9.00 - 13.00	ST4189900000	2745	1

Breaking capacity: Icu = 100kA upto 10A & Icu = 50kA for 13A

Type MOG-H1M (Rotary Type) - Frame 1

With short circuit protection only



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Short Circuit Release (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	2.1	ST4192300000	2105	1
0.25	0.06	3.3	ST4192400000	2105	1
0.40	0.09	5.2	ST4192500000	2105	1
0.63	0.12	8.2	ST4192600000	2825	1
1.00	0.25	13	ST4192700000	2825	1
1.60	0.55	20.8	ST4192800000	2825	1
2.50	0.75	32.5	ST4192900000	2825	1
4.00	1.50	52	ST4193000000	3010	1
6.30	2.20	81.9	ST4193100000	3010	1
10.00	4.00	130	ST4193200000	3080	1
13.00	5.40	169	ST4193300000	3200	1
16.00	7.50	208	ST4193400000	3255	1
20.00	9.00	260	ST4193500000	3485	1
25.00	12.50	325	ST4193600000	4215	1
32.00	15.00	416	ST4193700000	5785	1

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

Motor Protection Circuit Breakers

Type MOG-H1 (Rotary Type) - Frame 1

With short circuit & overload protection



Rating (A)	Recommended Motor Rating at 415V, 3-Ph, 50Hz (KW)	Thermal Release range (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
0.16	-	0.1 - 0.16	ST419040000	2645	1
0.25	0.06	0.16 - 0.25	ST419050000	2775	1
0.40	0.09	0.25 - 0.40	ST419060000	2775	1
0.63	0.12	0.40 - 0.63	ST419070000	2985	1
1.00	0.25	0.63 - 1.00	ST419080000	2985	1
1.60	0.55	1.00 - 1.60	ST419090000	3050	1
2.50	0.75	1.60 - 2.50	ST419100000	3050	1
4.00	1.50	2.50 - 4.00	ST419110000	3050	1
6.30	2.20	4.00 - 6.30	ST419120000	3135	1
10.00	4.00	6.30 - 10.00	ST419130000	3200	1
13.00	5.40	9.00 - 13.00	ST419140000	3480	1
16.00	7.50	11.00 - 16.00	ST419150000	3845	1
20.00	9.00	14.00 - 20.00	ST419160000	4150	1
25.00	12.50	19.00 - 25.00	ST419170000	4515	1
32.00	15.00	24.00 - 32.00	ST419180000	7045	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)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	24.00 - 32.00	ST419190000	9470	1
40.00	20.00	28.00 - 40.00	ST419200000	9590	1
50.00	25.00	35.00 - 50.00	ST419210000	10135	1
63.00	34.00	45.00 - 63.00	ST419220000	10790	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)	Short Circuit Release (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32.00	15.00	416	ST419380000	7435	1
40.00	20.00	520	ST419390000	7435	1
50.00	25.00	650	ST419400000	9065	1
63.00	34.00	819	ST419410000	9065	1

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

Accessories for MOG



Short Circuit Alarm



Auxiliary + Alarm



External Operating Handle



Shunt Trip

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Front mtg. 1NO	ST419420000	460	1
Auxiliary Contact Front mtg. 1NC	ST419430000	460	1
Auxiliary Contact Left side mtg. 2NO	ST419440000	585	1
Auxiliary Contact Left side mtg. 1NO + 1NC	ST419450000	585	1
Auxiliary Contact Left side mtg. 2NC	ST419460000	555	1
Trip Alarm Contact Front mtg. 1NO	ST419470000	735	1
Trip Alarm Contact Front mtg. 1NC	ST419480000	735	1
Auxiliary + Alarm Left side mtg. 2NO	ST419490000	785	1
Short circuit alarm Left side mtg. 1NO + 1NC	ST419500000	785	1
Shunt trip 24V DC	ST419510000	1280	1
Shunt trip 110V, 50Hz	ST419520000	1345	1
Shunt trip 230V, 50Hz	ST429520000	1345	1
Under Voltage release, 110V, 50Hz	ST419530000	1345	1
Under Voltage release, 415V, 50Hz	ST419540000	1345	1
External operating handle, (Black) Frame 1	ST419550000	1010	1
External operating handle, (Black) Frame 2	ST419560000	960	1



Connecting Busbar link



3 Phase Feed in terminal



Busbar Safety Cover

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Connecting Busbar link			
2 MPCB 45 mm width w/o acc	ST419570000	590	5
3 MPCB 45 mm width w/o acc	ST419580000	650	5
4 MPCB 45 mm width w/o acc	ST419590000	705	5
5 MPCB 45 mm width w/o acc	ST419600000	765	5
2 MPCB 45 mm width with one acc 9 mm	ST419610000	690	5
3 MPCB 45 mm width with one acc 9 mm	ST419620000	750	5
4 MPCB 45 mm width with one acc 9 mm	ST419630000	805	5
5 MPCB 45 mm width with one acc 9 mm	ST419640000	865	5
2 MPCB 55 mm width w/o acc	ST419660000	1080	1
3 MPCB 55 mm width w/o acc	ST419670000	1230	1
4 MPCB 55 mm width w/o acc	ST419680000	1480	1
2 MPCB 55 mm width with one acc 9 mm	ST419690000	1180	1
3 MPCB 55 mm width with one acc 9 mm	ST419700000	1330	1
4 MPCB 55 mm width with one acc 9 mm	ST419710000	1580	1
2 MPCB 55 mm width with two acc 18 mm	ST419720000	1380	1
4 MPCB 55 mm width with two acc 18 mm	ST419730000	1530	1
Feed in terminal for 45 mm width Busbar	ST419650000	690	1
Feed in terminal for 55 mm width Busbar	ST419740000	1195	1
Bus bar safety cover 45 mm width Busbar	ST419750000	300	10
Bus bar safety cover 55 mm width Busbar	ST419760000	325	10



**Operate your pump
from anywhere using your mobile phone.**



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BSNL / MTNL (toll free) : 1800 233 5858
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Tel: 022 6774 5858 Fax: 022 6774 5859
E-mail: cic@lntibg.com Website: www.lntibg.com

M POWER
module for mobile starters

Designed especially for  Controllers

Direct-on-Line Starters

in Sheet-Steel Enclosure Type MF, MK, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MF1 3-Ph



MK1



MB1

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
7.5	5.5	9 - 15	MF1	SS97210	1100	1
7.5	5.5	9 - 14	MK1 DOL	SS96210	1760	1
7.5	5.5	11 - 18	MK1 DOL	SS96211	1800	1
7.5	5.5	13 - 22	MK1 DOL	SS96228	1845	1
10.0	7.5	13 - 21	MU1 DOL #	SS95647	2980	1
10.0	7.5	14 - 23	MB1 DOL #	SS95649	2980	1
15.0	11.0	20 - 32	MU2 DOL #	SS95648	4050	1
15.0	11.0	20 - 33	MB2 DOL #	SS95650	4050	1

For lower relay ranges, please refer Agricultural Electrical Products' price list.

Single Phase Starters



MH0



MF1 1-Ph

Max. Motor Output at 230V, 1-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
0.5	0.37	4 - 6.5	MH0 (Coil operated)	ST37491BOTO	950	1
1.0	0.75	6 - 10	MH0 (Coil operated)	ST37491BOVO	950	1
2.0	1.5	10.5 - 17.5	MF1	SS97227OOCO	820	1
3.0	2.2	12 - 20	MF1	SS97227OOCO	820	1

Semi-Automatic Star-Delta Starters

in Sheet-Steel Enclosure Type MK, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MK 1S



MU 1S



MB 2S

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
12.5	9.3	9 - 14	MK1 SASD	SS96255	5800	1
15.0	11.0	11 - 18	MK1 SASD	SS96258	5820	1
15.0	11.0	13 - 22	MK1 SASD	SS96260	5840	1
15.0	11.0	13 - 21	MU1 SASD #	SS95891	7705	1
15.0	11.0	14 - 23	MB1 SASD #	SS95895	8905	1
30.0	22.5	20 - 32	MU2 SASD #	SS95893	10030	1
30.0	22.5	20 - 33	MB2 SASD #	SS95897	10540	1

For lower relay ranges, please refer Agricultural Electrical Products' price list.

Note: 1) # Type MU1 / MU2 consists of type MU Relay + MU1 / MU2 contactors
Type MB1 / MB2 consists of type MN Relay + MU1 / MU2 contactors
2) For Ordering Suffix please refer table C page No. 19

Direct-on-Line Starters

in Sheet-Steel Enclosure Type MN with Single Phase Protection feature (Motor Rating AC-3 Duty, 415V, 50Hz, 3-Ph)



MN 16



MN 45

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	2750	1
15.0	11.0	14 - 23	MN 25 DOL	SS94352	4285	1
20.0	15.0	20 - 33	MN 32 DOL	SS94353	6875	1
30.0	22.5	30 - 50	MN 45 DOL	SS94017	11250	1
45.0	33.5	45 - 75	MN 65 DOL	SS94018	15585	1

Direct-on-Line Starters

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



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					
15.0	11.0	20 - 32	ML 1.5 DOL	SS91854	4285	1
20.0	15.0	20 - 32	ML 2 DOL	SS90702	7140	1
30.0	22.5	28 - 42	ML 3 DOL	SS90722	12145	1

Semi-Automatic Star-Delta Starters

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



ML 2S

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
25.0	18.5	13 - 21	ML1.5 SASD	SS91856	9860	1
35.0	26.0	20 - 32	ML2 SASD	SS90707	17240	1

Fully Automatic Star-Delta Starters



MN 16F

in Sheet-Steel Enclosure Type MN
with Single Phase Protection feature
(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					
15.0	11.0	9 - 15	MN 16 FASD	SS94362	9275	1
25.0	18.5	14 - 23	MN 25 FASD	SS94364	10685	1
35.0	26.0	20 - 33	MN 32 FASD	SS94366	17330	1
50.0	37.5	30 - 50	MN 45 FASD	SS94021	26350	1
75.0	55.0	45 - 75	MN 65 FASD	SS94022	44390	1
90.0	67.0	45 - 75	MN 80 FASD	SS94705	49300	1
125.0	90.0	66 - 110	MN 110 FASD	SS94706	63975	1
175.0	130.0	90 - 150	MN 140 FASD	SS94707	68000	1

Fully-Automatic Star-Delta Starters

in Sheet-Steel Enclosure Type MK, ML, MU & MB
(Motor Rating AC-3 Duty, 415V, 50Hz, 3Ph)



MK 1F



MB 1F



MU 2F

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
12.5	9.3	9 - 14	MK1 FASD	SS96254	6615	1
15.0	11.0	11 - 18	MK1 FASD	SS96257	6670	1
15.0	11.0	13 - 22	MK1 FASD	SS96259	6695	1
15.0	11.0	13 - 21	MU1 FASD #	SS95890	8920	1
15.0	11.0	14 - 23	MB1 FASD #	SS95894	9030	1
30.0	22.5	20 - 32	MU2 FASD #	SS95892	10800	1
30.0	22.5	20 - 33	MB2 FASD #	SS95896	10800	1

For lower relay ranges, please refer Agricultural Electrical Products' price list.



ML 2F



ML 1.5F

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
25.0	18.5	13 - 21	ML1.5 FASD	SS91855	11195	1
35.0	26.0	20 - 32	ML2 FASD	SS90705	17770	1
50.0	37.5	28 - 42	ML3 FASD	SS90730	29285	1
75.0	55.0	45 - 75	ML4 FASD	SS90913	50125	1
125.0	90.0	66 - 110	ML6 FASD	SS90923	82210	1
250.0	180.0	135 - 225	ML10 FASD	SS90938	129710	1
400.0	300.0	180 - 300	ML12 FASD	SS91019	146965	1

Note: 1) # Type MU1 / MU2 consists of type MU Relay + MU1 / MU2 contactors
Type MB1 / MB2 consists of type MN Relay + MU1 / MU2 contactors
2) For Ordering Suffix please refer table C page No. 19

Spares for MK1 Starters



Aux contact block



Spare coil



Combination coil



Push button unit

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Single Moving Contact	SS91009	40	10
Std. Operating coils			
400 / 440V, 50Hz	SS90047	200	10
360V, 50Hz	SS90165	200	10
320V, 50Hz	SS90166	200	10
230V, 50Hz	SS90045	200	10
220V, 50Hz	SS90044	200	10
110V, 50Hz	SS90043	200	10
Auxiliary contact block: 1 NO + 1 NC	SS90120	275	50
Spare kit without coil	SS90983	435	50
Thermal timer without combination coil	SS90224	780	1
Combination coils			
Combination coils for 400 / 440V, 50Hz	SS90443	510	10
Combination coils for 230V, 50Hz	SS90444	510	10
Combination coils for 380V, 50Hz	SS90445	510	10
Combination coils for 360V, 50Hz	SS90446	510	10
Push Button Unit	SS90004	120	1
Arc Shield	SS50004	130	1
Contact bridge without Contacts	SS50005	120	1

Spares for MN Starters

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Bracket for Mounting cont. MNX 25 - 32	SS940300000	85	20

Salient Features and Benefits of Starters

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Sheet steel enclosures with IP 54 protection
- Wide range of relay settings and coil voltages
- Standardized accessories and spares available

Submersible Pump Controller

In Sheet Enclosure Type MU - G

(Motor Rating AC-3 Duty, 415V, 50Hz, 3 phase)



MU - G6



MU - G10

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
6	4.5	9 - 14	MU - G6 DOL Starter *	SS97756	4880	1
10	7.5	13 - 21	MU - G10 DOL Starter *	SS95983	5710	1
10	7.5	28 - 42	MU - G10H DOL Starter *	SS95974	6655	1

* For lower relay ranges, please refer Agricultural Electrical Products' price list.

Submersible Pump Controller

In Sheet Enclosure Type MU-G

(Motor Rating AC-3 Duty, 415V, 50 Hz, 3 phase)



MU-G20



MU-G30



MU-G50

Max. Motor Output at 415V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
20	15	13 - 21	MU-G20 Fully Automatic Star - Delta Starter*	SS95984	11010	1
20	15	28 - 42	MU-G20H Fully Automatic Star - Delta Starter*	SS95975	13960	1
30	22.5	30 - 50	MU-G30 Fully Automatic Star - Delta Starter*	CS96008	21555	1
50	37.5	45 - 75	MU-G50 Fully Automatic Star - Delta Starter*	CS96009	34115	1

* For lower relay ranges, please refer Agricultural Electrical Products' price list.

Submersible Pump Controller

In Sheet Steel Enclosure Type MR-G, MF-G



MR-G2



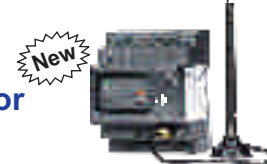
MF-G1

Max. Motor Output at 230V, 3-Ph		Relay Max. Range (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
HP	kW					
0.5	0.37	6 - 10	Type MR-G2 * For Single Phase Motors	SS96988	3260	1
1.0	0.75	9 - 14		SS96560	3565	1
1.5	1.1	11 - 18		SS96989	3935	1
2.0	1.5	13 - 22		SS96990	4120	1
3.0	2.2	13 - 22		SS97725	4410	1
0.5	0.37	6.5 - 11	Type MF-G1 * For Single Phase Motors	SS97734	2235	1
1.0	0.75	12 - 20		SS97736	2330	1
1.5	1.1	12 - 20		SS97737	2415	1
2.0	1.5	12 - 20		SS97738	2460	1

Note: For dual meter (Ammeter + Voltmeter) version - Add (₹) 205

* Also available with lower Relay Ranges

M-POWER - Module for Mobile Starter



Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Module for Mobile Starter & Submersible Controllers	GSM03010000	5950	1

Salient Features and Benefits of Submersible Pump Controller

- Conforms to IS/IEC 60947-4-1 & IEC 60947-4-1
- Protections Offered - Overload, Single Phasing, Phase reversal, Phase imbalance
- Auto Restart Feature
- Vibration proof enclosure with IP54 protection class
- Indications Offered - ON/OFF, Voltage and Ampere
- Compatible with M-POWER

Ordering Suffix for MK1/MU/MB/ML & MN Starters

Table C

Coil Voltages	Relay Range (A)				
	MK1	MU	MB	ML	MN
B - 240 V	A : 9 - 14	A : 9 - 14	B : 9 - 15	A : 9 - 14	B : 9 - 15
C - 360 V	C : 11 - 18	C : 13 - 21	D : 14 - 23	B : 10 - 16	D : 14 - 23
D - 415 V	D : 13 - 22	E : 20 - 32	E : 20 - 33	C : 13 - 21	E : 20 - 33
P - 440 V	M : 1 - 1.6			E : 20 - 32	G : 30 - 50
	P : 1.5 - 2.5			F : 28 - 42	J : 45 - 75
	R : 2.5 - 4			G : 30 - 50	K : 66 - 110
	T : 4 - 6.5			J : 45 - 75	Q : 2 - 3.3
	V : 6 - 10			K : 66 - 110	S : 3 - 5
				M : 90 - 150	U : 4.5 - 7.5
				P : 135 - 225	V : 6 - 10
				Q : 180 - 310	
				R : 2.5 - 4	
				T : 13 - 21	

Digital Soft Starters

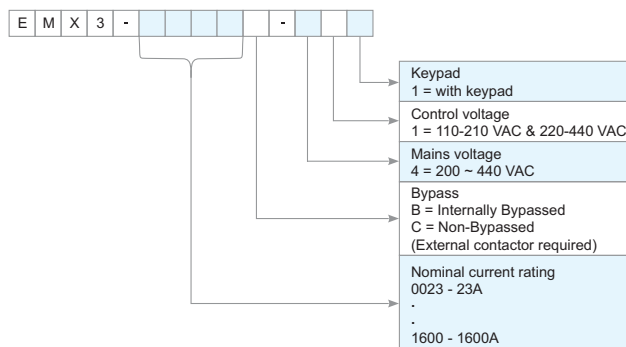
EMX3 Soft Starters



EMX3 Cat. No.	Suitable for Motor with Rated Current in Amps [#]		M.R.P. (₹) Per Unit	Bypass Contactor
	3 Wire (Inline Connection)	6 Wire (Inside Delta Connection)		
EMX3-0023B-411	23	34	62000	Built - In
EMX3-0043B-411	43	64	66500	
EMX3-0053B-411	53	79	77600	
EMX3-0076B-411	76	114	83100	
EMX3-0097B-411	97	145	88600	
EMX3-0105B-411	105	157	105200	
EMX3-0145B-411	145	217	121900	
EMX3-0170B-411	170	255	138300	
EMX3-0220B-411	220	330	144800	
EMX3-0255C-411	255	382	161000	
EMX3-0360C-411	360	540	171000	Terminals for connecting External contactor (AC1 duty)
EMX3-0430C-411	400	645	259000	
EMX3-0620C-411	620	930	266000	
EMX3-0650C-411	650	975	282000	
EMX3-0790C-411	790	1185	344000	
EMX3-0930C-411	930	1395	432000	
EMX3-1200C-411	1200	1800	665000	
EMX3-1410C-411	1410	2115	798000	
EMX3-1600C-411	1600	2400	886000	

* All protections remain active during bypass operation

Ordering Information for **EMX3** Soft Starter



EMX3 Soft Starters : For Heavy Duty Applications

- Ratings from 23 to 1600A
- Control Voltage from 94VAC to 484VAC
- Constant current
- XLR-8 Adaptive acceleration control for pumps
- Kickstart
- XLR-8 Adaptive deceleration control for pumps
- Forward / Reverse Jog
- Comprehensive motor protection
- Large LCD Keypad
- Auto Start / stop
- 2 motor data sets
- Fully programmable overload trip
- 5 digital inputs, 4 digital outputs, 1 analog output
- Built-in RTD & Thermistor inputs
- 99 event logs with time stamping
- Starter communication timeout
- Network communication trip
- Auto detection of inline or inside delta power connection
- Programmable auto start/stop
- 24 VDC auxiliary power supply
- Power through operation allows to run soft starter even with one SCR shorted
- Emergency run operation
- I/O expansion card (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 I²T.



EMX3 Cat. No.	Suitable for Motor with Rated Current in Amps [#]		M.R.P. (₹) Per Unit	Bypass Contactor
	3 Wire (Inline Connection)	6 Wire (Inside Delta Connection)		
EMX3-0255B-411	255	382	230000	Built - In
EMX3-0350B-411	350	525	280000	
EMX3-0425B-411	425	638	330000	
EMX3-0500B-411	500	750	359000	
EMX3-0580B-411	580	870	410000	
EMX3-0700B-411	700	1050	468000	
EMX3-0820B-411	820	1230	528000	
EMX3-0920B-411	920	1380	620000	
EMX3-1000B-411	1000	1500	675000	

Note : The above EMX3 current ratings are based on 300% starting current, 10 starts per hour, 10 seconds starting time and ambient temperature of 45°C. For proper sizing of soft starter based on the application parameters please use Winstart Software. For Winstart software please contact Customer Interaction Centre.

