

# ABE7P16T334

sub-base for plug-in relay ABE7 - 16 channels - fuses  
- relay 12.5 mm



## Main

Range of product	Advantys Telefast ABE7
Product or component type	Sub-base for plug-in 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, clamping capacity: 1 x 0.09...1 x 1.5 mm <sup>2</sup> AWG 28...16 flexible with cable end Screw type terminals, clamping capacity: 1 x 0.14...1 x 2.5 mm <sup>2</sup> AWG 26...12 solid Screw type terminals, clamping capacity: 1 x 0.14...1 x 2.5 mm <sup>2</sup> AWG 26...14 flexible without cable end Screw type terminals, clamping capacity: 2 x 0.09...2 x 0.75 mm <sup>2</sup> AWG 28...20 flexible with cable end Screw type terminals, clamping capacity: 2 x 0.2...2 x 2.5 mm <sup>2</sup> AWG 24...14 solid

## Complementary

Supply circuit type	DC
Product compatibility	ABE7ACC21 ABR7S33 ABS7A3M ABS7SC3E
Status LED	1 LED per channel, green for channel status 1 LED, green for power ON
Polarity distribution	Volt-free
Short circuit protection	1 A internal fuse, 5 x 20 mm, fast blow (PLC end) 2 A fuse per channel, 5 x 20 mm, fast blow (output circuit)
Fixing mode	By clips on 35 mm symmetrical DIN rail By screws on solid plate with fixing kit
Supply current	<= 1 A
Voltage drop on power supply fuse	0.3 V
Current per output common	<= 16 A
[Ui] rated insulation voltage	2000 V between terminals/mounting rails 300 V between coil circuit/contact circuits conforming to IEC 60947-1
[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	0.9 kg

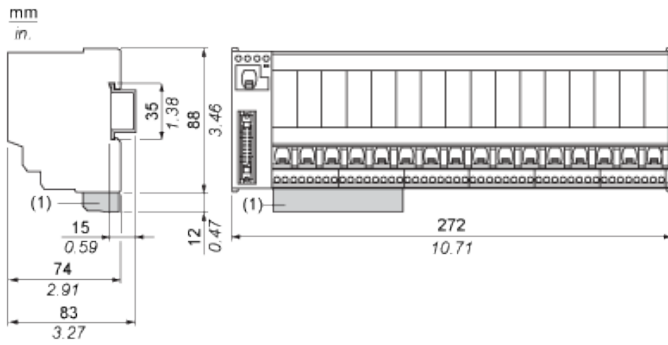
## Environment

Product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) UL
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 (f = 10...150 Hz) conforming to IEC 60068-2-6
Resistance to electrostatic discharge	4 kV (contact) conforming to IEC 61000-4-2 level 3

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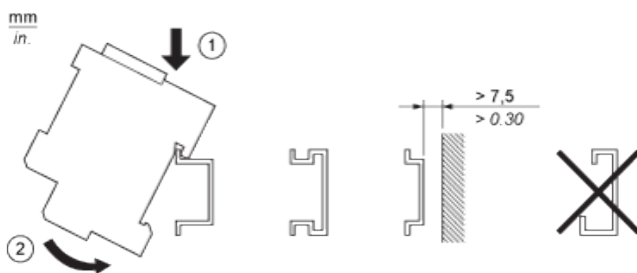
	8 kV (air) conforming to IEC 61000-4-2 level 3
Resistance to radiated fields	10 V/m (26000000...1000000000 Hz) conforming to IEC 61000-4-3 level 3
Resistance to fast transients	2 kV conforming to IEC 61000-4-4 level 3
Ambient air temperature for operation	-5...60 °C conforming to IEC 61131-2
Ambient air temperature for storage	-40...80 °C conforming to IEC 61131-2
Pollution degree	2 conforming to IEC 60664-1

