

# Product data sheet

## Characteristics

# ABE7R16T231

## sub-base - soldered electromechanical relays

### ABE7 - 16 channels - relay 10 mm

Product availability: Non-Stock - Not normally stocked in distribution facility

Price\*: 986.00 USD



### Main

|                           |  |
|---------------------------|--|
| Commercial Status         | Commercialised                                     |
| Range of product          | Advantys Telefast ABE7                             |
| Product or component type | Sub-base with plug-in electromechanical relay type |
| Sub-base type             | Output sub-base                                    |
| [Us] rated supply voltage | 19...30 V conforming to IEC 61131-2                |
| Number of channels        | 16   |

### Complementary

|  |  |
|--|--|
| Supply circuit type                    | DC   |
| Product compatibility                  | ABR7S23  |
| Contacts type and composition          | 1 C/O  |
| Status LED                             | 1 LED, green power ON<br>1 LED per channel, green channel status   |
| Polarity distribution                  | Polarity distribution contact common per group of 8 channels   |
| Short circuit protection               | 0.5 A fuse per channel, 5 x 20 mm, fast blow (output circuit)<br>1 A internal fuse, 5 x 20 mm, fast blow (PLC end) |
| Fixing mode                            | By screws on solid plate with fixing kit<br>By clips on 35 mm symmetrical DIN rail                                 |
| Supply current                         | <= 1 A   |
| Voltage drop on power supply fuse      | 0.3 V  |
| [Ui] rated insulation voltage          | 300 V between coil circuit/contact circuits conforming to IEC 60947-1<br>2000 V between terminals/mounting rails   |
| [Uimp] rated impulse withstand voltage | 2.5 kV   |
| Installation category                  | II conforming to IEC 60664-1   |
| Tightening torque                      | 5.31 lbf.in (0.6 N.m) (with flat Ø 3.5 mm)   |
| Product weight                         | 1.61 lb(US) (0.73 kg)  |

### Environment

|                                       |  |
|---------------------------------------|--|
| Product certifications                | BV<br>CSA<br>DNV<br>GL<br>LROS (Lloyds register of shipping)<br>UL                                   |
| IP degree of protection               | IP2x conforming to IEC 60529   |
| Resistance to incandescent wire       | 1382 °F (750 °C) conforming to IEC 60695-2-11  |
| Shock resistance                      | 15 gn 11 ms conforming to IEC 60068-2-27   |
| Vibration resistance                  | 2 gn (f = 10...150 Hz) conforming to IEC 60068-2-6   |
| Resistance to electrostatic discharge | 8 kV (air) conforming to IEC 61000-4-2 level 3<br>4 kV (contact) conforming to IEC 61000-4-2 level 3 |
| Resistance to radiated fields         | 9.14 V/yd (10 V/m) (26000000...1000000000 Hz) conforming to IEC 61000-4-3 level 3                    |

|                                       |  |
|---------------------------------------|--|
| Resistance to fast transients         | 2 kV conforming to IEC 61000-4-4 level 3             |
| Ambient air temperature for operation | 23...140 °F (-5...60 °C) conforming to IEC 61131-2   |
| Ambient air temperature for storage   | -40...176 °F (-40...80 °C) conforming to IEC 61131-2 |
| Pollution degree                      | 2 conforming to IEC 60664-1                          |

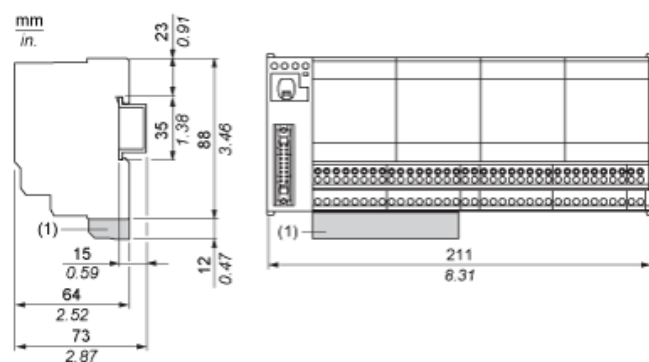
### Ordering and shipping details

|                       |   |
|-----------------------|---|
| Category              | 22375 - INTERFACE MODULE(ABA,R,S)                         |
| Discount Schedule     | CP2   |
| GTIN                  | 00785901380108  |
| Nbr. of units in pkg. | 1   |
| Product availability  | Non-Stock - Not normally stocked in distribution facility |
| Returnability         | N   |
| Country of origin     | LV  |

### Contractual warranty

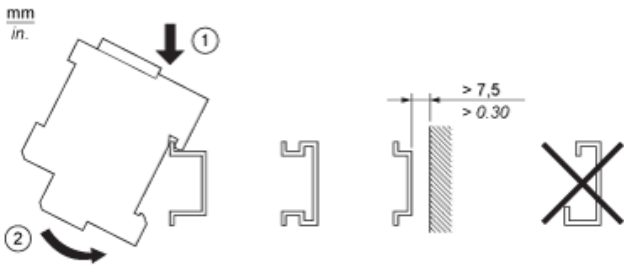
|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

