

# Solid-state contactor - ELR 1-SC-230AC/600AC-20 - 1032920

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Single-phase solid-state contactor, input voltage: 230 V AC, output current: 20 A, zero voltage switch

## Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 1             |
| GTIN             | 4055626537849 |

## Technical data

### Dimensions

|        |         |
|--------|---------|
| Width  | 17.8 mm |
| Height | 110 mm  |
| Depth  | 103 mm  |

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -30 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |

### Input data

|                               |   |
|-------------------------------|---|
| Input name                    | Control input   |
| Rated actuating voltage $U_c$ | 230 V AC  |
| Triggering voltage range      | 24 V AC ... 275 V AC<br>24 V DC ... 190 V DC                    |
| Rated actuating current $I_c$ | approx. 17 mA   |
| Switching threshold           | $\leq 5$ V AC/DC ("0" signal)<br>$\geq 20$ V AC/DC ("1" signal) |
| Transmission frequency        | 6 Hz  |
| Operating voltage display     | Green LED   |

### Output data load output

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Output name                       | Load output                       |
| Operating voltage range           | 42 V AC ... 660 V AC              |
| Load current range                | 150 mA ... 20 A (see to derating) |
| Rated operating current at AC-51  | 20 A                              |
| Rated operating current at AC-53a | 5 A ( $T_A = 25$ °C)              |

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## Technical data

### Output data load output

|                           |                              |
|---------------------------|------------------------------|
|                           | 5 A (T <sub>A</sub> = 40 °C) |
| <b>Leakage current</b>    | < 3 mA (In off state)        |
| <b>Residual voltage</b>   | < 1.6 V                      |
| <b>Surge current</b>      | 325 A (t = 10 ms)            |
| <b>Type of protection</b> | Varistor                     |

### General

|                              |                                       |
|------------------------------|---------------------------------------|
| <b>Mounting position</b>     | Vertical (horizontal DIN rail)        |
| <b>Assembly instructions</b> | Can be aligned with ≥ 22.5 mm spacing |

### Connection data 1

|   |   |
|---|---|
| <b>Connection name</b>                  | Control circuits                            |
| <b>Connection method</b>                | Screw connection                            |
| <b>Stripping length</b>                 | 8 mm  |
| <b>Screw thread</b>                     | M3  |
| <b>Conductor cross section solid</b>    | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| <b>Conductor cross section flexible</b> | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| <b>Conductor cross section AWG</b>      | 18 ... 12                                   |

### Connection data 2

|   |   |
|---|---|
| <b>Connection name</b>                  | Load circuit                              |
| <b>Connection method</b>                | Screw connection                          |
| <b>Stripping length</b>                 | 12 mm                                     |
| <b>Screw thread</b>                     | M4  |
| <b>Conductor cross section solid</b>    | 2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
| <b>Conductor cross section flexible</b> | 1 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| <b>Conductor cross section AWG</b>      | 14 ... 10                                 |

### Standards and Regulations

|                              |                       |
|------------------------------|-----------------------|
| <b>Designation</b>           | Standards/regulations |
| <b>Standards/regulations</b> | EN 61000-4-2          |
|                              | EN 61000-4-3          |
|                              | EN 61000-4-4          |
|                              | EN 61000-4-5          |
|                              | EN 55011              |

### Classifications

#### eCl@ss

|                   |          |
|-------------------|----------|
| <b>eCl@ss 6.0</b> | 27371000 |
| <b>eCl@ss 7.0</b> | 27371014 |
| <b>eCl@ss 8.0</b> | 27371014 |
| <b>eCl@ss 9.0</b> | 27371014 |

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## Classifications

### ETIM

|                 |          |
|-----------------|----------|
| <b>ETIM 5.0</b> | EC002055 |
| <b>ETIM 6.0</b> | EC002055 |
| <b>ETIM 7.0</b> | EC002055 |

## Approvals

UL Listed / cUL Listed / EAC / cULus Listed /

### Approval details

**UL Listed**

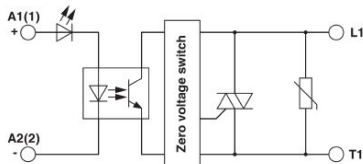
**cUL Listed**

**EAC**

**cULus Listed**

## Drawings

### Block diagram



### Diagram

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