



## Main

|                           |                                               |
|---------------------------|-----------------------------------------------|
| Range of product          | Advantys Telefast 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                                            |

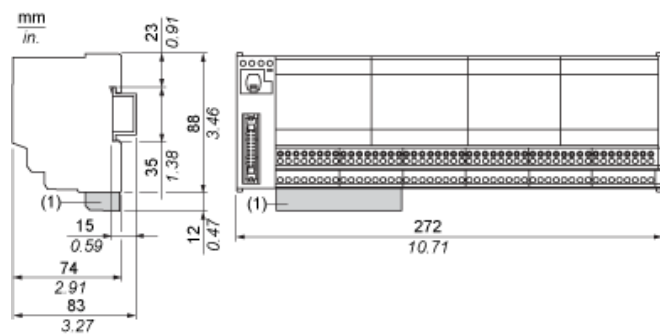
## Complementary

|                                        |                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Supply voltage type                    | DC                                                                                                               |
| Product compatibility                  | ABR7S37                                                                                                          |
| Status LED                             | 1 LED, green for power ON<br>1 LED per channel, green for channel status                                         |
| Polarity distribution                  | Volt-free                                                                                                        |
| Short circuit protection               | 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                      | 0.6 N.m (with flat Ø 3.5 mm)                                                                                     |
| Product weight                         | 1.3 kg                                                                                                           |

## Environment

|                                       |                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------|
| Product certifications                | BV<br>CSA<br>DNV<br>GL<br>LROS (Lloyds register of shipping)                                         |
| IP degree of protection               | IP2x conforming to IEC 60529                                                                         |
| Resistance to incandescent wire       | 750 °C conforming to IEC 60695-2-11                                                                  |
| Shock resistance                      | 15 gn for 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         | 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 | -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                                                                          |

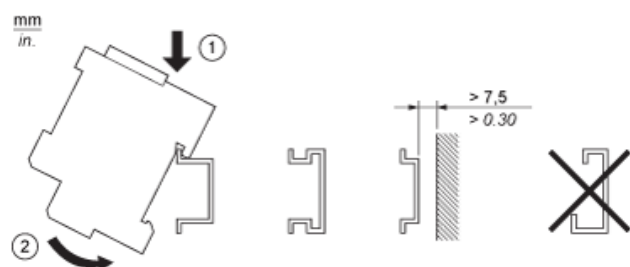
Dimensions



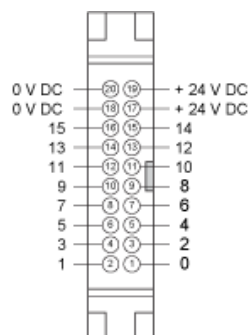
---

Mounting

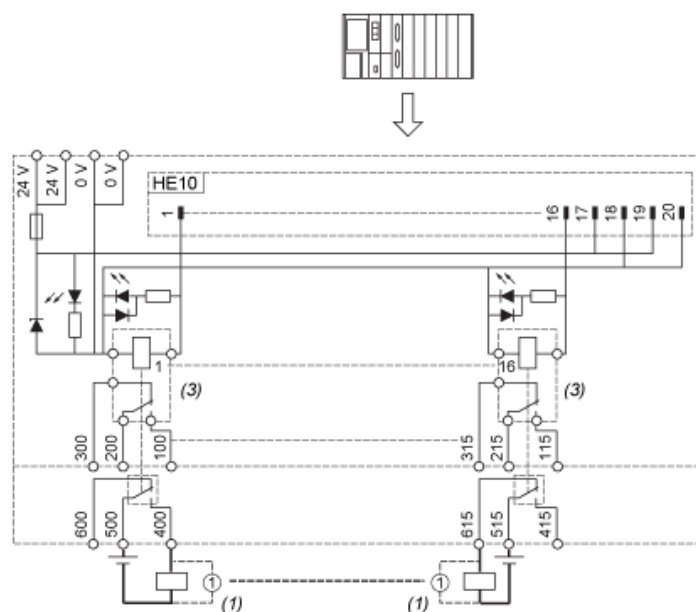
---



## HE10 16 Channels



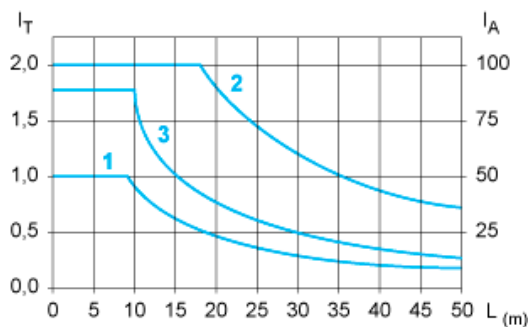
## Wiring Diagram with Other Relays not Supplied