## Dimensions

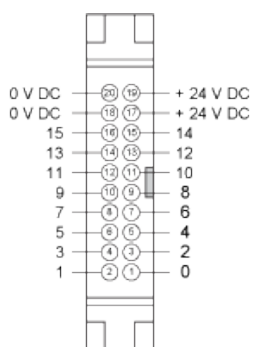


(1) ABE7BV10 / BV20, ABE7BV10E / BV20E

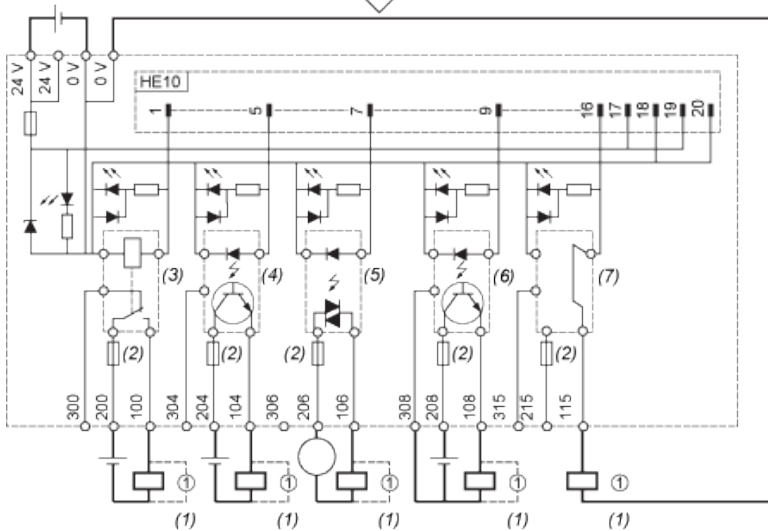
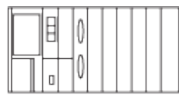
## Mounting



## HE10 16 Channels



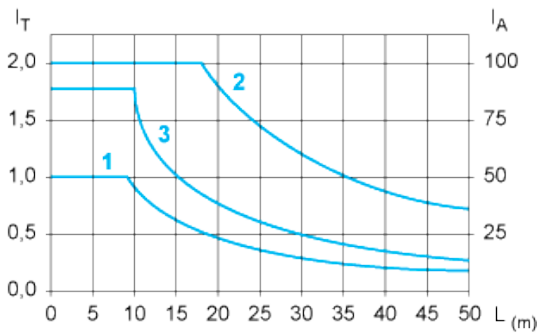
## Wiring Diagram



- (1) Inductive load
- (2) Fuse only for ABE7P16T334
- (3) ABR7S33 (1 "OF" "DPDT") Ith = 10 A (supplied)
- (4) ABS7SC3E (5...48 VDC) I<sub>max.</sub> = 1.5 A (not supplied)
- (5) ABS7SA3M (24...240 VAC) I<sub>max.</sub> = 1.5 A (not supplied)
- (6) ABS7SC3BA (24 VDC) I<sub>max.</sub> = 2 A (not supplied)
- (7) ABE7ACC21 (24 VDC) I<sub>max.</sub> = 0.5 A (not supplied)

### Curves for Determining Cable Type and Length According to the Current

#### 16-channel Sub-base

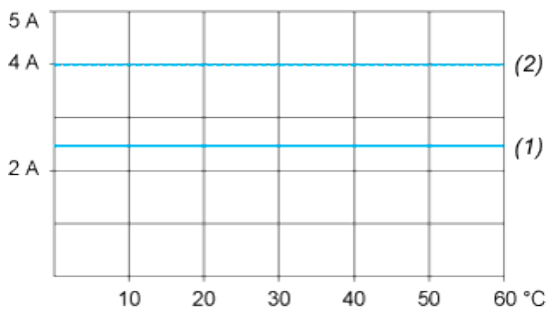


- L Cable length
- $I_T$  Total current per sub base (A)
- $I_A$  Average current per channel (mA)

- (1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 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.

