Motor Control Timers

- Single phase Motor Restart Control Timer with Memory Time
- Under Voltage Trip and ON Delay

Ordering Information

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>22LDT0</td>
<td>240 VAC, Motor Restart Control Timer, 1 C/O</td>
</tr>
<tr>
<td>23LDT0</td>
<td>110 VAC, Motor Restart Control Timer, 1 C/O</td>
</tr>
</tbody>
</table>

UL Approval not applicable for Cat No. 23LDT0
## Motor Control Timers

### Cat. No. 22LDT0

**Parameters**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timer Description</td>
<td>Motor Restart Control Timer</td>
</tr>
</tbody>
</table>

### Functional Diagram

![Diagram](image)

### Supply Voltage (V)

<table>
<thead>
<tr>
<th>Supply Voltage (V)</th>
<th>240 VAC</th>
<th>110 VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Variation</td>
<td>- 20% to +10% (of V)</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Power Consumption (Max.)</td>
<td>4 VA</td>
<td></td>
</tr>
</tbody>
</table>

### Timing Ranges

- Memory Time (Tm): 0.2 to 6s
- Delay Time (Td): 0.2 to 60s

### Trip Voltage

- 176 VAC, ±6VAC
- 110 VAC, ±6VAC

### Hysteresis

- 176 VAC, ±80 VAC
- 110 VAC, ±80 VAC

### Power Consumption (Max.)

- 4 VA

### Reset Time

- 200 ms (Max.)

### Setting Accuracy

- ± 5% of Full scale

### Repeat Accuracy

- ± 1%

### Output

- Relay Output: 1 C/O
- Contact Rating: 5A @ 240 VAC / 28 VDC (Resistive)
- Electrical Life: 5x10^6
- Mechanical Life: 1x10^7

### Utilization Category

- AC - 15
- DC - 13

### Rated Voltage (Ue)

- Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A
- Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A

### Operating Temperature

- -15°C to +60°C

### Storage Temperature

- -20°C to +70°C

### Humidity (Non Condensing)

- 95% (Rh)

### LED Indication

- Green LED: Power ON
- Red LED: Relay ON

### Enclosure

- Flame Retardant UL94-V0

### Dimension (W x H x D) (in mm)

- 22.5 X 75 X 100.5

### Weight (unpacked)

- 130 g

### Certification

- EMI / EMC: RoHS Compliant

### Degree of Protection

- IP 20 for Terminals, IP 40 for Enclosure

### Working

The timer is used for instantaneous or delayed motor start up after a short-time power failure (max. 6 sec). The start occurs immediately if power supply is disrupted for less than 0.2 sec. If the power failure lasts longer, the relay activates its memory for a time that can be set to 0.2 to 6 sec, after which no automatic restart is possible. If power supply is restored while the memory period is elapsing, the relay commands a motor restart with a delay time from power supply restoration that can be set to 0.2 to 60 sec. A system stop cancels the memory function after 50 ms, and therefore the stop signal should be on for at least this time. The relay is non-sensitive to any control voltage fluctuation or disruption during or after the motor stop.
Motor Control Timers

MOUNTING DIMENSION (mm)

CONNECTION DIAGRAM

TERMINAL TORQUE & TERMINAL CAPACITY

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 3.5 mm - 4.0 mm</td>
<td>0.60 N.m (6 Lb.in)</td>
</tr>
<tr>
<td>AWG</td>
<td>1 x 4.0 mm² Solid/Stranded Wire</td>
</tr>
<tr>
<td>1 x 20 to 10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 3.5 mm - 5.0 mm</td>
<td>0.80 N.m (7.1 Lb.in)</td>
</tr>
<tr>
<td>AWG</td>
<td>2 x 2.5 mm² Solid/Stranded Wire</td>
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<tr>
<td>2 x 20 to 14</td>
<td></td>
</tr>
</tbody>
</table>