

## Reversing load relay - ELR W3/ 9-500 - 2964186

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Electronic reversing load relay, for direct driving of equipment in the 3-phase network, with light indicator and protection circuit, output: 110-550 V AC/3 x 9 A

The illustration shows the version  
ELR W 3/9-400

### Product Features

- High switching frequency
- Noise and wear-free switching up to 500 V AC/9 A
- Protective circuit in input and output
- LEDs for forward and reverse running, operating voltage, and impermissible control



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 017918 099398 |
| Weight per Piece (excluding packing) | 788.0 g                                                                                                 |
| Custom tariff number                 | 85364900                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### Technical data

#### Note

|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---------------------------------------------------------------------------|

#### Input data

|                        |               |
|------------------------|---------------|
| Input name             | Device supply |
| Nominal supply voltage | 24 V DC       |

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## Technical data

### Input data

|                                           |                                                       |
|-------------------------------------------|-------------------------------------------------------|
| Quiescent current                         | 40 mA                                                 |
| Protective circuit                        | Reverse polarity protection Polarity protection diode |
|                                           | Surge protection                                      |
| Operating voltage display                 | Green LED                                             |
| Status display                            | Yellow LED                                            |
| Indication                                | Red LED                                               |
| Input name                                | Control input right/left                              |
| Nominal input voltage $U_N$               | 24 V DC                                               |
| Input voltage range in reference to $U_N$ | 0.8 ... 1.25                                          |
| Typical input current at $U_N$            | 7.5 mA                                                |
| Reaction time in normal load operation    | 50 ms                                                 |
| Switch-over frequency                     | < 10 Hz (At $\cos \phi > 0.5$ )                       |
| Maximum reversing frequency               | 10 Hz                                                 |
| Switchover time $R_L/L_L$ (turn-on time)  | 20 ms                                                 |

### Output data load output

|                              |                                  |
|------------------------------|----------------------------------|
| Nominal output voltage       | 500 V AC                         |
| Nominal output voltage range | 110 V AC ... 550 V AC            |
| Load current range           | 150 mA                           |
| Leakage current              | typ. 7 mA                        |
| Residual voltage             | typ. 1.5 V                       |
| Surge current                | 230 A ( $t_p = 10$ ms, at 25 °C) |
| Protective circuit           | RC element RC element            |

### Connection data, control circuit

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Connection name                  | Control circuits                          |
| Connection method                | Screw connection                          |
| Stripping length                 | 8 mm                                      |
| Screw thread                     | M3                                        |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> |
| Conductor cross section AWG      | 24 ... 10                                 |

### Connection data load circuit

|                               |                                           |
|-------------------------------|-------------------------------------------|
| Connection name               | Load circuit                              |
| Connection method             | Screw connection                          |
| Stripping length              | 8 mm                                      |
| Screw thread                  | M3                                        |
| Conductor cross section solid | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup> |

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## Technical data

### Connection data load circuit

|                                  |                                           |
|----------------------------------|-------------------------------------------|
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| Conductor cross section AWG      | 24 ... 10                                 |

### General

|                           |                                                                  |
|---------------------------|------------------------------------------------------------------|
| Test voltage input/output | 2.5 kV                                                           |
| Mounting position         | Vertical (horizontal DIN rail)                                   |
| Assembly instructions     | Can be aligned with > 20 mm spacing                              |
| Operating mode            | 100% operating factor                                            |
| Designation               | Air clearances and creepage distances between the power circuits |
| Standards/regulations     | EN 50178                                                         |
| Designation               | Power station requirements                                       |
|                           | EMC regulations                                                  |
| Standards/regulations     | EN 61000-6-2                                                     |
|                           | EN 61000-6-4                                                     |
| Reversing frequency       | ≤ 10 Hz (At cos φ = 0.5)                                         |

### Dimensions

|        |        |
|--------|--------|
| Width  | 62 mm  |
| Height | 84 mm  |
| Depth  | 110 mm |

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |
| Degree of protection                    | IP20             |

### Standards and Regulations

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Designation           | Air clearances and creepage distances between the power circuits |
| Standards/regulations | EN 50178                                                         |
| Designation           | Power station requirements                                       |
|                       | EMC regulations                                                  |
| Standards/regulations | EN 61000-6-2                                                     |
|                       | EN 61000-6-4                                                     |

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.0 | 27371601 |
| eCl@ss 5.1 | 27371601 |
| eCl@ss 6.0 | 27371601 |
| eCl@ss 7.0 | 27371601 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000066 |
| ETIM 3.0 | EC000066 |
| ETIM 4.0 | EC000066 |
| ETIM 5.0 | EC002055 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211915 |
| UNSPSC 7.0901 | 39121514 |
| UNSPSC 11     | 39121514 |
| UNSPSC 12.01  | 39121514 |
| UNSPSC 13.2   | 39121514 |

### Approvals

#### Approvals

Approvals

EAC / EAC

Ex Approvals

Approvals submitted

#### Approval details

|     |
|-----|
| EAC |
|-----|

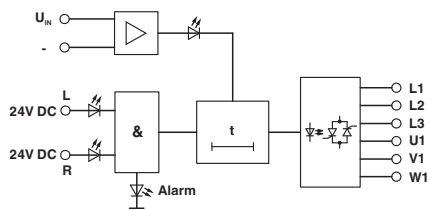
# Reversing load relay - ELR W3/ 9-500 - 2964186

## Approvals

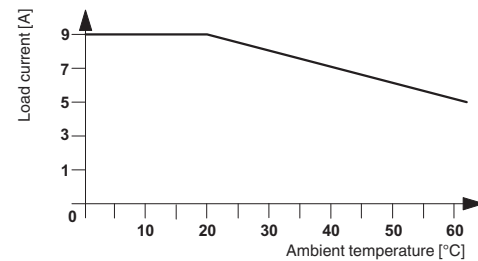
EAC

## Drawings

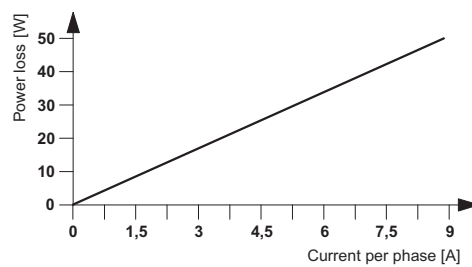
Block diagram



Diagram



Diagram



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