

ABE7P16T318

sub-base for plug-in relay ABE7 - 16 channels -
fuses - isolator - 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: 2 x 0.2...2 x 2.5 mm ² AWG 24...14 solid Screw type terminals, clamping capacity: 2 x 0.09...2 x 0.75 mm ² AWG 28...20 flexible with cable end Screw type terminals, clamping capacity: 1 x 0.14...1 x 2.5 mm ² AWG 26...14 flexible without cable end Screw type terminals, clamping capacity: 1 x 0.14...1 x 2.5 mm ² AWG 26...12 solid Screw type terminals, clamping capacity: 1 x 0.09...1 x 1.5 mm ² AWG 28...16 flexible with cable end
Channel additional information	1 switch disconnecter per channel

Complementary

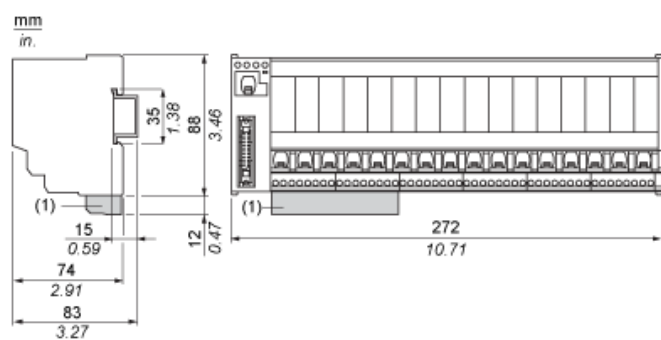
Supply voltage type	DC
Product compatibility	ABE7ACC21 ABR7S33 ABS7A3M ABS7SC3E
Status LED	1 LED, green for power ON 1 LED per channel, green for channel status
Polarity distribution	Polarity distribution contact common per 2 groups of 4 channels
Short circuit protection	2 A fuse per channel, 5 x 20 mm, fast blow (output circuit) 1 A internal fuse, 5 x 20 mm, fast blow (PLC end)
Fixing mode	By screws on solid plate with fixing kit By clips on 35 mm symmetrical DIN rail
Supply current	<= 1 A
Voltage drop on power supply fuse	0.3 V
Current per output common	<= 16 A
[Ui] rated insulation voltage	300 V between coil circuit/contact circuits conforming to IEC 60947-1 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 kg

Environment

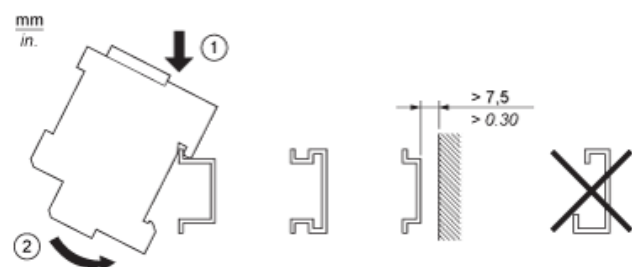
Product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) UL
IP degree of protection	IP2x conforming to IEC 60529
Resistance to incandescent wire	750 °C, extinction time: < 30 s conforming to IEC 60695-2-11
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
Vibration resistance	2 gn (f = 10...150 Hz) conforming to IEC 60068-2-6

Resistance to electrostatic discharge	8 kV (air) conforming to IEC 61000-4-2 level 3 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