Digital Soft Starters

CSX Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSX-007-41	26000
15	CSX-015-41	27500
18	CSX-018-41	28500
22	CSX-022-41	33700
30	CSX-030-41	38000
37	CSX-037-41	43500
45	CSX-045-41	49500
55	CSX-055-41	54000
75	CSX-075-41	73500
90	CSX-090-41	80000
110	CSX-110-41	88000

CSXi Soft Starters



Motor kW	Cat. No.	M.R.P. (₹) Per Unit
7.5	CSXi-007-41	37700
15	CSXi-015-41	43700
18	CSXi-018-41	45900
22	CSXi-022-41	49000
30	CSXi-030-41	54500
37	CSXi-037-41	59700
45	CSXi-045-41	72000
55	CSXi-055-41	78800
75	CSXi-075-41	92000
90	CSXi-090-41	115000
110	CSXi-110-41	128500

Note : 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.

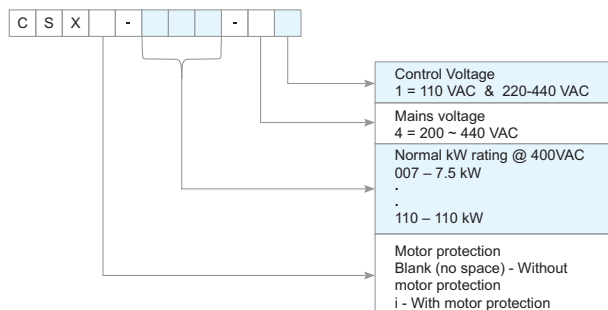
For proper sizing of soft starter based on the application parameters please use Winstart Software.

Optional Modules/Cards for CSX / CSXi / EMX3



Description	Cat. No.	M.R.P. (₹) Per Unit
Modbus Interface	PIM-MB-01	12000
Profibus Interface	PIM-PB-01	19000
DeviceNet Interface	PIM-DN-01	15000
USB Interface	PIM-USB-01	7000
Modbus TCP Module	PIM-MT-01	36000
Ethernet IP Module	PIM-EI-01	40000
Profinet Module	PIM-PN-01	40000
EMX3 RTD/Ground Fault Expansion Card	995-04804-00	15000
EMX3 I/O Expansion Card	995-04803-00	9500

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 I²T.



Making Changeover Safer, Smarter

We Go the Extra Mile

If you are using conventional changeover switches, it's time to change over to the smarter, safer way. New C-Line switches from L&T have a self-interlocked dual dead centre mechanism that takes the risk out of switching from one source to another.

Take a look at the other benefits: Termination is simpler and quicker thanks to staggered terminals. More flexibility comes with the on-site convertible fused version. No line load bias and enhanced user protection with click-fit, swivel type terminal shroud. The range also has the highest withstand capacity along with higher mechanical and electrical life. The sheet steel enclosure version needs no separate cable gland box.

Yes, the extra mile goes a long way in making changeover safer and smarter.



Changeover Switches

Customer Interaction Centre (CIC)

BSNL/MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: 022 6774 5858 Fax: 022 6774 5859

Email: cic@Lntebg.com

www.Lntebg.com

Switch-Disconnecter-Fuse Units

Type FN (TPN) S-D-F suitable for DIN fuse-link



FN - TPN (Open Execution)



FN in SS Enclosure

Features offered by FN S-D-F

- Range 32A to 800A, 415V, AC 23A
- 2P / TP / TPN Versions
- Suitable for cylindrical / DIN / Bolted fuse-link
- Available in interior / Sheet steel enclosure version
- Conform to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility

Rated Current (A)	Suitable HRC fuse-link		Open Execution				In Sheet Steel Enclosure			
	Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	HF	2 to 32	FN 32 TPN / FP	SK95518	1530	1	FN 32 TPN / FP CE*	SK95612*	3485	1
32	HF	2 to 32	FN 32 TPN / FP CE*	SK95703*	1370	1				
63	HF	2 to 63	FN 63 TPN / FP	SK95421	2080	1	FN 63 TPN / FP CE*	SK95613*	4170	1
63	HF	2 to 63	FN 63 TPN / FP CE*	SK95704*	1840	1				
100	HN Size 000/00	63 to 100	FN 100 TPN	SK95568	4370	1	FN 100 TPN	SK95569	6875	1
125	HN Size 000/00	63 to 125	FN 125 TPN	SK95001	5795	1	FN 125 TPN	SK95005	8135	1
160	HN Size 000/00	63 to 160	FN 160 TPN	SK95713	6445	1	FN 160 TPN	SK95715	8725	1
200	HN Size 0	80 to 200	FN 200 TPN	SK95418	7845	1	FN 200 TPN	SK95511	11460	1
250	HN Size 1	125 to 250	FN 250 TPN	SK95642	9715	1	FN 250 TPN	SK95681▲	13230	1
315	HN Size 1	125 to 315	FN 315 TPN	SK95461	12070	1	FN 315 TPN	SK95514	15685	1
400	HN Size 2	200 to 400	FN 400 TPN	SK95481	14475	1	FN 400 TPN	SK95515	18300	1
630	HN Size 3	315 to 630	FN 630 TPN	SK95521	22840	1	FN 630 TPN	SK95547	29330	1
800	HN Size 3	315 to 800	FN 800 TPN	SK95679	25505	1	FN 800 TPN	SK95705	31775	1

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

▲ Spare cat no. ST978950000 is of Interior FN 250 SDF suitable for Sheet steel enclosure

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



FNX TPN S-D-F



FNX 4P S-D-F

Features offered by FNX S-D-F

- Range 32A to 800A, 415V, AC 23A
- TPN and FP version
- Suitable for cylindrical / DIN fuse-link
- Telescopic shaft for depth adjustment
- DIN rail mounting up to 100A
- Conform to IEC 60947-3, IS/IEC 60947-3
- Door interlock & padlock facility

Rated Current (A)	Suitable HRC fuse-link		Three pole + Neutral (TPN)				Four Pole (FP)			
	Type	Range (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	HF	2 to 32	FNX 32 TPN / FP	SK96903	1605	1	FNX 32 TPN / FP	SK96903	1605	1
63	HF	2 to 63	FNX 63 TPN / FP	SK96904	2180	1	FNX 63 TPN / FP	SK96904	2180	1
100	HN Size 000	63 to 100	FNX 100 TPN / FP	SK96906	4390	1	FNX 100 TPN / FP	SK96906	4390	1
125	HN Size 000/00	63 to 125	FNX 125 TPN	SK95806	6100	1	FNX 125 FP	SK95814	6320	1
160	HN Size 000/00	63 to 160	FNX 160 TPN	SK95807	6745	1	FNX 160 FP	SK95815	7110	1
200	HN Size 0	80 to 200	FNX 200 TPN	SK95808	8210	1	FNX 200 FP	SK95816	9130	1
250	HN Size 1	125 to 250	FNX 250 TPN	SK95809	10185	1	FNX 250 FP	SK95817	10490	1
315	HN Size 1	125 to 315	FNX 315 TPN	SK95810	12705	1	FNX 315 FP	SK95818	13135	1
400	HN Size 2	200 to 400	FNX 400 TPN	SK95811	15180	1	FNX 400 FP	SK95819	15825	1
630	HN Size 3	315 to 630	FNX 630 TPN	SK95812	23950	1	FNX 630 FP	SK95820	25250	1
800	HN Size 3	315 to 800	FNX 800 TPN	SK95813	26725	1	FNX 800 FP	SK95821	27470	1

Switch-Disconnecter-Fuse Units

Type FN (2P) S-D-F suitable for DIN fuse-link



Rated Current (A)	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 2P	HF	SK95594	1315	1
63	FN 63 2P	HF	SK95595	1765	1
100	FN 100 2P	HN Size 000/00	ST35086	3750	1
125	FN 125 2P	HN Size 000/00	ST35087	4515	1
160	FN 160 2P	HN Size 000/00	ST35088	4920	1
200	FN 200 2P	HN Size 0	ST35089	6255	1
250	FN 250 2P	HN Size 1	ST31674	7380	1
315	FN 315 2P	HN Size 1	ST38930	9335	1
400	FN 400 2P	HN Size 2	ST31676	11245	1
630	FN 630 2P	HN Size 3	ST35090	17895	1

Type FN (TP) S-D-F suitable for DIN fuse-link



FN TP S-D-F

Rated Current (A)	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TP	HF	ST27892	1455	1
63	FN 63 TP	HF	ST27893	1965	1
100	FN 100 TP	HN Size 000/00	ST30287	4150	1
125	FN 125 TP	HN Size 000/00	ST27894	5335	1
160	FN 160 TP	HN Size 000/00	SK95998	5990	1
200	FN 200 TP	HN Size 0	ST27895	7685	1
250	FN 250 TP	HN Size 1	ST31731	9255	1
315	FN 315 TP	HN Size 1	ST27897	11450	1
400	FN 400 TP	HN Size 2	ST27898	13790	1
630	FN 630 TP	HN Size 3	ST27899	22435	1
800	FN 800 TP	HN Size 3	ST27900	24460	1

Type FN (TPN) S-D-F suitable for bolted fuse-link



FN TPN S-D-F

Rated Current (A)	Open Execution				
	Type	Suitable fuse-link type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TPN	A1L	SK95653	1550	1
63	FN 63 TPN	A1L	SK95651	2090	1
100	FN 100 TPN	A4	SK95570	4255	1
125	FN 125 TPN	A4	SK95009	5260	1
160	FN 160 TPN	A4	SK95714	5605	1
200	FN 200 TPN	B2	SK95588	6890	1
250	FN 250 TPN	B2 / B3	SK95682	9020	1
315	FN 315 TPN	B3	SK95590	11825	1
400	FN 400 TPN	B4	SK95591	13010	1
630	FN 630 TPN	C2	SK95592	21985	1

Type FN & FG Switch-Disconnecter (TPN)



FN TPN S-D

Rated Current (A)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FN 32 TPN / 4P	SK95541	1525	1
63	FN 63 TPN / 4P	SK95540	2075	1
100	FN 100 TPN	SK95571	4220	1
125	FN 125 TPN	SK95405	5160	1
200	FN 200 TPN	SK95607	7135	1
250	FN 250 TPN	SK95683	8875	1
315	FN 315 TPN	SK95609	10560	1
400	FN 400 TPN	SK95610	12970	1
630	FN 630 TPN	SK95611	19470	1
800	FN 800 TPN	SK95551	22545	1
1000	FN 1000 TPN	SK95710	29415	1
1000	FN 1000H TPN	SK95992	33740	1
1250	FG 1250 TPN	ST30198	49170	1
1600	FG 1600 TPN	ST30199	62350	1
2000	FG 2000 TPN	ST30200	166570	1
2500	FG 2500 TPN	ST30201	197630	1
3150	FG 3150 TPN	ST30202	201305	1

Refer catalogue for short circuit withstand capacity

Type FFO/FF/FAC suitable for panel mounting

Rated Current (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
32	FFO TP Interior	SK91100	1175	1
63	FF TP Interior	SK91000	1780	1
63	FAC 63 TPN	SK95156	3300	1
100	FAC 100 TPN	SK95157	5400	1

Spares & Accessories for Type FFO/FF/FAC

Description	Rated Current (A)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
FAC - Handle Assembly	63 / 100	SK90453	70	1
FFO / FF Handle Assembly	32 / 63	SK90998	80	1
FFO / FF Handle Coupler & Door Interlock	32 / 63	SK91079	400	1

Switch-Disconnecter-Fuse: Accessories

Accessories for type FNX



Castell Lock



DIN Rail Assembly



Auxiliary Contact Kit



Handle Assembly

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FNX 32 / 63	SK91537	160	1
	FNX 100	SK91538	310	1
	FNX 125 / 160	SK91539	310	1
	FNX 200 / 250	SK91540	400	1
	FNX 315 / 400 / 630 / 800	SK91541	445	1
Handle Assembly	FNX 32 / 63 / 100	SK91524	270	1
	FNX 125 / 160 / 200 / 250	SK91525	510	1
	FNX 315 / 400 / 630 / 800	SK91526	640	1
Castell Lock	FNX 32 / 63 / 100	SK91530	500	1
	FNX 125 / 160 / 200 / 250	SK91531	880	1
	FNX 315 / 400 / 630 / 800	SK91531	880	1
DIN Rail Assembly	FNX 32 / 63 / 100	SK91617	65	1
Mechanical Interlock kit	FNX 125 / 160 / 200 / 250	SK95232	815	1
	FNX 315 / 400 / 630 / 800	SK95545	930	1

Accessories for type FN



Terminal Shroud Kit



Handle Assembly



Auxiliary Contact Kit



Switched Neutral Kit



Mechanical Interlock Kit



Shaft Extension Kit

Description	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact Kit (1NO + 1 NC)	FN 32 / 63	SK91302	370	1
	FN 100 / 125 / 160	SK91328	420	1
	FN 200 / 250	SK91329	495	1
	FN 315 / 400 / 630 / 800	SK91330*	545	1
Terminal Shroud Kit	FN 32 / 63	SK91190	90	1
	FN 100 / 125 / 160	SK91137	120	1
	FN 200 / 250	SK91335	205	1
	FN 315 / 400	SK91346	215	1
Handle Assembly - A	FN 32 / 63	SK91257	260	1
	FN 100 / 125 / 160	SK91258	570	1
	FN 200 / 250	SK91258	570	1
	FN 315 / 400 / 630 / 800	SK91259*	635	1
Handle Assembly - B	FN 32 / 63	SK91277	260	1
	FN 100 / 125 / 160	SK91278	570	1
	FN 200 / 250	SK91278	570	1
	FN 315 / 400 / 630 / 800	SK91279*	635	1
Handle Assembly - CE	FN 32 / 63	SK91337	145	1
	FN 100 / 125 / 160	SK95232	815	1
	FN 200 / 250	SK95232	815	1
Mechanical Interlock Kit	FN 315 / 400 / 630 / 800	SK95545*	930	1
	FN 100 / 125 / 160	SK95233	2415	1
	FN 200 / 250	SK95516	2450	1
Switched Neutral Kit	FN 315 / 400	SK95517	2545	1
	FN 630 / 800	SK95546*	3430	1
Interphase Barrier Kit	FN 200	SK91343	190	1
	FN 315 / 400	SK91344	200	1
	FN 630 / 800	SK91345*	210	1
Shaft Extension Kit	FN 100 / 125 / 160	SK95600	150	1
	FN 315 / 400 / 630 / 800	SK91331*	180	1

* Also suitable for switch-disconnector FN1000 & FN1000H

Spare front housing assemblies for FN S-D-F (suitable for DIN fuse-link)

Rating (A)	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
100	FN 100 Front housing assembly	ST31677	2890	1
125	FN 125 Front housing assembly	ST31678	3380	1
200	FN 200 Front housing assembly	ST31679	3865	1
250	FN 250 Front housing assembly	ST31729	5250	1
315	FN 315 Front housing assembly	ST31681	6325	1
400	FN 400 Front housing assembly	ST31682	7975	1
630	FN 630 Front housing assembly	ST31683	14310	1

Fuse pulling handle



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	110	1
Insulated fuse pulling handle for Type HN fuse-link from 63A-800A	SF90126	410	1

Castell lock for type FN



Castell lock

Suitable for	Description & Cat. No.		M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Type FN 100 to FN 250	A = SK00333 C = SK00335	B = SK00334 D = SK00336	1365	2
Type FN 315 to FN 800	A = SK00345 C = SK00347	B = SK00346 D = SK00348	1365	2

HRC Fuses

Features offered by HRC fuse link

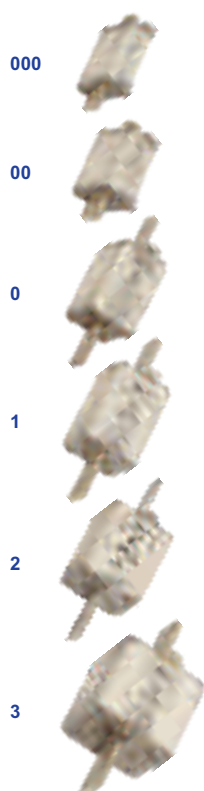
- Conform to IEC 60269-2, IS 13703 part 2
- Range: 2A to 800A, 415V, AC 50Hz
- Type: Cylindrical (2A to 63A), DIN (63A to 800A) & Bolted (2A to 630A)
- High breaking capacity: 100kA for type HN and 80kA for type HF/HG/HQ

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	84	30
	4		SF90145	84	30
	6		SF90146	84	30
	8		SF90147	84	30
	10		SF90148	84	30
	16		SF90150	84	30
	20		SF90151	84	30
	25		SF90152	84	30
	32		SF90142	84	30
	40	Suitable for Type FN 63 / FNX 63 S-D-F & for HC 63 Fuse base	SF90143	95	30
	50		SF90158	210	30
	63		SF90159	268	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 Suitable for Type FA-C 100 & for HB 160 Fuse base	SF94940	273	3
	80		SF94941	289	3
	100		SF94942	289	3
	125		SF94946	322	3
00	63	Suitable for Type FN 100/125/160 / FNX 125/160 S-D-F Suitable for Type FA-C 100 & for HB 160 Fuse base	SF94027	357	3
	80		SF94028	357	3
	100		SF94029	357	3
	125		SF94030	360	3
	160		SF94939	380	3
	200		SF94128	483	3
0	80	Suitable for Type FN 200 / FNX 200 S-D-F & for HB 250 Fuse base	SF94129	483	3
	100		SF94130	483	3
	125		SF94131	494	3
	160		SF94132	494	3
	200		SF94230	513	3
1	125	Suitable for Type FN 250/315 / FNX 250/315 S-D-F & for HB 250 Fuse base	SF94231	529	3
	160		SF94232	529	3
	200		SF94233	588	3
	250		SF94234	730	3
	315		SF94332	725	3
	400		SF94333	747	3
2	200	Suitable for Type FN 400 / FNX 400 S-D-F & for HB 800 Fuse base	SF94334	752	3
	250		SF94335	785	3
	315		SF94434	1155	1
	400		SF94435	1155	1
	500		SF94436	1192	1
3	630	Suitable for Type FN 630/800 / FNX 630/800 S-D-F & for HB 800 Fuse base	SF94437	1271	1
	800		SF94938	1507	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	155	10
63	HC 63	Fuse holder	HF	2-63	SK91043	175	10
160	HB 160	Fuse base	HN-Size 000 & 00	63-160	SK90405	276	12
250	HB 250	Fuse base	HN-Size 0 & 1	80-250	SK90406	582	3
800	HB 800	Fuse base	HN-Size 2 & 3	200-800	SK91051	1113	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	40	24	
			4		ST30726	40	24	
			6		ST30727	40	24	
			10		ST30728	40	24	
			16		ST30729	40	24	
			20		ST30730	45	24	
			25		ST30731	45	24	
			32		ST30732	45	24	
HQ	Offset	A1	2	-	ST30736	56	24	
			4		ST30737	56	24	
			6		ST30738	56	24	
			10		ST30739	56	24	
			16		ST30740	56	24	
			20		ST30741	58	24	
			25		ST30742	59	24	
			32		ST30743	66	24	
		A1L	20	Suitable for type FN 32/63 S-D-F	ST34527	69	15	
			25		ST34528	69	15	
			32		ST34529	74	15	
			50		ST35827	74	15	
			63		ST35828	74	15	
		A2	4	Suitable for type HK 32H/32B fuse base	ST30747	59	12	
			6		ST30748	59	12	
			10		ST30749	59	12	
			16		ST30750	59	12	
			20		ST30751	59	12	
			25		ST30752	59	12	
			32		ST30753	59	12	
		A3	35	Suitable for type HK 63B/63H Fuse base	ST30759	85	12	
			50		ST30760	85	12	
			63		ST30761	85	12	
		A4	80	Suitable for type FN 100/125/160 S-D-F & for HK 125H/125B Fuse base	ST30767	161	12	
			100		ST30768	166	12	
			125		ST30769	198	12	
			160		ST35829	203	12	
			80		ST30774	182	12	
	Centre Tag, 2 holes	B1	100	Suitable for type FN 200 S-D-F	ST30775	182	12	
			125		ST30776	234	12	
			125		ST30777	250	3	
		B2	160	Suitable for type FN 250/315 S-D-F	ST30778	260	3	
			200		ST30779	260	3	
			250		ST30781	383	3	
		B3	315	Suitable for type FN 400 S-D-F	ST30782	390	3	
			355		ST30783	588	3	
		B4	400	ST30784	619	3		
			400	ST30785	1084	1		
		Centre Tag, 4 holes	C2	500	Suitable for type FN 630 S-D-F	ST30786	1309	1
				630		ST30787	1309	1
	C3		630	-	ST30788	1447	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	F1	2-20	ST30772	100	12
	HD 20P	Both side busbar	F1	2-20	ST30773	110	12
	HD 20B	Top busbar & bottom cable	F1	2-20	ST30766	105	12
32	HD 32H	Both side cable	F1	2-32	ST30733	110	12
	HD 32P	Both side busbar	F1	2-32	ST30734	140	12
	HD 32B	Top busbar & bottom cable	F1	2-32	ST30735	130	12
	HK 32H	Both side cable	A2	4-32	ST30754	170	12
	HK 32B	Top busbar & bottom cable	A2	4-32	ST30755	200	12
63	HK 63H	Both side cable	A3	35-63	ST30762	229	6
	HK 63B	Top busbar & bottom cable	A3	35-63	ST30763	276	6
125	HK 125H	Both side cable	A4	80-125	ST30770	742	3
	HK 125B	Top busbar & bottom cable	A4	80-125	ST30771	814	3

