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DO NOT USE POWER TOOLS ON THESE PRODUCTS



## ECSDS230/400 Star Delta Timer Relays



| Data                                  | ECSDS230  | ECSDS400            |
|---------------------------------------|---|---------------------|
| Function                              | Delay ON star/delta   |                     |
| Supply Terminals                      | A1-A2   |                     |
| Voltage Range                         | AC/DC 12-240V(50-60Hz)                                      | AC/DC 400V(50-60Hz) |
| Burden                                | AC 0.7-3VA/DC 0.5-1.7W                                      |                     |
| Power Input                           | AC max.12VA/1.3W  | AC max.12VA/1.9W    |
| Supply Voltage Tolerance              | -15%; +10%  |                     |
| Supply Indication                     | Green LED   |                     |
| Time Ranges                           | Range of time delay t1:0.1s - 10min, Switch time t2:0.1-1s  |                     |
| Time setting                          | Potentionmeter  |                     |
| Time Deviation                        | 5%-mechanical setting                                       |                     |
| Repeat accuracy                       | 0.2%-set value stability                                    |                     |
| Temperature Coecient                  | 0.05%/°C, at=20°C(0.05%°F, at= 68°F)                        |                     |
| Output                                | 2×SPDT  |                     |
| Current Rating                        | 16A/ AC1  |                     |
| Switching Voltage                     | 250VAC/24VDC  |                     |
| Minimum Breaking Capacity DC          | 500mW   |                     |
| Output Indication                     | Red LED   |                     |
| Switching Voltage                     | 250VAC/24VDC  |                     |
| Minimum Breaking Capacity DC          | 500mW   |                     |
| Output Indication                     | Red LED   |                     |
| Mechanical Life                       | 1×10 <sup>7</sup>   |                     |
| Electrical Life (AC1)                 | 1×10 <sup>6</sup>   |                     |
| Reset Time                            | Maximum 200ms   |                     |
| Operating Temperature                 | -20°C to +55°C (-4°F to 131°F)                              |                     |
| Storage Temperature                   | -35°C to +75°C (-22°F to 158°F)                             |                     |
| Mounting/DIN rail                     | Din rail EN/IEC 60715                                       |                     |
| Protection Degree                     | IP40 for front panel/IP20 terminals                         |                     |
| Operating Position                    | Any   |                     |
| Overvoltage Category                  | III.  |                     |
| Pollution Degree                      | 2   |                     |
| Maximum Cable Size (mm <sup>2</sup> ) | solid wire max.1×2.5 or 2×1.5/with sleeve max.1×2.5(AWG 12) |                     |
| Dimensions                            | 90 x 18 x 64mm  |                     |
| Weight                                | W240-82g,A230-80g   |                     |
| Standards                             | EN 61812-1,EN61010-1  |                     |

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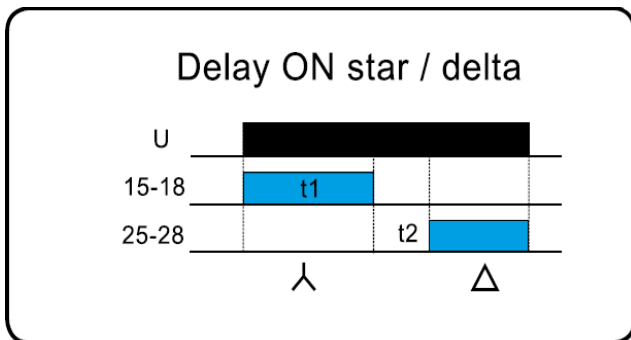
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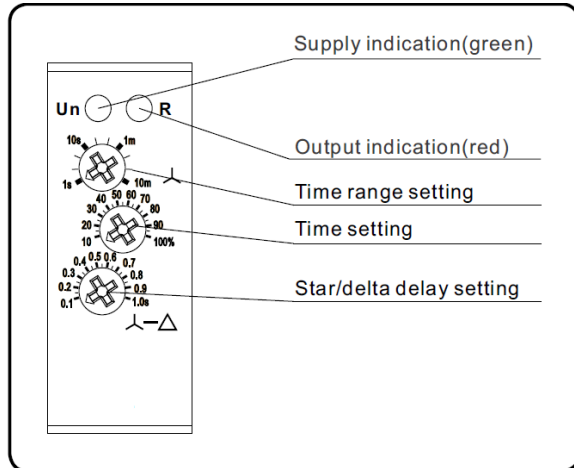
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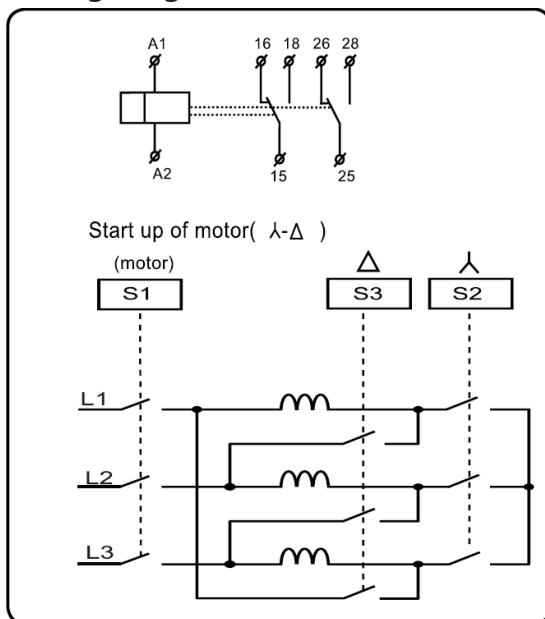
## Functions Diagram



## Panel Diagram



## Wiring Diagram



## Dimensions

