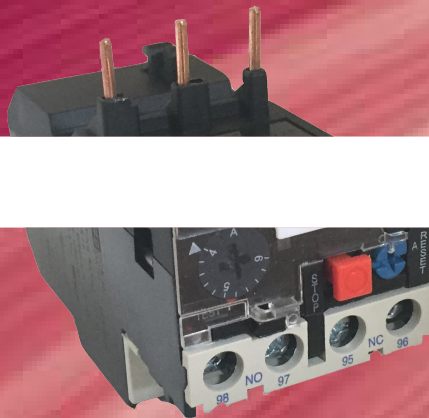
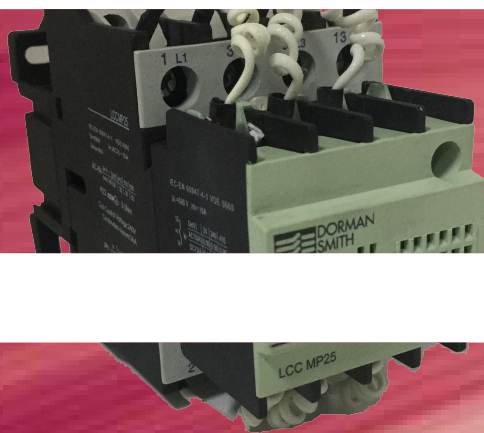
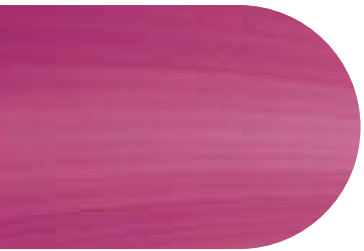


Loadlimiter

Low Voltage M frame Power
& Mini contactor





Dorman Smith Switchgear Limited

With over 130 years of experience in switchgear design and production Dorman Smith Switchgear Limited continues to provide high quality equipment for low-voltage electrical distribution and circuit protection.

Our product range begins with single-pole and neutral distribution board systems and continues up to custom designed, factory built low-voltage electrical switchboards for a broad range of commercial, industrial and retrofit applications.

The Dorman Smith contactor range includes a wide and versatile range of Low voltage contactor & thermal overload relay designs to controls Motor from 9A to 780A.

We continue to build on our extensive technical knowledge and awareness of customer and market demands, operating conditions and current regulations.

This breadth of experience supports the development and manufacturing techniques of our electrical products to exceed the industry standards.

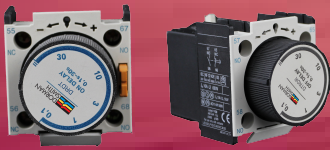


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Capactor Contactor	9
Thermal overload relay	10
Accessories	13
Motor Protection circuit breaker	17

Pneumatic timer

Pneumatic timer block
ON / OFF delay



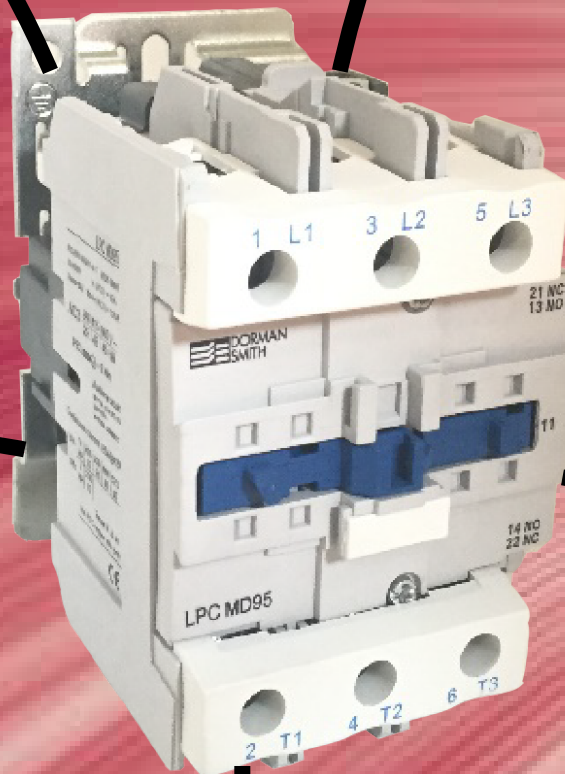
Mechanical Interlock

Mechanical interlock is used to
interlock two contactors.



Front Mount

Side Mount



Auxiliary contacts

Front Mounted Auxiliary contacts
for additional NO/NC contacts
requirements



Auxiliary contacts

Side Mounted Auxiliary contacts
for additional NO/NC contacts
requirements.



Thermal Overload

Protection against overload
& single phasing



Mini Motor Contactor

Key Features

- Complies to the requirements of IEC 60947-1, IEC 60947-4 and VDE-0660
- Mini Contactors are suitable for switching and control of three-Phase motor and other a.c loads
- suitable for 35mm Din rail mounting.
- Snap-on Auxiliary contact front and side Mounting.
- Number of auxiliary contacts can be extended up to 4.
- Snap-on Mechanical interlocking facilities available in Mini Motor contactor.
- Other control voltage are available



MINI MOTOR CONTACTORS TYPE MK - AC POWER/ AC CONTROL VOLTAGE - IEC/EN 60947-1, IEC/EN 60947-4														
Model	Frame	Max. Ratings of three-phase motor at 50Hz/60Hz				Rated Operational current Ie/AC-3 at 415V (A)	Rated Operational current Ie/AC-1 at 415V (A)	Main Contact Poles	Standard Cont Voltage	Poles		In built Auxiliary Contacts		Dorman Smith Code
		At 240V (kW)	At 415V (kW)	At 440V (kW)	At 660V (kW)					NO	NC	NO	NC	
MK6	FO	1.5	2.2	2.2	3	6	16	3P/4P	240V AC	3	0	1	0	DOS-LPC/MK6/X/3/30/10/5
										3	0	0	1	DOS-LPC/MK6/X/3/30/01/5
										4	0	0	0	DOS-LPC/MK6/X/3/40/00/5
										2	2	0	0	DOS-LPC/MK6/X/3/22/00/5
MK9		2.2	4	4	4	9	16	3P/4P	240V AC	3	0	1	0	DOS-LPC/MK9/X/3/30/10/5
										3	0	0	1	DOS-LPC/MK9/X/3/30/01/5
										4	0	0	0	DOS-LPC/MK9/X/3/40/00/5
										2	2	0	0	DOS-LPC/MK9/X/3/22/00/5
MK12		3	5.5	5.5	5.5	12	20	3P/4P	240V AC	3	0	1	0	DOS-LPC/MK12/X/3/30/10/5
										3	0	0	1	DOS-LPC/MK12/X/3/30/01/5
										4	0	0	0	DOS-LPC/MK12/X/3/40/00/5
										2	2	0	0	DOS-LPC/MK12/X/3/22/00/5

