

Manual Motor Starters




Series MU25



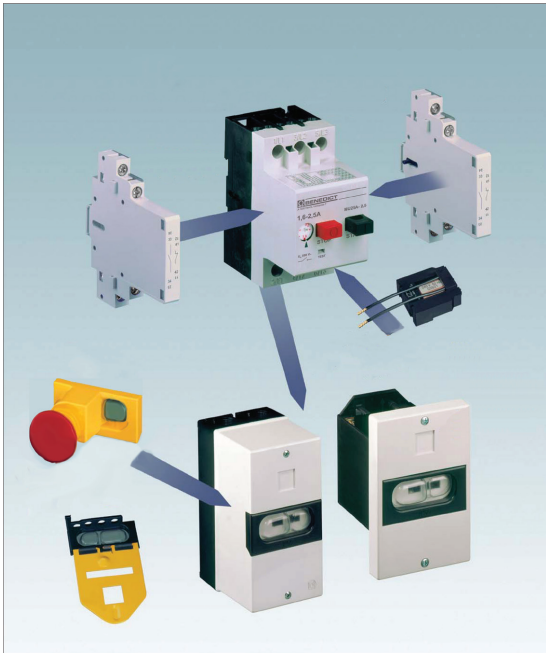
Thermal Overload Release Setting Range A	Ratings AC3 at 400V kW	690V kW	Magnetic short circuit trip A	Type	Pack pcs.	Weight kg/pc.
0,16 - 0,25	0,06	0,12	3,75	MU25-0,25	1	0,2
0,25 - 0,4	0,09	0,18	6	MU25-0,4	1	0,25
0,4 - 0,63	0,12	0,25	7,45	MU25-0,63	1	0,2
0,63 - 1	0,25	0,55		MU25-1	1	0,25
1 - 1,6	0,55	1,1	24	MU25-1,6	1	0,25
1,6 - 2,5	0,75	1,5	37,50	MU25-2,5	1	0,25
2,5 - 4	1,5	3	60	MU25-4	1	0,2
4 - 6,3	2,5	4	94,50	MU25-6,3	1	0,2
6,3 - 10	4	7,5	150	MU25-10	1	0,25
10 - 16	7	11		MU25-16	1	0,25
16 - 20		12	300	MU25-20	1	0,25
20 - 25	12,5	22		MU25-25	1	0,25
25 - 32	15		480	MU25-32	1	0,2

Auxiliary Contact Blocks, for side mounting, max. 2 pieces



Contacts	Rated Operational Current AC15 230V A	400V A	500V AC1 A	Type	Pack pcs.	Weight kg/pc.
   NO NC EM ¹⁾	3,5	2	6	MU25-PS11	10	0,03

System MU25



Approvals

Country	USA, Canada UL	Europe
Type		

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Shunt Release for mounting under the cover



Rated Control Voltage and Frequency V	Power Consumption		Type	Pack pcs.	Weight kg/pc.
	VA	W			
110V 50Hz, 110-120V 60Hz	2,7	1,8	MU25-A110	10	0,06
220-230V 50Hz, 240V 60Hz	2,7	1,8	MU25-A230	10	0,06

Under-voltage Release for mounting under the cover



Rated Control Voltage and Frequency V	Power Consumption		Type	Pack pcs.	Weight kg/pc.
	VA	W			
110V 50Hz, 110-120V 60Hz	2,7	1,8	MU25-U110	10	0,06
220-230V 50Hz, 240V 60Hz	2,7	1,8	MU25-U230	10	0,06
380-415V 50Hz, 440V 60Hz	2,7	1,8	MU25-U400	10	0,06