On Load Changeover Switch - Disconnectors

Type **C-line** changeover switch-disconnector



C-line Direct handle F1 **C-line** Extended handle F1 **C-line** as open execution **C-line** in SS enclosure

Features offered by **C-line** Changeover

- Range 63A to 1000A, 415V, AC 23A, 4P
- Conform to IEC 60947-3, IS/IEC 60947-3
- Staggered terminals
- Site convertible fuse version for open execution
- Flip-able handle above 400A
- Interchangeable dual shaft position with site convertibility
- **SS enclosure version does not require separate cable gland box**

Rated Current (A)	Open Execution				In Sheet Steel Enclosure [#]			
	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)	Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
63	CO1-63	CO106300000	4295	1	CO1-63	CO106300S00	6150	1
63	CO1-63	CO10630000D*	3950	1				
100	CO1-100	CO110000000	5470	1	CO1-100	CO110000S00	7435	1
100	CO1-100	CO11000000D*	5070	1				
125	CO2-125	CO212500000	8160	1	CO2-125	CO212500S00	10945	1
160	CO2-160	CO216000000	9010	1	CO2-160	CO216000S00	12030	1
200	CO2-200	CO220000000	10870	1	CO2-200	CO220000S00	13535	1
250	CO3-250	CO325000000	15365	1	CO3-250	CO325000S00	19245	1
315	CO3-315	CO331500000	16265	1	CO3-315	CO331500S00	20160	1
400	CO4-400	CO440000000	23990	1	CO4-400	CO440000S00	29565	1
630	CO4-630	CO463000000	28670	1	CO4-630	CO463000S00	34125	1
630	CO5-630	CO563000000	**	1				
800	CO5-800	CO580000000	42515	1	CO5-800	CO580000S00	51490	1
1000	CO5-1000	CO510000000	68620	1	CO5-1000	CO510000S00	87050	1

* Direct handle version

All sheet steel enclosure version are with extended handle switch

** Available on request

Type FG / FGC (TPN) changeover switch-disconnector



FGC Changeover

Rated Current (A)	Type	Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
1250	FGC 1250	Back to Back mtg. with 4 O/P terminals	ST27460000C	102235	1
1600	FG 1600	Back to Back mtg. with 8 O/P terminals	ST274700000	141080	1

Type **C-line** in fuse version Fuse mountable kit (suitable for DIN fuse-link)



Fuse Mountable Kit

Rated Current (A)	Suitable fuse-link type DIN	Fuse Mountable Kit	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
63	HF	CO Frame 1 63A	**	**	1
125	Size 00	CO Frame 2 125A	CX21250000D	2820	1
160	Size 00	CO Frame 2 160A	CX21600000D	3735	1
200	Size 00	CO Frame 2 200A	CX22000000D	4765	1
250	Size 1	CO Frame 3 250A	CX32500000D	5115	1
315	Size 1	CO Frame 3 315A	CX33150000D	5360	1
400	Size 2	CO Frame 4 400A	CX44000000D	7820	1
630	Size 3	CO Frame 5 630A	CX56300000D	16890	1
800	Size 3	CO Frame 5 800A	CX58000000D	18870	1

** For further details please contact the nearest branch office

Spares & Accessories for type **C-line** / FG / FGC Auxiliary contact



Auxiliary Contact

Auxiliary contact block suitable for	Auxiliary Contact	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
C/O Frame 1 (63-100A)	2 NO + 2 NC	CX100020000	400	1
C/O Frame 2 (125-200A)	2 NO + 2 NC	CX200020000	605	1
C/O Frame 3 (250-315A)	2 NO + 2 NC	CX300020000	660	1
C/O Frame 4 (400-630A)	2 NO + 2 NC	CX400020000	695	1
C/O Frame 5 (800-1000A)	2 NO + 2 NC	CX500020000	795	1
FG & FGC (63 - 1600A)	1 NO + 1 NC	ST265120000	448	1
	1 NO + 1 NC	ST265420000	782	1

Operating Handle



Operating Handle (63A to 315A)



Flip-able Handle (400A to 1000A)

Operating handle suitable for	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
C/O Frame 1 (63-100A)	CX100010000	450	1
C/O Frame 2 & 3 (125-315A)	CX300010000	800	1
C/O Frame 4 (400-630A)	CX400010000	1050	1
C/O Frame 5 (800-1000A)	CX500010000	1145	1
FG Isolator 1000 / 1250 / 1600A	ST265910000	2750	1
FGC C/O 1000 / 1250A	ST26591000C	2750	1

MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Comprehensive range from 0.63A to 1250A
- 1, 2, 3 & 4 pole versions
- Breaking capacities upto 70kA
- Manual & Electrical operation

- Protection units:
 - Thermal Magnetic
 - Microprocessor based
 - Microprocessor based with communication & metering
- Comprehensive range of internal & external accessories
- Solution for ASTS (Automatic Source Transfer System)

- 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 spares, unless otherwise specified against Cat. Nos.
- Spreaders are made of silver plated copper

Special Applications

- For DC application, 2P MCCBs are available
- For Capacitor back up protection, MCCBs are available
- For Motor backup protection, use 'M' series of MCCBs such as DM, DN0M, DN2M, DN3M
- For isolation, use SD version (without protection release)
- Please Contact nearest branch office for availability of communication capable MCCBs

DU MCCB Range

Rating (A)	16	20	25	32	40	50	63	80	100	125	160	200	250
Icu (kA)													
10	DU100												
30		DU100H											
36										DU250			

DU100 MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 100A, 3P
- Compact size
- Also available in SS Enclosure
- Suitable for mounting on D-Pan assembly

Type	Current Rating (A)	Breaking Capacity Icu at 415V AC 50Hz. (kA)	3 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	
DU100	16	10	CM977510000	1555	1
	20		CM977520000	1555	1
	25		CM977530000	1555	1
	32		CM977540000	1555	5
	40		CM977550000	1555	1
	50		CM977560000	1555	1
	63		CM977570000	1555	5
	80		CM989210000	1700 ▲	1
	100		CM989220000	1700 ▲	5

Note: For 2P & DIN rail mounting MCCB, please contact nearest branch.
▲ - Spreader Terminals are included.

DU100H MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 100A, 3P & 4P
- Compact size
- Also available in SS Enclosure
- Suitable for mounting on D-Pan assembly
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In
- Suitable for MCB DB mounting
- Suitable for DIN rail mounting

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	
DU100H	16-20	30	CM9789400C2	3860	CM9793300C2	5210	1
	20-25		CM9789400D2	3860	CM9793300D2	5210	1
	25-32		CM9789400E2	3860	CM9793300E2	5210	1
	32-40		CM9789400F2	3860	CM9793300F2	5210	1
	40-50		CM9789400G2	3860	CM9793300G2	5210	1
	50-63		CM9789400H2	3860	CM9793300H2	5210	1
	63-80		CM9789400J2	3860	CM9793300J2	5210	1
	80-100		CM9789400K2	3860	CM9793300K2	5210	1

Note: For 2P MCCB, please contact nearest branch.

DU250 MCCB



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 100A to 250A, 3P & 4P
- Compact size
- Wide Range of snap fit Internal and External Accessories
- Adjustable Overload Setting: 0.8 - 1.0 x In
- Suitable for DB mounting

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	
DU250	80-100	36	CM980640000	4960	CM9806500KO	6680	1
	100-125		CM980630000	5740	CM9806500LO	7460	1
	125-160		CM980620000	7290	CM9806500MO	9300	1
	160-200		CM980610000	9620	CM9806500NO	12480	1
	200-250		CM980600000	11220	CM9806500PO	14570	1

Accessories for DU MCCBs

Accessories for DU100



Auxiliary Contact



Shunt Release



Spreader Terminals



Direct Rotary Handle

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM977810000	385	1
1 C/O - Left	CM977820000	385	1
Shunt Release			
240/415V AC - Left	CM977830000	435	1

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
3 Pole	CM977850000	145	Set of 6
Rotary Handle			
Direct	SL970440000	675	1

Note: Phase Barriers are supplied along with MCCBs

Accessories for DU100H/DU250



Auxiliary Contact



ATAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	CM978860000	660	1
2 C/O - Right	CM978870000	1125	1
Trip Alarm Contact			
1 C/O - Right	CM978880000	660	1
2 C/O - Right	CM978890000	1125	1
Auxiliary 1 C/O + TAC 1 C/O			
Right	CM978900000	1125	1
Shunt Release			
240/415V AC - Left	CM978830000	945	1
Under Voltage Release			
240V AC - Left	CM978920000	1265	1



Spreader Terminals



Direct Rotary Handle

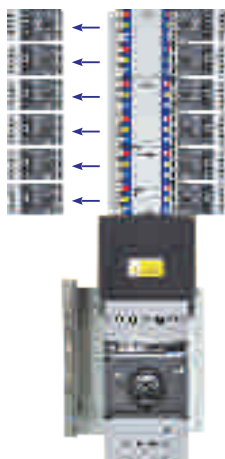


Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DU100H - 3 Pole	CM977850000	145	Set of 6
DU100H - 4 Pole	CM979210000	250	Set of 8
DU250 - 3 Pole	ST980530000	900	Set of 6
DU250 - 4 Pole	CM920070000	1200	Set of 8
Rotary Handle			
DU100H - Direct	CM978950000	905	1
DU250 - Direct	CM980400000	965	1
DU100H - Extended	CM978960000	1345	1
DU250 - Extended	CM980410000	1380	1

Note: Phase Barriers are supplied along with MCCBs

D-Pan Assembly



- Offers a convenient solution for distribution
- Available for 250A, 400A main incomer 3P MCCBs
- Available for 4, 8 & 12 ways 3P outgoing MCCBs
- Type tested (KEMA)

Description I/C -	O/G - DU100		O/G - DN0 / DU100H		Std. Pkg. (Nos.)
	Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
D-Pan I/C 250A O/G 4 Way	CM978210000	9105	CM979120000	9105	1
D-Pan I/C 250A O/G 8 Way	CM978220000	12750	CM979130000	12750	1
D-Pan I/C 250A O/G 12 Way	CM978230000	16485	CM979140000	16485	1
D-Pan I/C 400A O/G 4 Way	CM986050000	10660	CM979150000	10660	1
D-Pan I/C 400A O/G 8 Way	CM986060000	14300	CM979160000	14300	1
D-Pan I/C 400A O/G 12 Way	CM986070000	18030	CM979170000	18030	1

Note: MCCBs and shroud are shown for representation purpose only, need to be purchased separately.

DU (DU125/160/200) MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 32A to 200A, 3P & 4P
- Adjustable thermal setting: 0.8-1.0 x In
- Also available in SS Enclosure
- Wide range of Internal and External 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	
DU125 #	25-32	30	CM989000000	4290	CM981040000	5610	1
	32-40		CM989010000	4290	CM981050000	5610	1
	40-50		CM989020000	4290	CM981060000	5610	1
	50-63		CM989030000	4290	CM981070000	5610	1
	63-80		CM989040000	4290	CM981080000	5610	1
	80-100		CM989050000	4490 ▲	CM981090000	5850 ▲	1
	100-125		CM977910000	6850 ▲	CM981100000	8750 ▲	1
DU160 #	128-160		CM977920000	8790 ▲	CM981110000	10640 ▲	1
DU200 #	160-200		CM977930000	11500 ▲			

▲ - Spreader Terminals are included.
- Available till stocks last.

DH MCCB Range

Rating (A) Icu (kA)	16	20	25	32	40	50	63	80	100	125	160	200	320	400	500	630
25	DH100															
35	DH125/160/200												DH400/630			
50	DL100															



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 630A
- Ics = 100% Icu @
- Adjustable thermal setting: 0.8-1.0 x In
- Also available in SS Enclosure for DH100/125/160/200
- Wide Range of Internal and External 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	
DH100	12-16	25	SL972010000	4450	SL985970000	6040	1
	16-20		SL972020000	4450	SL985980000	6040	1
	20-25		SL972030000	4450	SL985990000	6040	1
	25-32		SL972040000	4450	SL986000000	6040	1
	32-40		SL972050000	4450	SL986010000	6040	1
	40-50		SL972060000	4450	SL986020000	6040	1
	50-63		SL972070000	4450	SL986030000	6040	1
	63-80		SL972080000	4450	SL986040000	6040	1
	80-100		SL972090000	4690 ▲	SL986050000	6360 ▲	1
DH125	12-16	35	SL986440000	6200	SL986110000	7060	1
	16-20		SL986450000	6200	SL986120000	7060	1
	20-25		SL986460000	6200	SL986130000	7060	1
	25-32		SL986470000	6200	SL986140000	7060	1
	32-40		SL986480000	6200	SL986150000	7060	1
	40-50		SL986490000	6200	SL986160000	7060	1
	50-63		SL986500000	6200	SL986170000	7060	1
	63-80		SL986510000	6200	SL986180000	7060	1
	80-100		SL986520000	6920 ▲	SL986190000	7770 ▲	1
	100-125		SL986530000	7060 ▲	SL986070000	7920 ▲	1
DH160 #	128-160		SL986540000	9950 ▲	SL986080000	10760 ▲	1
DH200 #	160-200		SL986550000	11920 ▲			
DH400 #	250-320		SL978830000	20900 ▲			
	320-400		SL978840000	20900 ▲			
DH630 #	400-500		SL945310000	24230 ▲			
	500-630		SL945320000	24230 ▲			

Note: For 2P MCCB, please contact nearest branch.
▲ - Spreader Terminals are included.
@ - Refer Catalogue for DH160, DH200.
- Available till stocks last

DL MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 16A to 100A, 3P & 4P
- Ics = 100% Icu
- Adjustable thermal setting: 0.8-1.0 x In
- Wide Range of Internal and External Accessories
- For Icu=65 kA, please contact branch office

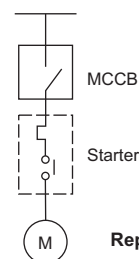
Type	Thermal Release Range (A)	Breaking Capacity Icu at 415V AC, 50Hz. (kA)	3 Pole		4 Pole		Std. Pkg. (Nos.)
			Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit	
DL100	12-16	50	SL978010000	8760	SL986200000	9960	1
	16-20		SL978020000	8760	SL986210000	9960	1
	20-25		SL978030000	8760	SL986220000	9960	1
	25-32		SL978040000	8760	SL986230000	9960	1
	32-40		SL978050000	8760	SL986240000	9960	1
	40-50		SL978060000	8760	SL986250000	9960	1
	50-63		SL978070000	8760	SL986260000	9960	1
	63-80		SL978080000	8760	SL986270000	9960	1
	80-100		SL978090000	9690▲	SL986280000	10880▲	1

▲ - Spreader Terminals are included.

DM MCCB Range for Motor Back-up Protection



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 0.63A to 400A, 65kA
- Short Circuit Protection : 12 In
- Wide Range of Internal and External Accessories



3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DM16	0.63	65	SL975810000	3415	1
	1.0		SL975820000	3415	1
	1.6		SL975830000	3415	1
	2.5		SL975840000	3415	1
	4.0		SL975850000	3415	1
	5.0		SL975860000	3415	1
	6.3		SL975870000	3415	1
	7.5		SL975880000	3415	1
	10.0		SL975890000	3415	1
	12.0		SL975900000	3415	1
	16.0		SL975910000	3415	1
DM100	16.0	65	SL978110000	8535	1
	25.0		SL978120000	8535	1
	30.0		SL978160000	8535	1
	35.0		SL978130000	8535	1
	50.0		SL978140000	8535	1
	60.0		SL978170000	8535	1
	70.0		SL978150000	8535	1
	80.0		SL979870000	8535	1

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DM160	100.0	65	SL971230000	13470	1
	120.0		SL977030000	13470	1
	160.0		SL971240000	13470	1
DM250	200.0		SL975510000	17045 ▲	1
	230.0		SL975520000	17045 ▲	1
	250.0		SL975530000	17045 ▲	1
DM400	275.0		SL975540000	20095 ▲	1
	325.0		SL975550000	20095 ▲	1
	350.0		SL975560000	20095 ▲	1
	400.0		SL975570000	20095 ▲	1

▲ - Spreader Terminals are included.

Note: Please contact the nearest branch office for fuseless type 2 co-ordination selection chart.

DTH MCCB Range



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Suitable for distribution & induction furnace application
- Rugged construction
- Adjustable thermal setting 0.8 - 1.0 x I_n
- Adjustable magnetic setting 3 - 8 x I_n

3 Pole (for Distribution Application)					
Type	Current Rating (A)	Breaking Capacity I _{cu} at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800	600-800	50	SL944720000	37390	1

3 Pole (for Induction Furnace Application)						
Type	Current Rating (A)	Instantaneous Setting (A)	Breaking Capacity I _{cu} at 415V, 50Hz (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DTH800 - Instantaneous	250	360	50	SB950520000	37390	1
	400	550	50	SB950530000	37390	1
	630	850	50	SB950540000	37390	1
	800	1050	50	SB950550000	37390	1

Accessories for DH100/125/160/200, DU125/160/200, DL100, DM100 MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	SL972960000	730	1
1 C/O - Left	SL972970000	730	1
Trip Alarm Contact			
1 C/O - Right	SL972980000	730	1
Shunt Release			
240V AC - Left	SL972990M00	910	1
24V DC - Left *	SL972990400	910	1
Under Voltage Release			
240V AC - Left	SL976110000	1220	1



Spreader Terminal



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
3 Pole	ST980470000	320	Set of 6
4 Pole	ST980600000	420	Set of 8
Rotary Handle			
Extended - New look	CM991030000	1175	1

* Not available for DU MCCBs

Note: Phase Barriers are supplied along with MCCBs

Accessories for DM16 MCCB



Auxiliary Contact



Shunt Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
1 C/O - Right	SL970230000	525	1
1 C/O - Left	SL970250000	525	1
Trip Alarm Contact			
1 C/O - Right	SL970370000	525	1
Shunt Release			
240 / 415V AC, 110V DC - Left	SL970420000	580	1



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Direct	SL970440000	715	1
Extended - New look	CM999180000	1325	1

Accessories for DM160 MCCB



Auxiliary Contact



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O - Left	SL943290000	1675	1
2 C/O - Right	SL943300000	1675	1
Shunt Release			
415V AC - Right	SL943310D00	1580	1
240V AC - Right	SL943310B00	1580	1
Under Voltage Release			
415V AC - Left	SL94332D000	1580	1
240V AC - Left	SL94332B000	1580	1



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Extended - New look	CM991020000	1430	1

Note: For (DM160+TAC), Contact nearest branch

Accessories for DM250/400 & DH400/630 MCCBs



Auxiliary Contact



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL975730000	1150	1
Trip Alarm Contact			
1 C/O - Right	SL975740000	1150	1
Shunt Release			
415V AC, 220V DC	SL975750000	1275	1
240V AC, 110V DC	SL975760000	1275	1
Under Voltage Release			
415V AC - Left	SL975790000	1470	1
240V AC - Left	SL975800000	1470	1



Direct Rotary Handle



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DM250/400 & DH400 Direct	SL975620000	965	1
DH630 Direct	SL979790000	1155	1
DM250/400 & DH400 / 630 Extended - New look	CM991010000	2350	1
Spreader Terminals			
DM250/400 - 3 Pole	ST980450000	2220	Set of 6

Note: Phase Barriers are supplied along with MCCBs

Accessories for DTH 630/800 MCCBs



UV Release



Shunt Release



Auxiliary Contact

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
2 C/O	SL942170000	1515	1
Shunt Release			
415V AC, 220V DC - Right	SL985260000	1750	1
240V AC, 110V DC - Right	SL985340000	1750	1
Under Voltage Release			
415V AC - Left	SL985480000	1750	1
240V AC - Left	SL985450000	1750	1
110V AC - Left	SL985430000	1750	1



Extended Rotary Handle

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
Extended - New look	CM998980000	2330	1

Note: For (DTH800+TAC), Contact nearest branch

SS Enclosure for DU / DH / DL / DM



DU100 / 100H SS Enclosure

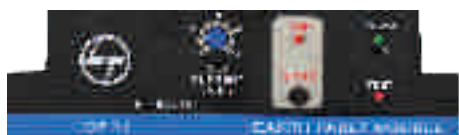
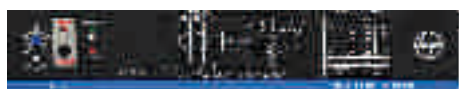


DH / DL / DM / DU SS Enclosure

Description	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DU100 SS Enclosure	ST980500000	715	1
DU100H SS Enclosure	ST420210000	715	1
DH100/125/160/200, DL100, DM100, DU125/160/200 SS Enclosure	ST299670000	1335	1

Note : Suitable for 3P MCCBs

Ground Fault Module



- 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
- LED Indication for trip signal