X - refer coil selection table

Ordering code						
<u>LPC/MK6/X/3/30/10/5</u>						
1	2	3	4	5	6	7
7	: 5-50HZ & 6-60HZ					
6	: NO-NC (Built In)-- 0-Not Available					
5	: No. Of Main poles					
4	: No. Of Phase					
3	: Coil Voltage - Refer the coil voltage selection table					
2	: Type & Rated current @ AC3					
1	: Loadlimiter Mini contactor					

Control Coil Voltage selection table

Coil Voltage	24	36	48	110	127	220	230	240	380	415	440	480
50Hz	1	4	3	5	6	7	8	2	9	10	11	12
60Hz	1H	4H	3H	5H	6H	7H	8H	2H	9H	10H	11H	12H

50/60 Hz Contact Dorman Smith

Motor Contactor

Key Features



- Complies to the requirements of IEC 60947-1, IEC 60947-4 and VDE-0660
- MD Frame Contactors are suitable for switching and control of three-Phase motor and other a.c loads
- MD9-MD95 suitable for 35mm Din rail mounting.
- Snap-on Auxiliary contact front and side Mounting
- Snap-on Mechanical interlocking facilities available in MD Frame Motor contactor
- Number of auxiliary contacts can be extended up to 5 for MD09-MD32 & 6 Contacts for MD40-MD95 (see Accessories page)

MOTOR CONTACTORS TYPE MD - AC POWER/ AC CONTROL VOLTAGE - IEC/EN 60947-1, IEC/EN 60947-4																
Model	Frame	Max. Ratings of three-phase motor at 50Hz/60Hz				Rated Operational current I _e /AC-3 at 415V (A)	Rated Operational current I _e /AC-1 at 415V (A)	Main Contact Poles	Standard Contl Voltage	Poles		In built Auxiliary Contacts		Dorman Smith code	MOQ	Unit Price
		At 240V (kW)	At 415V (kW)	At 440V (kW)	At 660V (kW)					NO	NC	NO	NC			
MD9	F1	2.2	4	4	5.5	9	20	3P/4P	240V AC	3	0	1	0	DOS-LPC/MD9/X/3/30/10/5	300	
										3	0	0	1	DOS-LPC/MD9/X/3/30/01/5	300	
										4	0	0	0	DOS-LPC/MD9/X/3/40/00/5	300	
										2	2	0	0	DOS-LPC/MD9/X/3/22/00/5	300	
MD12		3	5.5	5.5	7.5	12	20	3P/4P	240V AC	3	0	1	0	DOS-LPC/MD12/X/3/30/10/5	300	
										3	0	0	1	DOS-LPC/MD12/X/3/30/01/5	300	
										4	0	0	0	DOS-LPC/MD12/X/3/40/00/5	300	
										2	2	0	0	DOS-LPC/MD12/X/3/22/00/5	300	
MD18		4	9	9	10	18	32	3P	240V AC	3	0	1	0	DOS-LPC/MD18/X/3/30/10/5	300	
										3	0	0	1	DOS-LPC/MD18/X/3/30/01/5	300	
MD25		5.5	11	11	15	25	40	3P/4P	240V AC	3	0	1	0	DOS-LPC/MD25/X/3/30/10/5	300	
										3	0	0	1	DOS-LPC/MD25/X/3/30/01/5	300	
	4									0	0	0	DOS-LPC/MD25/X/3/40/00/5	300		
	2									2	0	0	DOS-LPC/MD25/X/3/22/00/5	300		
MD32	7.5	15	15	18.5	32	50	3P	240V AC	3	0	1	0	DOS-LPC/MD32/X/3/30/10/5	300		
									3	0	0	1	DOS-LPC/MD32/X/3/30/01/5	300		
MD40	11	22	22	30	40	60	3P/4P	240VAC	3	0	1	1	DOS-LPC/MD40/X/3/30/11/5	200		
									4	0	0	0	DOS-LPC/MD40/X/3/40/00/5	200		
									2	2	0	0	DOS-LPC/MD40/X/3/22/00/5	200		
									3	0	1	1	DOS-LPC/MD50/X/3/30/11/5	200		
MD50	15	25	30	33	50	80	3P/4P	240VAC	4	0	0	0	DOS-LPC/MD50/X/3/40/00/5	200		
									2	2	0	0	DOS-LPC/MD50/X/3/22/00/5	200		
									3	0	1	1	DOS-LPC/MD65/X/3/30/11/5	200		
									4	0	0	0	DOS-LPC/MD65/X/3/40/00/5	200		
MD65	18.5	37	37	37	65	80	3P/4P	240VAC	2	2	0	0	DOS-LPC/MD65/X/3/22/00/5	200		
									3	0	1	1	DOS-LPC/MD80/X/3/30/11/5	80		
									4	0	0	0	DOS-LPC/MD80/X/3/40/00/5	80		
									2	2	0	0	DOS-LPC/MD80/X/3/22/00/5	80		
MD80	22	45	45	45	80A	110A	3P/4P	240VAC	3	0	1	1	DOS-LPC/MD95/X/3/30/11/5	80		
									4	0	0	0	DOS-LPC/MD95/X/3/40/00/5	80		
									2	2	0	0	DOS-LPC/MD95/X/3/22/00/5	80		
									2	2	0	0	DOS-LPC/MD95/X/3/22/00/5	80		

