

Fractional Manual Starters

Easy, simple starting of Motors up to 1 HP

Sprecher + Schuh Fractional Manual Starters (FMS) consist of a snap switch combined with a thermal overload device operating on the solder-ratchet principle. To reset the overload mechanism, the switch lever is moved to the OFF position. The motor can be restarted by simply pushing the switch lever to the ON position. The switch is designed to prevent being held closed under a sustained motor overload.



Easy to Order

FMS Starters are easy to order. Simply choose a 1-Pole or 2-Pole with or without the Neon pilot light and then order the required Heater Element. You're done!


Typical Applications

Starting and overload protection of small 1-phase 115...230V AC/DC or 277 VAC motors used on the following applications:

- Unit heaters
- Fans
- Stokers
- Pumps
- Refrigeration compressors

Starters & Enclosed Prod.
FMS

Fractional Manual Starter


	Ratings (HP)		Poles ②	Type 1 (M1) General Purpose Surface Mounting	Price
	115...230V AC	277V AC		Catalog Number	
	Toggle Switch Only				
	1	1	1-Pole	FMS-TAX4	111
	1	1	2-Pole	FMS-TAX5	129
	Toggle Switch with Neon Pilot Light (115 or 230V)				
1	1	1-Pole	FMS-TAX216	163	
1	1	2-Pole	FMS-TAX109	180	

FMS with Neon Pilot light

Heater Element (Required) ①

Full Load Amps	Catalog Number	Price
0.17	FMS-P1	26
0.21	FMS-P2	
0.25	FMS-P3	
0.32	FMS-P4	
0.39	FMS-P5	
0.46	FMS-P6	
0.57	FMS-P7	
0.71	FMS-P8	
0.79	FMS-P9	
0.87	FMS-P10	
0.98	FMS-P11	
1.08	FMS-P12	
1.19	FMS-P13	
1.30	FMS-P14	
1.43	FMS-P15	
1.58	FMS-P16	
1.75	FMS-P17	
1.88	FMS-P18	
2.13	FMS-P19	
2.40	FMS-P20	
2.58	FMS-P21	
2.92	FMS-P22	
3.09	FMS-P23	
3.32	FMS-P24	
3.37	FMS-P25	
4.16	FMS-P26	
4.51	FMS-P27	
4.93	FMS-P28	
5.43	FMS-P29	
6.03	FMS-P30	
6.83	FMS-P31	
7.72	FMS-P32	
8.24	FMS-P33	
8.90	FMS-P34	
9.60	FMS-P35	
10.8	FMS-P36	
12.0	FMS-P37	
13.5	FMS-P38	
15.2	FMS-P39	

Optional Locking Attachment

	Accessory	Catalog Number	Price
	Locking Attachment For locking toggle switch in ON or OFF position.	FMS-N1	18

Ordering Instructions

Order FMS Catalog Number
Order Required FMS Heater Element(s) ①
Order Optional FMS Locking Attachment

① One heater is required for 1-pole or 2-pole applications. See schematic on next page.

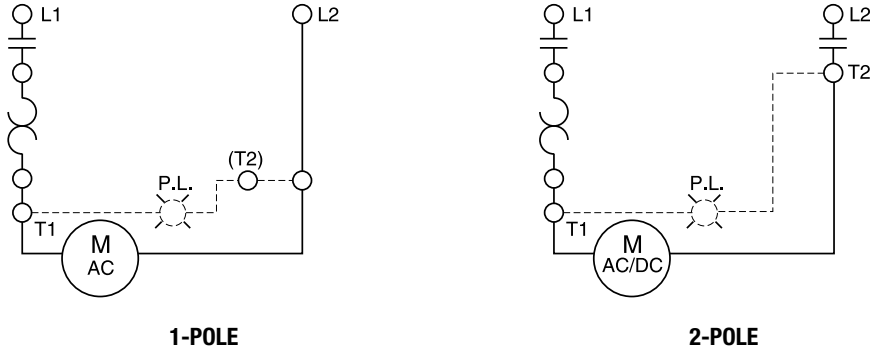
② Two-pole selections are applicable for 3/4 HP at 115...230V DC.