Ground Fault Protection					
Type	Range (A)	Cat. No.	M.R.P. (₹) Per Unit	CT	Std. Pkg. (Nos.)
GF1	up to 200	ST277450000	6035	Built in CBCT	1
GF2	up to 400	ST277460000	9175	Built in CBCT	1
GF11	up to 800	ST285940000	6035 ##	External CT required	1

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



d sine With Thermal - Magnetic Release :

Rating (A)	20	25	32	40	50	63	80	100	125	160	200	250	320	400	500	630
Icu (kA)																
36																
50																
36/50/70																



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 20A to 630A, 3P & 4P
- Choice of 36kA / 50kA / 70kA breaking capacities
- Ics = 100% Icu*
- Suitable for Isolation
- Adjustable Over Load setting: 0.8 - 1.0 x In
- Adjustable Short Circuit setting: 6 - 10 x In**
- Manual, Rotary or Motorised versions available @
- Wide Range of snap fit Internal and External 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	CM97893OOC2OG	4750	CM97919OOC2OG	6260	1
	20-25		CM97893OOD2OG	4750	CM97919OOD2OG	6260	1
	25-32		CM97893OOE2OG	4750	CM97919OOE2OG	6260	1
	32-40		CM97893OOF2OG	4750	CM97919OOF2OG	6260	1
	40-50		CM97893OOG2OG	4750	CM97919OOG2OG	6260	1
	50-63		CM97893OOH2OG	4750	CM97919OOH2OG	6260	1
	63-80		CM97893OOJ2OG	4750	CM97919OOJ2OG	6260	1
	80-100		CM97893OOK2OG	4750	CM97919OOK2OG	6260	1
DN2-250D	100-125	36	CM92008OOL1OG	9080	CM92108OOL1OG	11320	1
	125-160		CM92008OOM1OG	11710	CM92108OOM1OG	13700	1
	160-200		CM92009OON1OG	16360	CM92109OON1OG	19380	1
	200-250		CM92009OOP1OG	17390	CM92109OOP1OG	20930	1
DN3-400D	250-320	36	CM94005OOQ1OG	21700	CM94105OOQ1OG	27190	1
	320-400		CM94005OOR1OG	22310	CM94105OOR1OG	27440	1
DN3-630D	400-500	36	CM94006OOS1OG	25380	CM94106OOS1OG	30830	1
	500-630		CM94006OOT1OG	26090	CM94106OOT1OG	32540	1
DN1-250N*	80 - 100	50	CM98608OOKO	7110	-	-	1
	100 - 125		CM98608OOLLO	8360	-	-	1
	125 - 160		CM98608OOMO	10780	-	-	1
	160 - 200		CM98608OONO	13970	-	-	1
DN2-250N	200 - 250	50	CM98608OOPPO	16380	-	-	1
	100-125		CM92005OOL1OG	11720	CM92105OOL1OG	15620	1
	125-160		CM92005OOM1OG	14660	CM92105OOM1OG	17530	1
	160-200		CM92006OON1OG	18650	CM92106OON1OG	23770	1
DN3-400N	200-250	50	CM92006OOP1OG	20140	CM92106OOP1OG	24530	1
	250-320		CM94003OOQ1OG	22840	CM94103OOQ1OG	28490	1
	320-400		CM94003OOR1OG	24040	CM94103OOR1OG	29720	1
	400-500		CM94004OOS1OG	26820	CM94104OOS1OG	34680	1
DN3-630N	500-630	50	CM94004OOT1OG	28220	CM94104OOT1OG	36790	1
	100-125		CM92002OOL1OG	15880	CM92102OOL1OG	18590	1
	125-160		CM92002OOM1OG	19270	CM92102OOM1OG	23340	1
	160-200		CM92003OON1OG	22440	CM92103OON1OG	27790	1
DN2-250S	200-250	70	CM92003OOP1OG	23740	CM92103OOP1OG	28450	1
	250-320		CM94001OOQ1OG	25930	CM94101OOQ1OG	30200	1
	320-400		CM94001OOR1OG	26550	CM94101OOR1OG	31810	1
	400-500		CM94002OOS1OG	33860	CM94102OOS1OG	41500	1
DN3-630S	500-630	70	CM94002OOT1OG	37050	CM94102OOT1OG	44050	1

Note: For 800A TM release please refer DTH MCCBs, page no 34. For higher ratings, please refer microprocessor release MCCBs, page no 38, 39.

Breaking Capacity - D = 36kA, N = 50kA, S = 70kA

@ Motorised version available for DN2 and DN3 frame.

* For DN0, DN1 : Ics = 50% Icu

**For DN0, DN1-Short Circuit Setting : 9In

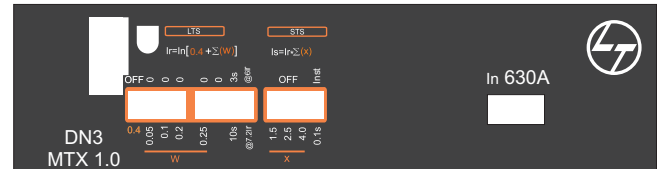
d sine With Microprocessor Release :

Rating (A)	40	50	63	80	100	125	160	200	250	320	400	500	630	800	1000	1250
Icu (kA)																
36/50/70	DN2										DN3					
50/70															DN4	

d sine With Microprocessor Release MTX1.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA 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
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 7.2 Ir & 6 Ir
- Front LED indication of Over Load (Ready, Over load pre-alarm & Overload)
- Manual, Rotary or Motorised versions available @
- 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	CM920630000X1	12360	CM921550000X1	16470	1
	25 - 63		CM920710000X1	12360	CM921540000X1	16470	1
	40 - 100		CM920510000X1	12360	CM921530000X1	16470	1
	63 - 160		CM920740000X1	14840	CM921520000X1	19590	1
	100 - 250		CM920540000X1	20200	CM921510000X1	26350	1
DN3-400D	160 - 400	50	CM930010000X1	25240	CM930030000X1	30580	1
DN3-630D	250 - 630		CM930050000X1	27990	CM930070000X1	37080	1
DN2-250N	16 - 40		CM920640000X1	14840	CM921600000X1	18070	1
	25 - 63		CM920720000X1	14840	CM921590000X1	18070	1
	40 - 100		CM920520000X1	14840	CM921580000X1	18070	1
	63 - 160		CM920750000X1	18330	CM921570000X1	22960	1
	100 - 250		CM920550000X1	22670	CM921560000X1	29850	1
DN3-400N	160 - 400	70	CM930020000X1	27200	CM930040000X1	34110	1
DN3-630N	250 - 630		CM930060000X1	30160	CM930080000X1	39780	1
DN4-1250N	320 - 800		CM960210000X1#	47650	CM961110000X1	59790	1
	400 - 1000		CM960220000X1#	61360	CM961120000X1	88680	1
	500 - 1250		CM960230000X1#	77180	CM961130000X1	113080	1
DN2-250S	16 - 40	70	CM920650000X1	17150	CM921650000X1	21410	1
	25 - 63		CM920730000X1	17150	CM921640000X1	21410	1
	40 - 100		CM920590000X1	17150	CM921630000X1	21410	1
	63 - 160		CM920760000X1	23340	CM921620000X1	29800	1
	100 - 250		CM920560000X1	28600	CM921610000X1	34460	1
DN3-400S	160 - 400	70	CM940530000X1	32150	CM941530000X1	43620	1
DN3-630S	250 - 630		CM940790000X1	38080	CM941790000X1	49180	1
DN4-1250S	320 - 800		CM960150000X1	55840	CM961150000X1	68750	1
	400 - 1000		CM960160000X1	75840	CM961160000X1	106420	1
	500 - 1250		CM960170000X1	99100	CM961170000X1	134950	1

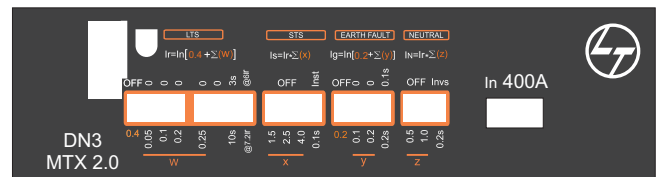
@ Motorised version available for DN2 and DN3 frame.

Compact version, for dimension please refer product catalogue.

d sine With Microprocessor Release MTX2.0 :



- Conforms to IS/IEC 60947-2 & IEC 60947-2
- Range: 40A to 1250A, 3P & 4P
- Choice of 36kA / 50kA / 70kA breaking capacities
- $I_{cs} = 100\% I_{cu}$
- Suitable for Isolation
- Adjustable Over Load from 0.4 - 1.0 x I_n
- Adjustable Short Circuit from 1.5 - 8 x I_r
- Inbuilt ground fault protection from 20% - 50% of I_n
- Adjustable neutral overload protection available : 50% to 150% of I_r
- Provision of Thermal Memory : ON/OFF
- Variable trip class at 7.2 I_r & 6 I_r
- Front LED indication of Over Load (Ready, Over load pre-alarm & Overload)
- Panel mounted display available for Current metering*
- 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 I_{cu} 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	CM920630000AG	22360	CM921550000AG	25720	1
	25 - 63		CM920710000AG	22360	CM921540000AG	25720	1
	40 - 100		CM920510000AG	22360	CM921530000AG	25720	1
	63 - 160		CM920740000AG	24900	CM921520000AG	30870	1
	100 - 250		CM920540000AG	30570	CM921510000AG	37610	1
DN3-400D	160 - 400	50	CM930010000AG	34680	CM930030000AG	41310	1
DN3-630D	250 - 630		CM930050000AG	38070	CM930070000AG	49430	1
DN2-250N	16 - 40		CM920640000AG	24290	CM921600000AG	27510	1
	25 - 63		CM920720000AG	24290	CM921590000AG	27510	1
	40 - 100		CM920520000AG	24290	CM921580000AG	27510	1
	63 - 160		CM920750000AG	28200	CM921570000AG	33610	1
	100 - 250		CM920550000AG	32030	CM921560000AG	40560	1
DN3-400N	160 - 400	70	CM930020000AG	36030	CM930040000AG	44670	1
DN3-630N	250 - 630		CM930060000AG	40660	CM930080000AG	54050	1
DN4-1250N	320 - 800		CM960210000AG#	59260	CM961110000AG	74400	1
	400 - 1000		CM960220000AG#	75820	CM961120000AG	101450	1
	500 - 1250		CM960230000AG#	94950	CM961130000AG	134400	1
DN2-250S	16 - 40	70	CM920650000AG	26410	CM921650000AG	30580	1
	25 - 63		CM920730000AG	26410	CM921640000AG	30580	1
	40 - 100		CM920590000AG	26410	CM921630000AG	30580	1
	63 - 160		CM920760000AG	32870	CM921620000AG	39900	1
	100 - 250		CM920560000AG	37620	CM921610000AG	45570	1
DN3-400S	160 - 400	70	CM940530000AG	41760	CM941530000AG	54220	1
DN3-630S	250 - 630		CM940790000AG	49150	CM941790000AG	66260	1
New DN4-1250S	320 - 800		CM960150000AG	68800	CM961150000AG	85560	1
	400 - 1000		CM960160000AG	91160	CM961160000AG	121970	1
	500 - 1250		CM960170000AG	110180	CM961170000AG	154560	1

* For ordering details please refer to page no. 42

@ Motorised version available for DN2 and DN3 frame.

Compact version, for dimension please refer product catalogue.



MTX2.0 with current metering module

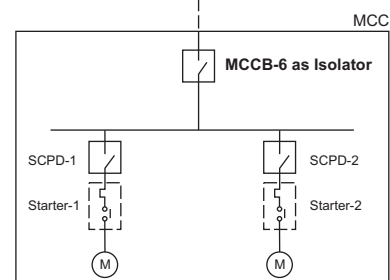
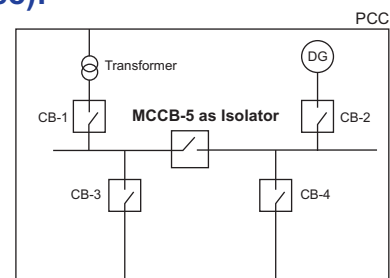
d sine Switch Disconnector - SD (MCCBs without protection release):



- Used as switching devices for isolation
- Range: 100A 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	
DN2-250SD	100	CM96808OOKOOG	7200	CM96809OOKOOG	8935	1
	125	CM96810OOLOOOG	7370	CM96811OOLOOOG	9195	1
	160	CM96817OOMOOOG	8760	CM96818OOMOOOG	10840	1
	200	CM96814OONOOOG	11490	CM96815OONOOOG	14745	1
	250	CM96820OOPOOOG	12010	CM96823OOPOOOG	15610	1
DN3-400SD	320	CM96804OOQOOG	14135	CM96805OOQOOG	18560	1
	400	CM96804OOROOOG	15440	CM96805OOROOOG	19860	1
DN3-630SD	500	CM96806OOSOOOG	16650	CM96807OOSOOOG	21685	1
	630	CM96806OOTOOOG	17650	CM96807OOTOOOG	22940	1

Note: Please contact the nearest branch office for DN4 - 1250SD

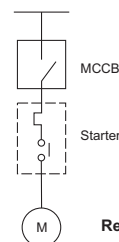


Representative Application Image

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



Representative Application Image

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V. AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
New DN0-100M	32	50	CM98944OOEO	4335	1
	40		CM98944OOFO	4335	1
	50		CM98944OOGO	4335	1
	63		CM98944OOHO	4335	1
	80		CM98944OOJO	4335	1
	100		CM98944OOKO	4335	1

Note: Please contact the nearest branch office for fuseless type 2 co-ordination selection chart.

3 Pole					
Type	Current Rating (A)	Breaking Capacity Icu at 415V. AC, 50Hz. (kA)	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
DN2-250M	100	50	CM92172OOKOOG	7500	1
	125		CM92172OOLOOOG	7500	1
	160		CM92172OOMOOOG	9020	1
	200		CM92171OONOOOG	11765	1
	250		CM92171OOPOOOG	15125	1
DN3-400M	320		CM94516OOQOOG	17925	1
	400		CM94516OOROOOG	18985	1
DN3-630M	500		CM94515OOSOOOG	22375	1
	630		CM94515OOTOOOG	22755	1



Automatic Source Transfer System

- Stored Energy operated
- Automatic / Manual control of power supply source
- Set-up data programming
- Virtual front panel viewing with key activation feature
- Programmable I/Os
- Test function
- LED display
- Voltage and Frequency display
- Inbuilt UV protection
- Inbuilt phase unbalance protection



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

ASTS with Thermal - Magnetic Releases

Frame	Current Rating (A)	Breaking Capacity	3 Pole	4 Pole
			M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit
DN2	100	36	105120	109500
	160		110720	114700
	250		122080	129160
DN2	100	50	108160	114200
	160		116620	122360
	250		127580	136360
DN3	400	70	145315	156675
	630		153675	170815
DN2	160	70	125840	133980
	250		134780	144200
DN3	400	70	150335	160855
	630		171335	185335

Auto Source Transfer Controller

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
New AuXC-1000L	ST800240000	39790	1
AuXC-1000	ST802300000	47950	1

Can be used along with U-POWER Omega ACBs, d sine MCCBs, & MCX contactors

ASTS with Microprocessor Release MTX1.0

Frame	Current Rating (A)	Breaking Capacity	3 Pole	4 Pole
			M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit
DN2	100	36	112020	120240
	160		116980	126480
	250		127700	140000
DN2	100	50	116980	123440
	160		123960	133220
	250		132640	147000
DN3	400	70	151635	165455
	630		157555	176795
DN2	160	70	133980	146900
	250		144500	156220
DN3	400	70	161535	184475
	630		173395	195595

ASTS with Microprocessor Release MTX2.0

Frame	Current Rating (A)	Breaking Capacity	3 Pole	4 Pole
			M.R.P. (₹) Per Unit	M.R.P. (₹) Per Unit
DN2	100	36	132020	138740
	160		137100	149040
	250		148440	162520
DN2	100	50	135880	142320
	160		143700	154520
	250		151360	168420
DN3	400	70	169295	186575
	630		178555	205335
DN2	160	70	153040	167100
	250		162540	178440
DN3	400	70	180755	205675
	630		195535	229755

ASTS MRP consists of the following products: 2 d sine MCCBs, 2 SE-EOMs, 2 UV release, 2 Aux + Trip Alarm contact, 1 MIL Kit & 1 AuXC-1000L Controller.
For AuXC-1000 please add ₹ 8160 to the above MRP.

Note: Picture shown are for representation purpose only, MCCB + EOM + UV combination, MIL kit & AuXC-1000L to be purchased separately & assembled at site.

Accessories for MCCBs



Auxiliary Contact



TAC



Shunt Release



UV Release

Description	Internal		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Auxiliary Contact			
DN0, DN1 - 1 C/O - Right	CM978860000	660	1
DN0, DN1 - 2 C/O - Right	CM978870000	1125	1
DN2, DN3, DN4 - 1 C/O	CM998010000	750	1
DN2, DN3, DN4 - 2 C/O	CM998020000	1225	1
Trip Alarm Contact			
DN0, DN1 - 1 C/O - Right	CM978880000	660	1
DN0, DN1 - 2 C/O - Right	CM978890000	1125	1
DN2, DN3, DN4 - 1 C/O - Right	CM998030000	750	1
Auxiliary 1 C/O + TAC 1 C/O			
DN0, DN1 - Right	CM978900000	1125	1
DN2, DN3, DN4 - Right	CM998040000	1375	1
Shunt Release			
DN0, DN1 - 240/415V AC - Left	CM978830M00	945	1
DN2, DN3, DN4 - 110/415V AC, 110/220V DC	CM998050000	1705@	1
Under Voltage Release			
DN0, DN1 - 240V AC - Left	CM97892B000	1265	1
DN2, DN3 - 240V AC - Left	CM99986B000	2000**	1
DN4 - 240V AC - Left	CM999060000	2195**	1

@ - 'NO' of control contactor to be connected in series for DC control supply.

** - Use these UV Cat. Nos. with Grey look MCCBs only.



Stored Energy EOM

New



Neutral CT

New



Adaptor kit for NCT

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Stored Energy Electrical Operating Mechanism			
DN2 - 240V AC \$	CM981320000	22000	1 •
DN3 - 240V AC \$	CM981300000	26000	1 •
External Neutral CT			
DN2 - 40A	CM999460000	1400	1
DN2 - 63A	CM999470000	1400	1
DN2 - 100A	CM999480000	1400	1
DN2 - 160A	CM999490000	2000	1
DN2 - 250A	CM999500000	2000	1
DN3 - 400A	CM999540000	3700	1
DN3 - 630A	CM999550000	3700	1
DN4 - 800A	CM998890000	5500	1
DN4 - 1000A	CM998900000	5500	1
DN4 - 1250A	CM998910000	5500	1
Adaptor kit for External Neutral CT			
DN2-250	CM999940000	450	Set of 2
DN3-400	CM999950000	850	Set of 2
DN3-630	CM999970000	950	Set of 2
DN4-800	CM999960000	1600	Set of 2
DN4-1000/1250	CM999980000	5950	Set of 2

• - Including indicator Assembly (Aux + TAC)

\$ - Please contact the nearest branch office for availability



Direct Rotary Handle



Extended Rotary Handle



Key Lock

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Rotary Handle			
DN0 Direct	CM978950000	905	1
DN1 Direct	CM980400000	965	1
DN2 Direct	CM998290000	975	1
DN3 Direct	CM998600000	1485	1
DN0 Extended	CM978960000	1345	1
DN1 Extended	CM980410000	1380	1
DN2 Extended	CM998300000	1390	1
DN3 Extended	CM998610000	2375	1
DN4 Extended	CM998840000	3250	1
Panel door mounted Key lock for Extended Rotary Handle #			
Type 1	CM99958T0000	1230	1
Type 2	CM99958T000A	1230	1
Type 3	CM99958T000B	1230	1
Type 12	CM99958T000C	1230	1
Type 23	CM99958T000D	1230	1

- Can be used with dsine, DU, DH/DL/DM, DTH new look extended ROM



Spreader Terminals



MIL Kit - Base Mounted



Current Metering Module for MTX2.0

Description	External		
	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
Spreader Terminals			
DN0-100 - 3 Pole	CM977850000	145	Set of 6
DN1, DN2 - 250 - 3 Pole	ST980530000	900	Set of 6
DN3-400 - 3 Pole	ST980650000	1850	Set of 6
DN3-630 - 3 Pole	ST980540000	2070	Set of 6
DN4-800 - 3 Pole	ST903610000	3610	Set of 6
DN4-1000-1250 - 3 Pole	ST980550000	13660	Set of 6
DN0-100 - 4 Pole	CM979210000	250	Set of 8
DN1, DN2 - 250 - 4 Pole	CM920070000	1200	Set of 8
DN3-400 - 4 Pole	ST980660000	2655	Set of 8
DN3-630 - 4 Pole	CM920040000	3120	Set of 8
DN4-800 - 4 Pole	ST903620000	4915	Set of 8
DN4-1000-1250 - 4 Pole	ST980580000	18040	Set of 8
Mechanical Interlock Kit - Base Mounted			
DN2-250	CM997310000	3510	1
DN3-400	CM997320000	5445	1
DN3-630	CM998540000	5445	1
Current Metering for MTX2.0			
Metering Module \$	CM956980000	10000	1*
Power Supply Module	CL907220000	10000	1
Cable of 2m length	CM011960000	1000	1
UN - CO Module	CL908520000	9000	1

* - Including display module & metering module.