Motor Contactor

MOTOR CONTACTORS TYPE MD - AC POWER/ AC CONTROL VOLTAGE - IEC/EN 60947-1, IEC/EN 60947-4																	
Model	Frame	Max. Ratings of three-phase motor at 50Hz/60Hz				Rated Operational current Ie/AC-3 at 415V (A)	Rated Operational current Ie/AC-1 at 415V (A)	Main Contact Poles	Standard Cont. Voltage	Poles		In built Auxiliary Contacts		Dorman Smith Code	MOQ	Unit Price	
		At 240V (kW)	At 415V (kW)	At 440V (kW)	At 660V (kW)					NO	NC	NO	NC				
MD115	F3	30	59	59	80	115	200	3P/4P	240V AC	3	0	0	0	LPC/MD115/X/3/30/00/5	8		
										4	0	0	0	LPC/MD115/X/3/40/00/5	8		
MD150		40	80	80	100	150	250	3P/4P	240V AC	3	0	0	0	LPC/MD150/X/3/30/00/5	8		
										4	0	0	0	LPC/MD150/X/3/40/00/5	8		
MD185		55	100	100	120	185	275	3P/4P	240V AC	3	0	0	0	LPC/MD185/X/3/30/00/5	8		
										4	0	0	0	LPC/MD185/X/3/40/00/5	8		
MD225		63	110	110	129	225	315	3P/4P	240V AC	3	0	0	0	LPC/MD225/X/3/30/00/5	8		
										4	0	0	0	LPC/MD225/X/3/40/00/5	8		
MD265		75	140	140	180	265	350	3P/4P	240V AC	3	0	0	0	LPC/MD265/X/3/30/00/5	8		
										4	0	0	0	LPC/MD265/X/3/40/00/5	8		
MD330		100	180	180	220	330	400	3P/4P	240V AC	3	0	0	0	LPC/MD330/X/3/30/00/5	8		
										4	0	0	0	LPC/MD330/X/3/40/00/5	8		
MD400	F4	129	220	220	280	400	500	3P/4P	240V AC	3	0	0	0	LPC/MD400/X/3/30/00/5	4		
										4	0	0	0	LPC/MD400/X/3/40/00/5	4		
MD500		147	280	280	355	500	700	3P/4P	240V AC	3	0	0	0	LPC/MD500/X/3/30/00/5	4		
										4	0	0	0	LPC/MD500/X/3/40/00/5	4		
MD630		F5	200	375	375	450	630	900	3P/4P	240V AC	3	0	0	0	LPC/MD630/X/3/30/00/5	4	
											4	0	0	0	LPC/MD630/X/3/40/00/5	4	
MD780	220		425	425	475	780	1600	3P/4P	240V AC	3	0	0	0	LPC/MD780/X/3/30/00/5	2		
										4	0	0	0	LPC/MD780/X/3/40/00/5	2		

X - refer coil voltage selection table

Ordering code						
LPC/MD9/X/3/30/10/5						
1	2	3	4	5	6	7
7	:	5-50HZ & 6-60HZ				
6	:	NO-NC (Built In)-- 0-Not Available				
5	:	No. Of Main poles				
4	:	No. Of Phase				
3	:	Coil Voltage - Refer the coil voltage selection table				
2	:	Frame & Rated current @ AC3				
1	:	Loadlimiter Motor contactor				

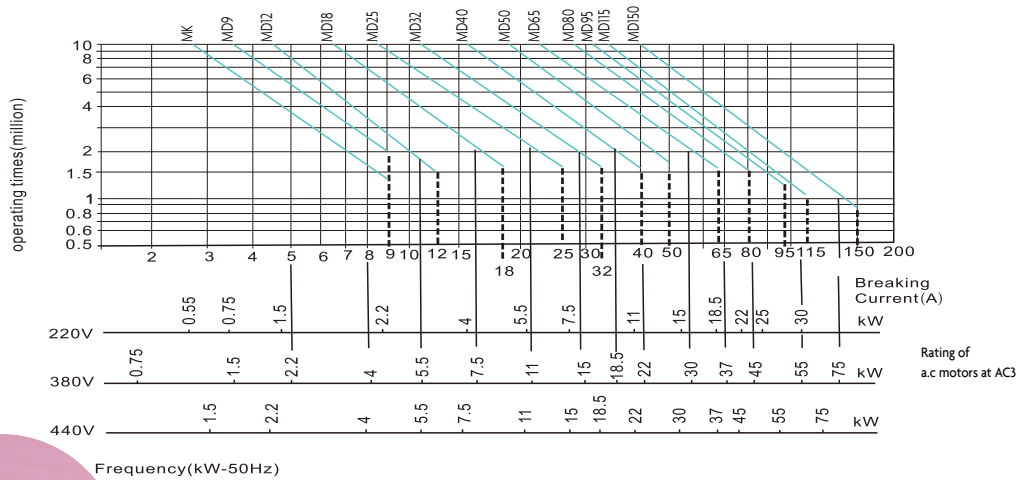
Control Coil Voltage selection table

Coil Voltage	24	36	48	110	127	220	230	240	380	415	440	480
50Hz	1	4	3	5	6	7	8	2	9	10	11	12
60Hz	1H	4H	3H	5H	6H	7H	8H	2H	9H	10H	11H	12H

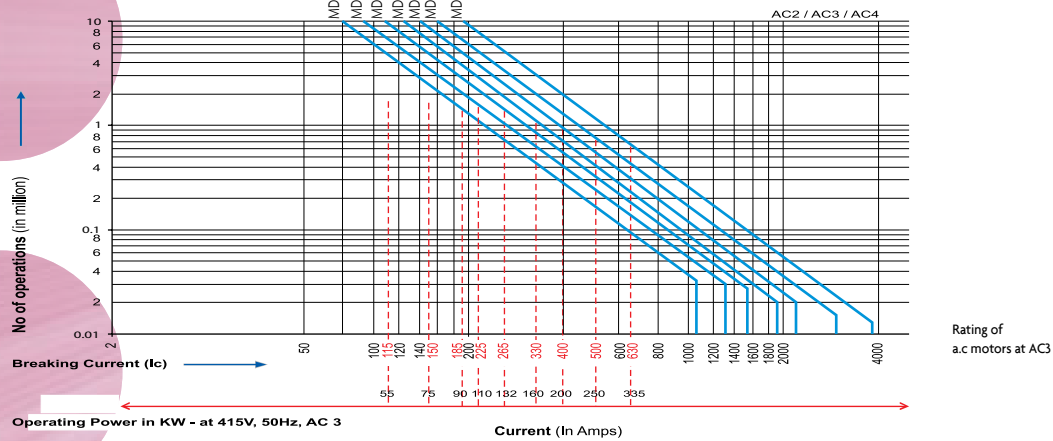
50/60Hz contact Dorman Smith

Electrical endurance curve MD series contactor

9A-150A

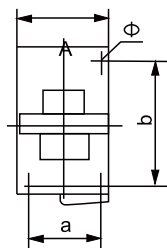
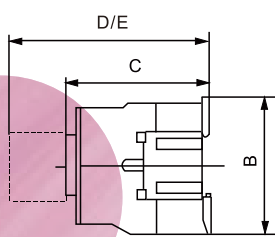


180A-630A

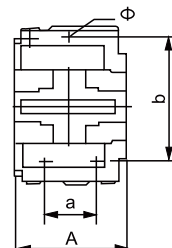
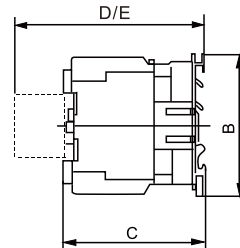


