

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

NEMA Starters




Fractional Manual Starter

	Ratings (HP)		Poles	Type 1 General Purpose Surface Mounting Catalog Number
	115...230V AC	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	

Heater Element (Required) ❶

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
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

Optional Locking Attachment

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

Selecting Heater Elements ❸

The "Full Load Amps" listed in the table can be used for heater element selection. The rating of the relay in amperes at 40°C is 115% of the "Full Load Amps" (FLA) listed for the catalog number. Refer to the motor nameplate for the full load current, the service factor, and/or the motor classification by application and temperature rise. Use this motor nameplate information, the application rules and the FLA listed in the table to determine the Heater Element catalog number for motors rated for Continuous Duty.

1. *For the Same Temperature at the Controller and Motor* : Select the Heater Element with the listed FLA nearest the full load value shown on the motor nameplate.
2. *For Higher Temperature at the Controller than at the Motor* : If the full load current value shown on the motor nameplate is between the listed FLAs, select the Heater Element with the next higher value.
3. *For a Lower Temperature at the Controller than at the Motor* : If the full load current value shown on the motor nameplate is between the listed FLAs, select the Heater Element with the next lower value.
4. *All other motors rated for continuous duty* (includes motors with marked service factor 1.0): Select the Heater Element one rating smaller than determined by rules in 1, 2 and 3.

Ordering Instructions

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

- ❶ One heater is required for 1-pole or 2-pole applications. See schematic on next page.
- ❷ Two-pole selections are applicable for 3/4 HP at 115...230V DC.
- ❸ Rule 2 and 3 temperature difference not to exceed more than 10°C (18°F).