Accessories



Description	Specification	Type	Pack pcs.	Weight kg/pc.
Busbar Connector Fully Isolated, Ui 690V, Iu 63A				
Busbar	for 2 units, 99mm long	MU25A-D99	10	0,036
Busbar	for 3 units, 154mm long	MU25A-D154	10	0,060
Busbar	for 4 units, 208mm long	MU25A-D208	10	0,084
Busbar	for 5 units, 262mm long	MU25A-D262	10	0,107
Supply Block	3-pole for use with busbar connector	MU25A-DB	10	0,034
Spacing piece 1/2TE	for ambient temperature >40°C	P730	10	0,013
Enclosures				
Moulded Enclosure	Protection to IP55	MU25-O55	1	0,24
Moulded Front Plate	Protection to IP55	MU25-C55	1	0,16
Locking Bracket	Suitable for 3 padlocks in "OFF"-position, stirrup diameter of the padlock max. 8 mm	MU25-Z	1	0,1
Emergency Stop Button	latch, release by turning	MU25-NAV	1	0,04

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Data according to IEC 947, IEC 204, EN 60947, EN 60204, VDE 0660, VDE 0113

Type	MU25				
Main Contacts					
Rated insulation voltage U_i	V~ ¹⁾	690			
Rated operational current I_e (=Ith) open, at 50°C	A	25 ²⁾			
Mechanical life	S x 10 ⁶	0,1			
Contact life at I_e /AC3	S x 10 ⁶	0,1			
Tripping class according to IEC 60947-4-1	10A				
Rated ultimate short-circuit breaking capacity I_{cu}	220-240V~ 380-415V~ 500V~ 660-690V~				
Values for open unit, when incoming supply on upper terminals					
Setting range					
bis 1A	kA	50	50	50	50
1 - 1,6A	kA	50	50	50	50
1,6 - 2,5A	kA	50	50	3	2,5
2,5 - 4A	kA	50	50	3	2,5
4 - 6,3A	kA	50	50	3	2,5
6,3 - 10A	kA	50	6	3	2,5
10 - 16A	kA	10	6	2,5	2
16 - 20A	kA	10	6	2,5	2
20 - 25A	kA	10	6	2,5	2
25 - 32A	kA	10	6	2,5	2
Short circuit protection	220-240V~ 380-415V~ 500V~ 660-690V~				
Setting range					
bis 1A	A	-	-	-	-
1 - 1,6A	A	-	-	-	-
1,6 - 2,5A	A	-	-	25	20
Fuse gL(gG) only necessary if the short circuit current could be greater than the rated ultimate short-circuit breaking capacity					
2,5 - 4A	A	-	-	35	25
4 - 6,3A	A	-	-	50	35
6,3 - 10A	A	-	80	50	35
10 - 16A	A	80	80	63	35
16 - 20A	A	80	80	63	50
20 - 25A	A	80	80	63	50
25 - 32A	A	80	80	63	50
Maximum ambient temperature					
Operation	open	°C	-25 bis +60		
	enclose	°C	-25 bis +40		
Temperature compensation		°C	-5 bis +40		
Storage		°C	-25 bis +70		
Power loss					
at rated current, warm condition	W	6 - 8			
Auxiliary Contacts					
Rated insulation voltage U_i	V~	500			
Thermal rated current Ith Ambient temperature max. 50°C	A	6			
Utilization category AC15					
Rated operational current I_e					
220-240V	A	3,5			
380-415V	A	2			
500V	A	1,5			
Short circuit protection					
max. fuse size	gL (gG)	A	6		
Cable cross-section					
Main connector					
	solid or stranded	mm ²	1		
	flexible	mm ²	1 - 4		
	flexible with multicore cable end	mm ²	0,75 - 4		
Number of clampable conductors per terminal / Screw torque			2 / M3 - Pz2 1,8Nm		
Auxiliary connector					
	solid or stranded	mm ²	0,75 - 2,5		
	flexible	mm ²	0,75 - 1,5		
	flexible with multicore cable end	mm ²	0,75 - 1,5		
Number of clampable conductors per terminal / Screw torque			2 / M3,5 - Pz1 1Nm		
Resistance to shock according to IEC 68-2-27	g	20			
vibration resistance to IEC68-2-6	g	5 (by f= 5...150Hz)			

1) Suitable for: earthed-neutral systems, overvoltage category I to III, pollution degree 3 (standard-industry): $U_{imp} = 6kV$.

