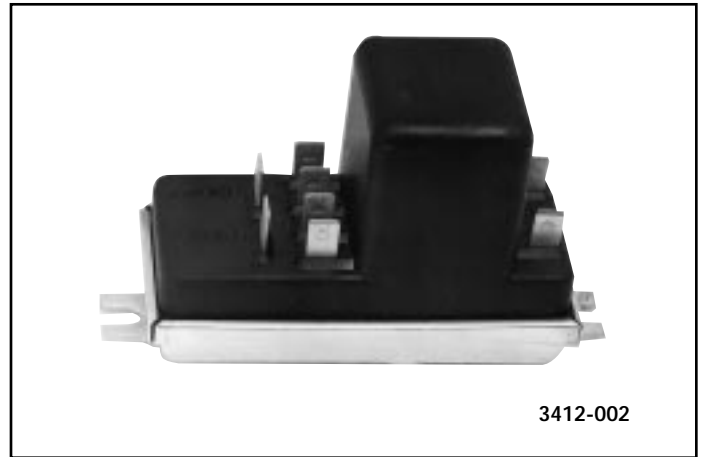


# MOTOR PROTECTORS

## 3412 (MP11 AND MP12) MOTOR PROTECTORS

The 3412 Motor Protector Kits are designed to replace the MP11 single sensor models and the MP12 dual sensor models.

The MP11/12 modules were among the first motor protection devices manufactured by Robertshaw for protection against costly motor damage caused by excessive temperature in the motor windings. If for any reason the temperature in the windings exceeds the factory calibrated cut-out point, the 3412 module will interrupt the power to the motor. The 3412 module is equipped with automatic reset which allows operation of the motor to resume once the temperature in the windings drops below the factory calibrated cut-in point. Note: Statorstat applications require that the stator must have sensor(s) embedded within its windings. Therefore, these kits cannot be used on applications which do not have a Statorstat as original equipment unless the motor is rewound with ES11 sensors in place. These sensors may be ordered separately. Refer to chart below for ordering information.



### ORDERING DATA

UNI-LINE ORDER NO.	DIVISION NUMBER	CALIBRATION TEMPERATURE (°F)		REPLACES O.E.M. NUMBER
		CUT-OUT	CUT-IN	
3412-002	MP12-1002	250	185	CHRYSLER 2777163
3412-036	MP12-1064	210	180	TRANE 21B117562P01
3412-041	MP12-1069	190	170	TRANE 21B117562P03

### ELECTRICAL RATING

VOLTAGE INPUT	120 VAC	240 VAC
CIRCUIT RATING	345 VA	345 VA
HZ (CYCLES)	50/60	50/60

### THERMAL SENSORS



### REPLACEMENT SENSORS

UNI-LINE ORDER NO.	DIVISION NUMBER	LEAD WIRE LENGTH
30-101	ES11-1166	45"
30-102	ES11-1152	18"

### SENSOR RESISTANCE

TEMPERATURE	NOMINAL	MINIMUM	MAXIMUM
50°F	70.1 ± 2.7 OHM	67.4 OHM	72.8 OHM
55°F	71.1 ± 2.7 OHM	68.4 OHM	73.8 OHM
60°F	72.1 ± 2.7 OHM	69.4 OHM	74.8 OHM
65°F	73.1 ± 2.7 OHM	70.4 OHM	75.8 OHM
70°F	74.0 ± 2.6 OHM	71.4 OHM	76.6 OHM
75°F	75.0 ± 2.6 OHM	72.4 OHM	77.6 OHM
80°F	76.0 ± 2.6 OHM	73.4 OHM	78.6 OHM
85°F	77.0 ± 2.6 OHM	74.4 OHM	79.6 OHM
90°F	78.0 ± 2.6 OHM	75.4 OHM	80.6 OHM
95°F	79.0 ± 2.6 OHM	76.4 OHM	81.6 OHM
100°F	80.0 ± 2.6 OHM	77.4 OHM	82.6 OHM
110°F	82.0 ± 2.5 OHM	79.5 OHM	84.5 OHM
120°F	84.0 ± 2.5 OHM	81.5 OHM	86.5 OHM
130°F	86.0 ± 2.5 OHM	83.5 OHM	88.5 OHM
140°F	88.0 ± 2.5 OHM	85.5 OHM	90.5 OHM
150°F	90.2 ± 2.4 OHM	87.8 OHM	92.6 OHM

TEMPERATURE	NOMINAL	MINIMUM	MAXIMUM
160°F	92.2 ± 2.4 OHM	89.8 OHM	94.6 OHM
170°F	94.3 ± 2.3 OHM	92.0 OHM	96.6 OHM
180°F	96.5 ± 2.3 OHM	94.2 OHM	98.8 OHM
190°F	98.5 ± 2.3 OHM	96.2 OHM	100.8 OHM
200°F	100.8 ± 2.3 OHM	98.5 OHM	103.1 OHM
210°F	103.0 ± 2.2 OHM	100.8 OHM	105.2 OHM
220°F	105.1 ± 2.2 OHM	102.9 OHM	107.3 OHM
230°F	107.2 ± 2.1 OHM	105.1 OHM	109.3 OHM
240°F	109.5 ± 2.0 OHM	107.5 OHM	111.5 OHM
250°F	111.6 ± 2.0 OHM	109.6 OHM	113.6 OHM
260°F	114.0 ± 2.0 OHM	112.0 OHM	116.0 OHM
270°F	116.4 ± 2.1 OHM	114.3 OHM	118.5 OHM
280°F	118.7 ± 2.2 OHM	116.5 OHM	120.9 OHM
290°F	121.1 ± 2.2 OHM	118.9 OHM	123.3 OHM
300°F	123.6 ± 2.3 OHM	121.3 OHM	125.9 OHM
310°F	126.1 ± 2.3 OHM	123.8 OHM	128.4 OHM