



### Main

|                                |   |
|--------------------------------|---|
| Range of Product               | Modicon ABE7                            |
| Product or Component Type      | Electromechanical output relay sub-base |
| [Us] rated supply voltage      | 24 V DC PLC end                         |
| Number of Channels             | 8                                       |
| Number of terminal per channel | 1                                       |

### Complementary

|  |  |
|--|--|
| Terminal block type                        | Removable  |
| Polarity distribution                      | Polarity distribution contact common per group of 4 channels   |
| Fixing mode                                | By clips 35 mm symmetrical DIN rail)<br>By screws solid plate with fixing kit)   |
| Maximum current per output common          | 12 A   |
| Current per channel                        | 2 A preactuator end  |
| Minimum switching current                  | 1 mA $\geq$ 5 V  |
| Drop-out voltage                           | 2.4 V 68 °F (20 °C) PLC end)   |
| Threshold tripping voltage                 | 19.2 V 104 °F (40 °C)  |
| Drop-out current                           | 0.5 mA 68 °F (20 °C)   |
| Maximum power dissipation per channel in W | 0.22 W PLC end)  |
| Contacts type and composition              | 1 NO preactuator end   |
| Maximum switching voltage                  | 250 V AC 50/60 Hz IEC 60947-5-1<br>30 V DC IEC 60947-5-1   |
| Number of channel per common               | 4  |
| Electrical durability                      | 500000 Cycles 200 mA 24 V DC-13 10 ms preactuator end)<br>500000 Cycles 400 mA 230 V AC-15 preactuator end)<br>500000 Cycles 600 mA 230 V AC-12 preactuator end)<br>500000 cycles 600 mA 24 V DC-12 preactuator end) |
| Electrical reliability                     | 1e-008   |
| Operating time                             | $\leq$ 10 ms coil energisation and NO closing<br>$\leq$ 6 ms coil de-energisation and NO opening   |
| Contact bounce time                        | $\leq$ 5 ms 1 NO   |
| Operating rate in Hz                       | 10 Hz no load<br>0.5 Hz at Ie  |
| Mechanical durability                      | 20000000 cycles  |
| [Uimp] rated impulse withstand voltage     | 2.5 kV IEC 60947-1   |
| [Ui] Rated Insulation Voltage              | 2000 V   |
| Installation category                      | II IEC 60664-1   |
| Tightening torque                          | 5.31 lbf.in (0.6 N.m) flat $\varnothing$ 3.5 mm  |
| Width                                      | 3.31 in (84 mm)  |
| Net Weight                                 | 0.56 lb(US) (0.252 kg)   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Max immunity to microbreaks           | 5 ms   |
| Dielectric strength                   | 2000 V IEC 60947-1   |
| Product Certifications                | DNV[RETURN]JUL[RETURN]GL[RETURN]CSA[RETURN]EAC                   |
| IP degree of protection               | IP2X conforming to IEC 60529                                     |
| Protective treatment                  | TC   |
| Resistance to incandescent wire       | 1382 °F (750 °C) 30 s IEC 60695-2-11                             |
| Shock resistance                      | 15 gn 11 ms IEC 60068-2-27                                       |
| Resistance to radiated fields         | 9.14 V/m (10 V/m) 26000000...1000000000 Hz)IEC 61000-4-3 level 3 |
| Resistance to fast transients         | 2 kV level 3 IEC 61000-4-4                                       |
| Ambient air temperature for operation | 23...140 °F (-5...60 °C) IEC 61131-2                             |
| Ambient air temperature for storage   | -40...176 °F (-40...80 °C) IEC 61131-2                           |
| Pollution degree                      | 2 IEC 60664-1  |

## Ordering and shipping details

|                   |                                 |
|-------------------|---------------------------------|
| Category          | 22375-INTERFACE MODULE(ABA,R,S) |
| Discount Schedule | CP2                             |
| GTIN              | 3389110545258                   |
| Returnability     | No                              |
| Country of origin | LV                              |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 2.76 in (7.0 cm)        |
| Package 1 Width              | 3.27 in (8.3 cm)        |
| Package 1 Length             | 3.82 in (9.7 cm)        |
| Package 1 Weight             | 8.32 oz (236.0 g)       |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 18                      |
| Package 2 Height             | 11.81 in (30.0 cm)      |
| Package 2 Width              | 11.81 in (30.0 cm)      |
| Package 2 Length             | 15.75 in (40.0 cm)      |
| Package 2 Weight             | 10.51 lb(US) (4.768 kg) |

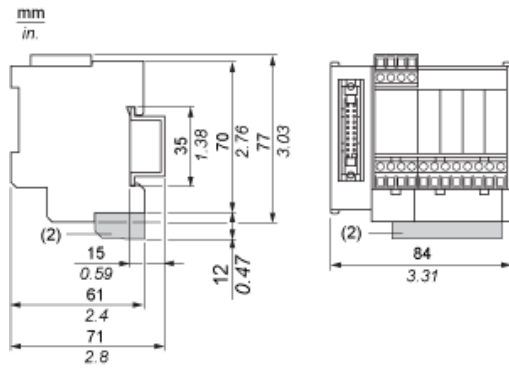
## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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> |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |

## Contractual warranty

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

Dimensions



(2) ABE7BV20 / ABE7BV20E

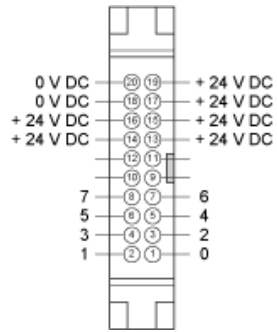
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Mounting