Dimension Details

MD9 - MD32



MD40 - MD95



DIMENSION DETAILS

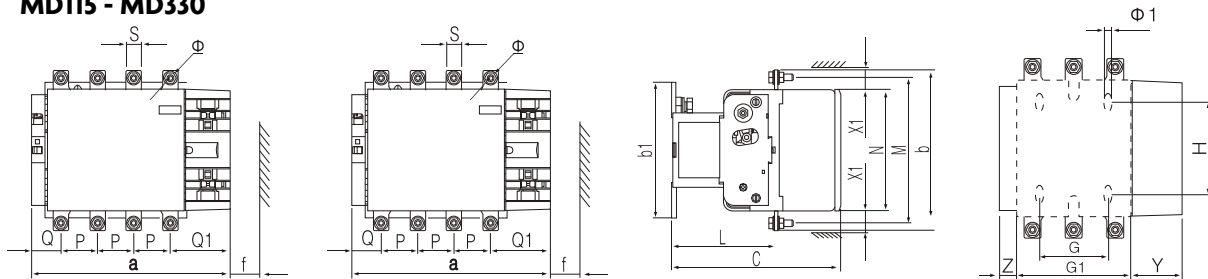
	Type	A max	B max	C max	D max	E max	a	b	φ
3P	MD9-MD12	47	76	82	113	133	34/35	50/60	2-φ4.5
	MD18	47	76	87	118	138	34/35	50/60	2-φ4.5
	MD25	57	86	95	126	146	40	48	2-φ4.5
	MD32	57	86	100	131	151	40	48	2-φ4.5
	MD40-MD65	77	129	116	145	165	40	100/110	3-φ6.5
4P	MD80-MD95	87	129	127	156	176	40	100/110	3-φ6.5
	MD9-MD12-4P	47	76	82	113	133	34/35	50/60	2-φ4.5
	MD25-4P	57	86	95	126	146	40	48	2-φ4.5
	MD40-4P	86	129	116	145	165	40	100/110	3-φ6.5
	MD80-4P	97	129	129	156	176	40	100/110	3-φ6.5

D - with front add on block

E - with Pneumatic timer

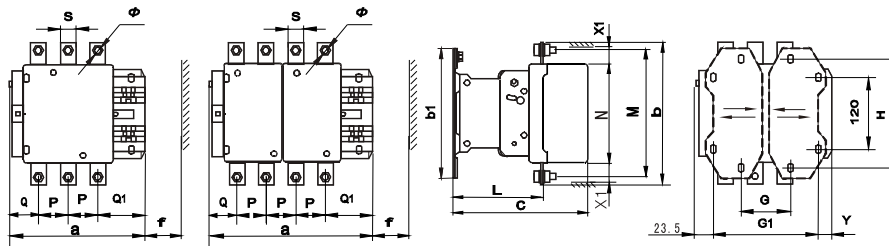
Dimension Details

MD115 - MD330



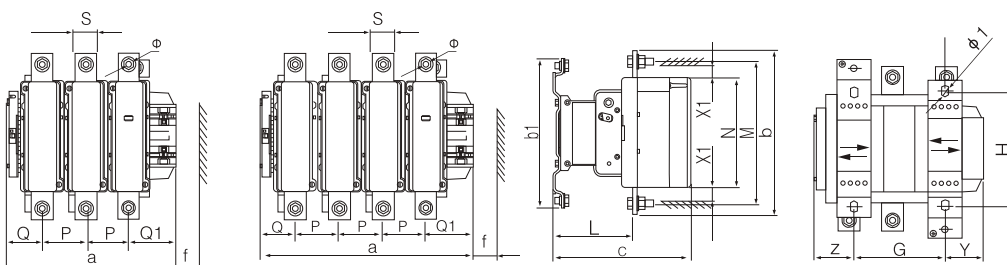
Type	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	H	φ1	G1	Z	Y	X1	
																				500V≤	≥500V
MD115-3P	163.5	37	29.5	60	15	M6	131	162	137	147	124	171	107	80	120-106	6.5	106	13.5	44	10	15
MD115-4P	200.5	37	29.5	60	15	M6	131	162	137	147	124	171	107	80	120-106	6.5	143	13.5	44	10	15
MD150-3P	163.5	40	26	57.5	20	M8	131	170	137	150	124	171	107	80	120-106	6.5	106	13.5	44	10	15
MD150-4P	200.5	40	25	55.5	20	M8	131	170	137	150	124	171	107	80	120-106	6.5	143	13.5	44	10	15
MD185-3P	168.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	111	13.5	44	10	15
MD185-4P	208.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	151	13.5	44	10	15
MD225-3P	168.5	48	21	51.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	111	13.5	44	10	15
MD225-4P	208.5	48	17	47.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	151	20.5	44	10	15
MD265-3P	201.5	48	39	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	140	20.5	38	10	15
MD265-4P	244.5	48	34	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	186	20.5	38	10	15
MD330-3P	213	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	154.5	20.5	38	10	15
MD330-4P	261	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	202.5	20.5	38	10	15

MD400 - MD500



Type	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	G1	H	φ1	Y	X1	
																			500V≤	≥500V
MD400-3P	213	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-102)	170(156-192)	180	8.8	19.5	15	20
MD400-4P	261	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-150)	170(156-240)	180	8.5	67.5	15	20
MD500-3P	233	50	46	77	30	M10	169	238	209	208	172	232	146	80(66-120)	170(156-210)	180	8.5	39.5	15	20
MD500-4P	288	50	46	77	30	M10	169	238	209	208	172	232	146	140(66-175)	170(156-265)	180	8.5	39.5	15	20

MD600 - MD800



Type	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	H	φ1	Z	Y	X1	
																			500V≤	≥500V
MD630-3P	309	80	60	89	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25
MD6304-4P	309	80	60	89	40	M12	201	304	280	264	202	255	155	240(150-275)	185	10.5	60.5	68.5	20	25
MD800-3P	309	80	60	89	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25

DC Motor Contactor



Key Features

- Complies to the requirements of IEC 60947-1, IEC 60947-4 and VDE-0660
- LDC/MD Frame Contactors are suitable for switching and control of three-Phase motor and other a.c loads with DC coil.
- N9-N95 suitable for 35mm Din rail mounting.
- Snap-on Auxillary contact front and side Mounting.
- Snap-on Mechanical interlocking facilities available in MD Frame Motor contactor.
- Number of auxiliary contacts can be extended up to 5 for LDC/MD09-LDC/MD32 & 6 Contacts for LDC/MD40-LDC/MD95 (see Accessories page)