Note: Phase Barriers are supplied along with MCCBs

AuXC 1000 - The Auto Source Transfer Solution from L&T



AuXC-1000 & AuXC-1000L

Technology that Spells Reliability

AuXC 1000 & AuXC 1000 from L&T. It shows you the difference that Auto Source Transfer controller can make.

L&T's ASTS Controller works on a more advanced level of technology compared to conventional changeover systems. And what makes it different makes it better. You get a greater level of reliability, and the assurance that critical changeovers work each time, every time.

Make AuXC 1000 the nodal point for changeover using L&T's ACBs , MCCBs , Changeover switches and Contactors...and experience the reliability L&T can give.

Customer Interaction Centre (CIC)

BSNL / MTNL (Toll free): 1800 233 5858

Reliance (Toll free): 1800 200 5858

Tel: +91 22 6774 5858 Fax: +91 22 6774 5859

E-mail: cic@Lntebg.com

C-POWER S1 Range of Air Circuit Breaker

- Conform to IS / IEC 60947-2 & IEC 60947-2
- Current rating from 630A 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 (SR18, SR18G & SR21i)
- Self diagnostic Microprocessor based with on load testing through TEST button
- Inbuilt thermal memory
- Protection releases conform to EMI/EMC standard
- Breaker control through MODBUS protocol



C-POWER S1 ACB

C-POWER Range of Air Circuit Breaker



C-POWER ACB

- Conform 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 (SR18, SR18G, SR21i & SR71)
- Self diagnostic Microprocessor based release with on load testing through TEST button
- Inbuilt thermal memory
- Protection releases conform to EMI/EMC standard
- Data communication & Power Management
- Breaker control through MODBUS protocol

Breaking Capacities offered:

$I_{cu} = I_{cs} = I_{cw}$											
	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
CN-CS : E	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		70kA	95kA	95kA
CN-CS : H		65kA	65kA	65kA	65kA	75kA	75kA				
CN-CS : H0								75kA	75kA		
CN-CS : H/H1								100kA	100kA		
	Frame-1				Frame-2		Frame-3		Frame-4		

For technical & dimension details please refer product catalogue.

C-POWER Air Circuit Breakers



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

Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (1 sec)	Version	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
630A	50kA	MDO	SL96041	127770	SL96061	161200	SL95331	113770	SL95351	147200
		EDO	SL96051	160770	SL96071	194200	SL95341	146770	SL95361	180200
800A	50kA	MDO	SL96042	127770	SL96062	161200	SL95332	113770	SL95352	147200
		EDO	SL96052	160770	SL96072	194200	SL95342	146770	SL95362	180200
1000A	50kA	MDO	SL96043	133920	SL96063	170840	SL95333	119920	SL95353	156840
		EDO	SL96053	166920	SL96073	203840	SL95343	152920	SL95363	189840
1250A	50kA	MDO	SL96044	155640	SL96064	192840	SL95334	141640	SL95354	178840
		EDO	SL96054	188640	SL96074	225840	SL95344	174640	SL95364	211840
1600A	50kA	MDO	SL96045	172250	SL96065	214110	SL95335	158250	SL95355	200110
		EDO	SL96055	205250	SL96075	247110	SL95345	191250	SL95365	233110
2000A	50kA	MDO	SL96046	204980	SL96066	259570	SL95336	190980	SL95356	245570
		EDO	SL96056	237980	SL96076	292570	SL95346	223980	SL95366	278570

C-POWER S1 3 & 4 Pole Fixed ACBs New

Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (1 sec)	Version	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
630A	50kA	MF	SL95561	96820	SL95581	121030	SL95481	82820	SL95501	107030
		EF	SL95571	129820	SL95591	154030	SL95491	115820	SL95511	140030
800A	50kA	MF	SL95562	96820	SL95582	121030	SL95482	82820	SL95502	107030
		EF	SL95572	129820	SL95592	154030	SL95492	115820	SL95512	140030
1000A	50kA	MF	SL95563	100920	SL95583	126150	SL95483	86920	SL95503	112150
		EF	SL95573	133920	SL95593	159150	SL95493	119920	SL95513	145150
1250A	50kA	MF	SL95564	121740	SL95584	152180	SL95484	107740	SL95504	138180
		EF	SL95574	154740	SL95594	185180	SL95494	140740	SL95514	171180
1600A	50kA	MF	SL95565	133780	SL95585	167230	SL95485	119780	SL95505	153230
		EF	SL95575	166780	SL95595	200230	SL95495	152780	SL95515	186230

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	26000
Microprocessor based SR18 (LSI)	Reduce	3000
Microprocessor based SR21i (LSIG + ZSI)	Add	12500

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.

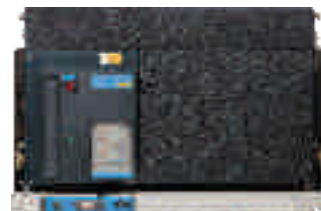
Note: 1 NO Aux contact in manual version & 2NO+2NC in electrical version breakers will be pre-wired with accessories mounted in breaker.

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

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

Thermal-Magnetic Release Type DN1				
Rating	Breaking Capacity I _{cu} =I _{cs} =I _{cw} (1 sec)	Version	Cat. No.	M.R.P. (₹) Per Unit
400A	50kA	3P MF	SL932910000	55790
630A	50kA	3P MF	SL932920000	56290
800A	50kA	3P MF	SL932930000	57930
1000A	50kA	3P MF	SL932940000	59970
1250A	50kA	3P MF	SL932950000	77830
1600A	50kA	3P MF	SL932960000	86690
2000A	50kA	3P MF	SL932970000	98520

C-POWER Air Circuit Breakers



C-POWER 3 & 4 Pole Draw-out ACBs

Rating	Breaking Capacity $I_{cu}=I_{cs}=I_{cw}$ (1 sec)	Version
800A	65kA	MDO
		EDO
1000A	65kA	MDO
		EDO
1250A	65kA	MDO
		EDO
1600A	65kA	MDO
		EDO
2000A	55kA	MDO
		EDO
2500A	60kA	MDO
		EDO
3200A	75kA	MDO (H0)
		EDO (H0)
4000A	70kA	MDO (C)
		EDO (C)
	75kA	MDO (H0)
		EDO (H0)
5000A	95kA	MDO/EDO
6300A	95kA	MDO/EDO

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
SL95311	162820	#	211680
SL95321	195820	#	244680
SL95312	174360	#	224750
SL95322	207360	#	257750
SL95313	206410	#	253260
SL95323	239410	#	286260
SL95314	220280	#	274420
SL95324	253280	#	307420
ST35545	222310	ST35565	287300
ST35555	255310	ST35575	320300
ST35546	262720	ST35566	331230
ST35556	295720	ST35576	364230
ST35547	327810	ST35567	403890
ST35557	360810	ST35577	436890
#	*	#	*
#	*	#	*
ST35548	*	ST35568	*
ST35558	*	ST35578	*
#	*	#	*
#	*	#	*

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
#	148820	#	197680
#	181820	#	230680
#	160360	#	210750
#	193360	#	243750
#	192410	#	239260
#	225410	#	272260
#	206280	#	260420
#	239280	#	293420
SL93065	208310	ST25035	273300
#	241310	#	306300
SL93066	248720	ST25036	317230
#	281720	#	350230
SL93459	313810	SL93479	389890
#	346810	#	422890
#	*	#	*
#	*	#	*
SL93460	*	SL93480	*
#	*	#	*
#	*	#	*
#	*	#	*

Note : For higher breaking capacities & 690V AC application please contact the nearest branch office

C-POWER 3 & 4 Pole Manual Fixed ACBs

Rating	Breaking Capacity $I_{cu}=I_{cs}=I_{cw}$ (1 sec)	Version
800A	50kA	MF
1000A	50kA	
1250A	50kA	
1600A	50kA	
2000A	55kA	MF
2500A	60kA	
3200A	70kA	
4000A	70kA	

Microprocessor Based SR18G			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
On Request			
SL97635	154250	#	200090
SL97636	169970	#	229130
#	*	#	*
#	*	#	*

Thermal-Magnetic DN1			
3 Pole		4 Pole	
Cat. No.	M.R.P. (₹) Per Unit	Cat. No.	M.R.P. (₹) Per Unit
On Request			
SL93005	140250	#	186090
SL93006	155970	#	215130
#	*	#	*
#	*	#	*

Note : For higher breaking capacities & 690V AC application please contact the nearest branch office

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	26000
Microprocessor based SR18 (LSI)	Reduce	3000
Microprocessor based SR21i (LSIG + ZSI)	Add	12500
Microprocessor based SR71 (LSIGN + Current metering + Advance protection + PS Module)	Add	On Request
Communication Module (MODBUS) for SR71 release (SR71 - COM)	SL94698	
Power Metering Module for SR71 release (SR71 - PM)	SL94699	

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.

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.

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
Lockable Trip Push Button (LTPB)		
Type AA	SL93148000A	2200
Type BB	SL93148000B	2200
Type CC	SL93148000C	2200
Type DD	SL93148000D	2200
Lockable Trip Push Button kit (3 I/C & 2 B/C)	SL919360000	10980
Lockable Trip Push Button kit (A to Z)	ST288950000	57060
Lockable Trip Push Button kit (A to P)	ST287300000	35110
Locking of ACB in Isolated position (LIP)		
Type A	SL93146000A	2200
Type B	SL93146000B	2200
Type C	SL93146000C	2200
Type D	SL93146000D	2200
Locking of ACB in Any position (LAP)		
Type A	SL93147000A	2200
Type B	SL93147000B	2200
Type C	SL93147000C	2200
Type D	SL93147000D	2200
Racking Interlock		
Type AA	SL93149000A	4120
Type BB	SL93149000B	4120
Type CC	SL93149000C	4120
Type DD	SL93149000D	4120
Door Interlock	SL931500000	2200



Vertical Terminal Adaptor

Description & Rating	Cat. No.	Qty	M.R.P. (₹) Per Unit
Vertical Terminal Adaptors for Draw out C-POWER ACB			
630-1250 S1/800-1000 C	SL932810000	1	2870
1600-2000 S1/1250-1600 C	SL932820000	1	3350
2000C	SL932840000	1	4590
2500C	SL932850000	1	4980
3200H0/H1, 4000H0/H	SL932880000	1	13390

Description	Cat. No.	M.R.P. (₹) Per Unit
Shunt Release (SR)		
Type EA : 24/48V DC	SL927180400	2200
Type EA : 110V DC	SL927180100	2200
Type EA : 220V DC	SL927180200	2200
Type EA1 : 110V AC	SL927180A00	2200
Type EA1 : 240V AC	SL927180B00	2200
Type EA1 : 415V AC	SL927180D00	2200
Under Voltage Release (UVR)		
Type MV : 24V DC	ST368770000	3220
Type MV : 240V AC	SL92720B000	3220
Type MV : 415V AC	SL92720D000	3220
Earth Fault Release (for DN1)		
Type EF1 (10%, 20% In)	SL913400000	2200
Type EF2 (30%, 40%, 50% In)	SL913410000	2200

AN1 Remote Annunciation Module for SR18/SR18G/SR21i : 240V AC	SL946540000	6840
Microswitch for voltmetric releases (2) each	SL927030000	1770
Microswitch for common indication of O/L & S/C (3) each	SL927040000	1770
Microswitch for separate indication of O/L & S/C (3) each (for DN1 release)	SL927050000	2960
Service position microswitch - Right (2)	SL931420000	1190
Service position microswitch - Left (2)	SL931430000	1190
Test or isolated position microswitch - Right (2)	SL931440000	1190
Test or isolated position microswitch - Left (2)	SL931450000	1190

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

Features

- Remote Operation & Control of ACB
- Communicates on Modbus

Description & Rating	Cat. No.	Qty	M.R.P. (₹) Per Unit
UN-CO module for Breaker control	CL908520000	1	9000

Protection Releases



SR71



SR21i



SR18G



SR18

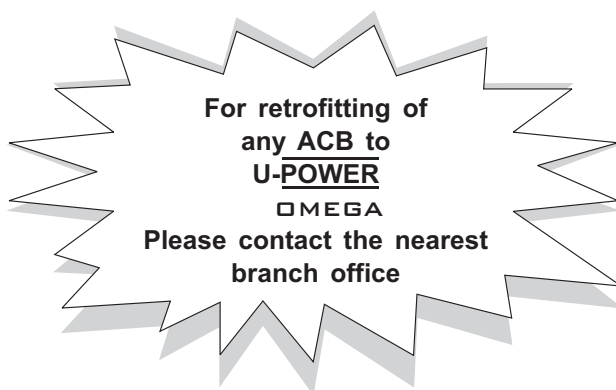


DN1



Test Kit

Description	Cat. No.	M.R.P. (₹) Per Unit
Protection Releases		
Microprocessor based Type SR71	Available on Request	
Microprocessor based Type SR21i	SL939600000	41500
Microprocessor based Type SR18G	SL939590000	29000
Microprocessor based Type SR18	SL939580000	26000
Thermal-Magnetic Release Type DN1	SL931520000	15000
Test-Kit SRT-2 (SR21i/SR18G/SR18)	ST231300000	30980



Description	Cat. No.	Qty.	M.R.P. (₹) Per Kit
CTs for SR18/SR18G/SR21i			
630 S1 Fix & Draw-out	ST374950000	1	3730
800 C/H/S1 Fix & Draw-out	SL018570000	1	3730
1000 C/H/S1 Fix & Draw-out	SL018580000	1	3730
1250 C/H/S1 Fix & Draw-out	SL905710000	1	4530
1600 C/H/S1 Fix & Draw-out	SL905720000	1	4530
2000 C/H Fix & Draw-out	SL905650000	1	4860
2000 S1 Draw-out	SL932100000	1	4860
2500 C/H/S1 Fix & Draw-out	SL905660000	1	4860
3200 D Fix & Draw-out	SL905670000	1	5880
3200 S1 Draw-out	SL905750000	1	5880
3200 H0/H1	SL017400000	1	5880
4000 C	SL905680000	1	6650
4000 H0/H	SL017390000	1	6650

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



U-POWER Range of Air Circuit Breaker

OMEGA

- Complete range conform to IS / IEC 60947-2 & IEC 60947-2
- Current rating from 400A to 6300A in 3 frames sizes
- 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 both NRYB & RYBN configuration in 4 Pole ACBs
- In-built Electrical & Mechanical Anti-Pumping
- Modular & snap-fit accessories
- Ease of on-site conversion from Fixed to Draw-out version

Matrix Protection & Control units:

- Available in 8 versions - MTX1.0/1G/1.5G, MTX2.5/2.5G, MTX3.5/3.5EC & MTX4.5
- Unique O-LED display for metering
- Touch screen technology in UW-MTX4.5
- Pluggable / with-drawable 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
- Data communication on Modbus, Profibus & Zigbee protocol
- Power & Harmonics measurement
- Temperature rise monitoring & protection
- Easy to integrate with HMI & PLC
- Add on modules for advance protection
- Protection releases conform to EMI/EMC standard



UW-MTX1.0



UW-MTX1G



UW-MTX1.5G



UW-MTX2.5/2.5G



UW-MTX3.5/3.5EC



UW-MTX4.5

Breaking Capacities offered:

		$I_{cu} = I_{cs} = I_{cw}$									
		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	S : 65kA										
	H : 80kA										
		UW2-08	UW2-10	UW2-12	UW2-16	UW2-20	UW2-25	UW2-32			
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 & 630A ACBs are also available on request.

U-POWER OMEGA ACB ordering information:

UW 1 08 N X D 1 2 9 0 0 U-POWER Omega 800A Fr-1 50kA 3P EDO UW-MTX1.5G																																																																																									
Frame Size <table><tr><td>Frame - I</td><td>1</td></tr><tr><td>Frame - II</td><td>2</td></tr><tr><td>Frame - III</td><td>3</td></tr></table>		Frame - I	1	Frame - II	2	Frame - III	3	Current Ratings <table><tr><td>400A</td><td>04</td></tr><tr><td>630A</td><td>06</td></tr><tr><td>800A</td><td>08</td></tr><tr><td>1000A</td><td>10</td></tr><tr><td>1250A</td><td>12</td></tr><tr><td>1600A</td><td>16</td></tr><tr><td>2000A</td><td>20</td></tr><tr><td>2500A</td><td>25</td></tr><tr><td>3200A</td><td>32</td></tr><tr><td>4000A</td><td>40</td></tr><tr><td>5000A</td><td>50</td></tr><tr><td>6300A</td><td>63</td></tr></table>		400A	04	630A	06	800A	08	1000A	10	1250A	12	1600A	16	2000A	20	2500A	25	3200A	32	4000A	40	5000A	50	6300A	63	Temperature Rise Monitoring⁽³⁾ <table><tr><td>Not Required</td><td>0</td></tr><tr><td>Required</td><td>1</td></tr></table>		Not Required	0	Required	1	Selection for P&C Units <table><tr><td>B/C (w/o protection)</td><td>0</td></tr><tr><td>UW - MTX1.0</td><td>7</td></tr><tr><td>UW - MTX1G</td><td>8</td></tr><tr><td>UW - MTX1.5G</td><td>9</td></tr><tr><td>UW - MTX2.5</td><td>1</td></tr><tr><td>UW -MTX2.5G</td><td>2</td></tr><tr><td>UW-MTX3.5</td><td>3</td></tr><tr><td>UW-MTX3.5EC</td><td>4</td></tr><tr><td>UW-MTX4.5</td><td>5</td></tr></table>		B/C (w/o protection)	0	UW - MTX1.0	7	UW - MTX1G	8	UW - MTX1.5G	9	UW - MTX2.5	1	UW -MTX2.5G	2	UW-MTX3.5	3	UW-MTX3.5EC	4	UW-MTX4.5	5	Type <table><tr><td>Manually Operated</td><td>1</td></tr><tr><td>Electrically Operated</td><td>2</td></tr></table>		Manually Operated	1	Electrically Operated	2	Selection for control voltage⁽²⁾ <table><tr><td>For Manually Operated</td><td>0</td></tr><tr><td>240V ac ECD & CR & 240V ac SR</td><td>1</td></tr><tr><td>240V ac ECD & CR & 24V dc SR</td><td>2</td></tr></table>		For Manually Operated	0	240V ac ECD & CR & 240V ac SR	1	240V ac ECD & CR & 24V dc SR	2	Version <table><tr><td>Draw-out</td><td>D</td></tr><tr><td>Fixed</td><td>F</td></tr></table>		Draw-out	D	Fixed	F	Selection for No. of Poles <table><tr><td>3 Pole</td><td>X</td></tr><tr><td>4 Pole 100% N</td><td>F</td></tr><tr><td>4 Pole 50% N (in Fr-III only)</td><td>H</td></tr><tr><td>4 Pole 200% N (upto 2500A)</td><td>D</td></tr></table>		3 Pole	X	4 Pole 100% N	F	4 Pole 50% N (in Fr-III only)	H	4 Pole 200% N (upto 2500A)	D
		Frame - I	1																																																																																						
		Frame - II	2																																																																																						
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Please Note :

- (1) For Icu values please refer product catalogue
- (2) Other options of control voltage are available as accessory
- (3) Temperature protection is available in UW-MTX3.5/3.5EC/4.5

U-POWER OMEGA ACBs are offered with following standard features :

Draw-out version :	U-POWER Omega ACBs with UW-MTX release will have inbuilt- Current Metering (MTX 1.5G/2.5/2.5G/3.5/3.5EC/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 (with frame 1N, 2S & 3H version) A) For ratings upto 2500A, one side vertical terminal adaptors (Bottom). B) For ratings 3200A & above, both side vertical terminal adaptors (Top & Bottom).
Fixed Version :	U-POWER Omega ACBs with UW-MTX release will have inbuilt- Current Metering (MTX 1.5G/2.5/2.5G/3.5/3.5EC/4.5), Common Fault Indication microswitch, 4NO+4NC Aux. contacts, Door sealing frame & Pad-locking arrangement for ON/OFF button.
Electrically operated ACB includes ECD (240V AC), CR (240V AC) & SR (240V AC OR 24V DC).	