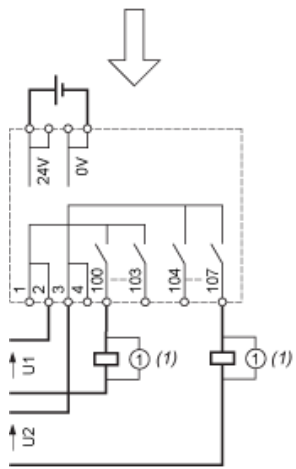
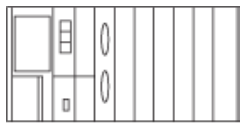
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HE10 8 Channels



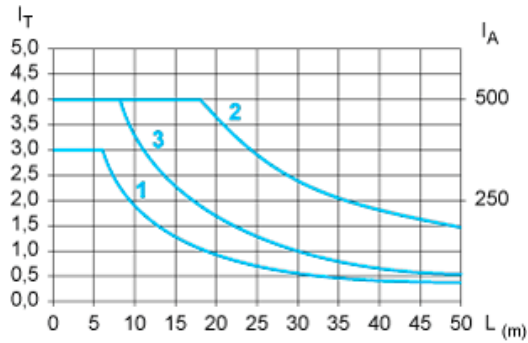
Wiring Diagram



(1) Inductive load

Curves for Determining Cable Type and Length According to the Current

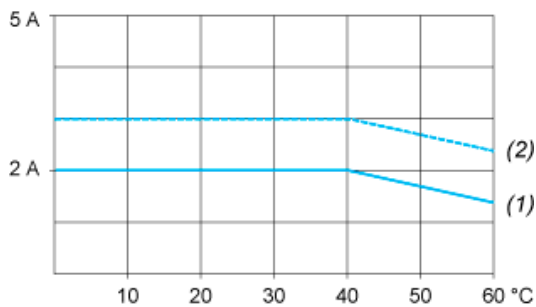
8-channel Sub-base



- 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.  $0.08 \text{ mm}^2$  (AWG 28).
- (2) TSXCDP••3 cables with c.s.a.  $0.34 \text{ mm}^2$  (AWG 22).
- (3) Cables with c.s.a.  $0.13 \text{ mm}^2$  (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.

Temperature Derating Curves

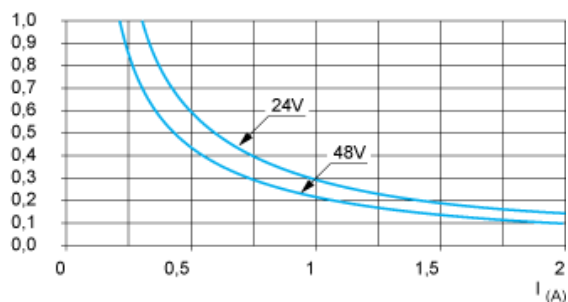


- (1) 100 % of channels used
- (2) 50 % of channels used

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

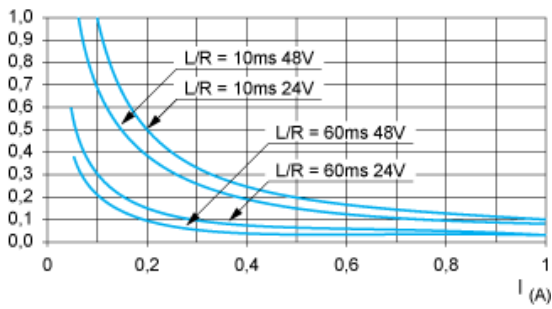
DC Loads

DC12 curves



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

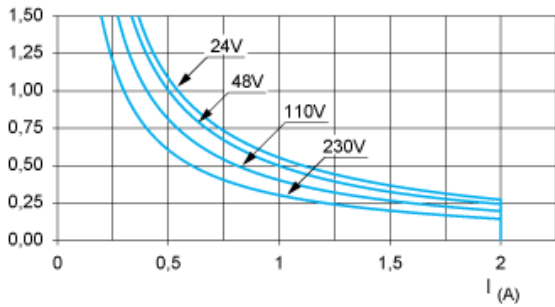
DC13 curves



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)

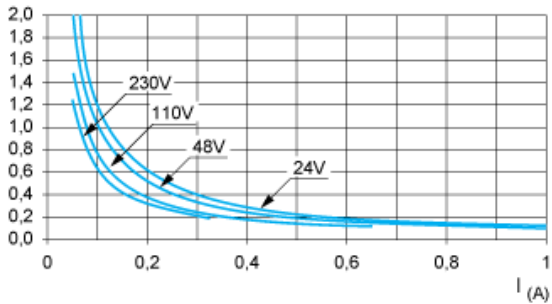
AC Loads

AC12 curves



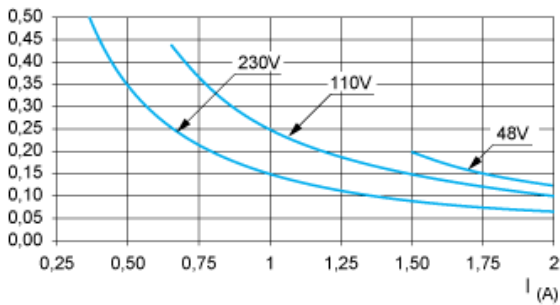
AC12control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

AC14 curves



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

AC15 curves



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