

## PRODUCT-DETAILS

# E297-16-20/48

## E297-16-20/48 Installation relay



### General Information

|                       |                                  |
|-----------------------|----------------------------------|
| Extended Product Type | E297-16-20/48                    |
| Product ID            | 2TAZ311000R2032                  |
| EAN                   | 7612270940158                    |
| Catalog Description   | E297-16-20/48 Installation relay |

#### Long Description

Installation relays are electromagnetically operated miniature contactors in the standard DIN width of 18 mm. A reliable control system can be designed using these ABB Installation relays E297. They are used mainly in industrial plants but also in commercial and public buildings. As a rule, installation relays operated by means of a control switch (maintained contact) are installed where it is necessary to operate lighting, an air-conditioning system, a fan or suchlike. Installation relays are also referred to as monostable switching relays or 2-pole miniature contactors. The term "monostable" means that an on command has to be sent to the coil by means of a control switch (maintained operation) in order to excite the magnetic coil. The coil armature attracts and closes or opens the main contacts. The device remains in the on position for as long as the control voltage is applied to the coil. If the voltage flow to the coil is interrupted, the installation relay always returns to the neutral position (off position). Installation relays and the accessories are available in different versions in order to easily satisfy the various market requirements. Their optimal switching capacity also makes them suitable for use in industrial environments and in situations where it is necessary to ensure control over more powerful consumers (such as e.g. multiple lighting systems). Using an optimized coil (low power loss = lower operating temperature) ensures a clean and safe operation in the electrical distribution board.

### Technical

|              |                            |
|--------------|----------------------------|
| Standards    | EN 60669-1<br>EN 60669-2-2 |
| Product Name | Installation relay         |

|                                                     |                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage (U <sub>r</sub> )                     | 250 V AC                                                                                                                                                                                                                                                                                                                                |
| Rated Operational Voltage                           | 250 V AC                                                                                                                                                                                                                                                                                                                                |
| Supply Voltage                                      | 43.2 ... 52.8 V AC                                                                                                                                                                                                                                                                                                                      |
| Rated Insulation Voltage (U <sub>i</sub> )          | 48 V AC/DC                                                                                                                                                                                                                                                                                                                              |
| Rated Control Supply Voltage (U <sub>s</sub> )      | 48 V AC<br>48 V DC                                                                                                                                                                                                                                                                                                                      |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | 4 kV                                                                                                                                                                                                                                                                                                                                    |
| Rated Control Circuit Voltage (U <sub>c</sub> )     | 48 V AC<br>48 V DC                                                                                                                                                                                                                                                                                                                      |
| Rated Current (I <sub>n</sub> )                     | 16 A                                                                                                                                                                                                                                                                                                                                    |
| Rated Frequency (f)                                 | 50 .. 60 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                                          | 1 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                                                                                                                                                                                                                                                                                                                                   |
| 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 2.10 A<br>Average Holding Value 50 Hz 1.416 W<br>Average Holding Value 50 Hz 0.033 A<br>Control Voltage V AC 48 V DC<br>Average Pull-in Value 50 Hz 2.10 A<br>Average Holding Value 50 Hz 1.416 W<br>Average Holding Value 50 Hz 0.033 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                                                 |

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**Technical UL/CSA**

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

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**Dimensions**

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|                                     |       |
|-------------------------------------|-------|
| 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                  | 121 g |
| Product Net Length                  | 62 mm |
| Built-In Depth (t <sub>2</sub> )    | 62 mm |

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**Container Information**

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|                                |               |
|--------------------------------|---------------|
| 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   | 1286 g        |
| Package Level 1 EAN            | 7612270940158 |

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**Ordering**

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

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**Certificates and Declarations (Document Number)**

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|                                |                   |
|--------------------------------|-------------------|
| Declaration of Conformity - CE | 2CCC005103D0201   |
| EAC Certificate                | 9AKK107992A1778   |
| Environmental Information      | 2CCC441012D0202   |
| Instructions and Manuals       | 2CCC441006M0801   |
| RoHS Information               | 2CCC413008D0206   |
| VDE Certificate                | VDE_E297_40041228 |

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**Popular Downloads**

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|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 2CCC441020C0201 |
| Instructions and Manuals          | 2CCC441006M0801 |
| Dimension Diagram                 | 9AKK107992A6188 |

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**Classifications**

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|                            |                                                            |
|----------------------------|------------------------------------------------------------|
| ETIM 6                     | EC001652 - Installation relay                              |
| ETIM 7                     | EC001652 - Installation relay                              |
| ETIM 8                     | EC001652 - Installation 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 |
|-----------------|---------------------------------------------|-------------|----------|-----------------|
| 2CCA704320R0001 | E298-16-20 Main contact module 16A, 2NO     | E298-16-20  | 10       | piece           |
| 2CCA704321R0001 | E298-16-11 Main contact module 16A, 1NO+1NC | E298-16-11  | 10       | piece           |
| 2CCA704322R0001 | E298-16-001 Main contact module 16A, 1CO    | E298-16-001 | 10       | piece           |
| 2CCA704340R0001 | E299-11 Auxiliary contact 5A, 1NO+1NC       | E299-11     | 10       | piece           |
| 2CCA704341R0001 | E299-20 Auxiliary contact                   | E299-20     | 10       | piece           |
| 2CCS500900R0181 | ZLS725 Spare parts                          | ZLS725      | 10       | pack            |
| 2CCS400900R0091 | ZLS726 Spare parts                          | ZLS726      | 10       | pack            |

Categories

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

