



177 SPDT



177 SPST-NO-DM

# 177

## SERIES COMPACT INDUSTRIAL CONTROL RELAY 15 AND 30 AMP

### FEATURES

- Compact Design Yet Handles 30 Amps or 1 HP at 120VAC
- Molded Rynite® Coil Provides Class F Insulation
- Up Stop Provides Contact Protection on SPST-NO-DM
- 1/4" Diameter Silver Cadmium Oxide Contacts

### CONTACT DATA

#### CONFIGURATION:

Thru SPDT Including SPST-NO-DM

#### MATERIALS:

1/4" Diameter All Contacts  
Silver Cadmium Oxide (Std.)

### CONTACT RATINGS

| MODEL | POLE CONFIGURATION         | UL RATINGS*                                                                                                                                     |
|-------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 177   | SPST-NO<br>SPST-NC<br>SPDT | 15 amp or 3/4 HP<br>at 120VAC<br>15 amp or 1 HP<br>at 240VAC<br>15 amp at 28VDC                                                                 |
|       | SPST-NO-DM<br>SPST-NC-DB*  | 30 amp or 1 HP<br>at 120VAC<br>20 amp or 1-1/2 HP<br>at 240VAC<br>30 amp at 28VDC<br>20 amp at 480VAC (resistive)<br>30 amp at 12VDC (Tungsten) |

\* SPST-NC-DB Not Presently Available

**UL RECOGNIZED FILE NO.:** E37066

**CSA CERTIFIED FILE NO.:** LR20690

### EXPECTED LIFE

#### Electrical At Rated Load (Minimum)

100,000 Operations Except as Noted

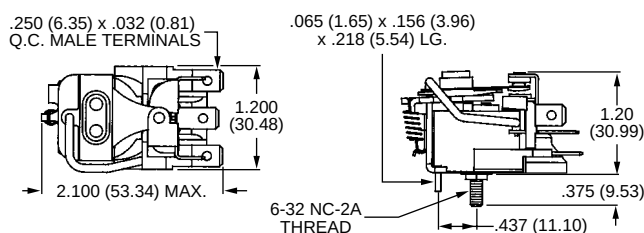
#### Mechanical Life

10,000,000 Operations

### DIELECTRIC STRENGTH

1200 VRMS, 60 Hz Between Contacts  
2200 VRMS, 60 Hz Between Other Elements

### DIMENSIONS [Unit Inch (mm)]



STANDARD WITH STUD SHOWN – OPTIONAL WITHOUT STUD

### COIL DATA

|          | NOMINAL VOLTAGE | RESISTANCE IN OHMS<br>± 10% | NOMINAL COIL POWER |
|----------|-----------------|-----------------------------|--------------------|
| AC Coils | 6VAC            | 2.7                         | 4.7VA              |
|          | 12VAC           | 11                          |                    |
|          | 24VAC           | 42                          |                    |
|          | 120VAC          | 1100                        |                    |
|          | 240VAC          | 4400                        |                    |
| DC Coils | 6VDC            | 18                          | 2W                 |
|          | 12VDC           | 72                          |                    |
|          | 24VDC           | 285                         |                    |
|          | 110VDC          | 6000                        |                    |

**Coil Voltages:** AC: Up to 277 Volts/60 Hz  
DC: Up to 125 Volts

**Coil Treatment:** Molded Rynite® Std. Class F

**Insulation Resistance:** 100 Megohms Minimum

**UL Insulation System File No.:** E74443

S155D 155°C Total Temperature Std.  
(Covers S105 Class A and S130D Class B Requirements)

### OPERATE DATA

**Pick Up (at 25°C):** AC Volts 85% or Less of Nominal  
DC Volts 75% or Less of Nominal

**Operate Time:** Approx. 15 Milliseconds

**Release Time:** Approx. 15 Milliseconds

### ENVIRONMENTAL DATA

**Operating Ambient:** AC: -45° to 70°C  
DC: -45° to 100°C

**Coil Temperature Rise:** (25°C Ambient – Continuous Duty)  
AC: 70°C Approx. @ 60 Hz – Use at 50 Hz  
will Cause Slight Increase in Coil Rise  
DC: 45°C Approx.

### MECHANICAL DATA

**Terminals:** All Versions

.250" x .032" Quick Connect/Solder Type

**Weight:** Approx. 2.5 oz. (87 g)

### ORDERING INFORMATION

| AC Coils      |                            |           |           |          |
|---------------|----------------------------|-----------|-----------|----------|
|               | Pole Config.               | 24VAC     | 120VAC    | 240VAC   |
| 15 Amp Rating | SPST-NO<br>SPST-NC<br>SPDT | 20952-82  | 20952-83  | 20952-84 |
|               |                            | 20954-82  | 20954-83  | 20954-84 |
|               |                            | 20950-82  | 20950-83  | 20950-84 |
| 30 Amp Rating | SPST-NO-DM                 | 20935-82* | 20935-83* | 20935-84 |
| DC Coils      |                            |           |           |          |
|               | Pole Config.               | 12VDC     | 24VDC     | 110VDC   |
| 15 Amp Rating | SPST-NO<br>SPST-NC<br>SPDT | 20953-81  | 20953-82  | 20953-83 |
|               |                            | 20955-81  | 20955-82  | 20955-83 |
|               |                            | 20951-81  | 20951-82  | 20951-83 |
| 30 Amp Rating | SPST-NO-DM                 | 20936-81* | 20936-82* | 20936-83 |

\*Black Items are Normally Stocked.

Blue Items are Non Stock. Minimum May Be Required.