Description
The 777-AccuPower is a fully-programmable 3-phase motor and pump protection relay. It allows motor hp rating, full load amps, efficiency and power factor to be entered and will accurately calculate motor output power. This is most useful with mag-drive pumps or process applications where the process power is desired over the utility power. Voltage, current and power measurements can be displayed as well as fault information and setpoints. The built-in display simplifies troubleshooting and allows the user to easily and precisely configure setpoints. The 777-AccuPower can be used with the optional COM 4-20 output module to give an analog signal proportional to output shaft power, the RS485MS-2W (for limited Modbus capabilities, and for use with the RM1000/RM2000) remote displays listed in the 777 accessories section.

Features & Benefits

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor output power measurement</td>
<td>Allows use of process power over utility power</td>
</tr>
<tr>
<td>3 programmable restart delay timers</td>
<td>Program separate restart delay time for rapid cycle protection, motor cool down, and dry-well recovery</td>
</tr>
<tr>
<td>Built-in Display</td>
<td>Visual indication for programming, viewing real-time voltage or current, and last fault code</td>
</tr>
<tr>
<td>Remote display compatibility</td>
<td>Increases safety through remote display of run-hour meter, last four fault codes; without the need to open the cabinet. Adds with arc flash safety regulations</td>
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<tr>
<td>Network communications capability</td>
<td>Limited Modbus capabilities using RS485MS-2W communication module</td>
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</tbody>
</table>

Accessories

- **RS485MS-2W Communication Module** (for limited Modbus capabilities) Required to enable the Modbus communications function on Model 77X-type products.
- **COM 4-20 Output Communication Module**
  This module allows communication to a PLC with an analog input and no Modbus input.
- **RM1000 Remote Monitor**
  The RM1000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring for up to 16 devices.
- **RM2000 Remote Monitor**
  The RM2000/777 motor management system combines unsurpassed electronic motor protection and critical, user-friendly, motor monitoring with event storage and real-time clock for date and time stamp.
# Specifications

**Input Characteristics**
- **Line Voltage**: 200-480VAC
- **Frequency**: 50/60Hz
- **Motor Full Load Amp Range**: 2-800A (external CTs required over 90A)
- **TC- Overcurrent Trip Class**: 5, 10, 15, 20, 30 (J prefix enables jam protection feature)

**Output Characteristics**
- **Output Contact Rating (SPDT - Form C)**
  - **Pilot duty**: 480VA @ 240VAC
  - **General Purpose**: 10A @ 240VAC

**General Characteristics**
- **Ambient Temperature Range**
  - **Operating**: -40° to 70°C (-40° to 158°F)
  - **Storage**: -40° to 80°C (-40° to 176°F)

**Accuracy**
- **Measured Horsepower/ Kilowatt**
  - **Typical**: ±3%**
  - **Voltage**: ±1%
  - **Current**: ±3% (<100 amps direct)
  - **GF Current**: ±15%
  - **Timing**: 5% ±1 second
  - **Repeatability**: ±0.5% of nominal voltage
  - **Voltage**: ±1% (<100 amps direct)

**Maximum Input Power**: 10 W

**Pollution Degree**: 3

**Class of Protection**: IP20, NEMA 1 (finger safe)

**Relative Humidity**: 10-95%, non-condensing per IEC 68-2-3

**Terminal Torque**: 7 in.-lbs.

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# Standards Passed

**Electrostatic Discharge (ESD)**
- IEC 61000-4-2, Level 3, 6kV contact, 8kV air
- IEC 61000-4-6, Level 3 10V/m

**Radio Frequency Immunity (RFI), Conducted**
- IEC 61000-4-3, Level 3 10V/m
- IEC 61000-4-4, Level 3, 3.5 kV input power 100kA

**Fast Transient Burst**
- 61000-4-5 Level 3, 2kV line-to-line; Level 4, 4kV line-to-ground
- C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line
- Meets UL508 (2 x rated V + 1000V for 1 min.)
- IEC 68-2-6, 10-55Hz, 1mm peak-to-peak, 2 hrs, 3 axis
- IEC 68-2-27, 30g, 3 axis, 11ms duration, half-sine pulse

**Hi-Potential Test**
- ANSI/IEEE
- UL508, UL1053
- IEC 60947-1, IEC 60947-5-1
- CSA C22.2

**Max. Conductor Size through 777**
- 0.65” with insulation
- H 77.47 mm (3.05”); W 97.79 mm (3.85”);
- D 128.27 mm (5.05”)

**Dimensions**
- 1.3 lbs. (20.8 oz., 589.67 g)
- Surface mount (4 - #8 screws) or DIN rail mount

**Safety Marks**
- UL
- CE
- CSA

**Weight**
- 1.3 lbs. (20.8 oz., 589.67 g)
- Surface mount (4 - #8 screws) or DIN rail mount

**Mounting Method**
- Surface mount (4 - #8 screws) or DIN rail mount

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**On a well balanced system within recommended current range.**