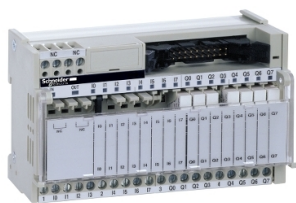


# Product data sheet

Specifications



## Sub-base with plug-in electromechanical relay ABE7, 16 channels, relay 5 mm

ABE7R16M111

### Main

|                           |  |
|---------------------------|--|
| Range Of Product          | Modicon ABE7   |
| Product Or Component Type | Sub-base with plug-in electromechanical relay  |
| Sub-Base Type             | Output sub-base  |
| [Us] Rated Supply Voltage | 19...30 V conforming to IEC 61131-2  |
| Number Of Channels        | 16   |
| Connections - Terminals   | Screw type terminals, 1 x 0.14...1 x 1.5 mm <sup>2</sup> (AWG 26...AWG 16) flexible with cable end<br>Screw type terminals, 1 x 0.14...1 x 2.5 mm <sup>2</sup> (AWG 26...AWG 14) flexible without cable end<br>Screw type terminals, 1 x 0.14...1 x 4 mm <sup>2</sup> (AWG 26...AWG 12) solid<br>Screw type terminals, 2 x 0.14...2 x 0.75 mm <sup>2</sup> (AWG 26...AWG 18) flexible with cable end<br>Screw type terminals, 2 x 0.14...2 x 1.5 mm <sup>2</sup> (AWG 26...AWG 16) solid |

### Complementary

|  |  |
|--|--|
| Supply Voltage Type                    | DC   |
| Product Compatibility                  | ABR7S11  |
| Contacts Type And Composition          | 1 NO   |
| Status Led                             | 1 LED power ON<br>1 LED per channel channel status   |
| Polarity Distribution                  | Common distribution group of 4 + 2 inputs common terminals   |
| Short-Circuit Protection               | 1 A internal fuse, 5 x 20 mm, fast blow (PLC end)  |
| Mounting Mode                          | By clips (35 mm DIN rail)<br>By screws (surface mount with kit)  |
| Maximum Supply Current                 | 1 A  |
| Voltage Drop On Power Supply Fuse      | 0.3 V  |
| Maximum Current Per Output Common      | 5 A screw type terminals   |
| [Ui] Rated Insulation Voltage          | 2000 V between terminals/mounting rails<br>300 V between coil circuit/contact circuits conforming to IEC 60947-1 |
| Maximum Current Per Module             | 12 A   |
| [Uimp] Rated Impulse Withstand Voltage | 2.5 kV   |
| Installation Category                  | II conforming to IEC 60664-1   |
| Tightening Torque                      | 0.6 N.m with flat Ø 3.5 mm screwdriver   |
| Net Weight                             | 0.6 kg   |

### Environment

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                       |  |
|---------------------------------------|--|
| Product Certifications                | UL<br>DNV<br>CSA<br>GL<br>EAC  |
| Ip Degree Of Protection               | IP2X conforming to IEC 60529   |
| Resistance To Incandescent Wire       | 750 °C, extinction time <30 s conforming to IEC 60695-2-11   |
| Shock Resistance                      | 15 gn for 11 ms conforming to IEC 60068-2-27   |
| Vibration Resistance                  | 2 gn conforming to IEC 60068-2-6 (f = 10...150 Hz)   |
| Resistance To Electrostatic Discharge | 4 kV (contact) level 3 conforming to IEC 61000-4-2<br>8 kV (air) level 3 conforming to IEC 61000-4-2 |
| Resistance To Radiated Fields         | 10 V/m (26000000...1000000000 Hz) conforming to IEC 61000-4-3 level 3                                |
| Resistance To Fast Transients         | 2 kV level 3 conforming to IEC 61000-4-4   |
| Ambient Air Temperature For Operation | -5...60 °C conforming to IEC 61131-2   |
| Ambient Air Temperature For Storage   | -40...80 °C conforming to IEC 61131-2  |
| Pollution Degree                      | 2 conforming to IEC 60664-1  |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type Of Package 1       | PCE      |
| Number Of Units In Package 1 | 1        |
| Package 1 Height             | 7.0 cm   |
| Package 1 Width              | 8.2 cm   |
| Package 1 Length             | 13.8 cm  |
| Package 1 Weight             | 268.0 g  |
| Unit Type Of Package 2       | S03      |
| Number Of Units In Package 2 | 12       |
| Package 2 Height             | 30.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 3.929 kg |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Mercury Free