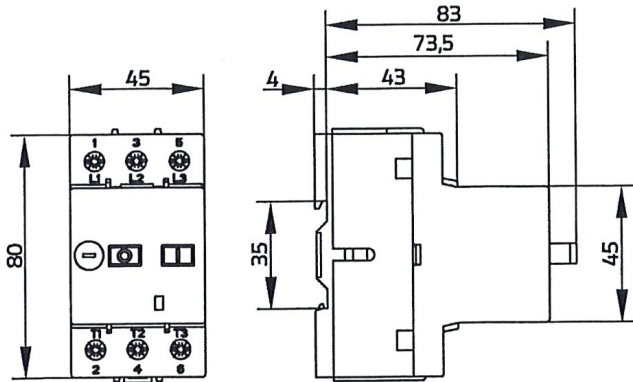
2) Maximum number without gap: 3



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Dimensions

MU25

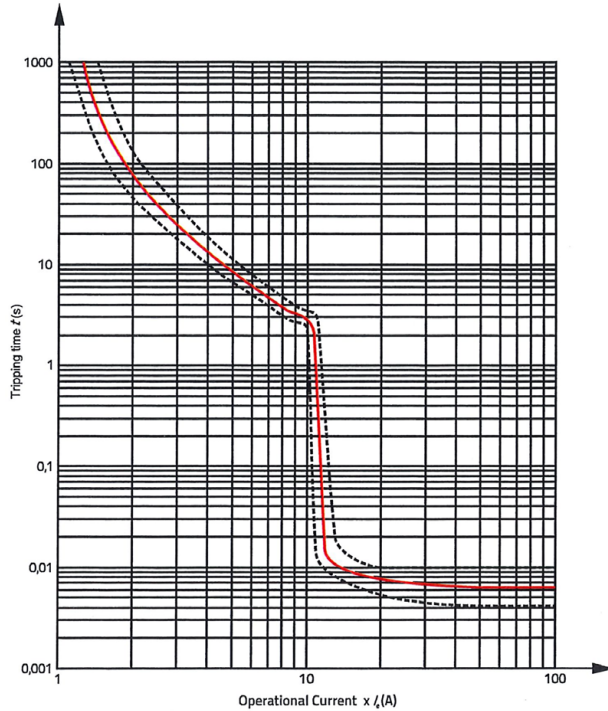


Temperature Compensation

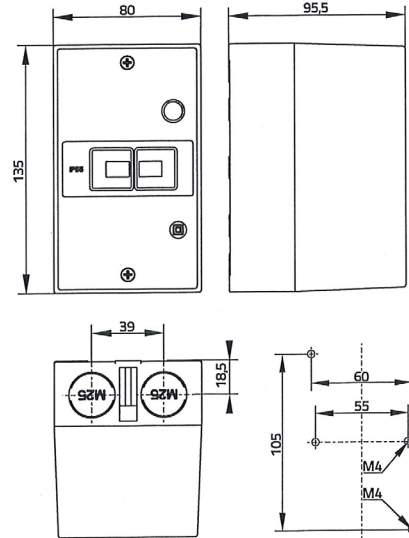
In case of higher ambient temperature use the following formula: $(\text{Ambient temperature} - 20) \times 0,3 = \text{correction factor}$ in % of the full load motor current

Example:
Ambient temperature 60°C, full load motor current 5A $(60 - 20) \times 0,3 = 12\%$

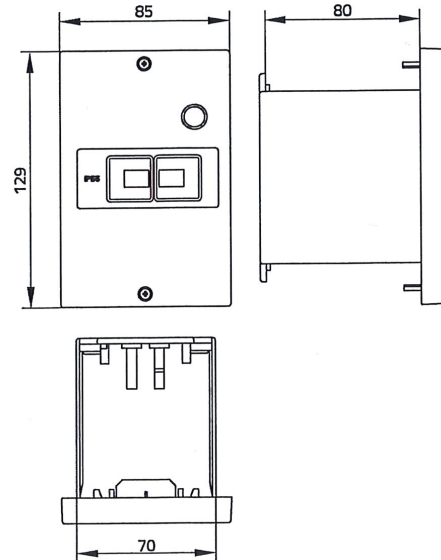
Tripping Characteristic



Moulded Enclosure
MU25-O55



Moulded Front Plate
MU25-C55



Mounting
with clamps

with screws