MOTOR CONTACTORS TYPE LDC - AC POWER/ DC CONTROL VOLTAGE - IEC/EN 60947-1, IEC/EN 60947-4

Model	Frame	Max. Ratings of three-phase motor at 50Hz/60Hz				Rated Operational current Ie/AC-3 at 415V (A)	Rated Operational current Ie/AC-1 at 415V (A)	Main Contact Poles	Standard Contl Voltage	Poles		In built Auxiliary Contacts		Dorman Smith Code	MOQ	Unit Price
		At 240V (kW)	At 415V (kW)	At 440V (kW)	At 660V (kW)					NO	NC	NO	NC			
MD9	MD	2.2	4	4	5.5	9	20	3P/4P	240V AC	3	0	1	0	LDC/MD9/X/3/30/10/5	300	
										3	0	0	1	LDC/MD9/X/3/30/01/5	300	
MD12		3	5.5	5.5	7.5	12	20	3P/4P	240V AC	3	0	1	0	LDC/MD12/X/3/30/10/5	300	
										3	0	0	1	LDC/MD12/X/3/30/01/5	300	
MD18		4	9	9	10	18	32	3P	240V AC	3	0	1	0	LDC/MD18/X/3/30/10/5	300	
										3	0	0	1	LDC/MD18/X/3/30/01/5	300	
MD25		5.5	11	11	15	25	40	3P/4P	240V AC	3	0	1	0	LDC/MD25/X/3/30/10/5	300	
										3	0	0	1	LDC/MD25/X/3/30/01/5	300	
MD32		7.5	15	15	18.5	32	50	3P	240V AC	3	0	1	0	LDC/MD32/X/3/30/10/5	300	
										3	0	0	1	LDC/MD32/X/3/30/01/5	300	
MD40		11	22	22	30	40	60	3P/4P	240VAC	3	0	1	1	LDC/MD40/X/3/30/11/5	300	
MD50	15	25	30	33	50	80	3P/4P	240VAC	3	0	1	1	LDC/MD50/X/3/30/11/5	300		
MD65	18.5	37	37	37	65	80	3P/4P	240VAC	3	0	1	1	LDC/MD65/X/3/30/11/5	300		
MD80	22	45	45	45	80	110	3P/4P	240VAC	3	0	1	1	LDC/MD80/X/3/30/11/5	300		
MD95	25	45	45	45	95	125	3P/4P	240VAC	3	0	1	1	LDC/MD95/X/3/30/11/5	300		

Ordering code

LDC/MD9/X/3/30/10/5
1 2 3 4 5 6 7

7	: 5-50HZ & 6-60HZ
6	: NO-NC (Built In)-- 0-Not Available
5	: No. Of Main poles
4	: No. Of Phase
3	: Coil Voltage - Refer the coil voltage selection table
2	: Frame & Rated current @ AC3
1	: Loadlimiter DC Motor contactor

X - refer coil selection table

Control Coil Voltage selection table

Coil Voltage	24	48	110	220
Code	1	3	4	2

Capacitor Contactor

Key Features

- Complies to the requirements of IEC 60947-1, IEC 60947-4 and VDE-0660
- Built in Auxiliary contact
- Early making Auxiliary contacts in series with quick discharge damping resistors.
- Utilization category - AC-6b



CONTACTORS FOR CAPACITOR SWITCHING TYPE MK - IEC/EN 60947-1, IEC/EN 60947-4												
Model	Frame	Capacitor Rating at Operating Voltage 50Hz			Ith (A) 400V/50Hz	Main Contact Poles	Standard Contl Voltage	Auxiliary Contacts		Dorman Smith Code	MOQ	Unit Price
		At 240V (kVAr)	415/440V (kVAr)	At 660V (kVAr)				NO	NC			
MK	MK12	6.7	12.5	19	25	3P	240V AC	1	1	LCC/MK12/X/3/11/5	300	
	MK15	8.5	15	24	32		240V AC	0	2	LCC/MK15/X/3/02/5	300	
	MK20	10	20	29	43		240V AC	1	1	LCC/MK20/X/3/11/5	300	
	MK25	15	25	36	50		240V AC	0	2	LCC/MK25/X/3/02/5	300	
	MK30	20	30	48	63		240V AC	1	2	LCC/MK30/X/3/12/5	300	
	MK40	25	40	58	80		240V AC	1	2	LCC/MK40/X/3/12/5	300	
	MK45		45	95	95		240V AC	1	2	LCC/MK45/X/3/12/5	300	
	MK60	40	60	92	125		240V AC	1	2	LCC/MK60/X/3/12/5	300	

X - refer coil voltage selection table

Ordering code					
<u>LCC/MK12/2/3/10/5</u>					
1	2	3	4	5	6
6	:	5-50HZ & 6-60HZ			
5	:	No. Of NC			
4	:	No. Of Phase			
3	:	Coil Voltage - 240V AC			
2	:	Frame & Rated current @ AC 6b			
1	:	Loadlimiter Capacitor switching contactor			

Control Coil Voltage selection table

Coil Voltage	24	48	110	220	240	380	415
Code	1	3	5	7	2	9	10

Thermal overload relay



Key Features

- Complies to the requirements of EN/IEC 60947-4-1 and VDE-0660
- Loadlimiter Thermal overload relays are electromechanical device provides protection against overload and phase failure.
- Three pole relay with bimetal tripping elements
- Auto/Manual reset facility.
- 1NO+1NC auxiliary contact
- Economical overload protection relay up to 95A Contactor and reliable Electronic overload protection relays above 95A-630A
- Trip Indication

MOTOR CONTACTORS TYPE MK - AC POWER/ DC CONTROL VOLTAGE - IEC/EN 60947-1, IEC/EN 60947-4

Model	Frame	Current Rating (A)	Suitable	Auxiliary Contacts		Dorman Smith Code	MOQ	Unit Price
				NO	NC			
MD25	25	0.1 To 0.16	Suitable for MD9	1	1	DOS-LOR/MD25/0.1-0.16	300	
		0.16 To 0.25		1	1	DOS-LOR/MD25/0.16-0.25	300	
		0.25 To 0.4		1	1	DOS-LOR/MD25/0.25-0.4	300	
		0.4 To 0.63		1	1	DOS-LOR/MD25/0.4-0.63	300	
		0.63 To 1.0		1	1	DOS-LOR/MD25/0.63-1	300	
		1.0 To 1.6		1	1	DOS-LOR/MD25/1.0-1.6	300	
		1.25 To 2.0		1	1	DOS-LOR/MD25/1.25-2		
		1.6 To 2.5		1	1	DOS-LOR/MD25/1.6-2.5	300	
		2.5 To 4.0		1	1	DOS-LOR/MD25/2.5-4	300	
		4.0 To 6.0		1	1	DOS-LOR/MD25/4.0-6.0	300	
		5.5 To 8.0		1	1	DOS-LOR/MD25/5.5-8	300	
		7 To 10	Suitable for MD12	1	1	DOS-LOR/MD25/7-10	300	
		9 To 13	Suitable for MD18	1	1	DOS-LOR/MD25/9-13	300	
		12 To 18						
MD36	36	17 To 25	Suitable for MD25	1	1	DOS-LOR/MD25/17-25	300	
		22 To 33	Suitable for MD32	1	1	DOS-LOR/MD36/22-32	300	
MD95	95	28 To 36	Suitable for MD40	1	1	DOS-LOR/MD36/28-36	300	
		23 To 32	Suitable for MD32	1	1	DOS-LOR/MD95/23-32	300	
		30 To 40	Suitable for MD40	1	1	DOS-LOR/MD95/30-40	300	
		37 To 50	Suitable for MD50	1	1	DOS-LOR/MD95/37-50	#	
		48 To 65	Suitable for MD65	1	1	DOS-LOR/MD95/48-65	#	
		55 To 70	Suitable for MD80	1	1	DOS-LOR/MD95/55-70	#	
		63 To 80		1	1	DOS-LOR/MD95/63-80	#	
		80 To 93	Suitable for MD95	1	1	DOS-LOR/MD95/80-93	#	
MF220	F220	80 To 100	Suitable for MD115-MD185	1	1	DOS-LOR/MF100/80-100	#	
		100 To 160		1	1	DOS-LOR/MF150/100-160	#	
		132 To 220	Suitable for MD225-M265	1	1	DOS-LOR/MF225/225-265	#	

