

Manual Motor Starters TFE2 / TFA2



Motor starter for motors with integrated thermal contacts TFE

1-phase version 230 V (1~)

Thermal/magnetic trip

Thermal contact

Operating range 0.4 – 10.0 A; 230 V AC

Type overview and Accessories TFE2

Order reference	Description Rated operational current setting range (A)	Packing (units)	Weight in g	Part No.
TFE2 230	Standard unit 0.40 – 10.0 A	1	280	210078



Motor starter for motors with integrated thermal contacts TFA

3-phase version 400 V (3~)

Electronic trip

Thermal contact

Operating range 0.10 – 25.0 A; 400 V AC

Type overview and Accessories TFA2

Order reference	Description Rated operational current setting range (A)	Packing (units)	Weight in g	Part No.
TFA2 400	Standard unit 0.10 – 25.0 A	1	340	210061

Manual Motor Starters TFE2 / TFA2



Technical Data TFE2 / TFA2

Technical Data (TFE2 / TFA2)	
Rated insulation voltage U_i acc. to IEC 947-4-2 / VDE 0110	500 V AC
Permissible ambient temperature	
Storage temperature	-25...+ 70 °C
open	-25...+ 60 °C
enclosed type	-25...+ 40 °C
Temperature compensation	no
Climatic resistance	IEC 68 T2-3, 2-30
Glow wire resistance acc. to IEC 695-2-1	Intensity 850°C
Working position any position	preferably vertical
Permissible altitude	3000 m
Permissible vibration resistance IEC 68-2-6	25 Hz b.+/- 1 mm Amplitude (2,5 g)
Permissible impact direction sine impact (critical direction IEC 68-2-27)	5 g (11 ms)
Surface mounting screws DIN-rail	2 x M4** integrated
Mechanical life in cycles	100.000
Maximum switching operations Cycles/hour	60

**not included in the scope of delivery

Conductor cross-section (TFE2 / TFA2)		
Manual motor starters	rigid cable 1 x	1 ... 6.0 mm ²
	rigid cable 2 x	1 ... 4.0 mm ²
	flexible cable* 1 x	1 ... 6.0 mm ²
	flexible cable* 2 x	1 ... 2.5 mm ²
Auxiliary contact	rigid cable 1 x	1 ... 2.5 mm ²
	rigid cable 2 x	1 ... 2.5 mm ²
	flexible cable* 1 x	1 ... 2.5 mm ²
	flexible cable* 2 x	1 ... 2.5 mm ²
Undervoltage/ shunt release	rigid cable 1 x	1 ... 2.5 mm ²
	rigid cable 2 x	1 ... 2.5 mm ²
	flexible cable* 1 x	1 ... 2.5 mm ²
	flexible cable* 2 x	1 ... 2.5 mm ²
Enclosure/ PE/N terminal	rigid cable 1 x	1 ... 4.0 mm ²
	rigid cable 2 x	1 ... 4.0 mm ²
	flexible cable* 1 x	1 ... 2.5 mm ²
	flexible cable* 2 x	1 ... 2.5 mm ²
Degree of Protection acc. to DIN 40050 open type enclosed type		IP 20 IP 55...65

* with cable end sleeve

Technical Data (TFE2 / TFA2)	
Main current paths Number	3
Rated operational voltage U_e up to	16 A 550 V AC 25 A 500 V AC
Rated operational current I_e	25 A
Permissible frequency only for magnetic short-circuit release	40...60 Hz
Current setting ranges I_e TFE2 / TFA2 Acc. to VDE 0660 Part 102 A, IEC 947-4-1	0.4-10 / 0.1-25
Numbers of ranges TFE2 / TFA2	1 / 1
Current dissipation loss Main current paths at I_e max./Phase	Ca. 4,2 W
Tripping curves	10A
Electro-magnetic trip	8 - 13 x I_n

Auxiliary contact (OKE2 / MKE2)	
Auxiliary current paths Rated insulation voltage IEC 947	230 V
Thermal current I_{th2}	6 A
Short-circuit protection back-up fuse gL MCB B 6 A	10 A B 6 A

Max. switching capacity (TFE2 / TFA2)		
Auxiliary contact I_e at AC 15 up to	24 V AC	6 A
	230 V AC	4 A
	400 V AC	3 A
	500 V AC	1 A
may be used for low voltage and PLC inputs acc. to DIN 19240		

Standards TFE2 / TFA2)	
The devices comply with the requirements of major international, European and national specifications	VDE, IEC, BS, CEI, NBN, NEN SEV, UTE, D, N, S