Dimensions

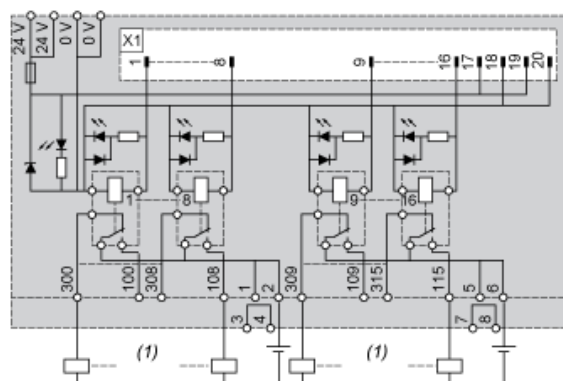


(1) ABE7BV10 / BV20, ABE7BV10E / BV20E

Mounting



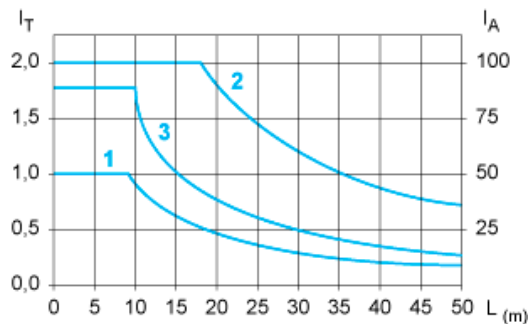
## Wiring Diagram



(1) 8 channels

## 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).

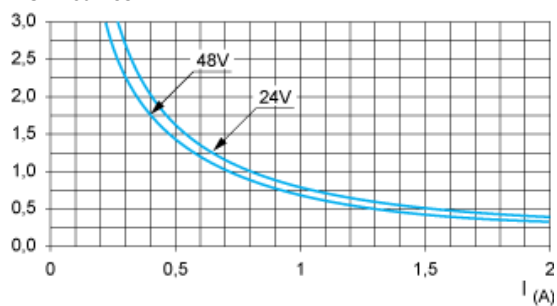
The curves are given for a voltage drop of 1 V in the cable. For n volts tolerance, multiply the length determined from the graph by n.

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

Multiply all durability values by 0.75 for ABR7S23.

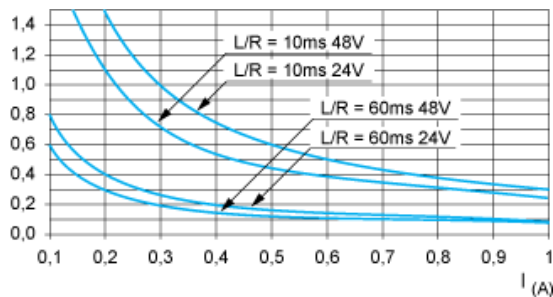
### DC Loads

DC12 curves



DC12control of resistive loads and of solid state loads isolated by optocoupler,  $I/R \leq 1$  ms.

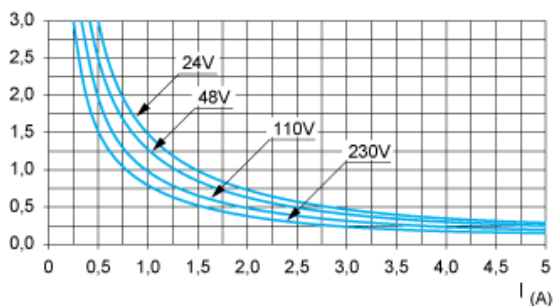
DC13 curves



DC13switching 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)

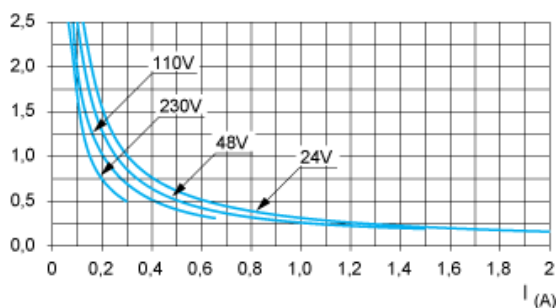
## AC Loads

AC12 curves



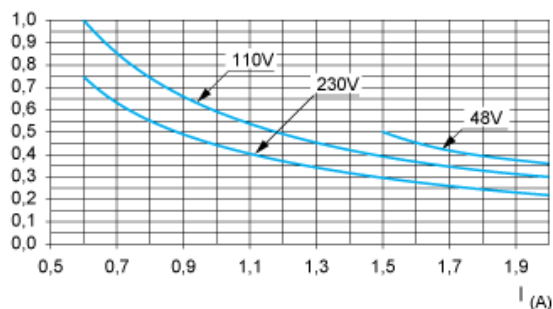
AC12control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

AC14 curves



AC14control of small electromagnetic loads  $\leq 72 \text{ VA}$ , make:  $\cos \phi = 0.3$ , break:  $\cos \phi = 0.3$ .

AC15 curves



AC15control of electromagnetic loads  $> 72 \text{ VA}$ , make:  $\cos \phi = 0.7$ , break:  $\cos \phi = 0.4$ .