Ordering code

LOR/MD25/0.16-0.25

1

2

3

- 3 : Relay current setting
- 2 : Frame & upper setting range
- 1 : Loadlimiter Thermal overload Relay

- Contact Dorman Smith for MOQ

Thermal Overload relay selection chart

DOL Starting				
3 ϕ Motor Rating at 415V 50Hz.		Approx. Full Load Current	Relay Range	Backup Fuse Rating
KW	HP	Amp.	Amp.	Amp.
0.37	0.5	1.0	1-1.6	4
0.55	0.75	1.6	1.6-2.5	4
0.75	1	2.0	1.6-2.5	6
1.5	2	3.5	2.5-4.0	10
2.2	3	5.0	4-6.0	16
3	4	6.5	5.5-8.0	20
3.7	5	7.5	7-10.0	20
5.5	7.5	11.2	9.0-13	25
7.5	10	14	12-18	25
9	12.5	18	12-18/17-25	32
11	15	21	17-25	50
15	20	28.5	23-32	50
18.5	25	35	30-40	63
22	30	42	37-50	80
30	40	57	48-65	100
37	50	66	55-70	15
45	60	81	80-93	125
55	75	100	80-100	160
63	85	112	100-160	160
75	100	135	100-160	200

Star Delta Starting					
3 ϕ Motor Rating at 415V 50Hz.		Full Load Line current	Full Load phase current	Relay Range	Backup Fuse Rating
KW	HP	Amp	Amp	Amp	Amp
5.5	7.5	11	6.35	5.5-8	20
7.5	10	14.8	9	7-10	20
9.3	12.5	18	10.39	9.0-13	25
11	15	21	12.12	9.0-13	25
15	20	28	16.1	12-18	32
18.5	25	35	20.2	17-25	50
22.5	30	42	24	17-25	50
26	35	47	26.9	23-32	63
30	40	57	33	28-36	80
37	50	66	38.1	30-40	80
45	60	80	47	37-50	100
55	75	100	58	48-65	100
67	90	120	69.2	55-70	160
75	100	135	77.9	63-80	160
90	125	165	95.3	60-100	160

Dimension details (LOR-MD25/LOR-MD36/LOR-MD95/LOR-MF220)

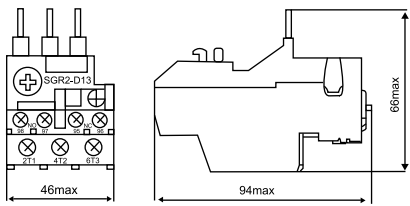


Fig 1 : LOR-MD25(0.1-25A) dimension

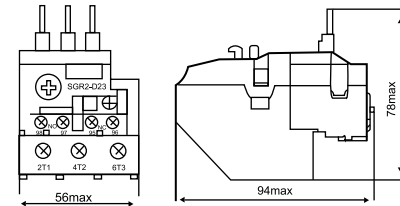


Fig 2 : LOR-MDB(22-36A) dimension

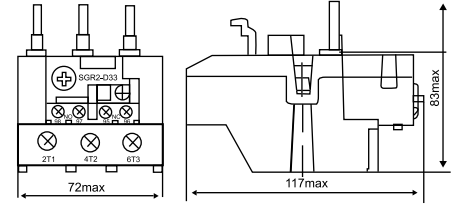
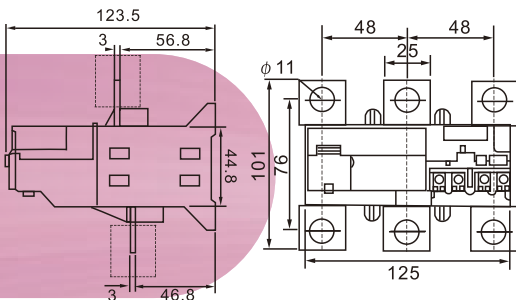
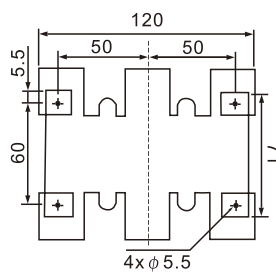


Fig 3 : LOR-MDB(23-93A) dimension

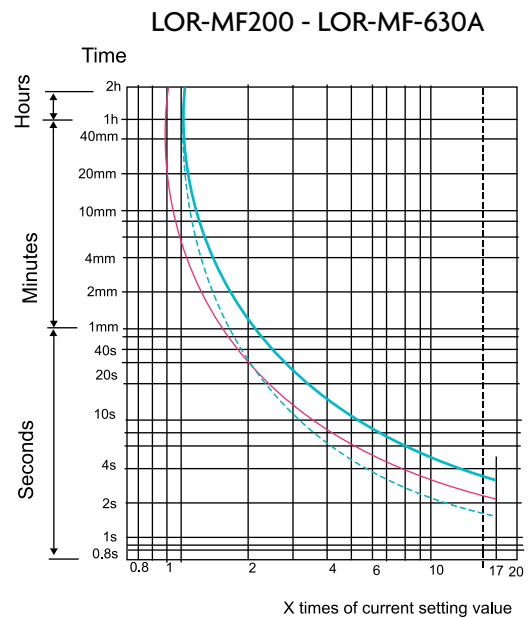
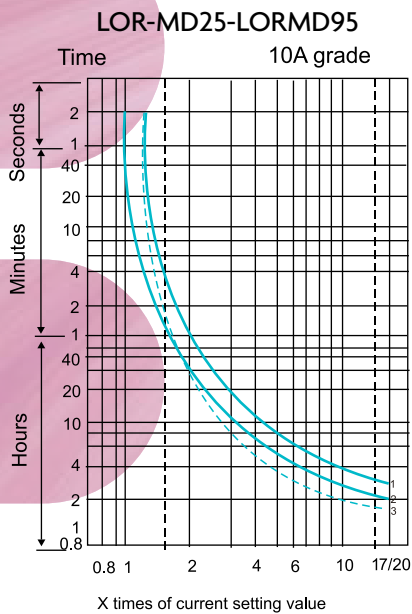