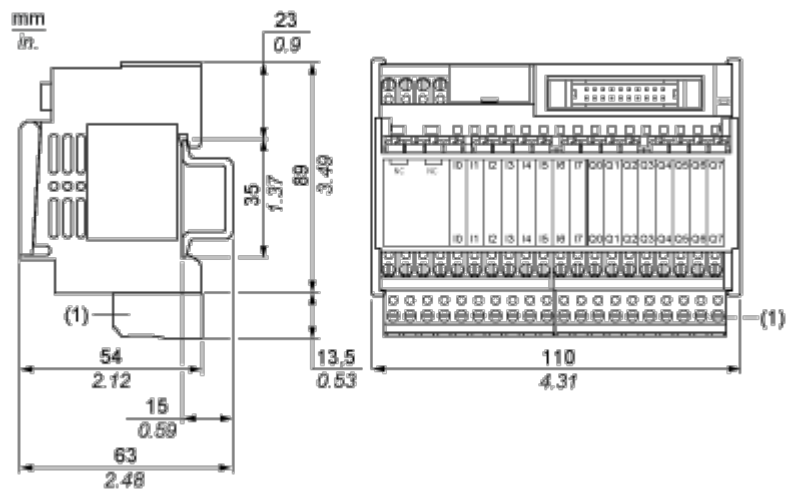
✓ Rohs Exemption Information   [Yes](#)

## Certifications & Standards

|                           |   |
|---------------------------|---|
| Reach Regulation          | <a href="#">REACH Declaration</a>   |
| Eu Rohs Directive         | Pro-active compliance (Product out of EU RoHS legal scope)  |
| China Rohs Regulation     | <a href="#">China RoHS declaration</a>  |
| Environmental Disclosure  | <a href="#">Product Environmental Profile</a>   |
| Weee                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins   |
| Circularity Profile       | <a href="#">End of Life Information</a>   |
| California Proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