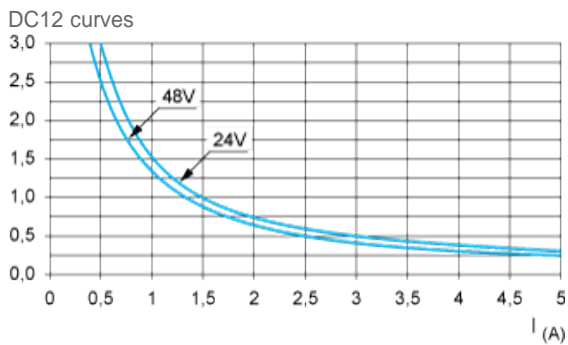
#### Temperature Derating Curves



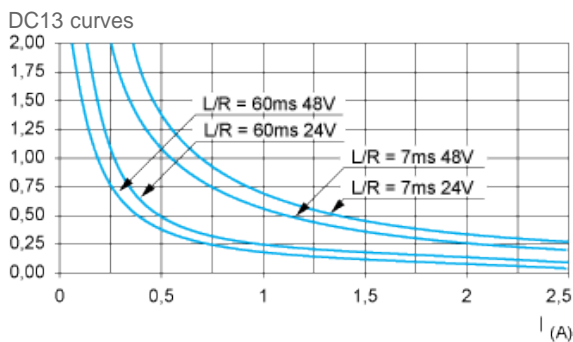
- (1) 100 % of channels used
- (2) 50 % of channels used

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

**DC Loads**

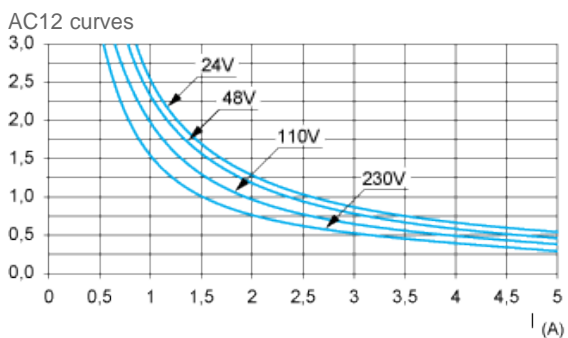


DC12 control of resistive loads and of solid state loads isolated by optocoupler,  $I/R \leq 1$  ms.



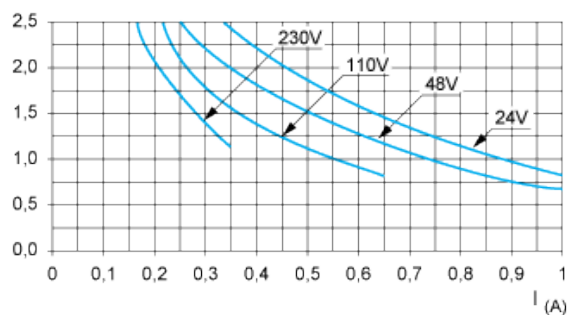
DC13 switching electromagnets,  $L/R \leq 2 \times (U_e \times I_e)$  in ms,  $U_e$ : rated operational voltage,  $I_e$ : rated operational current (with a protective diode on the load, DC12 curves must be used with a coefficient of 0.9 applied to the number in millions of operating cycles)

**AC Loads**

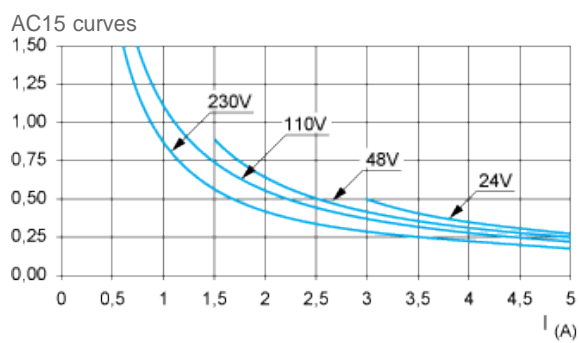


AC12 control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

AC14 curves



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



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