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Accessories TFE2 / TFA2

Order reference	Description	Packing (units)	Weight in g	Part No.
	Auxiliary contacts *			
Hi 10	Auxiliary contact 1 N.O., right	1	7.5	202288
Hi 01	Auxiliary contact 1 N.C., right	1	7.5	202301
Hi 11	Auxiliary contact 1 N.O./1 N.C.	1	7.5	202325
	Enclosure/Special accessories			
A IP 55	Enclosure, protection IP 55, up to 16 A	1	125	202554
B IP 55	Enclosure with large terminal box, protection IP 55	1	450	202561
G IP 65	Die-cast aluminum enclosure, protection IP 65	1	800	202578
E IP 54	Front plate, protection IP 54	1	125	202622
	Enclosure-accessories			
NAK	Emergency-OFF-device IP 55	1	55	202653
V	Padlock blockade device IP 55	1	40	202660
AZ	Supplementary set for enclosure, protection IP 41 to IP 55	1	25	216742

*Auxiliary contacts, shunt and undervoltage releases must be factory installed.



Enclosure A



Enclosure A +
Emergency-OFF-device
NAK



Enclosure B + Padlock
blockade device V

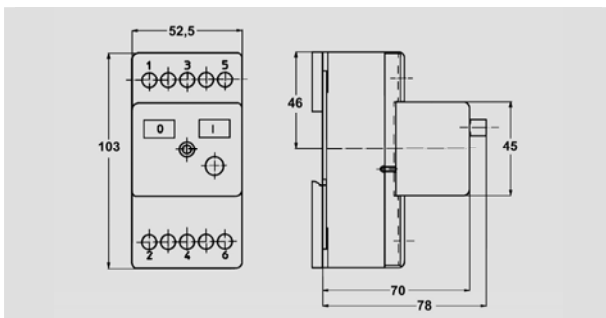


Enclosure G + MKE2

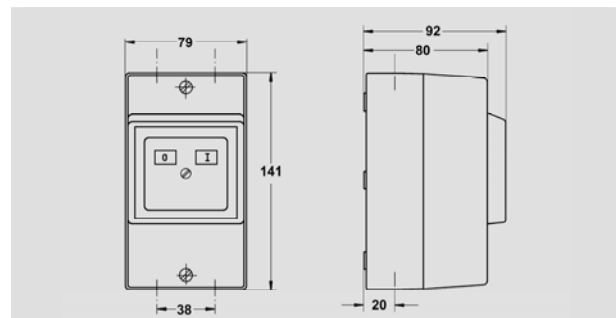


Front plate E

Dimensions / Circuit Diagrams TFE2 / TFA2

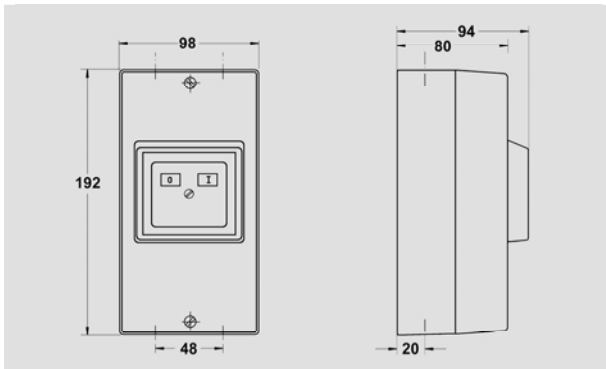


Manual motor starter
TFE2 / TFA2

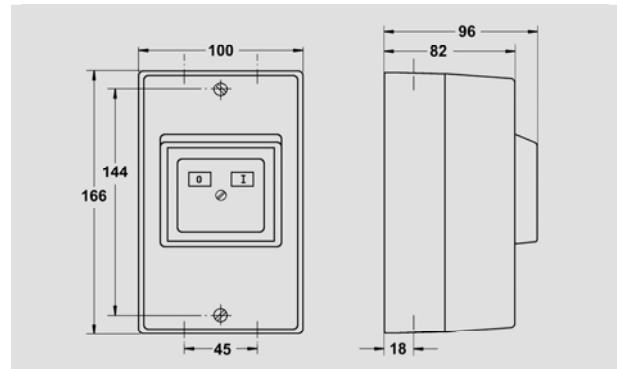


Enclosure A

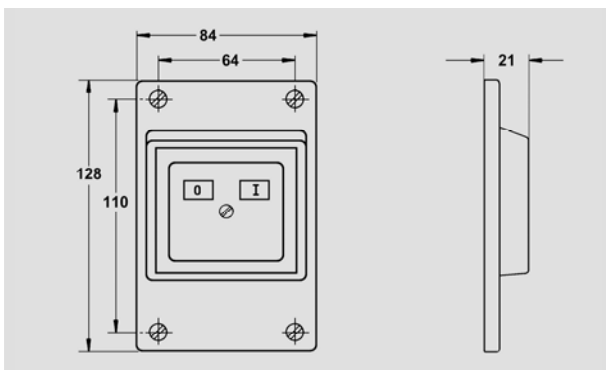
Manual Motor Starters TFE2 / TFA2



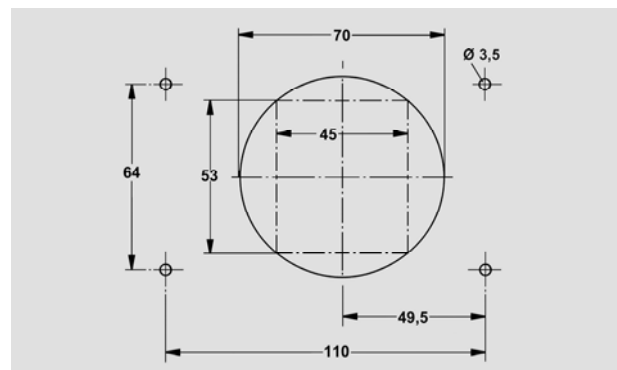
Enclosure **B**



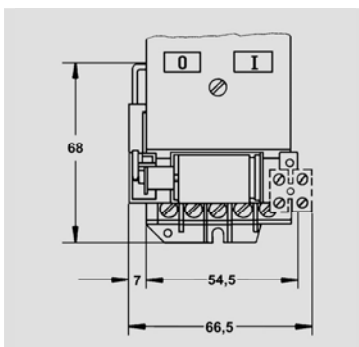
Enclosure **G**



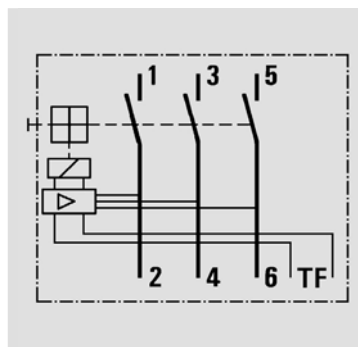
Front plate **E**



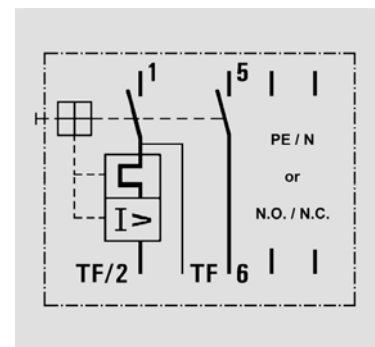
Mounting template for Front plate **E**



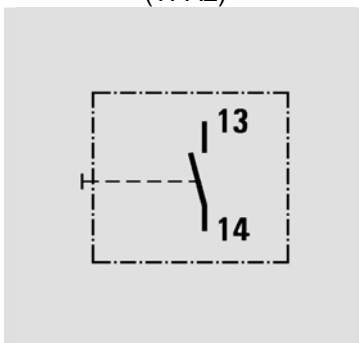
Undervoltage release **US**
(TFA2)



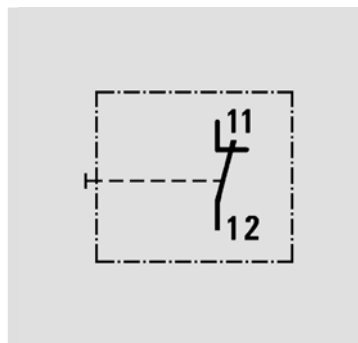
Manual motor starter **TFA2**



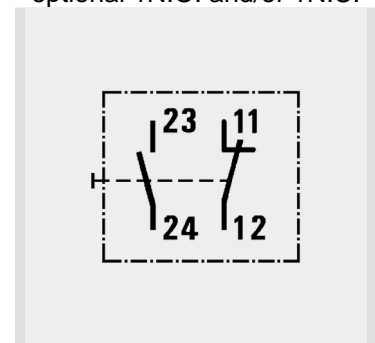
Manual motor starter **TFE2**
optional 1N.O. and/or 1N.C.



Auxiliary contact **Hi 10**
(1 N.O.)



Auxiliary contact **Hi 01**
(1 N.C.)



Auxiliary contact **Hi 11**
(1 N.O. / N.C.)