LOR-MF225(100A-265A)



LOR-MF 630(200A-630A)

Tripping curve for thermal relay



1. Equilibrium running, 3 phase, start from cold state
2. Equilibrium running, 2 phase, start from cold state
3. Equilibrium running, 3 phase, after long period of setting current (hot state)

Accessories

Auxiliary Contact Block

Key Features

- Easy fixing of auxiliary contact to contactor
- Snap-on fitting Auxiliary contact front & side Mounting
- Front mounting Auxiliary contacts reduce the installation space.
- Terminal marking as per IEC standard



ADD ON ACCESSORIES - AUXILIARY CONTACTS BLOCKS											
Model	Frame of Mounting	Rated Operational current at Ie/AC15/AC14				Suitable	Auxiliary Contacts		Dorman Smith Code	MOQ	Unit Price
		At 240V (A)	At 415V (A)	At 440V (A)	At 690V (A)		NO	NC			
Auxiliary Contact Block	Front Mount	6	3	18	1	MK6,MK9,MK12	2	2	DOS-LAC/MKP1/22	500	
	Front Mount						1	1	DOS-LAC/MKP1/11	500	
	Side Mount					MD9 to M95	1	1	DOS-LAC/MDP2/11	500	
	Side Mount						2	0	DOS-LAC/MDP2/20	500	
	Front Mount					MD9 to M780	1	0	DOS-LAC/MDP1/22	250	
	Front Mount						0	1	DOS-LAC/MDP1/01	250	
	Front Mount						2	0	DOS-LAC/MDP1/20	250	
	Front Mount						0	2	DOS-LAC/MDP1/02	250	
	Front Mount						4	0	DOS-LAC/MDP1/40	250	
	Front Mount						3	1	DOS-LAC/MDP1/31	250	
	Front Mount						2	2	DOS-LAC/MDP1/22	250	
	Front Mount						1	3	DOS-LAC/MDP1/13	250	
	Front Mount						0	4	DOS-LAC/MDP1/04	250	
	Front Mount										

Ordering code

LAC/MKP1/22

1

2

3

3 : NO/NC -Coil voltage

2 : Frame

1 : Loadlimiter auxiliary contact block



Accessories

Pneumatic Timer Block



Key Features

- Complies to the requirements of EC 60947-5-1 and VDE 0110
- Easy fixing to contactor
- Snap-on fitting on front Mounting
- Front mounting reduce the installation space.
- Time range -0.1 - 30s with Screw Terminals

ADD ON ACCESSORIES - SPARE COILS

Model	Description			Dorman Smith Code	MOQ	Unit Price
Timer	Off delay Timer--0.1 to 30 sec	0	1	DOS-LAC/TRDT	200	
	On delay Timer--0.1 to 30 sec	1	0	DOS-LAC/TRDR	200	



Ordering code

LAC/TRDT

1 2

2 : Off delay time

1 : Loadlimiter pneumatic timer block Accessories

Accessories

Mechanical Interlock

Ordering code	
<u>LAC/MMI1</u>	
1	2
2	: Off delay time
1	: Loadlimiter mechanical interlock Assecories



ADD ON ACCESSORIES - MECHANICAL INTERLOCK				
Model	Description	Dorman Smith Code	MOQ	Unit Price
Mechanical Interlock	Mechanical Interlock-suitable for MD9-MD32	DOS-LAC/MMI1	100	
	Mechanical Interlock-suitable for MD40-MD95	DOS-LAC/MMI2	100	

Spare Coils

Key Features

- Easy fixing to contactor
- AC/DC Coils

Ordering code	
<u>LAC/MK612/24A</u>	
1	2
3	: Coil voltage
2	: Mini contactor & reading
1	: Loadlimiter contactor spare coil



Accessories

Spare Coils

ADD ON ACCESSORIES - SPARE COILS						
Model	Frame	Description	Standard Contl Voltage	Dorman Smith Code	MOQ	Unit Price
Spare coils	MK	Coil for Mini-contactor -MK	24Vac	DOS-LAC/MK612/24A	500	
			48Vac	DOS-LAC/MK612/48A	500	
			110Vac	DOS-LAC/MK612/110A	500	
			220Vac	DOS-LAC/MK612/220A	500	
			230Vac	DOS-LAC/MK612/230A	500	
			240Vac	DOS-LAC/MK612/240A	500	
			380Vac	DOS-LAC/MK612/380A	500	
			400Vac	DOS-LAC/MK612/400A	500	
			415Vac	DOS-LAC/MK612/415A	500	
			440Vac	DOS-LAC/MK612/440A	500	
Spare coils		Coil for AC Contactor - MD9 to MD18	24Vac	DOS-LAC/MD918/24A	500	
			48Vac	DOS-LAC/MD918/48A	500	
			110Vac	DOS-LAC/MD918/110A	500	
			220Vac	DOS-LAC/MD918/220A	500	
			230Vac	DOS-LAC/MD918/230A	500	
			240Vac	DOS-LAC/MD918/240A	500	
			380Vac	DOS-LAC/MD918/380A	500	
			400Vac	DOS-LAC/MD918/400A	500	
			415Vac	DOS-LAC/MD918/415A	500	
			440Vac	DOS-LAC/MD918/440A	500	
	MD	Coil for AC Contactor - MD25 to MD32	24Vac	DOS-LAC/MD2532/24A	500	
			48Vac	DOS-LAC/MD2532/48A	500	
			110Vac	DOS-LAC/MD2532/110A	500	
			220Vac	DOS-LAC/MD2532/220A	500	
			230Vac	DOS-LAC/MD2532/230A	500	
			240Vac	DOS-LAC/MD2532/240A	500	
			380Vac	DOS-LAC/MD2532/380A	500	
			400Vac	DOS-LAC/MD2532/400A	500	
			415Vac	DOS-LAC/MD2532/415A	500	
			440Vac	DOS-LAC/MD2532/440A	500	
	Coil for AC Contactor - MD40 to MD95	24Vac	DOS-LAC/MD4095/24A	500		
		48Vac	DOS-LAC/MD4095/48A	500		
		110Vac	DOS-LAC/MD4095/110A	500		
		220Vac	DOS-LAC/MD4095/220A	500		
		230Vac	DOS-LAC/MD4095/230A	500		
		240Vac	DOS-LAC/MD4095/240A	500		
		380Vac	DOS-LAC/MD4095/380A	500		
		400Vac	DOS-LAC/MD4095/400A	500		
		415Vac	DOS-LAC/MD4095/415A	500		
		440Vac	DOS-LAC/MD4095/440A	500		

