

Class MMS, MRS

Class MMS and MRS motor starting switches provide manual "ON-OFF" control of single or three phase AC motors where overload protection is not required or is provided separately. Compact construction and a 600 volt rating make these switches suitable for a wide range of industrial and commercial uses. Typical applications include small machine tools, pumps, fans, conveyors and many other types of electrical machinery. They can also be used on non-motor loads such as resistance heating applications.

Continuous Current Rating

MMS & MRS: 30 amperes at 250 volts max, 26.4 amperes at 277 volts, 20 amperes at 600 volts max, 30 amperes resistive at 600 volts max.

Two Speed—Class MRS

Two speed manual switches may be used with separate winding three phase or single phase AC motors where overload protection is not required or is provided separately. Two switches are employed to give "ON-OFF" control in each speed.

Reversing—Class MRS

Reversing manual switches provide a compact means of starting, stopping and reversing AC motors where overload protection is not required or is provided separately. They are suitable for use with three phase squirrel cage motors and for single phase motors which can be reversed by reconnecting motor leads. Two switches are used, one to connect the motor forward rotation and one for reverse.

Enclosures

Class MMS, MRS, NEMA Type 1 surface mounting enclosures are sheet steel with a thermo-plastic wrap-around cover for convenience in wiring. The NEMA Type 1 enclosure is also available in an oversized version which allows more wiring space. A zinc alloy die casting is used for NEMA Type 4 enclosures.

Pilot Lights

Red or green neon pilot light units are available for flush mounting plates, NEMA Type 1 enclosures, and NEMA Type 4 enclosures. Pilot lights may be either factory or field installed. (For switches that contain a pilot light, a Red light is standard. For a Green pilot light add "G" to the end of the catalog number.)

Terminals

Binding head screw type terminals are suitable for #10 or smaller copper wire, and are accessible from the front. All terminals are clearly marked.

Mounting

Open types without a pilot light fit standard single gang switch boxes, and can be used with any cover plate having a standard toggle cutout. Single-unit flush mounting types, including those with pilot lights, are suitable for wall mounting in a standard switch box or for machine cavity mounting without a box.

Operation

Available with toggle handle or with removable key type operator to discourage unauthorized operation.



Emergency Off Actuator

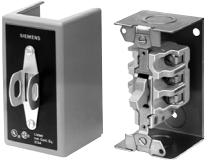
A toggle operator extender is available for Class MMS, MRS, NEMA Type 1 surface mounted units. The extender has a red vinyl button that provides a fast and easy method for locating and switching the device's toggle operator into the OFF position. The Emergency Off Actuator is available in kit form only for field installation.

Handle Guard/Lock-Off

An optional handle guard on Class MMS, MRS, NEMA Type 1 enclosed switches prevents accidental operation of the toggle operator and also allows the toggle operator to be padlocked in either the "ON" or "OFF" position. This handle guard is available in kit form for field installation on NEMA Type 1 surface and flush mounting enclosures. Standard NEMA Type 4 metallic enclosures include provisions for padlocking the device in the OFF position.

Manual Control Switches^①, Class MMS, MRS

Selection

 Class MMS Switch in a NEMA Type 1 Enclosure	Ordering Information		Horsepower Ratings								
	▶ Heater Elements not Required ▶ Technical Data see www.sea.siemens.com/controls . ▶ Field Modification Kits see page 6/71. ▶ Dimensions see pages 6/88. ▶ Wiring Diagrams see page 6/116.		Device	No of Poles	Motor Type AC	Maximum HP			DC Ratings		
	115V	230V				450–575V	90V	115V	230V		
		Class MMS	2	Single Phase	2	2	3	1	2	1 1/2	
			3	3 Phase	2	7 1/2	10	1	2	1 1/2	
		Class MRS Reversing	2	Single Phase	2	2	3	1	2	1 1/2	
			3	3 Phase	2	7 1/2	10	1	2	1 1/2	
		Class MMS Two Speed	2	Single Phase	2	2	3	1	2	1 1/2	
			3	3 Phase, Constant or Variable Torque	2	7 1/2	10	1	2	1 1/2	
			3	3 Phase, Constant Horsepower	2	7 1/2	10	1	2	1 1/2	