3 Pole ACBs with UW-MTX1.5G (LSING + Current Metering)



Current Rating	Version	3 Pole Manual Draw-out ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	UW108NXD01900	On Request	UW108SXD01900	On Request	UW208HXD01900	On Request	UW308VXD01900	On Request
1000A		UW110NXD01900		UW110SXD01900		UW210HXD01900		UW310VXD01900	
1250A		UW112NXD01900		UW112SXD01900		UW212HXD01900		UW312VXD01900	
1600A		UW116NXD01900		UW116SXD01900		UW216HXD01900		UW316VXD01900	
2000A		-	-	UW120SXD01900	On Request	UW220HXD01900	On Request	UW320VXD01900	On Request
2500A		-	-	UW225SXD01900		UW225HXD01900		UW325VXD01900	
3200A		-	-	UW232SXD01900		UW232HXD01900		UW332VXD01900	
4000A		-	-	-		UW340HXD01900		UW340VXD01900	
5000A		-	-	-		UW350HXD01900		UW350VXD01900	
6300A		-	-	-		UW363HXD01900		UW363VXD01900	

Current Rating	Version	3 Pole Manual Fixed ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	MF	UW108NXF01900	On Request	UW108SXF01900	On Request	UW208HXF01900	On Request	UW308VXF01900	On Request
1000A		UW110NXF01900		UW110SXF01900		UW210HXF01900		UW310VXF01900	
1250A		UW112NXF01900		UW112SXF01900		UW212HXF01900		UW312VXF01900	
1600A		UW116NXF01900		UW116SXF01900		UW216HXF01900		UW316VXF01900	
2000A		-	-	UW120SXF01900	On Request	UW220HXF01900	On Request	UW320VXF01900	On Request
2500A		-	-	UW225SXF01900		UW225HXF01900		UW325VXF01900	
3200A		-	-	UW232SXF01900		UW232HXF01900		UW332VXF01900	
4000A		-	-	-		UW340HXF01900		UW340VXF01900	
5000A		-	-	-		UW350HXF01900		UW350VXF01900	
6300A		-	-	-		UW363HXF01900		UW363VXF01900	

M.R.P. changes for product customization	M.R.P. (₹) Per Unit
MDO to EDO or MF to EF conversion (Includes ECD 240V AC, CR 240V AC & SR 240V AC or 24V DC)	On Request
Protection & Control Unit change with respect to UW-MTX1.5G ACB M.R.P.	
Buscoupler (without protection release)	On Request
UW - MTX1.0 (LSI - BCD Switches)	
UW - MTX1G (LSING - BCD Switches)	
UW-MTX3.5 (LSING + Current Metering) - can be upgraded for Power Metering & Communication	
UW-MTX3.5EC (LSING + Power Metering + Communication)	
UW-MTX4.5 (LSING + Power Metering + Communication with Touch Screen navigation + UW - PS Module)	
UW-PS, Auxiliary power supply module for display in No-load or OFF condition	
COM Module (MODBUS) for communication	
PM Module for power metering	

4 Pole ACBs with UW-MTX1.5G (LSING + Current Metering)



Current Rating	Version	4 Pole Manual Draw-out ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	UW108NFD01900	On Request	UW108SFD01900	On Request	UW208HFD01900	On Request	UW308VFD01900	On Request
1000A		UW110NFD01900		UW110SFD01900		UW210HFD01900		UW310VFD01900	
1250A		UW112NFD01900		UW112SFD01900		UW212HFD01900		UW312VFD01900	
1600A		UW116NFD01900		UW116SFD01900		UW216HFD01900		UW316VFD01900	
2000A		-	-	UW120SFD01900	On Request	UW220HFD01900		UW320VFD01900	
2500A		-	-	UW225SFD01900		UW225HFD01900		UW325VFD01900	
3200A		-	-	UW232SFD01900		UW232HFD01900		UW332VFD01900	
4000A		-	-	-		UW340HFD01900		UW340VFD01900	
5000A		-	-	-		UW350HFD01900		UW350VFD01900	
6300A		-	-	-		UW363HFD01900		UW363VFD01900	

Current Rating	Version	4 Pole Manual Fixed ACB with UW-MTX1.5G							
		N (50kA)		S (65kA)		H (80kA)		V (100kA)	
		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	MF	UW108NFF01900	On Request	UW108SFF01900	On Request	UW208HFF01900	On Request	UW308VFF01900	On Request
1000A		UW110NFF01900		UW110SFF01900		UW210HFF01900		UW310VFF01900	
1250A		UW112NFF01900		UW112SFF01900		UW212HFF01900		UW312VFF01900	
1600A		UW116NFF01900		UW116SFF01900		UW216HFF01900		UW316VFF01900	
2000A		-	-	UW120SFF01900	On Request	UW220HFF01900		UW320VFF01900	
2500A		-	-	UW225SFF01900		UW225HFF01900		UW325VFF01900	
3200A		-	-	UW232SFF01900		UW232HFF01900		UW332VFF01900	
4000A		-	-	-		UW340HFF01900		UW340VFF01900	
5000A		-	-	-		UW350HFF01900		UW350VFF01900	
6300A		-	-	-		UW363HFF01900		UW363VFF01900	

Auto Source Transfer Controller

POWERMAN		
System for :		
- Complete monitoring of Power & Energy Parameters - Breaker Control		
Cat. No.	Description	M.R.P. (₹) Per Unit
BPV3040RS	Powerman for 04 RS485 Meters/ACB/MCCB	33700
BPV3080RS	Powerman for 08 RS485 Meters/ACB/MCCB	54500
BPV3120RS	Powerman for 12 RS485 Meters/ACB/MCCB	69900
BPV3160RS	Powerman for 16 RS485 Meters/ACB/MCCB	89500
BPV304ARH	Add on Powerman for 04 RS485 Meters/ACB/MCCB	15000
BPV308ARH	Add on Powerman for 08 RS485 Meters/ACB/MCCB	29900
BPV312ARH	Add on Powerman for 12 RS485 Meters/ACB/MCCB	44840
BPV316ARH	Add on Powerman for 16 RS485 Meters/ACB/MCCB	59780

For details please contact the nearest branch office

Type	Cat. No.	M.R.P. (₹) Per Unit	Std. Pkg. (Nos.)
AuXC-1000L	ST8002400000	39790	1
AuXC-1000	ST8023000000	47950	1

Can be used along with U-POWER Omega ACBs, MCCBs, & MCX contactors



UN-CO module

Features

- Remote Operation & Control of ACB
- Communicates on Modbus

Description & Rating	Cat. No.	Qty	M.R.P. (₹) Per Unit
UN-CO module for Breaker control	CL9085200000	1	9000



Select the capacitor that's right for you



L&T's Cylindrical & Box Type Heavy Duty Capacitors

We Go the Extra Mile

Expecting your conventional standard duty capacitor to function in heavy duty applications is unwise, unsafe. You actually need power capacitors that are specifically designed for such applications – L&T's Heavy-duty Capacitors.

- Over-current withstand: 1.8 times rated current
- Lower power loss: $<0.35W / kVAr$
- 8000 operations per year
- Inrush current withstand:
Cylindrical type: 250xIn, Box type: 300xIn

Customer Interaction Centre (CIC)

BSNL/MTNL (Toll free): 1800 233 5858
Reliance (Toll free): 1800 200 5858
Tel: 022 6774 5858 Fax: 022 6774 5859
Email: cic@Lntebg.com
www.Lntebg.com

Reactive Power Management Products

Power Factor Correction Capacitors

Standard Duty Capacitors



- MPP standard duty capacitors
- Operating losses - 0.45 W / kVAr
- Over current withstand capability - 1.5 times rated current
- Inrush current withstand capability - 200 times rated current
- Number of switching - 5000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Standard Duty	Cylindrical	1 to 25	440 V	172
	Box	1 to 50	440 V	235

Heavy Duty Capacitors



- MPP heavy duty capacitors
- Operating losses - 0.35 W / kVAr
- Over current withstand capability - 1.8 times rated current
- Inrush current withstand capability - 300 times rated current
- Operating life - 130000 hours
- Number of switching - 8000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Heavy Duty	Cylindrical (Gas filled)	3 to 30	440 V	315
			480 V	347
			525 V	378
			690 V	394
	Box (Resin filled)	5 to 50	440 V	378
			480 V	416
			525 V	454

LTXL - Ultra Heavy Duty Capacitors



- Advance APP technology
- Lower operating losses - 0.35 W / kVAr
- High over current withstand capability - 3 times rated current
- High inrush current withstand capability - 500 times rated current
- Higher operating life - 300000 hours
- More number of switching - 20000 operations per year

Duty	Type	kVAr Rating	Voltage (V)	M.R.P. (₹) per kVAr
Ultra Heavy Duty (LTXL)	Box	5 to 100	440 V	593
			480 V	652
			525 V	711
			690 V	741
			850 V	770
			1000 V	801

Notes:

- 1) For Capacitor Duty Contactors refer page No. 5
- 2) For APFC Relays refer page No. 60

7% Detuned Copper Reactors, 440 V 50 Hz



- Copper wound reactors
- Lower operating losses
- High linearity - 1.8 times the rated current
- Thermal cut off

kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
5	LTFR0705B2	7175
10	LTFR0710B2	11275
12.5	LTFR0712B2	12500
15	LTFR0715B2	13840
20	LTFR0720B2	16400
25	LTFR0725B2	17425
50	LTFR0750B2	27675
75	LTFR0775B2	41000
100	LTFR0700B2	56375

Note: Prices of 5.67% & 14% reactors are available on request

Selection of Capacitors with Reactors Reactor Voltage: 440V Capacitor Voltage: 480V	
Output kVAr	Selection
10	10 kVAr 7% Reactor + 12.5 kVAr 480 V Capacitor
15	15 kVAr 7% Reactor + 20 kVAr 480 V Capacitor
20	20 kVAr 7% Reactor + 25 kVAr 480 V Capacitor
25	25 kVAr 7% Reactor + 30 kVAr 480 V Capacitor
50	50 kVAr 7% Reactor + 2 x 30 kVAr 480 V Capacitors

Sample Selection: for 75kVAr 7% detuned reactors with heavy duty capacitors, place an order for:

1 No. 75 kVAr 7% detuned reactor: LTFR0775B2 & 3 No. 30 kVAr LTCCN capacitors at 480 V: LTCCN330C2

Note: Selection of harmonic filter with 525 V capacitors and 14% reactors are available on request

Thyristor Switching Module, 440V 50Hz



- High Peak Inverse Voltage (PIV) - 2.2 kV
- Lower operating losses
- Auto thermal cut off

kVAr Rating	Cat. No.	M.R.P. (₹) Per Unit
10	LTSM10B2	19760
25	LTSM25B2	28190
50	LTSM50B2	32900

Ordering Information for Capacitors

Cat. Nos. # L T C 3 2

C - Cylindrical, B - Box

Duty : D/F - Standard*, H - Heavy, N - Heavy Duty Gas Filled, U - Ultra Heavy,

kVAr Rating

Sample ratings
01 - 1 kVAr
07 - 7.5 kVAr
10 - 10 kVAr
12 - 12.5 kVAr
00 - 100 kVAr

Voltages : A - 415V, B - 440V, C - 480V, M - 525V, W - 690V, Y - 850V, Z - 1000V

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

Standard Rating Available are :

1, 2, 3, 4, 5, 6, 7.5, 8.33, 10, 12.5, 15, 20, 25, 30, 50, 100

Reactive Power Management Products

etaSYS - STANDARD APFC PANELS

Product	kVAr Rating	Capacitors	Incomer	Branch Protection	Switching
etaSYS - MH	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	MCCB	Auto + Manual
etaSYS - FH	35 to 500 kVAr	Heavy Duty Gas filled capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	HRC Fuse	Auto + Manual
etaSYS - MU	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	MCCB	Auto + Manual
etaSYS - FU	100 to 500 kVAr	LTXL - Ultra Heavy Duty capacitors	MCCB - up to 350 kVAr; ACB - 400 to 500 kVAr	HRC Fuse	Auto + Manual

etaSYS - MH1

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
35	LTAPMH0351B2	2x12.5 + 2x5	4	174500
50	LTAPMH0501B2	2 x 12.5 + 2x10 + 1x5	5	201600
75	LTAPMH0751B2	2 x 25 + 2x10 + 1x5	5	236200
100	LTAPMH1001B2	50 + 25 + 15 + 5 + 5	5	270700
125	LTAPMH1251B2	2 x 12.5 + 2 x 25 + 50	5	299100
150	LTAPMH1501B2	2 x 12.5 + 3 x 25 + 50	6	335700
175	LTAPMH1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	366000
200	LTAPMH2001B2	2 x 12.5 + 25 + 3 x 50	6	406000
225	LTAPMH2251B2	2 x 12.5 + 4 x 50	6	443200
250	LTAPMH2501B2	2 x 25 + 4 x 50	6	477200
275	LTAPMH2751B2	1x100 + 3x50 + 2x12.5	6	519500
300	LTAPMH3001B2	1x100 + 3x50 + 2x25	6	539300
350	LTAPMH3501B2	1x100 + 3x50 + 4x25	8	643900
400	LTAPMH4001B2	2x100 + 2x50 + 4x25	8	766500
450	LTAPMH4501B2	2x100 + 4x50 + 2x25	8	830200
500	LTAPMH5001B2	3x100 + 3x50 + 2x25	8	934800

etaSYS - FH1

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
35	LTAPFH0351B2	2x12.5 + 2x5	4	160500
50	LTAPFH0501B2	2 x 12.5 + 2x10 + 1x5	5	195000
75	LTAPFH0751B2	2 x 25 + 2x10 + 1x5	5	231600
100	LTAPFH1001B2	50 + 25 + 15 + 5 + 5	5	255400
125	LTAPFH1251B2	2 x 12.5 + 2 x 25 + 50	5	281500
150	LTAPFH1501B2	2 x 12.5 + 3 x 25 + 50	6	324800
175	LTAPFH1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	353300
200	LTAPFH2001B2	2 x 12.5 + 25 + 3 x 50	6	389400
225	LTAPFH2251B2	2 x 12.5 + 4 x 50	6	415900
250	LTAPFH2501B2	2 x 25 + 4 x 50	6	448900
275	LTAPFH2751B2	1x100 + 3x50 + 2x12.5	6	503500
300	LTAPFH3001B2	1x100 + 3x50 + 2x25	6	506600
350	LTAPFH3501B2	1x100 + 3x50 + 4x25	8	618500
400	LTAPFH4001B2	2x100 + 2x50 + 4x25	8	714100
450	LTAPFH4501B2	2x100 + 4x50 + 2x25	8	781900
500	LTAPFH5001B2	3x100 + 3x50 + 2x25	8	860500

etaSYS - MH2

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMH1002B2	50 + 25 + 15 + 5 + 5	5	382600
125	LTAPMH1252B2	2 x 12.5 + 2 x 25 + 50	5	433200
150	LTAPMH1502B2	2 x 12.5 + 3 x 25 + 50	6	490100
175	LTAPMH1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	532200
200	LTAPMH2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	596000
225	LTAPMH2252B2	2 x 12.5 + 4 x 50	6	602300
250	LTAPMH2502B2	2 x 25 + 4 x 50	6	684900
275	LTAPMH2752B2	1x100 + 3x50 + 2x12.5	6	756400
300	LTAPMH3002B2	1x100 + 3x50 + 2x25	6	794400
350	LTAPMH3502B2	1x100 + 3x50 + 4x25	8	946600
400	LTAPMH4002B2	2x100 + 2x50 + 4x25	8	1088100
450	LTAPMH4502B2	2x100 + 4x50 + 2x25	8	1186400
500	LTAPMH5002B2	3x100 + 3x50 + 2x25	8	1323700

etaSYS - FH2

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFH1002B2	50 + 25 + 15 + 5 + 5	5	373800
125	LTAPFH1252B2	2 x 12.5 + 2 x 25 + 50	5	420000
150	LTAPFH1502B2	2 x 12.5 + 3 x 25 + 50	6	496300
175	LTAPFH1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	536700
200	LTAPFH2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	595100
225	LTAPFH2252B2	2 x 12.5 + 4 x 50	6	635000
250	LTAPFH2502B2	2 x 25 + 4 x 50	6	667000
275	LTAPFH2752B2	1 x 100 + 3 x 50 + 2 x 12.5	6	721300
300	LTAPFH3002B2	1 x 100 + 3 x 50 + 2 x 25	6	752800
350	LTAPFH3502B2	1 x 100 + 3 x 50 + 4 x 25	8	894600
400	LTAPFH4002B2	2 x 100 + 2 x 50 + 4 x 25	8	1036400
450	LTAPFH4502B2	2 x 100 + 4 x 50 + 2 x 25	8	1124600
500	LTAPFH5002B2	3 x 100 + 3 x 50 + 2 x 25	8	1240700

Features of etaSYS:

- IP 42 panels
- Standard GA drawing readily available
- Wide range of ratings (35 to 500 kVAr) covers the typical requirement of APFC panel ratings for most of the industries
- All the panels are with optimal number of steps and step sizes
 - Offers sufficient step resolution which would be suitable for all types of industries
 - Panel operation without hunting of capacitors
- Pre-selected switchgear with accurate ratings offers reliable operation, protection and isolation
- Accurate combination of capacitor and reactor offers better protection against harmonics

Notes:

- Standard lead time of APFC panels is 6 to 8 weeks (Ex-Nagpur)
- Freight charges at actuals
- For other ratings and specifications, contact nearest branch office

etaSYS - FH3

Thyristor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFH1003B2	50 + 25 + 15 + 5 + 5	5	600500
125	LTAPFH1253B2	2 x 12.5 + 2 x 25 + 50	5	669500
150	LTAPFH1503B2	2 x 12.5 + 3 x 25 + 50	6	777600
175	LTAPFH1753B2	2 x 12.5 + 2 x 25 + 2 x 50	6	822100
200	LTAPFH2003B2	2 x 12.5 + 1 x 25 + 3 x 50	6	873600
225	LTAPFH2253B2	2 x 12.5 + 4 x 50	6	921900
250	LTAPFH2503B2	2 x 25 + 4 x 50	6	954400
275	LTAPFH2753B2	1x100 + 3x50 + 2x12.5	6	1040100
300	LTAPFH3003B2	1x100 + 3x50 + 2x25	6	1070100
350	LTAPFH3503B2	1x100 + 3x50 + 4x25	8	1370300
400	LTAPFH4003B2	2x100 + 2x50 + 4x25	8	1504900
450	LTAPFH4503B2	2x100 + 4x50 + 2x25	8	1585500
500	LTAPFH5003B2	3x100 + 3x50 + 2x25	8	1739900

Reactive Power Management Products

etaSYS - MU1

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMU1001B2	50 + 25 + 15 + 5 + 5	5	325600
125	LTAPMU1251B2	2 x 12.5 + 2 x 25 + 50	5	357400
150	LTAPMU1501B2	2 x 12.5 + 3 x 25 + 50	6	413100
175	LTAPMU1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	454200
200	LTAPMU2001B2	2 x 12.5 + 25 + 3 x 50	6	503000
225	LTAPMU2251B2	2 x 12.5 + 4 x 50	6	536900
250	LTAPMU2501B2	2 x 25 + 4 x 50	6	584100
275	LTAPMU2751B2	1x100 + 3x50 + 2x12.5	6	628900
300	LTAPMU3001B2	1x100 + 3x50 + 2x25	6	662800
350	LTAPMU3501B2	1x100 + 3x50 + 4x25	8	776800
400	LTAPMU4001B2	2x100 + 2x50 + 4x25	8	899500
450	LTAPMU4501B2	2x100 + 4x50 + 2x25	8	982700
500	LTAPMU5001B2	3x100 + 3x50 + 2x25	8	1086600

etaSYS - FU1

Contactor switched standard APFC Panels

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1001B2	50 + 25 + 15 + 5 + 5	5	312400
125	LTAPFU1251B2	2 x 12.5 + 2 x 25 + 50	5	344400
150	LTAPFU1501B2	2 x 12.5 + 3 x 25 + 50	6	393300
175	LTAPFU1751B2	2 x 12.5 + 2 x 25 + 2 x 50	6	431300
200	LTAPFU2001B2	2 x 12.5 + 25 + 3 x 50	6	479100
225	LTAPFU2251B2	2 x 12.5 + 4 x 50	6	527300
250	LTAPFU2501B2	2 x 25 + 4 x 50	6	558300
275	LTAPFU2751B2	1x100 + 3x50 + 2x12.5	6	595800
300	LTAPFU3001B2	1x100 + 3x50 + 2x25	6	627800
350	LTAPFU3501B2	1x100 + 3x50 + 4x25	8	736000
400	LTAPFU4001B2	2x100 + 2x50 + 4x25	8	855400
450	LTAPFU4501B2	2x100 + 4x50 + 2x25	8	934600
500	LTAPFU5001B2	3x100 + 3x50 + 2x25	8	1050300

etaSYS - MU2

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPMU1002B2	50 + 25 + 15 + 5 + 5	5	450100
125	LTAPMU1252B2	2 x 12.5 + 2 x 25 + 50	5	481800
150	LTAPMU1502B2	2 x 12.5 + 3 x 25 + 50	6	554100
175	LTAPMU1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	598300
200	LTAPMU2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	641000
225	LTAPMU2252B2	2 x 12.5 + 4 x 50	6	677900
250	LTAPMU2502B2	2 x 25 + 4 x 50	6	723300
275	LTAPMU2752B2	1x100 + 3x50 + 2x12.5	6	766200
300	LTAPMU3002B2	1x100 + 3x50 + 2x25	6	799200
350	LTAPMU3502B2	1x100 + 3x50 + 4x25	8	958700
400	LTAPMU4002B2	2x100 + 2x50 + 4x25	8	1081300
450	LTAPMU4502B2	2x100 + 4x50 + 2x25	8	1166100
500	LTAPMU5002B2	3x100 + 3x50 + 2x25	8	1268400

etaSYS - FU2

Contactor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1002B2	50 + 25 + 15 + 5 + 5	5	430800
125	LTAPFU1252B2	2 x 12.5 + 2 x 25 + 50	5	466300
150	LTAPFU1502B2	2 x 12.5 + 3 x 25 + 50	6	529500
175	LTAPFU1752B2	2 x 12.5 + 2 x 25 + 2 x 50	6	569100
200	LTAPFU2002B2	2 x 12.5 + 1 x 25 + 3 x 50	6	630200
225	LTAPFU2252B2	2 x 12.5 + 4 x 50	6	661900
250	LTAPFU2502B2	2 x 25 + 4 x 50	6	697700
275	LTAPFU2752B2	1x100 + 3x50 + 2x12.5	6	732200
300	LTAPFU3002B2	1x100 + 3x50 + 2x25	6	764200
350	LTAPFU3502B2	1x100 + 3x50 + 4x25	8	917800
400	LTAPFU4002B2	2x100 + 2x50 + 4x25	8	1040600
450	LTAPFU4502B2	2x100 + 4x50 + 2x25	8	1125600
500	LTAPFU5002B2	3x100 + 3x50 + 2x25	8	1235200

etaSYS - FU3

Thyristor Switched standard APFC panels with 7% detuned harmonics filter

Panel Rating (kVAr)	Cat. No.	Step sizes (kVAr)	No. of Steps	M.R.P. (₹) Per Unit
100	LTAPFU1003B2	50 + 25 + 15 + 5 + 5	5	652300
125	LTAPFU1253B2	2 x 12.5 + 2 x 25 + 50	5	728000
150	LTAPFU1503B2	2 x 12.5 + 3 x 25 + 50	6	855500
175	LTAPFU1753B2	2 x 12.5 + 2 x 25 + 2 x 50	6	905200
200	LTAPFU2003B2	2 x 12.5 + 1 x 25 + 3 x 50	6	973100
225	LTAPFU2253B2	2 x 12.5 + 4 x 50	6	1021700
250	LTAPFU2503B2	2 x 25 + 4 x 50	6	1062200
275	LTAPFU2753B2	1x100 + 3x50 + 2x12.5	6	1152100
300	LTAPFU3003B2	1x100 + 3x50 + 2x25	6	1192100
350	LTAPFU3503B2	1x100 + 3x50 + 4x25	8	1513900
400	LTAPFU4003B2	2x100 + 2x50 + 4x25	8	1658700
450	LTAPFU4503B2	2x100 + 4x50 + 2x25	8	1765700
500	LTAPFU5003B2	3x100 + 3x50 + 2x25	8	1941700





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We go the extra mile.