Motor Protection Circuit Breaker

Key Features

- Complies to the requirements of IEC 60947-2, IEC 60947-4-1
- Motor Protection Circuit Breakers are three pole Thermal-Magnetic circuit breakers.
- suitable for 35mm Din rail mounting.
- Short circuit protection by Magnetic non adjustable tripping elements under 3ms
- Protection in single phasing
- provides high short circuit breaking capacity upto 100kA
- Wide range of Add on accessories
- Available in open execution / in plastic enclosure
- ON / OFF actuation is by push button



MOTOR PROTECTION CIRCUIT BREAKER- IEC/EN 60947-2, IEC/EN 60947-1-4										
Model	Frame	3-phase motor rating AC-3 duty 415 V , 50Hz				Thermal Current Settin g range	Magnetic tripping current	Dorman Smith Code	MOQ	Unit Price
		kW	HP	Icu KA	ICS (%)	A	A			
MPCB	1	0.02	-	100	100	0.1 - 0.16	1.5	LMPCB/M016	50	
		0.06	-	100	100	0.16 - 0.25	2.4	LMPCB/M025	50	
		0.09	-	100	100	0.25 - 0.40	5	LMPCB/M04	50	
		0.12	-	100	100	0.40 - 0.63	8	LMPCB/M063	50	
		0.25	0.33	100	100	0.63 - 1	13	LMPCB/M1	50	
		0.37	0.5	100	100	1 - 1.6	22.5	LMPCB/M2	50	
		0.75	1	100	100	1.6 - 2.5	33.5	LMPCB/M25	50	
		1.1	1.5	100	100	2.5 - 4	51	LMPCB/M4	50	
		2.2	3	100	100	4 - 6.3	78	LMPCB/M6	50	
		3	4.02	100	100	6-10	138	LMPCB/M10	50	
		5.5	7.5	15	50	9 - 14	170	LMPCB/M14	50	
		7.5	10	15	50	13 - 18	223	LMPCB/M18	50	
		9	12.5	15	40	17 - 23	327	LMPCB/M23	50	
		11	17.5	15	40	20 - 25	327	LMPCB/M25	50	
15	20	10	50	24 - 32	416	LMPCB/M32	50			

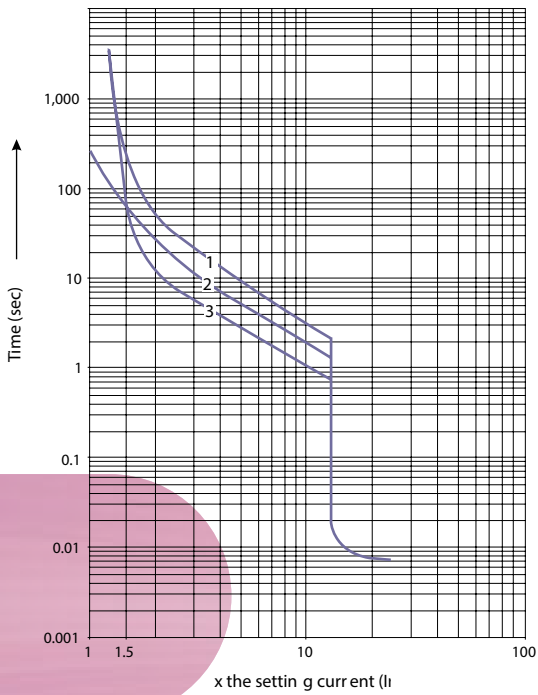
Ordering code

LMPCB/M016

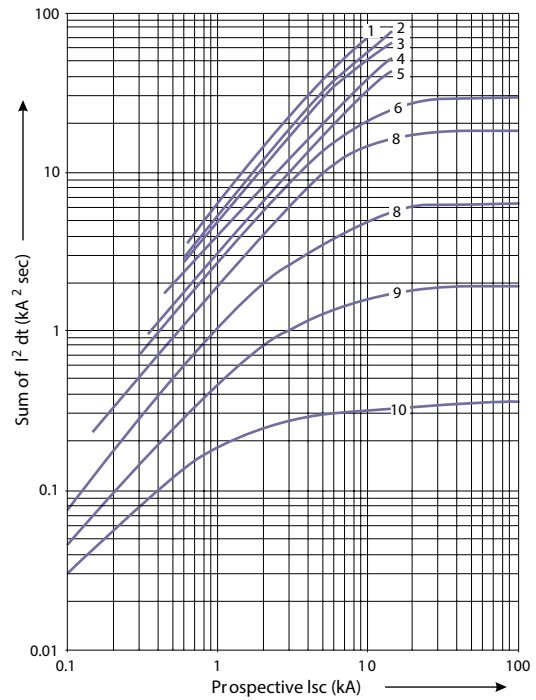
1 2

2 : Type & Rating

1 : Loadlimiter Motor protection circuit breaker



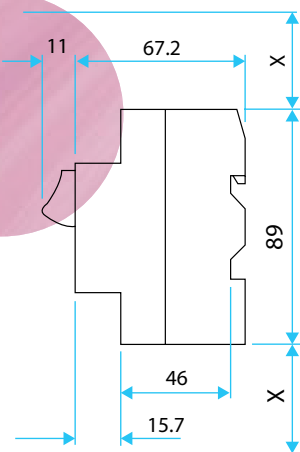
- 1) 3 poles from cold state
- 2) 2 poles from cold state
- 3) 3 poles from hot state



Sum of $I^2 dt = f(\text{prospective } I_{sc}) \text{ at } 1.05 U_e = 435 \text{ V}$

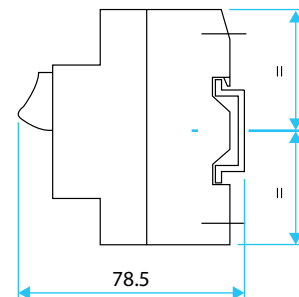
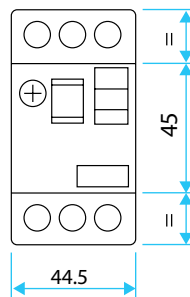
- (1) 24 - 32 A
- (2) 20 - 25 A
- (3) 17 - 23 A
- (4) 13 - 18 A
- (5) 9 - 14 A
- (6) 6 - 10 A
- (7) 4 - 6.3 A
- (8) 2.5 - 4 A
- (9) 1.6 - 2.5 A
- (10) 1 - 1.6 A

Dimension (in mm)



X - Electrical clearance = 40 mm

Standard screw mounting



Mounting on (35 x 7.5) Din rail

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