Technical Information

P.L.: Pilot Light (Optional)

Eutectic Operation

Thermal overload devices using the eutectic alloy method are spring loaded in the normal, or reset, position. When the heater is cold, the solder is solid and holding the spring loaded ratchet. When FLA is passed through the heater, and if excess current flows, then the solder will melt and allow the ratchet mechanism to turn. This result trips the device. The device is reset by turning the switch to the OFF position and allowing it to cool.



Standards Compliance

- UL 508
- EN60947-4-1
- CSA C22.2, No. 14

Certifications

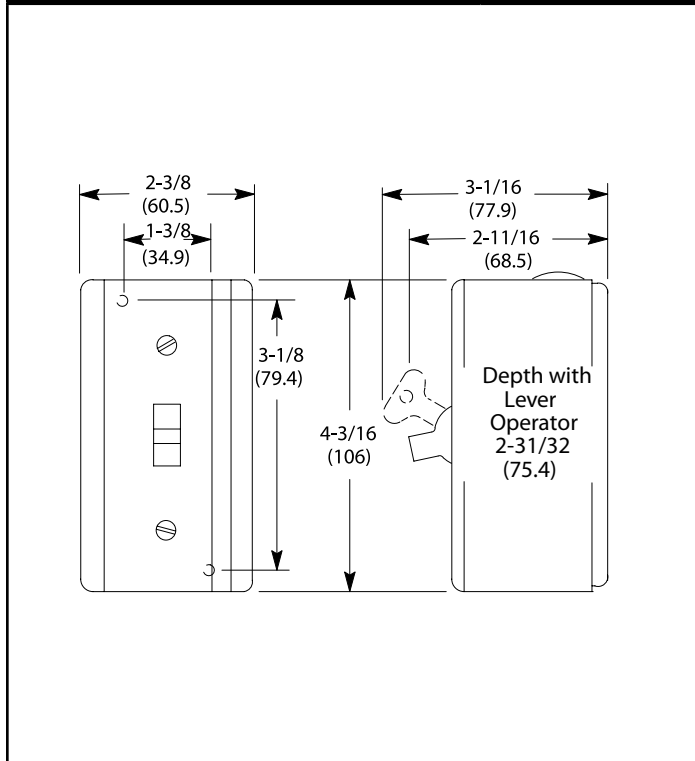
- UL Listed - Enclosed Products (File No. E14841; Guide No. NLRV)
- CSA Certified (File No. LR 1234)
- American Bureau of Shipping (ABS)
- CE marked

Trip Time

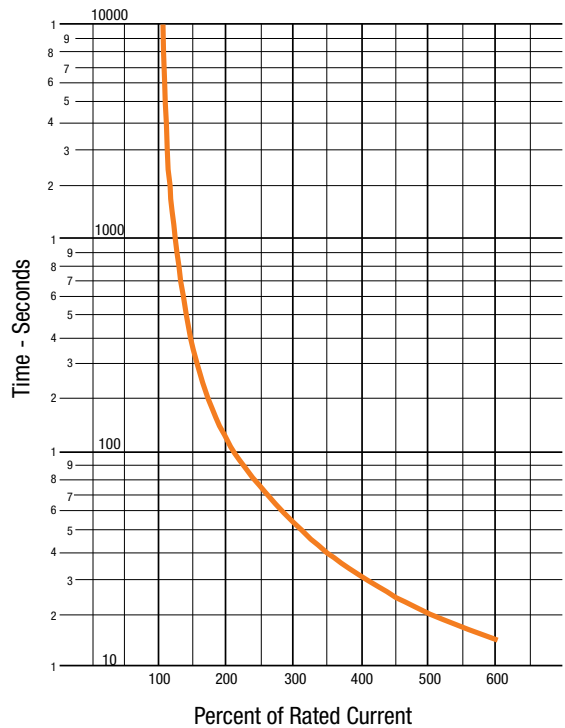
- Class 20
- Reset Time: The actual time to reset will vary based on the ambient temperature surrounding the overload. Under most conditions, it will take from approximately 90 seconds up to 5 minutes for the solder to solidify enough for the overload to be reset. Until this happens, the overload will not be able to be reset by pressing on the reset button. The ratchet assembly inside the overload block will spin freely until the solder has solidified.

Dimensions

FMS Type 1 General Purpose Surface Mounting



TIME - Current Characteristics at 40°C



NOTE: Trip will occur at 115% of FLA