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- Integration of voltage and current based protections
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Email: cic@Lntebg.com

Website: www.Lntebg.com

Digital Protective Relays

3 Phase Over Current + Earth Fault Relay

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



Model	Aux. Supply (V)	Output Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC31A	20 - 110V AC/DC	4 NO Programmable	MC31AAXX000	15000	1
MC31A	20 - 110V AC/DC	2 NO + 2 NC Pre programmed*	MC31AAXX001	15000	1
MC31A	88 - 264V AC/DC	4 NO Programmable	MC31ABXX000	15000	1
MC31A	88 - 264V AC/DC	2 NO + 2 NC Pre programmed*	MC31ABXX001	15000	1

* 2NO + 2NC contacts are factory programmed for both Over current and Earth fault

3 Phase Over Current + Earth Fault Relay With High Set

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



Model	Aux. Supply (V)	Output Contacts	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC61A	20 - 110V AC/DC	4 NO Programmable	MC61AAXX000	17000	1
MC61A	20 - 110V AC/DC	2 NO + 2 NC Pre programmed*	MC61AAXX001	17000	1
MC61A	88 - 264V AC/DC	4 NO Programmable	MC61ABXX000	17000	1
MC61A	88 - 264V AC/DC	2 NO + 2 NC Pre programmed*	MC61ABXX001	17000	1

* 2NO + 2NC contacts are factory programmed for both Over current and Earth fault

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

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



Model	Aux. Supply (V)	C.T. Secondary (A)		Cat. No.	M.R.P. (₹) Per Unit	Output contacts
		In	On			
MC61C	20 - 110V AC/DC	1	1	MC61CA11000 *	40000	5 NO; Pre-Programmed Contacts
MC61C	20 - 110V AC/DC	5	5	MC61CA55000 *	40000	
MC61C	88 - 264V AC/DC	1	1	MC61CB11000 *	40000	
MC61C	88 - 264V AC/DC	5	5	MC61CB55000 *	40000	

* - available on request only

Configuration of preprogrammed output contacts:

R1 - Time delayed output; R2 - Instantaneous output

R3 - Breaker opening; R4 - Breaker closing; R5 - Internal Relay Failure

Single Pole Over Current or Earth Fault Relay

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



Model	Aux. Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MC12A	20 - 110V AC/DC	1A	MC12AA10X00	9600	1
MC12A	20 - 110V AC/DC	5A	MC12AA50X00	9600	1
MC12A	88 - 264V AC/DC	1A	MC12AB10X00	9600	1
MC12A	88 - 264V AC/DC	5A	MC12AB50X00	9600	1

Instantaneous Earth Fault Relay

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



Model	C.T. Secondary (A)	Range	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
SC14S	1	10 - 40 %	MC14SX10100	8400	1
SC14S	1	20 - 80 %	MC14SX10200	8400	1
SC14S	5	10 - 40 %	MC14SX50100	8400	1
SC14S	5	20 - 80 %	MC14SX50200	8400	1

Application - REF protection of Generator or Transformer

Differential Protection of Generator with 3 nos. SC14S

Reverse Power Relay



Model	Aux Supply (V)	C.T. Secondary (A)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MRP11	20 - 110V AC/DC	1A	MRP11A10X00	21500	1
MRP11	20 - 110V AC/DC	5A	MRP11A50X00	21500	1
MRP11	88 - 264V AC/DC	1A	MRP11B10X00	21500	1
MRP11	88 - 264V AC/DC	5A	MRP11B50X00	21500	1

Digital Protective Relays

Mini Motor Protection Relay



Model	Thermal O/L Range (A)	Aux. supply	Cat. No.	M.R.P. (₹) Per Unit
MPR300	1 - 2.75	240V AC	MPR300BE010	5700
MPR300	2 - 5.5	240V AC	MPR301BE020	5700
MPR300	4 - 11	240V AC	MPR302BE040	5700
MPR300	8 - 22	240V AC	MPR303BE080	5700
MPR300	16 - 44	240V AC	MPR304BE160	5700
MPR300	32 - 88	240V AC	MPR305BE320	5700
New				
MPR300	1 - 2.75	110V AC	MPR300BB010	5700
MPR300	2 - 5.5	110V AC	MPR301BB020	5700
MPR300	4 - 11	110V AC	MPR302BB040	5700
MPR300	8 - 22	110V AC	MPR303BB080	5700
MPR300	16 - 44	110V AC	MPR304BB160	5700
MPR300	32 - 88	110V AC	MPR305BB320	5700

Comprehensive Motor protection relay MM30-743

with current based protections



Model	Aux. Supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MM30 - 743	20 - 110V AC/ DC	37,46,47,48, 49,50/51,51LR,	EMM30AXX00E	69800
MM30 - 743	88 - 240V AC/ DC	64, 66,68,74	EMM30BXX00E	69800

Comprehensive Motor protection relay MM30-W74*

with current and voltage based protections



Model	Aux. Supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MM30 - W74	20 - 110V AC/ DC	12/14,27/59,37, 46,47,48,49,	EMM30WAX002	86500
MM30 - W74	88 - 240V AC/ DC	50/51, 51LR,55, 64,66,68,74,81.	EMM30WBX002	86500

* available on request only

Intelligent Motor Protection & Control Relay - MCOMP*

New



Model	Aux. supply	Cat. No.	M.R.P. (₹) Per Unit
MCOMP Blind unit - Modbus RTU	80 - 240V AC/ DC	MCOMPZX90032	24000

Model	Cable Length	Current rating (A)	Cat. No.	M.R.P. (₹) Per Unit
MCOMP CT1 UNIT	0.5 M	0.675 to 2.025	MCOMPZX90006	4000
MCOMP CT2 UNIT	0.5 M	1.8 to 5.4	MCOMPZX90007	5000
MCOMP CT3 UNIT	0.5 M	4.5 to 13.5	MCOMPZX90008	5000
MCOMP CT4 UNIT	0.5 M	12.6 to 37.8	MCOMPZX90009	5000
MCOMP CT5 UNIT	0.5 M	36 to 81	MCOMPZX90010	6000

CT unit consists of 3 CT's for R, Y and B phase.
Cable length of 1 meter is available on request.

CT's with extra crimped cable for CBCT

Model	Cable Length	Aux. supply	Cat.No.	M.R.P. (₹) Per Unit
USB Display Unit	1 meter	80 - 240V AC/ DC	MCOMPZX90042	15000

Cable length of 0.5 meter and 2 meter is available on request

Model	Cable Length	Current rating (A)	Cat. No.	M.R.P. (₹) Per Unit
MCOMP CT1 UNIT	1 M	0.675 to 2.025	MCOMPZX90016	4000
MCOMP CT2 UNIT	1 M	1.8 to 5.4	MCOMPZX90017	5000
MCOMP CT3 UNIT	1 M	4.5 to 13.5	MCOMPZX90018	5000
MCOMP CT4 UNIT	1 M	12.6 to 37.8	MCOMPZX90019	5000
MCOMP CT5 UNIT	1 M	36 to 81	MCOMPZX90020	6000

CT unit consists of 3 CT's for R, Y and B phase.
Pair of crimped cable is provided for connecting external CBCT
* available on request only

Digital Protective Relays

APFC Relays



Model	Description	CT secondary	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
RPM 8	Eight Stage APFC Relay	1 A or 5 A - Field selectable	240V	MRPM0800000	13600
RPM 14	Fourteen Stage APFC Relay			MRPM1400000	16900



New

Model	Description	CT secondary	Voltage input	Cat. No.	M.R.P. (₹) Per Unit
etaCON L3	3 stage APFC relay	5 Amp	415V	ERPML03D500*	9000
etaCON L5	5 stage APFC relay	5 Amp	415V	ERPML05D500*	10000
etaCON L7	7 stage APFC relay	5 Amp	415V	ERPML07D500*	11000
etaCON L8	8 stage APFC relay	5 Amp	415V	ERPML08D500*	13600
etaCON L12	12 stage APFC relay	5 Amp	415V	ERPML12D500*	14800

* available on request only

Generator protection relay



Model	Generator Grounding	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MG30I	Solid grounding	20 - 110 VAC/ DC	21,24,27/59,32,37, 40,46,49,50/27, 50V/51V, 51BF, 60FL, 64S,68,81	EM30GIAXX00	210000
MG30I	Solid grounding	88 - 240 VAC/DC		EM30GIBXX00	210000
MG30	Impedance Grounding (NGR/ NGT)	20 - 110 VAC/ DC	21,24,27/59,32,37, 40,46,49,50/27, 50V/51V,51BF, 60FL, 64S,68,81	EMG30AXX000	210000
MG30	Impedance Grounding (NGR/ NGT)	88 - 240 VAC/DC		EMG30BXX000	210000

Model	Description	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
MD32G	Generator Differential Relay	20 - 110V AC/ DC	50/51, 68, 87, 87N	ED32GAXX000 *	266500
MD32G	Generator Differential Relay	88 - 240V AC/DC	50/51, 68, 87, 87N	ED32GBXX000 *	266500

Single Phase Under Voltage or Over Voltage Relay



Model	Aux. Supply (V)	Cat. No.	M.R.P. (₹) Per Unit	Std Pkg. (Nos.)
MV12A	20 - 110V AC/DC	MV12AA00X00	10000	1
MV12A	88 - 264V AC/DC	MV12AB00X00	10000	1

Three phase Voltage and Frequency relay with df/dt and dv/dt protection



Model	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
UFD34	20 - 110V AC/ DC	27, 59, 81, df/dt, dv/dt	EFD34A00000	123000
UFD34	88 - 240V AC/DC	27, 59, 81, df/dt, dv/dt	EFD34B00000	123000

Voltage Frequency and Zero Sequence Voltage Relay with Vector shift detection



Model	Aux. supply	Device code	Cat. No.	M.R.P. (₹) Per Unit
UM30	20 - 110V AC/ DC	24, 27d/59d, 47, 59, 59Uo, 78, 81	EUM30A00000 *	123000
UM30	88 - 240V AC/DC	24, 27d/59d, 47, 59, 59Uo, 78, 81	EUM30B00000 *	123000

* available on request only

Electronic Metering Devices

Single Phase kWh meter with LCD display

Model EM101+ Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph LCD Meter 5-30A without optical port	WM101BC5DL0	1640
1Ph LCD Meter 10-60A without optical port	WM101BC7DL0	1950
1P LCD Meter 5-30A with optical port	WM101BC5DDH	1950
1Ph LCD Meter 10-60A with optical port	WM101BC7DDH	2050

3 Phase 4 Wire kWh meter Counter type

Model EM301B Class 1 Base mounting



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W kWh CT op base mtg 240V 1-2A	WM301BC1C00	4820
3Ph 4 W kWh CT op base mtg 240V 5 -10 A	WM301BC3C00	4310
3Ph 4 W kWh Dir base mtg 240V 5 -20 A Sleek	WM301BC4D20	4310
3Ph 4 W kWh Dir base mtg 240V 10 -40 A Sleek	WM301BC6D20	4310
3Ph 4 W kWh Dir base mtg 240V 10 - 60 A big body	WM301BC7D10	4410
3Ph 4 W kWh Dir base mtg 240V 50 -100 A big body	WM301BC8D10	6250

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	6660
3Ph, 4W TVM 240 V 10 - 60A BM RS 485 *	WR300BC73RS	9500

* - available on request only

Trivector Meter Class 0.5

Model ER300P Class 0.5 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 3W TVM 110V (L-L) 1 A Class 0.5 BM *	WR200BB1200	20500
3Ph, 3W TVM 110V (L-L) 5 A Class 0.5 BM *	WR200BB5200	20500
3Ph, 4W TVM 110V (L-L) 1 A Class 0.5 BM	WR300BB1200	20500
3Ph, 4W TVM 110V (L-L) 5 A Class 0.5 BM	WR300BB5200	20500
3Ph, 4W TVM 240V (L-N) 1 A Class 0.5 BM *	WR300BC1200	20500
3Ph, 4W TVM 240V (L-N) 5 A Class 0.5 BM	WR300BC5200	20500
3Ph, 3W TVM 110V (L-L) 1 A Class 0.5 BM RS485 *	WR200BB12RS	24600
3Ph, 3W TVM 110V (L-L) 5 A Class 0.5 BM RS485 *	WR200BB52RS	24600
3Ph, 4W TVM 110V (L-L) 1 A Class 0.5 BM RS485	WR300BB12RS	24600
3Ph, 4W TVM 110V (L-L) 5 A Class 0.5 BM RS485 *	WR300BB52RS	24600
3Ph, 4W TVM 240V (L-N) 1 A CI 0.5 BM RS485 *	WR300BC12RS	24600
3Ph, 4W TVM 240V (L-N) 5 A CI 0.5 BM RS485	WR300BC52RS	24600

* - available on request only

Trivector Meter Class 0.2

Model ER300P Class 0.2 (Base Mounting)



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W TVM 110V (L-L) 1 A Class 0.2 BM	WR300BB1100	46120
3Ph, 4W TVM 110V (L-L) 5 A Class 0.2 BM	WR300BB5100	46120
3Ph, 4W TVM 110V (L-L) 1 A Class 0.2 BM RS485	WR300BB11RS	49200
3Ph, 4W TVM 110V (L-L) 5 A Class 0.2 BM RS485	WR300BB51RS	49200

Meter reading instrument



Description	Cat. No.	M.R.P. (₹) Per Unit
METER READING INSTRUMENT - (6MB)	990MR1X00S	100000

Electronic Metering Devices

3 Ph Flush Mounting Multifunction meter

Model NOVA - LCD display



Nova

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W 240V 5A with RS485 (MFM - LCD display with RS 485 port) - NOVA	WM30KFC3CRS	4600
3Ph 4W 240V 5A (MFM - LCD display)	WM30KFC3C00	4300

3 Ph Flush Mounting kWh meter

Model ACRUX - counter type



Acrux

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W 240V 1A (kWh meter counter type) - Acrux	WM301FC1C10	3200
3Ph 4 W 240V 5A (kWh meter counter type) - Acrux	WM301FC3C10	3200

Intelligent Panel Meter

Model QUASAR Class 1 (Flush Mounting) 96 x 96 mm



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM *	WI300FC1300	8710
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM	WI300FC5300	8710
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM *	WI301FC1300	8710
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM *	WI301FC5300	8710
3Ph, 4W IPM 110 V (L-L) 1A Class 1 FM *	WI300FB1300	8710
3Ph, 4W IPM 110 V (L-L) 5A Class 1 FM *	WI300FB5300	8710
3Ph, 4W IPM 240 V (L-N) 1 A Class 1 FM with RS485 *	WI300FC13RS	9740
3Ph, 4W IPM 240 V (L-N) 5 A Class 1 FM with RS485	WI300FC53RS	9740
3Ph, 3W IPM 110 V (L-L) 1 A Class 1 FM with RS485 *	WI301FC13RS	9740
3Ph, 3W IPM 110 V (L-L) 5 A Class 1 FM with RS485 *	WI301FC53RS	9740
3Ph, 4W IPM 110 V (L-L) 1A Class 1 FM with RS485 *	WI300FB13RS	9740
3PH, 4W IPM 110 V (L-L) 5A Class 1 FM with RS485 *	WI300FB53RS	9740

* - available on request only

3 Ph Flush Mounting Dual source kWh meter

Model GEMINI - LCD display



Gemini

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph 4 W 240V 5A with RS485 (Dual source kWh meter) - Gemini	WM30DFC3CRS	4600

Intelligent Panel Meter

Model QUASAR plus Class 0.5 (Flush Mounting) 96 x 96 mm



Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM *	WI300FC1200	10760
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM	WI300FC5200	10760
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM *	WI301FC1200	10760
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM *	WI301FC5200	10760
3Ph, 4W IPM 110 V (L-L) 1A Class 0.5 FM *	WI300FB1200	10760
3Ph, 4W IPM 110 V (L-L) 5A Class 0.5 FM *	WI300FB5200	10760
3Ph, 4W IPM 240 V (L-N) 1 A Class 0.5 FM with RS485	WI300FC12RS	11790
3Ph, 4W IPM 240 V (L-N) 5 A Class 0.5 FM with RS485	WI300FC52RS	11790
3Ph, 3W IPM 110 V (L-L) 1 A Class 0.5 FM with RS485	WI301FC12RS	11790
3Ph, 3W IPM 110 V (L-L) 5 A Class 0.5 FM with RS485	WI301FC52RS	11790
3Ph, 4W IPM 110 V (L-L) 1A Class 0.5 FM with RS485 *	WI300FB12RS	11790
3Ph, 4W IPM 110 V (L-L) 5A Class 0.5 FM with RS485 *	WI300FB52RS	11790

* - available on request only

Electronic Metering Devices

VEGA series

Single function meters



AMMETER



VOLTMETER

Description	Cat. No.	M.R.P. (₹) Per Unit
Single Phase Basic Meters		
1Ph Voltmeter Class 1	WDS101FEV00	1000
1Ph Ammeter, Class 1, 5A	WDS101FCA00	1000
1Ph Ammeter, Class 1, 1A	WDS101OCA00	1000
1Ph Freq. meter Class 0.2	WDS121FCF00	1000
Three Phase Basic Meters		
3Ph Voltmeter Class 1	WDS301FEV00	1360
3Ph Ammeter, 5A, Class 1	WDS301FCA00	1360
3 Ph Ammeter, 1 A, Class 1	WDS301OCA00	1360

VEGA series

Multifunction meters Class 1.0



New

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph Multifunction Meter, Model A, class 1, 5A	WDM303FDWA1	6990
3Ph Multifunction Meter, Model B, class 1, 5A	WDM303FDNB1	10900
3Ph Multifunction Meter, Model C, class 1, 5A	WDM303FDNC1	16020
3Ph Multifunction Meter, Model A, class 1, 1A	WDM303FDWA1	6990
3Ph Multifunction Meter, Model B, class 1, 1A	WDM303FDNB1	10900
3Ph Multifunction Meter, Model C, class 1, 1A	WDM303FDNC1	16020
3Ph Multifunction Meter, Model A, class 1, 5A with Relay	WDM303FDWA0	8200
3Ph Multifunction Meter, Model B, class 1, 5A with Relay	WDM303FDNB0	13320
3Ph Multifunction Meter, Model C, class 1, 5A with Relay	WDM303FDNC0	20500

VEGA Series



New

VAF Meter

Description	Cat. No.	M.R.P. (₹) Per Unit
VAF Meter		
3Ph VAF, Class 1, 5A	WDV303FC000	2600
3Ph VAF, Class 1, 1A	WDV303OC000	2600

VEGA Series

Multifunction meters Class 0.5



New

Description	Cat. No.	M.R.P. (₹) Per Unit
3Ph Multifunction Meter, Model A, class 0.5*	WDM313CDWA1	9000
3Ph Multifunction Meter, Model B, class 0.5*	WDM313CDNB1	14000
3Ph Multifunction Meter, Model C, class 0.5*	WDM313CDNC1	20000

* Site selectable 1A/ 5A

mi ENERGY

Din rail meters



New

Description	Cat. No.	M.R.P. (₹) Per Unit
1Ph 5-30A, 240V, Class 2 Din rail meter	W2DLD050600	2200
3Ph 10-60A, 240V, Class 2 Din rail meter	W4DLD100600	5000

Panel Meter Overview

Meter type	Parametres	Display	RS 485
Accrux	kWh	Counter	No
Vega VAF	V, A, F, RPM	LED	No
Nova	V, A, F, Pf, kW, kWh	LCD	Optional
Gemini	V, A, F, kW, kWh - Dual source	LCD	Yes
Quasar	V, A, F, pf, Power, Energy, THD	LCD	Optional
Vega Model A	V, A, F, pf, Power, Energy, Run & ON hours, RPM	LED	Yes
Vega Model B	V, A, F, pf, Power, Energy, Run & ON hours, RPM + Neutral current, MD (kW & kVA), MD reset	LED	Yes
Vega Model C	V, A, F, pf, Power, Energy, Run & ON hours, RPM + Neutral current, MD (kW & kVA), MD reset + THD, Bi - directional	LED	Yes

RPM = Rotations per minute

Your automation needs keep growing.

