

## Motor protection circuit breakers SM2... and SM3... up to 100A. Magnetic and thermal protection



SM2R...



SM3R...

Order code	Thermal trip adjustment range	Short circuit breaking capacity at 400V		Qty per pkg	Wt
		Icu	Ics		
	[A]	[kA]	[kA]	n°	[kg]
Rotary knob type. For UL ratings see page 1-12.					
<b>SM2R 5000</b>	34...50	50	50	1	1.000
<b>SM2R 6300</b>	45...63	50	50	1	1.000
Rotary knob type. For UL ratings see page 1-12.					
<b>SM3R 7500</b>	55...75	50	38	1	2.200
<b>SM3R 9000</b>	70...90	50	38	1	2.200
<b>SM3R 9900</b>	80...100	50	38	1	2.200

### General characteristics

SM2R... and SM3R... are modern circuit breakers with thermal and magnetic trip releases and high breaking capacity. Motor control and protection, up to 55kW (400V) are possible by choosing the suitable adjustment range, up to 100A. SM2R... and SM3R... breakers are Type E-certified according to UL 60947-4-1.

The SM2R... and SM3R... types are suitable for isolation according to IEC/EN 60947 standards and can be padlocked in OFF position without using accessories.

SM3... has a trip function which indicates thermal and magnetic tripping.

Their high breaking capacity consents to exclude protection fuses on the majority of the installations.

### Operational characteristics

- IEC rated insulation voltage  $U_i$ : 1000V
- IEC rated impulse withstand voltage: 8kV
- IEC rated frequency: 50/60Hz
- Maximum rated current: 63A (for SM2...); 100A (for SM3...)
- Adjustment ranges: 2 (for SM2...); 3 (for SM3...)
- IEC breaking capacity: See table on page 1-2 and 1-3
- Max. heat dissipation per phase: 7W
- Magnetic tripping: 13In max.
- Tripping class: 10A
- Phase failure sensitive
- Mechanical life: 50,000 cycles
- Electrical life: 25,000 cycles
- Mounting on 35mm DIN rail (IEC/EN 60715)
- Mounting position: Any
- IEC utilisation category: A
- Padlocking in OFF:  $\varnothing 4\text{mm}/0.16''$
- IEC degree of protection: IP20 on front.

### Certifications and compliance

Certifications obtained: cULus, EAC.

SM2... and SM3... circuit breakers are Type E-certified (Self-Protected Combination Motor Controllers) according to UL 60947-4-1; for Type E certification, SM3 only with accessory SM3X90 00R.

Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-2, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 n° 60947-1, CSA C22.2 n° 60947-4-1.

## SM1PF... circuit breakers Fuse monitoring function



SM1PF...

Order code	Fixed thermal release current	Short circuit breaking capacity at 400V		Qty per pkg	Wt
		Icu	Ics		
	[A]	[kA]	[kA]	n°	[kg]
Push button control. For UL ratings see page 1-12.					
<b>SM1PF 0020</b>	0.20	100	100	5	0.280

### General characteristics

SM1PF... are breakers with magnetic-thermal tripping intended specifically for monitoring the status of fuses.

By connecting every phase of the breaker to a fuse, when it blows, the motor protection breaks.

Through the auxiliary contacts fitted on the motor protection, the blown fuses are signalled electrically.

### Operational characteristics

- IEC rated insulation voltage  $U_i$ : 690V
- IEC rated impulse withstand voltage: 6kV
- IEC rated frequency: 50/60Hz
- Rated current: 0.2A
- Magnetic tripping: 1.2A.
- Mechanical life: 100,000 cycles
- Electrical life: 100,000 cycles
- Mounting on 35mm DIN rail (IEC/EN 60715)
- Mounting position: Any
- IEC utilisation category: A
- Padlocking in OFF:  $\varnothing 4\text{mm}/0.16''$
- IEC degree of protection: IP20.

### Certifications and compliance

Certifications obtained: cULus, EAC.

Certifications pending: CCC.

Compliant with standards: IEC/EN 60947-1, IEC/EN 60947-2, IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 n° 60947-1, CSA C22.2 n° 60947-4-1.

Plastic materials compliant with standards: IEC/EN 60335 and EN 45545.