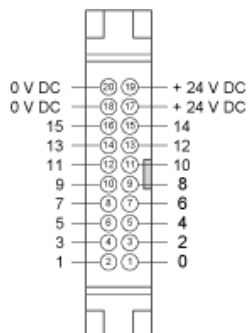
Dimensions



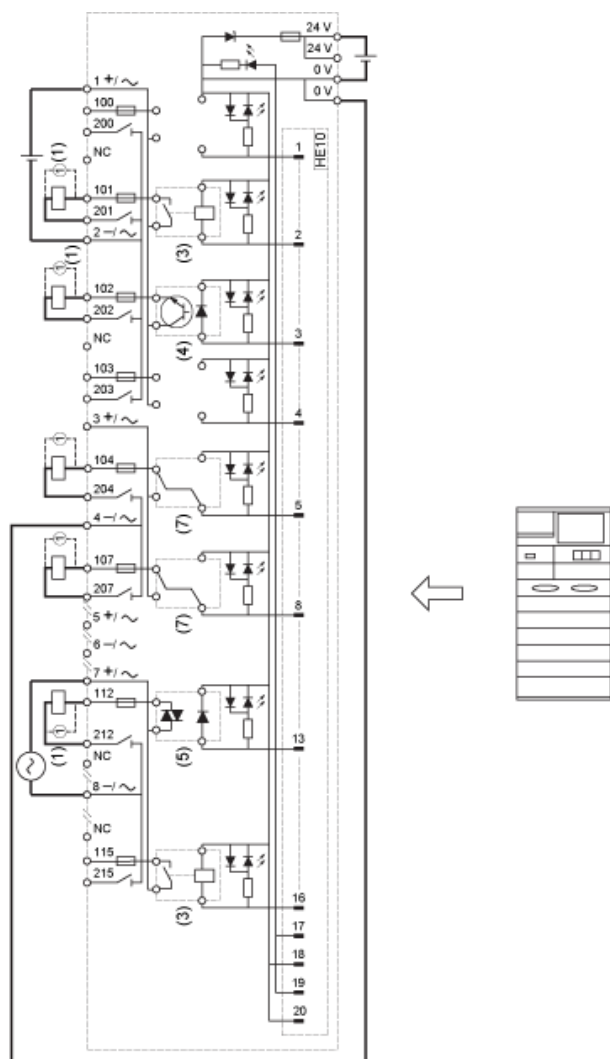
Mounting



HE10 16 Channels



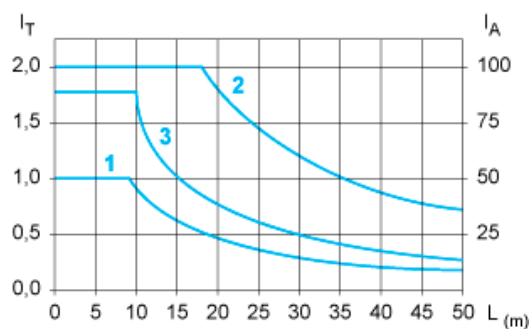
Wiring Diagram



- (1) Inductive load
- (3) ABR7S33 (1 "OF" "DPDT") $I_{th} = 10\text{ A}$ (supplied)
- (4) ABS7SC3E (5...48 VDC) $I_{max.} = 1.5\text{ A}$ (not supplied)
- (5) ABS7SA3M (24...240 VAC) $I_{max.} = 1.5\text{ A}$ (not supplied)
- (7) ABE7ACC21 (24 VDC) $I_{max.} = 0.5\text{ A}$ (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)

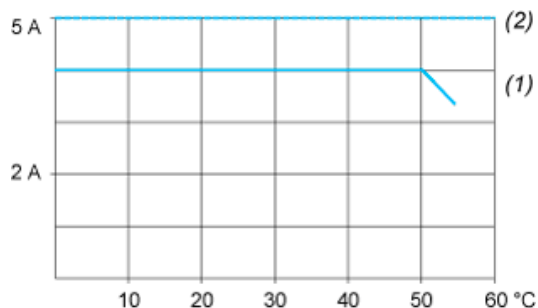
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm² (AWG 28).

(2) TSXCDP••3 cables with c.s.a. 0.34 mm² (AWG 22).

(3) Cables with c.s.a. 0.13 mm² (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



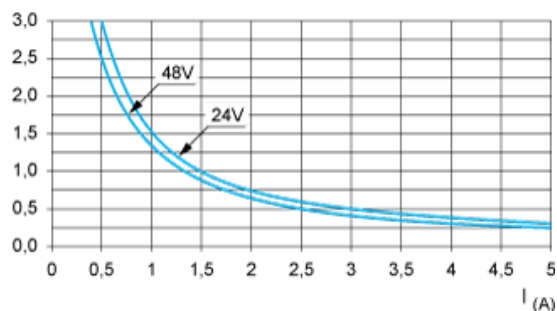
(1) 100 % of channels used

(2) 50 % of channels used

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

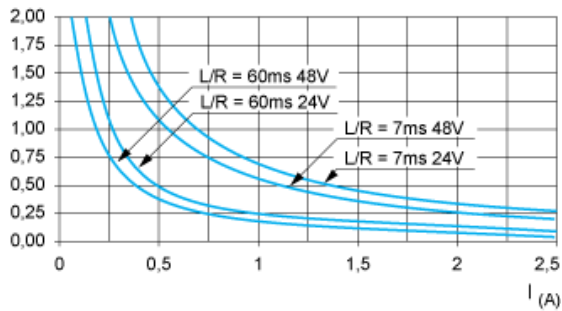
DC Loads

DC12 curves



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

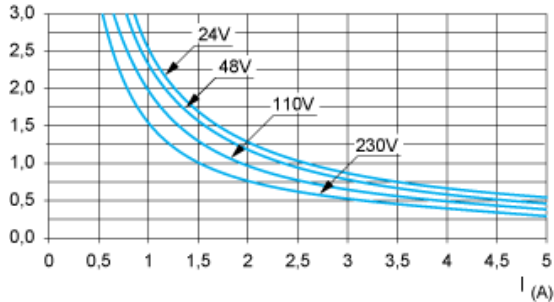
DC13 curves



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)

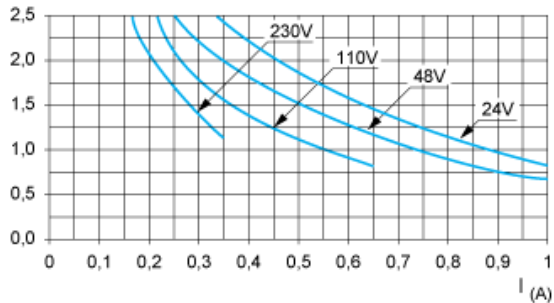
AC Loads

AC12 curves



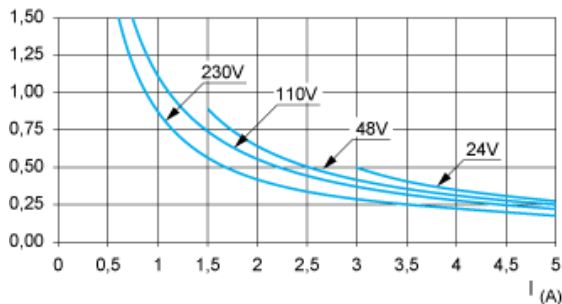
AC12control of resistive loads and of solid state loads isolated by optocoupler, $\cos \phi \geq 0.9$.

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: $\cos \phi = 0.4$.