

## PRODUCT-DETAILS

# E290-16-20/48

## E290-16-20/48 Electromechanical latching relay



### General Information

|                       |                                                |
|-----------------------|------------------------------------------------|
| Extended Product Type | E290-16-20/48                                  |
| Product ID            | 2TAZ312000R2032                                |
| EAN                   | 7612270939701                                  |
| Catalog Description   | E290-16-20/48 Electromechanical latching relay |

#### Long Description

Latching relays are electromagnetically operated devices. The E290 range from ABB can be used to realise a simple, energy saving and efficient lighting control system. These devices are mainly used in private houses, factory premises and commercial and public buildings as well as in industrial plants. As a rule, latching relays controlled by means of impulse buttons are installed where it is necessary for lighting to be operated from at least three different places. Each time a command is initiated (by means of an impulse button), an electrical pulse is applied to the coil of the latching relay. The coil in the device is briefly energised and activated. That short pulse to the coil leads to the mechanical latch of the internal main contacts. The internal switching mechanism enables us to achieve a safe and reliable interlock (in the same way as a ballpoint pen). Each pulse that is sent to the magnetic coil system switches the device to its previous position where it is held mechanically until the next control pulse is received. The devices are designed for rated currents 16 and 32A. Through the combinable accessories the main modules can be used in nearly all market applications.

### Technical

|                           |                                    |
|---------------------------|------------------------------------|
| Standards                 | IEC/EN 60669-1<br>IEC/EN 60669-2-2 |
| Product Name              | Electromechanical latching relay   |
| Rated Operational Voltage | 250 V AC                           |
| Supply Voltage            | 43.2 ... 52.8 V AC                 |

|                                                     |                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Insulation Voltage (U <sub>i</sub> )          | 48 V AC<br>24 V DC                                                                                                                                                                                                                                                                                                                      |
| Rated Control Supply Voltage (U <sub>s</sub> )      | 48 V AC<br>24 V DC                                                                                                                                                                                                                                                                                                                      |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | 4 kV                                                                                                                                                                                                                                                                                                                                    |
| Rated Control Circuit Voltage (U <sub>c</sub> )     | 48 V AC<br>24 V DC                                                                                                                                                                                                                                                                                                                      |
| Rated Current (I <sub>n</sub> )                     | 16 A                                                                                                                                                                                                                                                                                                                                    |
| Current Rating, Main Switch                         | 16 A                                                                                                                                                                                                                                                                                                                                    |
| Maximum Switching Current                           | 16 A                                                                                                                                                                                                                                                                                                                                    |
| Maximum Control Current DC                          | 5 A                                                                                                                                                                                                                                                                                                                                     |
| Rated Frequency (f)                                 | 50 Hz                                                                                                                                                                                                                                                                                                                                   |
| Maximum Lamp Load                                   | 3000 W<br>Flourescent, Uncorrected Power Factor (cos. 0.5) 1800 W<br>Flourescent, Corrected Power Factor (cos. 0.9): Serial 3000 W<br>Flourescent, Corrected Power Factor (cos. 0.9): Parallel 2500 W<br>Flourescent, Corrected Power Factor (cos. 0.9): Single 1800 W<br>Flourescent, Corrected Power Factor (cos. 0.9): Double 2500 W |
| Power Loss                                          | 0.64 W                                                                                                                                                                                                                                                                                                                                  |
| Number of Contacts CO                               | 0                                                                                                                                                                                                                                                                                                                                       |
| Number of Contacts NC                               | 0                                                                                                                                                                                                                                                                                                                                       |
| Number of Contacts NO                               | 2                                                                                                                                                                                                                                                                                                                                       |
| Number of Main Contacts NC                          | 0                                                                                                                                                                                                                                                                                                                                       |
| Number of Main Contacts NO                          | 2                                                                                                                                                                                                                                                                                                                                       |
| Number of Auxiliary Contacts NC                     | 0                                                                                                                                                                                                                                                                                                                                       |
| Number of Auxiliary Contacts NO                     | 0                                                                                                                                                                                                                                                                                                                                       |
| Sound dB (A)                                        | (@distance 1 m) 60 dB                                                                                                                                                                                                                                                                                                                   |
| Tightening Torque                                   | 1.2 - 1.5 N·m                                                                                                                                                                                                                                                                                                                           |
| Response Time                                       | <3 ms                                                                                                                                                                                                                                                                                                                                   |
| Impulse Duration                                    | Minimum 50 ms                                                                                                                                                                                                                                                                                                                           |
| Contact Type                                        | Normally Open (NO)                                                                                                                                                                                                                                                                                                                      |
| Mounting Type                                       | DIN rail                                                                                                                                                                                                                                                                                                                                |
| Options Provided                                    | 2NO                                                                                                                                                                                                                                                                                                                                     |
| Coil Consumption                                    | Control Voltage V AC 48 V AC<br>Average Pull-in Value 50 Hz 0.212 A<br>Control Voltage V DC 24 V DC<br>Average Pull-in Value 50 Hz 0.207 A                                                                                                                                                                                              |
| RAL Number                                          | RAL 7035 - Light Grey                                                                                                                                                                                                                                                                                                                   |
| Color                                               | Grey                                                                                                                                                                                                                                                                                                                                    |
| Connecting Capacity                                 | Solid 1 x 1 ... 10 mm <sup>2</sup><br>Flexible 2 x 2.5 mm <sup>2</sup><br>Flexible with Cable End 1 x 0.75 ... 6 mm <sup>2</sup><br>Flexible with Cable Lug 1 x 0.75 ... 6 mm <sup>2</sup>                                                                                                                                              |