Switch—Class MMS, Single Phase and 3 Phase

Type of Operator	No. of Poles	Switch Features ^①	General Purpose Flush Mounting Open Switch with Flush Plate (No Enclosure Provided)						NEMA Type 1 General Purpose Enclosure Surface Mounting				NEMA Type 3R, 4 & 12 Watertight, Dust-tight Metallic Enclosure with Clear Cover	NEMA Type 4 ^② Watertight, Dust-tight Metallic Enclosure	NEMA Type 7 & 9 ^③ Class I Groups B, C & D & Class II Groups E, F, G Enclosures					
			Open Type		Gray Flush Plate		Standard Stainless Steel Flush Plate		Jumbo Stainless Steel Flush Plate		Standard					Oversized				
			Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$				Catalog No	Price \$			
Toggle	2	Standard	MMSK01		MMSKF1		MMSKS1		—	MMSKG1		MMSKGJ1		MMSKWN1		MMSKW1		MMSKR1		
		Red Pilot Light 115V AC	MMSK01A ^③		MMSKF1A		MMSKS1A		MMSKSJ1A		MMSKG1A		MMSKGJ1A		MMSKWN1A		MMSKW1A		—	
		Red Pilot Light 230V AC	MMSK01B ^③		MMSKF1B		MMSKS1B		MMSKSJ1B		MMSKG1B		MMSKGJ1B		MMSKWN1B		MMSKW1B		—	
	3	Standard	MMSK02		MMSKF2		MMSKS2		—	MMSKG2		MMSKGJ2		MMSKWN2		MMSKW2		MMSKR2		
		Red Pilot Light 208–240V AC	MMSK02B ^③		MMSKF2B		MMSKS2B		MMSKSJ2B		MMSKG2B		MMSKGJ2B		MMSKWN2B		MMSKW2B		—	
		Red Pilot Light 440–600V AC	MMSK02C ^③		MMSKF2C		MMSKS2C		MMSKSJ2C		MMSKG2C		MMSKGJ2C		MMSKWN2C		MMSKW2C		—	
Key	2	Standard	MMSK03		MMSKF3		MMSKS3		—	MMSKG3		MMSKGJ3		MMSKWN3		—		—		
		Red Pilot Light 115V AC	MMSK03A		MMSKF3A		MMSKS3A		MMSKSJ3A		MMSKG3A		MMSKGJ3A		MMSKWN3A		—		—	
		Red Pilot Light 230V AC	MMSK03B		MMSKF3B		MMSKS3B		MMSKSJ3B		MMSKG3B		MMSKGJ3B		MMSKWN3B		—		—	
	3	Standard	MMSK04		MMSKF4		MMSKS4		—	MMSKG4		MMSKGJ4		MMSKWN4		—		—		
		Red Pilot Light 208–240V AC	MMSK04B		MMSKF4B		MMSKS4B		MMSKSJ4B		MMSKG4B		MMSKGJ4B		MMSKWN4B		—		—	
		Red Pilot Light 440–600V AC	MMSK04C		MMSKF4C		MMSKS4C		MMSKSJ4C		MMSKG4C		MMSKGJ4C		MMSKWN4C		—		—	

Reversing Switch—Class MRS, Single Phase and 3 Phase

Type of Operator	Number of Poles	Suitable Motor Types	Switch Features ^④ (Including Mechanical Interlock)	General Purpose Flush Mounting Open Switch with Flush Plate (No Enclosure Provided)		NEMA Type 1 General Purpose Enclosure Surface Mounting		Replacement Switch Class MRS	
				Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$
Toggle	2	Single Phase 3-Lead Repulsion-Induction	Standard	MRSKF11		MRSKG11		MRSK01T	
			Red Pilot Device—115V AC	MRSKF11A		MRSKG11A		MRSK01AT	
			Red Pilot Device—230V AC	MRSKF11B		MRSKG11B		MRSK01BT	
	3	3 Phase: Also Single Phase Capacitor, Split Phase, or 4-Lead Repulsion-Induction	Standard	MRSKF22		MRSKG22		MRSK02T	
			Red Pilot Light—110–120V AC	MRSKF22A		MRSKG22A		MRSK02AT	
			Red Pilot Light—208–220V AC	MRSKF22B		MRSKG22B		MRSK02BT	
	Red Pilot Light—440–600V AC	MRSKF22C		MRSKG22C		MRSK02CT			

Two Speed Switch—Class MMS, Single Phase and 3 Phase

Type of Operator	Number of Poles	Suitable Motor Types	Switch Features ^④ (Including Mechanical Interlock)	General Purpose Flush Mounting Open Switch with Flush Plate (No Enclosure Provided)		NEMA Type 1 General Purpose Enclosure Surface Mounting		Replacement Switch Class MRS	
				Catalog No	Price \$	Catalog No	Price \$	Catalog No	Price \$
Toggle	2	Single Phase Two Winding (3-Lead)	Standard	MMSKF11		MMSKG11		MRSK01T	
			(2) Red Pilot Devices—115V AC	MMSKF11A		MMSKG11A		MRSK01AT	
			(2) Red Pilot Devices—230V AC	MMSKF11B		MMSKG11B		MRSK01BT	
	3	3 Phase Separate Winding (Wye-Connected)	Standard	MMSKF22		MMSKG22		MRSK02T	
			(2) Red Pilot Lights—208–240V AC	MMSKF22B		MMSKG22B		MRSK02BT	
			(2) Red Pilot Lights—440–600V AC	MMSKF22C		MMSKG22C		MRSK02CT	

① Manual switches do not include overloads.

② Furnished with (1) 3/4" NPT outlet in bottom (reversible for top feed). In order to obtain a 3/4" NPT outlet in top and bottom, add suffix letter "H" to type number and add \$15 to List Price.

③ Do not use as replacement interiors for NEMA Type 4 metallic enclosures. For replacement unit, order Type MMSK01 or MMSK02 and separate pilot light kit.

④ For switches that contain a pilot light, a Red light is standard. For a Green pilot light add "G" to the end of the catalog number.