So does our range.



AC Drive : 0.4 kW to 630 kW
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Servo System : 30 W to 90 kW
PLC : 28 I/Os to 8192 I/Os
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LX7 / LX7S



LX70



LX700

Type	Cat. No.	Description	M.R.P. (₹) Per Unit
LX7S Series (Non Expandable PLC)	LX7S-10ADR	AC Powered, 6 Digital Inputs, 4 Digital Outputs (Relay)	9500
	LX7S-10ADT	AC Powered, 6 Digital Inputs, 4 Digital Outputs (Transistor)	9300
	LX7S-14ADR	AC Powered, 8 Digital Inputs, 6 Digital Outputs (Relay)	11200
	LX7S-14ADT	AC Powered, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10900
	LX7S-20ADR	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay)	13700
	LX7S-20ADT	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor)	13300
	LX7S-28ADR	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	16500
	LX7S-28ADT	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	16100
	LX7S-40ADR	AC Powered, 24 Digital Inputs, 16 Digital Outputs (Relay)	20700
	LX7S-40ADT	AC Powered, 24 Digital Inputs, 16 Digital Outputs (Transistor)	20100
	LX7S-48ADR	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	22900
	LX7S-48ADT	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	22200
	LX7S-10DDR	DC Powered, 6 Digital Inputs, 4 Digital Outputs (Relay)	9500
	LX7S-10DDT	DC Powered, 6 Digital Inputs, 4 Digital Outputs (Transistor)	9300
	LX7S-14DDR	DC Powered, 8 Digital Inputs, 6 Digital Outputs (Relay)	11200
	LX7S-14DDT	DC Powered, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10900
LX7 Series (Expandable PLC)	Base Modules		
	LX7-28ADR	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	21252
	LX7-28ADT	AC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	20066
	LX7-48ADR	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	31510
	LX7-48ADT	AC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	29298
	LX7-28DDR	DC Powered, 16 Digital Inputs, 12 Digital Outputs (Relay)	21922
	LX7-28DDT	DC Powered, 16 Digital Inputs, 12 Digital Outputs (Transistor)	20608
	LX7-48DDR	DC Powered, 28 Digital Inputs, 20 Digital Outputs (Relay)	33270
	LX7-48DDT	DC Powered, 28 Digital Inputs, 20 Digital Outputs (Transistor)	30722
	LX7-20ADR-4A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay), 4 Analog Inputs	24900
	LX7-20ADR-6A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Relay), 4 Analog Inputs, 2 Analog Outputs	29500
	LX7-20ADT-4A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor), 4 Analog Inputs	24400
	LX7-20ADT-6A	AC Powered, 12 Digital Inputs, 8 Digital Outputs (Transistor), 4 Analog Inputs, 2 Analog Outputs	28800
	Expansion Modules		
	LX7-14EDR	Expansion Module, 8 Digital Inputs, 6 Digital Outputs (Relay)	10400
	LX7-14EDT	Expansion Module, 8 Digital Inputs, 6 Digital Outputs (Transistor)	10100
	LX7-28EDR	Expansion Module, 16 Digital Inputs, 12 Digital Outputs (Relay)	14300
	LX7-28EDT	Expansion Module, 16 Digital Inputs, 12 Digital Outputs (Transistor)	13900

LX 70 Series PLC:

- Modular structure with variety of I/O modules
- Fast & powerful processors to control upto 384 I/O points
- Built-in PID for process control

LX 700 Series PLC:

- Modular structure with high density I/O modules
- Fast & powerful processors to control upto 1600 I/O points
- Distributed I/O configuration using Remote I/O master & slave

Human Machine Interface (HMI)

- Available from 3" to 15" in 8 models
- Touch LCD interface
- Modbus Serial, Ethernet, Field bus Communication
- Supports various Fonts and Graphics
- Supports various languages - Japanese, Korean etc
- Multiple PLCs, Controllers connectivity. Communication with ACB, MCCB, Energy Meter
- Advanced features: Multy - Language, Graphic, Extended Alarms, Recipe, Data Logging, Printing, Password protection, Trends
- Supports scripting



Type	Cat. No.	Description	M.R.P. (₹) Per Unit
1	LX-TEXTMATE	DC Powered, 3", 8-Line Alphanumeric Text Display	10400
2	S04TDAA	4.3" Wide 65536 Color TFT, SRAM, 480X272, 6M Memory(Serial only), DC powered	20000
3	E05TDAA	5.7" 65536 Color TFT, SRAM, 320X240, (Serial/USB/CF/Ethernet), DC powered	50000
4	S07TDAA	7" Wide 65536 Color TFT, SRAM, 800X480, 26M Memory (Serial only), DC powered	29000
5	E08TDAA	8.4" 65536 Color TFT, SRAM, 640*480, (Serial/USB/CF/Ethernet), DC powered	65000
6	E10TDWA	10.4" 65536 Color TFT, SRAM, 800x600, (Serial/USB/CF/Ethernet), DC powered	58000
7	F12TAAA	12.1" 65536 Color TFT, SRAM, 800x600, (Serial/USB/CF/Ethernet, Option: Profibus slave), AC powered	150000
8	F15TAAA	15" 65536 Color TFT, SRAM, 1024x768, (Serial/USB/CF/Ethernet, Option: Profibus slave), AC powered	200000

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Scan this through your mobile to download ProductWhiz now!



Selection Chart: Fuse Protected Feeders

TYPE '2' Co-ordination, Iq=50 kA at 415V, 3Ø, 50 Hz as per IS/IEC 60947-4-1 standard

- The Full Load Current (FLC) indicated for 3-phase motors are of 'squirrel-cage Induction motors' at full load.
- Contactors / S-D-Fs indicated are of the minimum ratings. Higher rating of contactors and S-D-Fs can be used.
- Selection chart is for standard 3-phase, squirrel cage motor with average power factor and efficiency.
- Selection is valid only for complete L&T combinations.
- Compliance to Type '2' co-ordination is not assured in case these combinations are changed to accommodate another brand / rating of products like S-D-F / Fuse etc.
- All S-D-F ratings are AC-23A as per IS/IEC 60947-3, IEC 60947-3 & EN 60947-3
- Normal motor starting time (<=5 Sec) is assumed. Selection for motors with longer starting times can be made available on request.
- These charts remain same for IE1 and IE2 motors

DOL STARTER FEEDERS

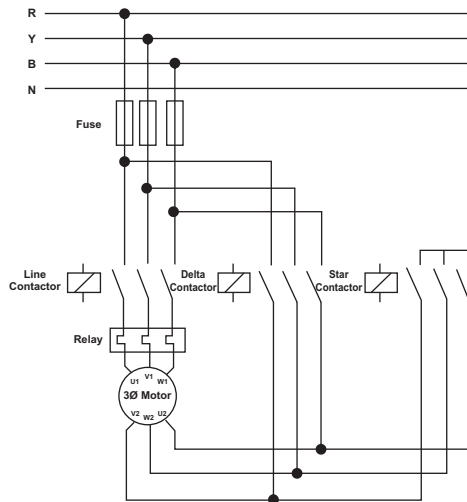
Motor: 3Ø, 415V, 50 Hz			Contactor Type	Overload Relay		Nominal Backup fuse		S - D - F
hp	kW	In (A)		Type	Range (A)	Type	Rating (A)	
0.16	0.12	0.51	MNX 9	MN 2	0.45 - 0.75	HF	2	FN 32 / FNX 32
0.25	0.18	0.6	MNX 9	MN 2	0.45 - 0.75	HF	2	FN 32 / FNX 32
0.33	0.25	0.8	MNX 9	MN 2	0.6 - 1.0	HF	2	FN 32 / FNX 32
0.5	0.37	1.2	MNX 9	MN 2	0.9 - 1.5	HF	4	FN 32 / FNX 32
0.75	0.55	1.5	MNX 9	MN 2	1.4 - 2.3	HF	4	FN 32 / FNX 32
1	0.75	2	MNX 9	MN 2	1.4 - 2.3	HF	6	FN 32 / FNX 32
1.5	1.1	2.7	MNX 9	MN 2	2.0 - 3.3	HF	8	FN 32 / FNX 32
1.75	1.3	3	MNX 9	MN 2	2.0 - 3.3	HF	8	FN 32 / FNX 32
2	1.5	3.5	MNX 9	MN 2	3 - 5	HF	10	FN 32 / FNX 32
3	2.2	4.92	MNX 9	MN 2	4.5 - 7.5	HF	16	FN 32 / FNX 32
4	3	6	MNX 9	MN 2	4.5 - 7.5	HF	16	FN 32 / FNX 32
5	3.7	7.5	MNX 9	MN 2	4.5 - 7.5	HF	20	FN 32 / FNX 32
5.5	4	8.5	MNX 9	MN 2	6 - 10	HF	20	FN 32 / FNX 32
7.5	5.5	11	MNX 12	MN 2	9 - 15	HF	32	FN 32 / FNX 32
10	7.5	14.5	MNX 22	MN 2	9 - 15	HF	40	FN 63 / FNX 63
12.5	9.3	17.3	MNX 25	MN 2	14 - 23	HF	50	FN 63 / FNX 63
15	11	21	MNX 25	MN 2	14 - 23	HF	63	FN 63 / FNX 63
17.5	13	24	MNX 25	MN 2	20 - 33	HF	63	FN 63 / FNX 63
20	15	29	MNX 40	MN 2	20 - 33	HN, 000*	63	FN 100 / FNX 100*
25	18.5	35	MNX 40	MN 2	24 - 40	HN, 000*	80	FN 100 / FNX 100*
30	22	40	MNX 45	MN 5	30 - 50	HN, 000*	80	FN 100 / FNX 100*
40	30	54	MNX 70	MN 5	45 - 75	HN, 000*	100	FN 100 / FNX 100*
50	37	68	MNX 80	MN 5	45 - 75	HN, 000	125	FN 125 / FNX 125
60	45	81	MNX 95	MN 5	66 - 110	HN, 000	125	FN 125 / FNX 125
75	55	94	MNX 95	MN 5	66 - 110	HN, 00#	160	FN 160 / FNX 160#
100	75	130	MNX 140	MN 12	90 - 150	HN, 0	200	FN 200 / FNX 200
110	80	139	MNX 140	MN 12	90 - 150	HN, 0	200	FN 200 / FNX 200
120	90	157	MNX 185	MN 12	135 - 225	HN, 1	250	FN 250 / FNX 250
150	110	189	MNX 225	MN 12	135 - 225	HN, 1	250	FN 250 / FNX 250
170	125	207	MNX 265	MN 12	135 - 225	HN, 1	315	FN 315 / FNX 315
180	132	226	MNX 265	MN 12	180 - 300	HN, 1	315	FN 315 / FNX 315
200	150	248	MNX 265	MN 12	180 - 300	HN, 2	400	FN 400 / FNX 400
215	160	270	MNX 325	MN 12	180 - 300	HN, 2	400	FN 400 / FNX 400
240	180	298	MNX 325	MN 12	180 - 300	HN, 2	400	FN 400 / FNX 400
270	200	336	MNX 400	MN 12	270 - 450	HN, 3	500	FN 630 / FNX 630
300	225	360	MNX 400	MN 12	270 - 450	HN, 3	500	FN 630 / FNX 630
335	250	420	MNX 550	MN 12	270 - 450	HN, 3	500	FN 630 / FNX 630
370	275	440	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630
425	315	529	MNX 550	MN 12L	340 - 570	HN, 3	630	FN 630 / FNX 630
452	335	550	MNX 650	MN 12L	340 - 570	HN, 3	800	FN 800 / FNX 800

* : Only size '000' fuses to be used with FNX 100 S-D-F.

: Only size '00' fuses to be used with FNX 160 S-D-F.

Selection Chart: Fuse Protected Feeders

STAR DELTA STARTER FEEDERS



Note : It is recommended that Star Delta configuration is used along with Star-Delta Timer with Pause Time and not On-Delay Timer. Recommended timer Cat No is 12SDT0.

Ratings at 3Ø, 415V, 50 Hz				Contactor			Overload Relay		Nominal Back up fuse		S - D - F
hp	kW	Current, In (A)									
		Line	Phase	Star	Line	Delta	Type	Range (A)	Type	Rating (A)	
1	0.75	2	1.2	MNX 9	MNX 9	MNX 9	MN 2	0.9 - 1.5	HF	4	FN 32 / FNX 32
1.5	1.1	2.7	1.6	MNX 9	MNX 9	MNX 9	MN 2	1.4 - 2.3	HF	4	FN 32 / FNX 32
1.75	1.3	3	1.7	MNX 9	MNX 9	MNX 9	MN 2	1.4 - 2.3	HF	4	FN 32 / FNX 32
2	1.5	3.5	2.0	MNX 9	MNX 9	MNX 9	MN 2	1.4 - 2.3	HF	6	FN 32 / FNX 32
3	2.2	4.92	2.8	MNX 9	MNX 9	MNX 9	MN 2	2 - 3.3	HF	8	FN 32 / FNX 32
4	3	6	3.5	MNX 9	MNX 9	MNX 9	MN 2	3 - 5	HF	8	FN 32 / FNX 32
5	3.7	7.5	4.3	MNX 9	MNX 9	MNX 9	MN 2	3 - 5	HF	10	FN 32 / FNX 32
5.5	4	8.5	4.9	MNX 9	MNX 9	MNX 9	MN 2	3 - 5	HF	16	FN 32 / FNX 32
7.5	5.5	11	6.4	MNX 9	MNX 9	MNX 9	MN 2	4.5 - 7.5	HF	16	FN 32 / FNX 32
10	7.5	14.5	8.4	MNX 9	MNX 9	MNX 9	MN 2	6 - 10	HF	20	FN 32 / FNX 32
12.5	9.3	17.3	10.0	MNX 9	MNX 12	MNX 12	MN 2	9 - 15	HF	32	FN 32 / FNX 32
15	11	21	12.0	MNX 9	MNX 12	MNX 12	MN 2	9 - 15	HF	32	FN 32 / FNX 32
17.5	13	24	13.9	MNX 12	MNX 18	MNX 18	MN 2	9 - 15	HF	32	FN 32 / FNX 32
20	15	29	16.7	MNX 12	MNX 22	MNX 22	MN 2	14 - 23	HF	40	FN 63 / FNX 63
25	18.5	35	20.2	MNX 18	MNX 25	MNX 25	MN 2	14 - 23	HF	50	FN 63 / FNX 63
30	22	40	23.1	MNX 18	MNX 25	MNX 25	MN 2	20 - 33	HF	63	FN 63 / FNX 63
40	30	54	31.2	MNX 32	MNX 32	MNX 32	MN 2	20 - 33	HN, 000*	63	FN 100 / FNX 100*
50	37	68	39.3	MNX 32	MNX 45	MNX 45	MN 5	30 - 50	HN, 000*	80	FN 100 / FNX 100*
60	45	81	46.8	MNX 45	MNX 70	MNX 70	MN 5	30 - 50	HN, 000*	100	FN 100 / FNX 100*
75	55	94	54.3	MNX 45	MNX 70	MNX 70	MN 5	45 - 75	HN, 000*	100	FN 100 / FNX 100*
100	75	130	75.1	MNX 80	MNX 95	MNX 95	MN 5	66 - 110	HN, 00#	160	FN 160 / FNX 160#
110	80	139	80.3	MNX 80	MNX 95	MNX 95	MN 5	66 - 110	HN, 00#	160	FN 160 / FNX 160#
120	90	157	90.6	MNX 80	MNX 95	MNX 95	MN 5	66 - 110	HN, 00#	160	FN 160 / FNX 160#
150	110	189	109.1	MNX 95	MNX 110	MNX 110	MN 12	66 - 110	HN, 0	200	FN 200 / FNX 200
170	125	207	119.5	MNX 95	MNX 140	MNX 140	MN 12	90 - 150	HN, 1	250	FN 250 / FNX 250
180	132	226	130.5	MNX 110	MNX 140	MNX 140	MN 12	90 - 150	HN, 1	250	FN 250 / FNX 250
200	150	248	143.2	MNX 110	MNX 185	MNX 185	MN 12	135 - 225	HN, 1	250	FN 250 / FNX 250
215	160	270	155.9	MNX 140	MNX 225	MNX 225	MN 12	135 - 225	HN, 1	315	FN 315 / FNX 315
240	180	298	172.1	MNX 140	MNX 225	MNX 225	MN 12	135 - 225	HN, 1	315	FN 315 / FNX 315
270	200	336	194.0	MNX 265	MNX 265	MNX 265	MN 12	135 - 225	HN, 2	400	FN 400 / FNX 400
300	225	360	207.9	MNX 265	MNX 265	MNX 265	MN 12	135 - 225	HN, 2	400	FN 400 / FNX 400
335	250	420	242.5	MNX 265	MNX 325	MNX 325	MN 12	180 - 300	HN, 3	500	FN 630 / FNX 630
370	275	440	254.0	MNX 265	MNX 325	MNX 325	MN 12	180 - 300	HN, 3	500	FN 630 / FNX 630
425	315	529	305.4	MNX 325	MNX 550	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630
452	335	550	317.6	MNX 400	MNX 550	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630
475	355	589	340.1	MNX 400	MNX 550	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630
502	375	615	355.1	MNX 400	MNX 550	MNX 550	MN 12	270 - 450	HN, 3	630	FN 630 / FNX 630

* : Only size '000' fuses to be used with FNX 100 S-D-F.

: Only size '00' fuses to be used with FNX 160 S-D-F.



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- Type tested indoor MV Panel upto 36 kV system voltage
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- Metal clad, fully compartmentalised panel
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Controlgear	MVX - Vacuum Contactors
	MPX Capacitor Duty Contactors
	MNX - G MPCBs
	ML 0/1 Contactors
	MNX R - Relays
	MN Spares
Changeover Switches	FGC 125A - 1000A, FG 63
MCCB	dsine MCCBs with RC5 Release
	DTH 250/400
	DN2 MM (Direct Drive)
	DN3 MM (Direct Drive)
Capacitors	LTCCS Standard Duty Capacitors

[illegible]

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Prices are subject to revision without notice.

Warranty Policy

All the products listed in the price list carry a warranty, against manufacturing defects for a period of 18* months from the date of purchase.

Should the product prove to be defective due to faulty workmanship or otherwise, we will remedy the defect or replace the faulty parts or the whole product at our discretion, as soon as possible, free of cost.

The warranty is however subject to the provision of proper usage, efficient maintenance and does not cover defects arising out of fire, accident, inefficient maintenance, faulty operation and willful or accidental damage. It also does not cover damage to power electronic components like thyristors & IGBTs, which fail predominantly due to over-temperature & over-voltage. The user needs to take adequate precautions to eliminate these conditions. The manufacturer shall not be liable for any consequential loss, injury or damages attributable to defect or failure of its products.

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- Preventive Maintenance Programme
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- Annual Maintenance Contract
- Product Support for Managing Obsolescence - Retrofitting & Upgradation of your switchgear products.

* Proof of purchase to be retained to avail warranty

A full-page photograph of a runner in a red shirt and blue cap running on a paved road that winds through rolling green hills under a clear blue sky. The headline 'We Go The Extra Mile' is overlaid in white text on the left side of the image.

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Larsen & Toubro has a reputation for going the extra mile - in the range and quality of its products and systems, in the standards of service it has set and in the value it delivers to its customers.

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And it means that right from product selection to post sales customer support - our engineers are for all practical purposes, your partners. Yes, the extra mile goes a long way.

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