



## Main

|                                |   |
|--------------------------------|---|
| Range of product               | Advantys Telefast 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 on 35 mm symmetrical DIN rail<br>By screws on solid plate with fixing kit   |
| Width                                  | 3.31 in (84 mm)  |
| Current per output common              | <= 12 A  |
| Current per channel                    | 2 A (preactuator end)  |
| Minimum switching current              | 1 mA at >= 5 V   |
| Drop-out voltage                       | 2.4 V at 68 °F (20 °C) (PLC end)   |
| Threshold tripping voltage             | At 40 °C   |
| Drop-out current                       | 0.5 mA at 68 °F (20 °C)  |
| 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 conforming to IEC 60947-5-1<br>30 V DC conforming to IEC 60947-5-1   |
| Number of channel per common           | 4  |
| Electrical durability                  | 500000 cycles, maximum switching current: 200 mA at 24 V DC-13 10 ms (preactuator end)<br>500000 cycles, maximum switching current: 400 mA at 230 V AC-15 (preactuator end)<br>500000 cycles, maximum switching current: 600 mA at 230 V AC-12 (preactuator end)<br>500000 cycles, maximum switching current: 600 mA at 24 V DC-12 (preactuator end) |
| Electrical reliability                 | 1e-008   |
| Operating time                         | <= 10 ms between coil energisation and NO closing<br><= 6 ms between coil de-energisation and NO opening   |
| Contact bounce time                    | <= 5 ms 1 NO   |
| Operating rate in Hz                   | 10 Hz no load<br>0.5 Hz at le  |
| Mechanical durability                  | 20000000 cycles  |
| [Uimp] rated impulse withstand voltage | 2.5 kV conforming to IEC 60947-1   |
| [Ui] rated insulation voltage          | 2000 V   |
| Installation category                  | II conforming to IEC 60664-1   |
| Tightening torque                      | 5.31 lbf.in (0.6 N.m) (withflat Ø 3.5 mm)  |
| Product weight                         | 0.56 lb(US) (0.252 kg)   |

## Environment

|                             |                                  |
|-----------------------------|----------------------------------|
| max immunity to microbreaks | <= 5 ms                          |
| dielectric strength         | 2000 V conforming to IEC 60947-1 |

|                                       |   |
|---------------------------------------|---|
| 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  |
| protective treatment                  | TC  |
| resistance to incandescent wire       | 1382 °F (750 °C), extinction time: < 30 s conforming to IEC 60695-2-11            |
| shock resistance                      | 15 gn 11 ms conforming to IEC 60068-2-27  |
| 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   |

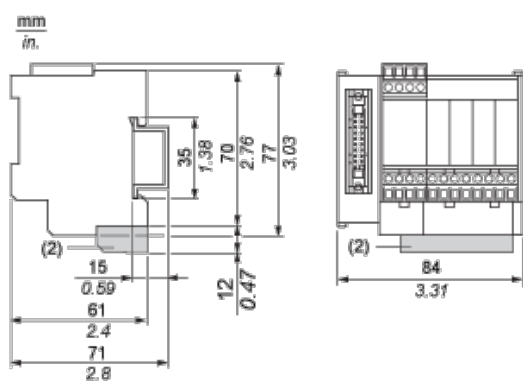
## Offer Sustainability

|  |  |
|--|--|
| Green Premium product  | Green Premium product  |
| Compliant - since 0841 - Schneider Electric declaration of conformity  | Compliant - since 0841 - Schneider Electric declaration of conformity  |
| Reference not containing SVHC above the threshold  | Reference not containing SVHC above the threshold  |
| Available  | Available  |
| Available  | Available  |
| WARNING: This product can expose you to chemicals including:   | 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. | 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>                                    | For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>                                    |

## Contractual warranty

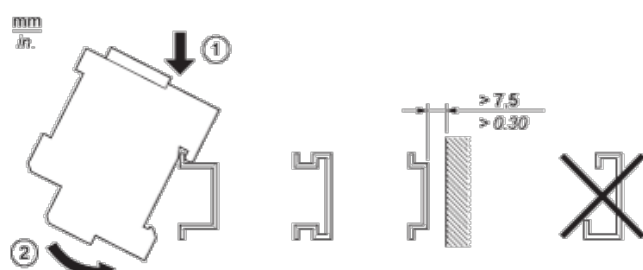
|                 |           |
|-----------------|-----------|
| Warranty period | 18 months |
|-----------------|-----------|