## Environmental

|                                   |                                                                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature           | Operation -25...+55 °C<br>Storage -40...+70 °C                                                                                                                                              |
| RoHS Status                       | Following EU Directive 2002/95/EC August 18, 2005 and amendment                                                                                                                             |
| Environmental Information         | 2CCC441012D0202                                                                                                                                                                             |
| Climate Class Reference Standards | IEC 60068-2-2 - Deals with dry heat tests applicable both to heat-dissipating and non heat-dissipating specimens<br>IEC 60068-2-30 - Determines the suitability of components, equipment or |

other articles for use, transportation and storage under conditions of high humidity - combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen.  
IEC 60068-2-1 - Deals with cold tests applicable to both non heat-dissipating and heat-dissipating specimens

## Technical UL/CSA

|                                     |      |
|-------------------------------------|------|
| Short-Circuit Current Rating (SCCR) | 3 kA |
|-------------------------------------|------|

## Dimensions

|                                     |       |
|-------------------------------------|-------|
| Width in Number of Modular Spacings | 1     |
| Product Net Width                   | 18 mm |
| Product Net Height                  | 85 mm |
| Product Net Depth / Length          | 62 mm |
| Product Net Weight                  | 122 g |
| Product Net Length                  | 62 mm |
| Built-In Depth (t <sub>2</sub> )    | 68 mm |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 10 piece  |
| Package Level 1 Width          | 96 mm         |
| Package Level 1 Height         | 82 mm         |
| Package Level 1 Depth / Length | 185 mm        |
| Package Level 1 Gross Weight   | 1296 g        |
| Package Level 1 EAN            | 7612270939701 |

## Ordering

|                         |            |
|-------------------------|------------|
| Minimum Order Quantity  | 10 piece   |
| Customs Tariff Number   | 85364930   |
| E-Number (Finland)      | 2712537    |
| Country of Origin       | China (CN) |
| Selling Unit of Measure | piece      |

## Certificates and Declarations (Document Number)

|                                |                   |
|--------------------------------|-------------------|
| Declaration of Conformity - CE | 2CCC005102D0201   |
| EAC Certificate                | 9AKK107992A1778   |
| Environmental Information      | 2CCC441012D0202   |
| Instructions and Manuals       | 2CCC441005M0801   |
| RoHS Information               | 2CCC413008D0206   |
| VDE Certificate                | VDE E29x_40040851 |

## Popular Downloads

|                       |                 |
|-----------------------|-----------------|
| Data Sheet, Technical | 2CCC441020C0201 |
|-----------------------|-----------------|

|                          |                 |
|--------------------------|-----------------|
| Information              |                 |
| Instructions and Manuals | 2CCC441005M0801 |
| Dimension Diagram        | 9AKK107992A6188 |

### Classifications

|                            |                                                            |
|----------------------------|------------------------------------------------------------|
| ETIM 6                     | EC000188 - Latching relay                                  |
| ETIM 7                     | EC000188 - Latching relay                                  |
| ETIM 8                     | EC000188 - Latching relay                                  |
| WEEE Category              | 5. Small Equipment (No External Dimension More Than 50 cm) |
| WEEE B2C / B2B             | Business To Consumer                                       |
| CN8                        | 85362020                                                   |
| Object Classification Code | K                                                          |

### Accessories

| Identifier      | Description                               | Type        | Quantity | Unit Of Measure |
|-----------------|-------------------------------------------|-------------|----------|-----------------|
| 2CCA704300R0001 | E292-16-20 E292-16-20                     | E292-16-20  | 10       | piece           |
| 2CCA704301R0001 | E292-16-11 E292-16-11                     | E292-16-11  | 10       | piece           |
| 2CCA704302R0001 | E292-16-001 E292-16-001                   | E292-16-001 | 10       | piece           |
| 2TAZ312001R2043 | E294/24 E294/24                           | E294/24     | 5        | piece           |
| 2TAZ312001R2013 | E294/230 E294/230                         | E294/230    | 5        | piece           |
| 2TAZ312005R1003 | E295-PS E295-PS-                          | E295-PS     | 10       | piece           |
| 2TAZ310002R1000 | E295-GM E295-GM                           | E295-GM     | 10       | piece           |
| 2TAZ310003R1000 | E296-CP E296-CP                           | E296-CP     | 10       | piece           |
| 2CCA704340R0001 | E299-11 E299-11                           | E299-11     | 10       | piece           |
| 2CCA704341R0001 | E299-20 Auxiliary contact                 | E299-20     | 10       | piece           |
| 2CCS500900R0181 | ZLS725 ZLS725-Falso polo, 1 modulo (5ps)  | ZLS725      | 10       | pack            |
| 2CCS400900R0091 | ZLS726 ZLS726-Falso polo 1/2 modulo (5ps) | ZLS726      | 10       | pack            |

### Categories

Low Voltage Products and Systems → Modular DIN Rail Products → Command and Signalling Devices → Latching Relays