- (1) Inductive load
- (3) ABR7S37 (2 "OF" "DPDT") Ith = 8 A (supplied)

## 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)

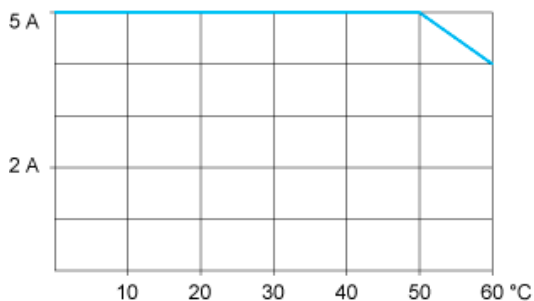
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a.  $0.08 \text{ mm}^2$  (AWG 28).

(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.

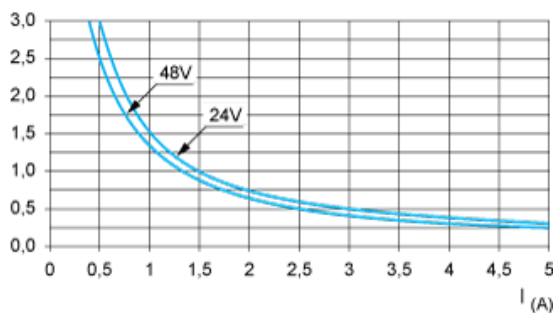
## Temperature Derating Curves



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

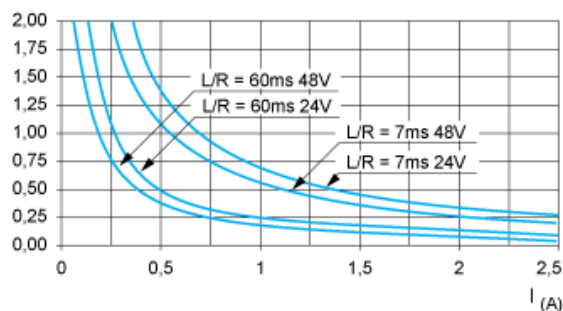
### DC Loads

#### DC12 curves



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

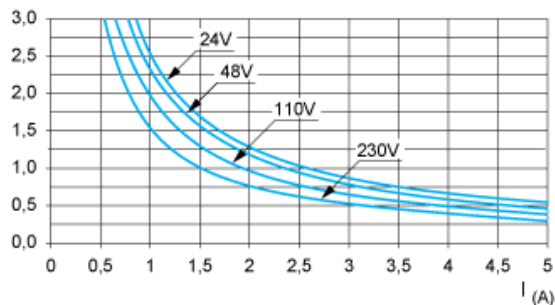
### DC13 curves



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)

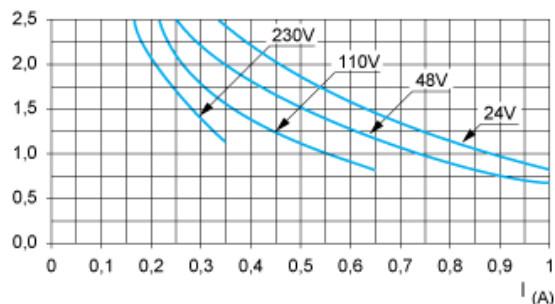
### AC Loads

#### AC12 curves



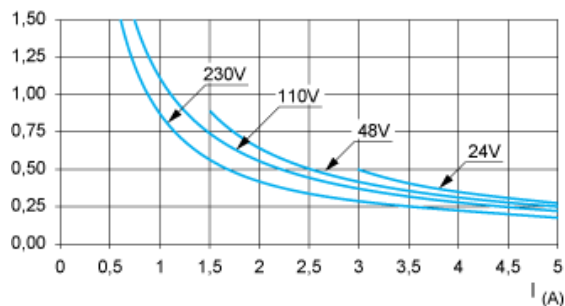
AC12 control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

#### AC14 curves



AC14 control of small electromagnetic loads  $\leq 72 \text{ VA}$ , make:  $\cos \phi = 0.3$ , break:  $\cos \phi = 0.3$ .

#### AC15 curves



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