

# Manual Motor Starter MU



- Overload protection
- Short circuit protection
- Phase differential detection
- DIN rail mounting
- Test facility
- Ambient temperature compensation
- Fingertouch protection
- Lockable off position
- Designed to EN60947-4-1 and EN60947-2
- Bus-bar system
- Enclosures



## Options and ordering codes

Current Range Amps	Magnetic Short Circuit Trip-Amps	Product
0.10 - 0.16	1.92	MU25A 0.16
0.16 - 0.25	3.0	MU25A 0.25
0.25 - 0.40	4.8	MU25A 0.40
0.40 - 0.63	7.6	MU25A 0.63
0.63 - 1.00	12.0	MU25A 1.00
1.00 - 1.60	19.2	MU25A 1.60
1.60 - 2.50	30	MU25A 2.50
2.50 - 4.00	48	MU25A 4.00
4.00 - 6.30	75.6	MU25A 6.30
6.30 - 10	120	MU25A 10
10 - 16	192	MU25A 16
16 - 20	240	MU25A 20
20 - 25	300	MU25A 25

## Specification

Rated insulation voltage UI	690V AC
Rated current Ith open, at 50 °C	25 amps
Mechanical life	100,000 ops
Electrical life – AC3 duty	100,000 ops
Switching frequency	30 ops per hour
Operate time – approximately	7 mS
Total power loss (warm condition)	6-8 W
Temperature compensation open	-20 to +55 °C
Rating auxiliary switch – AC15	400V 2A
Mounting position	Any
Power consumption – undervoltage trip	2.7VA 1.8W
– shunt trip	2.7VA 1.8W
Terminal wiring cross section 1 or 2 wires	main 0.75 – 4mm <sup>2</sup>
aux	0.75 – 2.5mm <sup>2</sup>
Weight	0.25 Kg

## Accessories

### Auxiliary Contacts



For fitting to the side of the unit  
max 1 block each side.

Contacts	Product
1 Make + 1 Break (internal mount)	MU25A PE11
1 Break	MU25A PS01
1 Make + 1 Break	MU25A PS11
2 Makes	MU25A PS20
2 Early Makes	MU25A PV20

### Shunt Trip



Trips out the unit as voltage is applied.  
Mounting inside the unit.

Voltage	Product
24 AC	MU25A A24
110 AC	MU25A A110
220-240 AC	MU25A A240
380-415 AC	MU25A A400

## Accessories continued

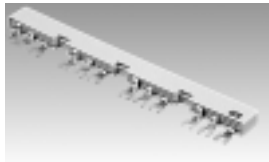
### Undervoltage Trip



Trips out the unit should the voltage fall below 70% of the rated voltage, prevents automatic restart when voltage returns. For mounting inside the unit.

Voltage	Product
220-240 AC	MU25A U230
380-415 AC	MU25A U400
24 AC	MU25A U24
110 AC	MU25A U110

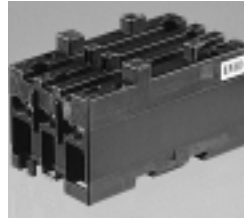
### Bus-Bar System



System for connecting units together and incoming supply. Fully isolated  $U_i = 690V$   $I_u = 63$  amps

Description	Product
For 2 units - 99mm	MBS25 D99
For 3 units - 154mm	MBS25 D154
For 4 units - 208mm	MBS25 D208
For 5 units - 262mm	MBS25 D262
Protection for unused terminals	MBS25 BS
Supply Block	MBS25 DB
Spacing Piece $\frac{1}{2}$ TE	P730

### Current Limiter

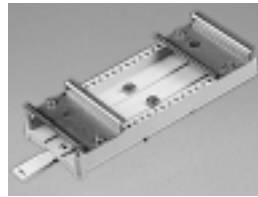


For increasing the fault breaking capacity of single unit or group back-up to 50kA.

$$U_i = 690V \quad I_u = 32A$$

Product
MBS25 ID50

### Starter Carrier



Accepts contactor and manual motor starter to mount onto one DIN rail.