Dimensions Drawings

Dimensions

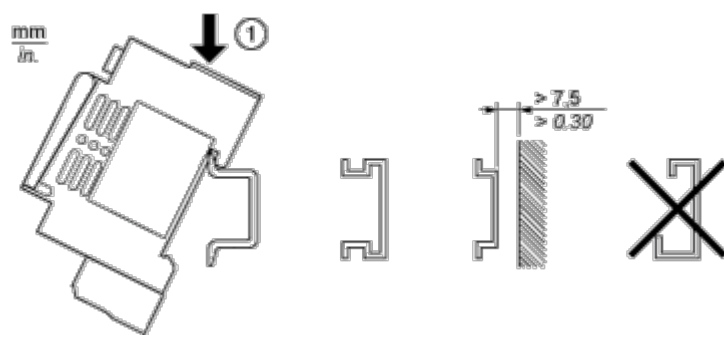


(1) ABE7BV10 / BV20

Mounting and Clearance

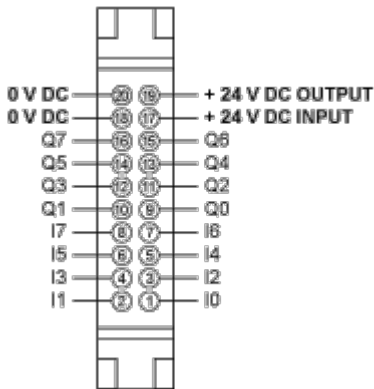
Mounting

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Connections and Schema

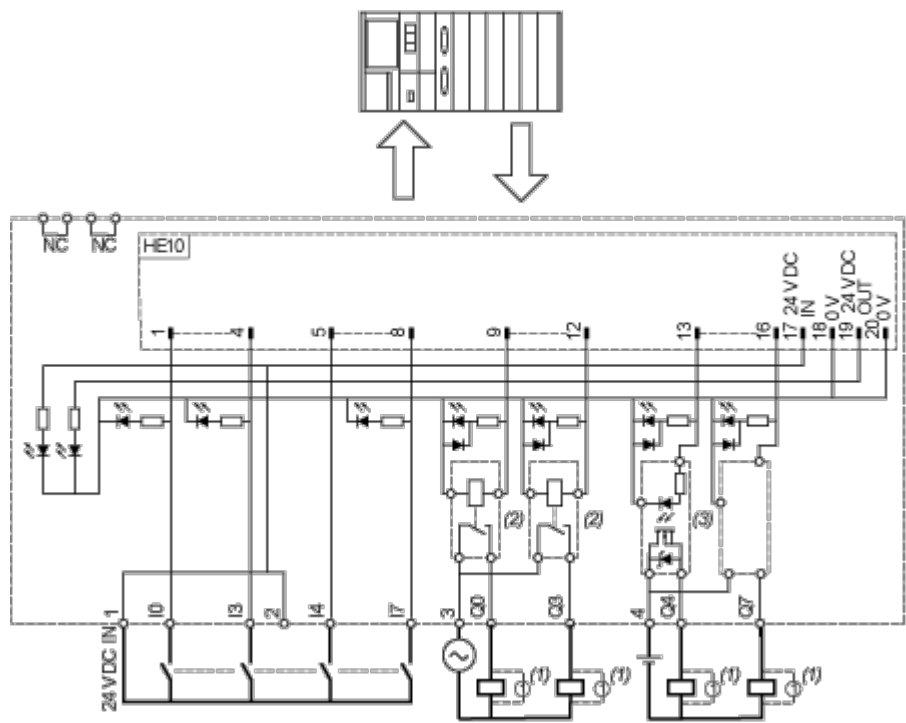
Wiring channels



Qx    Outputs

Ix    Inputs

Wiring Diagram

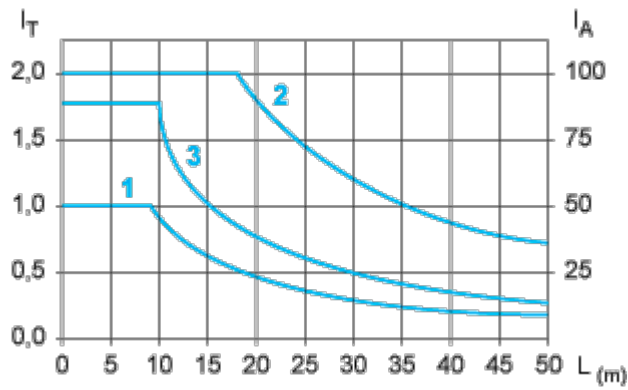


- (1) Inductive load
- (2) ABR7S11 (1F) - N/O Ith = 6 A (supplied for ABE7R16M111 and not supplied for ABE7P16M111)
- (3) ABS7SC1B 24 VDC I<sub>max.</sub> = 2 A (not supplied)

Performance Curves

Curves for Determining Cable Type and Length According to the Current

16-channel Sub-base



- L Cable length
- $I_T$  Total current per sub base (A)
- $I_A$  Average current per channel (mA)
- (1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm<sup>2</sup> (AWG 28).
- (2) TSXCDP••3 cables with c.s.a. 0.34 mm<sup>2</sup> (AWG 22).
- (3) Cables with c.s.a. 0.13 mm<sup>2</sup> (AWG 26).

