

Fractional Manual Starters



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

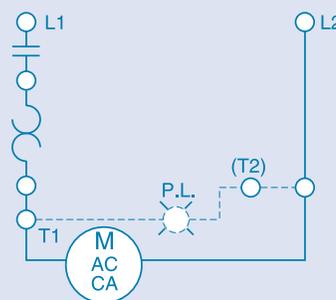
Starting and overload protection of small 1-phase 115...230V AC/DC or 277 VAC motors used on the following applications:

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

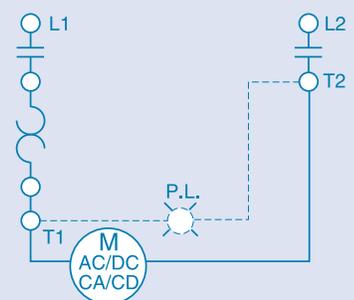


Eutectic Operation

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.



P.L. = Pilot Light Optional



FMS Starter Selection

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

Accessories



Locking Attachment

For locking toggle switch in ON or OFF position.

Catalog Number: FMS-N1

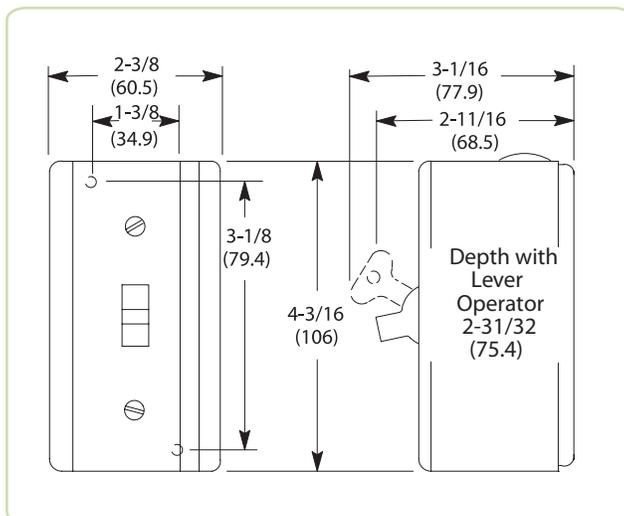
Heater Element (Required) ①

Full Load Amps	Catalog Number
0.17	P1
0.21	P2
0.25	P3
0.32	P4
0.39	P5
0.46	P6
0.57	P7
0.71	P8
0.79	P9
0.87	P10
0.98	P11
1.08	P12
1.19	P13
1.30	P14
1.43	P15
1.58	P16
1.75	P17
1.88	P18
2.13	P19
2.40	P20

Full Load Amps	Catalog Number
2.58	P21
2.92	P22
3.09	P23
3.32	P24
3.37	P25
4.16	P26
4.51	P27
4.93	P28
5.43	P29
6.03	P30
6.83	P31
7.72	P32
8.24	P33
8.90	P34
9.60	P35
10.8	P36
12.0	P37
13.5	P38
15.2	P39

① One heater is required for 1-pole or 2-pole applications.

Dimensions / Technical Information



Dimensions are in inches (millimeters). Dimensions not intended for manufacturing purposes.

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.