## Dimensions

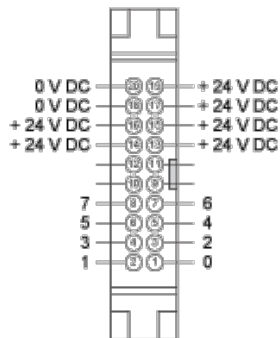


(2) ABE7BV20 / ABE7BV20E

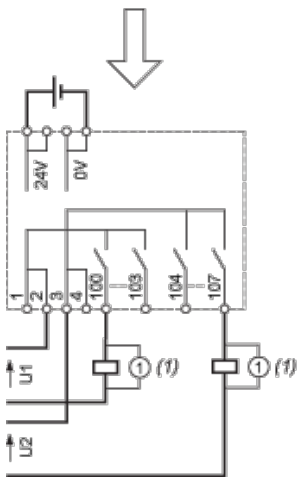
## Mounting



## HE10 8 Channels



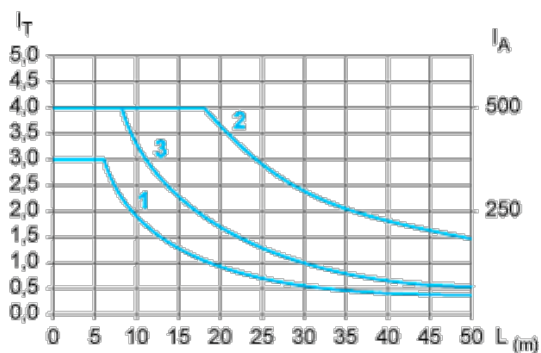
## Wiring Diagram



(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)

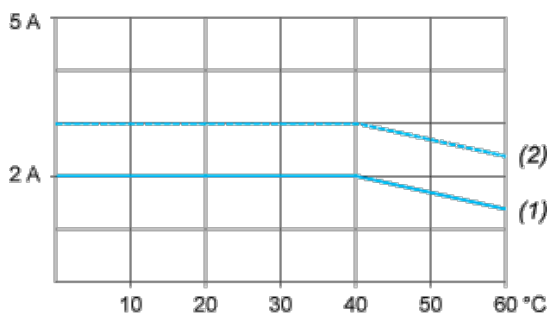
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm<sup>2</sup> (AWG 28).

(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.

## Temperature Derating Curves

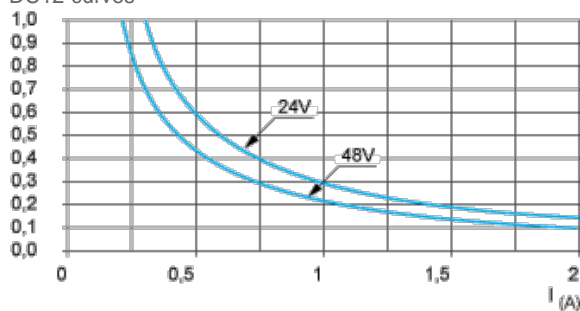


- (1) 100 % of channels used
- (2) 50 % of channels used

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

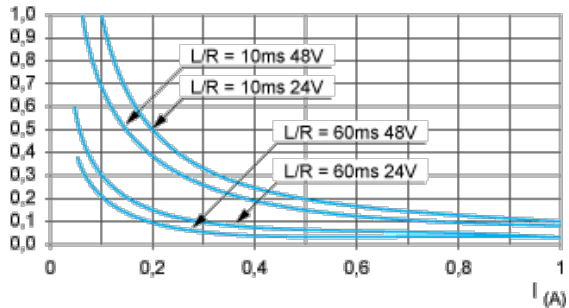
### DC Loads

DC12 curves



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

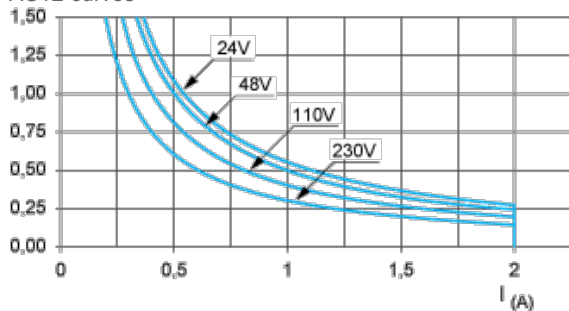
DC13 curves



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)

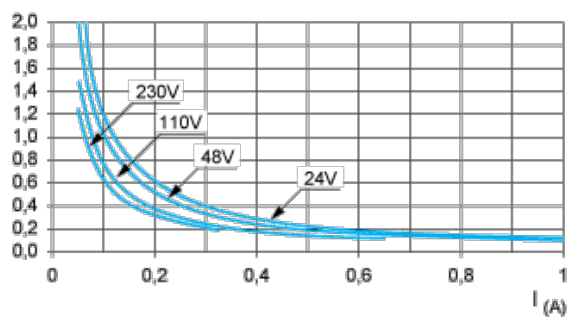
### AC Loads

AC12 curves



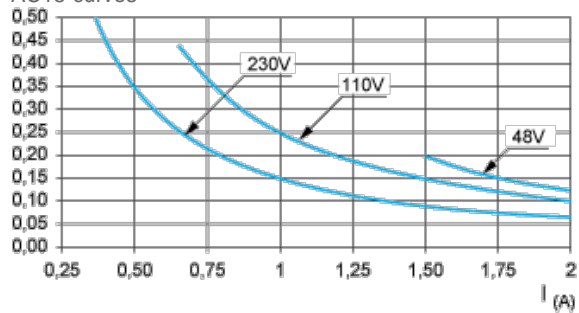
AC12 control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

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:  $\cos \phi = 0.4$ .