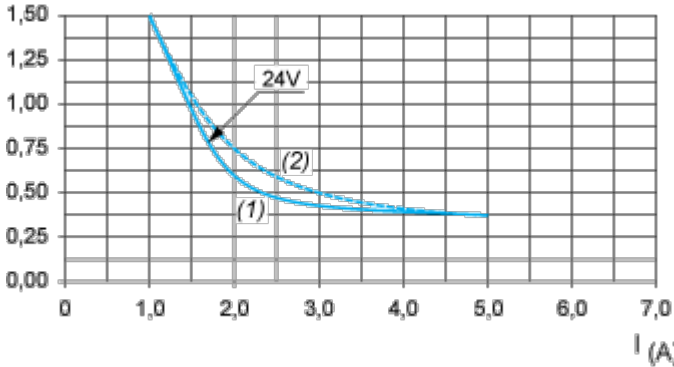
The curves are given for a voltage drop of 1 V in the cable. For n volts tolerance, multiply the length determined from the graph by n.



Electrical Durability (in Millions of Operating Cycles) Conforming to IEC 60947-5-1

DC Loads

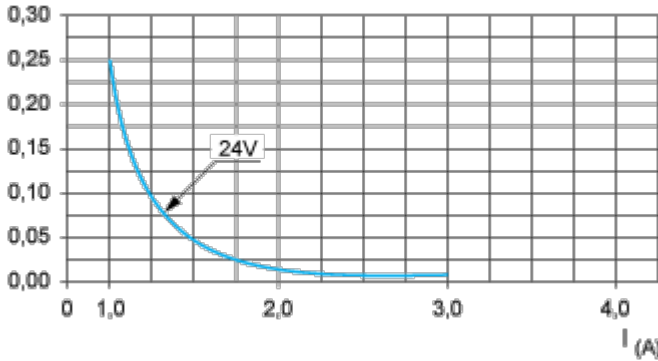
DC12 curves



DC12 control of resistive loads and of solid state loads isolated by optocoupler,  $I/R \leq 1$  ms.

- (1) Resistive loads
- (2) Inductive loads

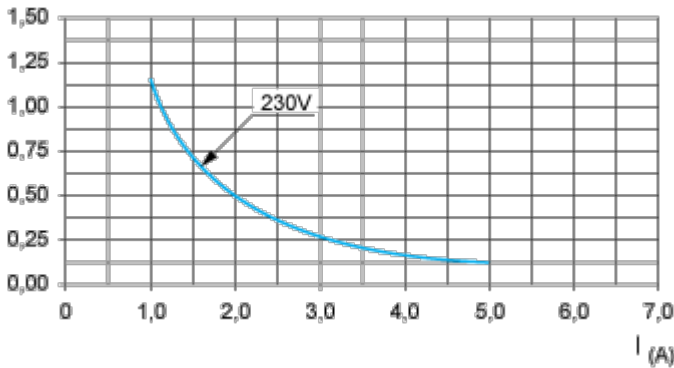
DC13 curves



DC13 switching electromagnets,  $L/R \leq 2 \times (U_e \times I_e)$  in ms,  $U_e$ : rated operational voltage,  $I_e$ : rated operational current (with a protective diode on the load, DC12 curves must be used with a coefficient of 0.9 applied to the number in millions of operating cycles)

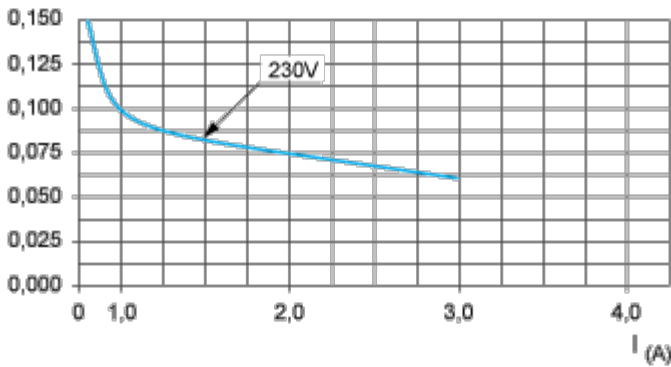
AC Loads

AC12 curves



AC12 control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

AC15 curves



AC15 control of electromagnetic loads > 72 VA, make:  $\cos \phi = 0.7$ , break:  $\cos \phi = 0.4$ .