Product
MBS25 PL54

### Enclosures



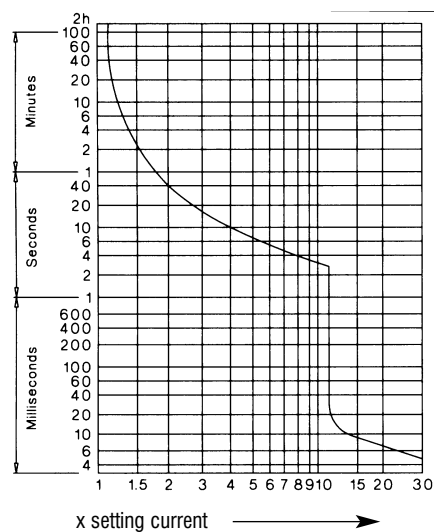
Description	Product
Moulded enclosure - IP55	MU25A O55
Moulded front plate - IP55	MU25A C55
Locking Bracket - 3 position	MU25A Z
Mushroom stop button	MU25A NAT
Green Indicator 240V	MU25A SG230
Red Indicator 240V	MU25A SR230
Earth or neutral conductor	MU25A NL
Moulded enclosure CEE Socket	MU25A GC1

## Electrical Characteristics

Current Range	Rated Short Circuit Capacity kA				Back-up Fuse (gl)			
	220-240	380-415	500	660-690	220-240	380-415	500	660-690
0.10 - 0.16	100	100	100	100	●	●	●	●
0.16 - 0.25	100	100	100	100	●	●	●	●
0.25 - 0.40	100	100	100	100	●	●	●	●
0.40 - 0.63	100	100	100	100	●	●	●	●
0.63 - 1.00	100	100	100	100	●	●	●	●
1.00 - 1.60	100	100	100	100	●	●	●	●
1.60 - 2.50	100	100	3	2.5	●	●	25	25
2.50 - 4.00	100	100	3	2.5	●	●	35	25
4.00 - 6.30	100	100	3	2.5	●	●	50	35
6.30 - 10	100	6/50*	3	2.5	●	80	50	35
10 - 16	10/100*	4/50*	2.5	2	80	80	63	35
16 - 20	10/100*	4/50*	2.5	2	80	80	63	50
20 - 25	10/100*	4/50*	2.5	2	80	80	63	50

\*kA with current limiter MBS25-ID50 up to 415V AC ● Fuse not required

## Trip curve

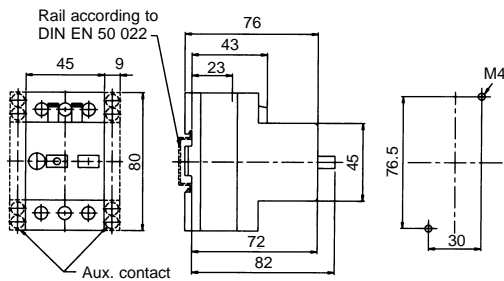


Trip curve  
1. Three phase trip curve

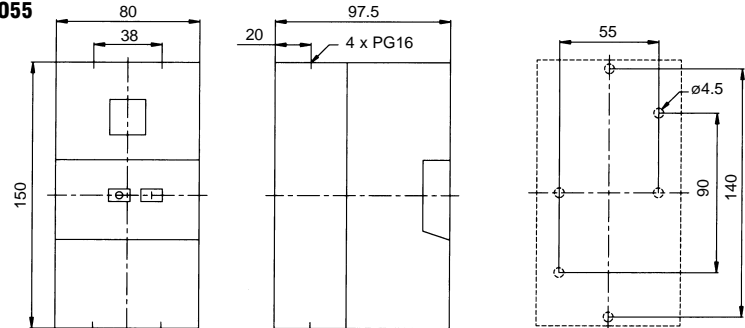
Average value of typical tolerance curves from cold condition

## Dimensions (mm)

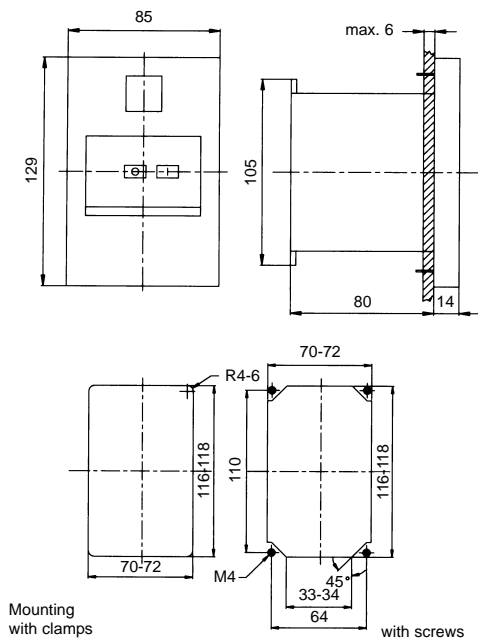
### Manual Motor Starter MU25A



### Moulded Enclosure MU25A-055



### Moulded Front Plate MU25A-C55



### Moulded Enclosure for 5-pole CEE-plug MU25A-GC1

