Product datasheet
Characteristics

ABE7R16T210

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 circuit type	DC
Product compatibility	ABR7S21
Contacts type and composition	1 NO
Status LED	1 LED per channel, green channel status 1 LED, green power ON
Polarity distribution	Volt-free
Short-circuit protection	1 A internal fuse, 5 x 20 mm, fast blow (PLC end) 1 A internal fuse, 5 x 20 mm, fast blow (PLC end) 0.5 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
[Ui] rated insulation voltage	2000 V between terminals/mounting rails 300 V between coil circuit/contact circuits conforming to IEC 60947-1 300 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	5.31 lbf.in (0.6 N.m) (withflat Ø 3.5 mm
Product weight	1.62 lb(US) (0.735 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	1382 °F (750 °C) conforming to IEC 60695-2-11
shock resistance	15 gn 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 8 kV (air) conforming to IEC 61000-4-2 level 3
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

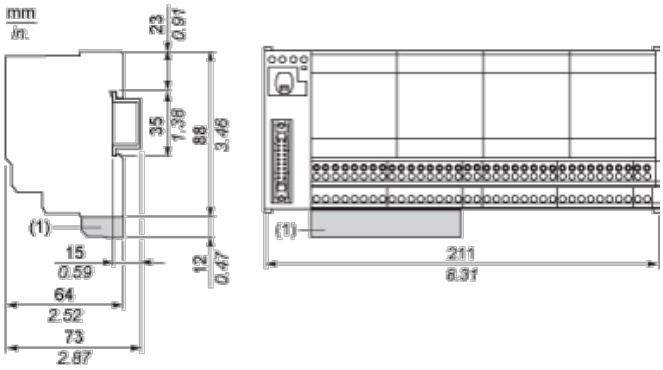
Offer Sustainability

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

Contractual warranty

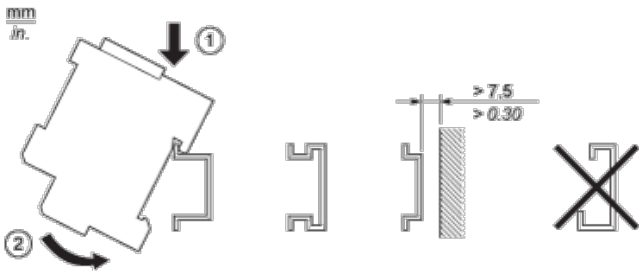
Warranty period	18 months

Dimensions

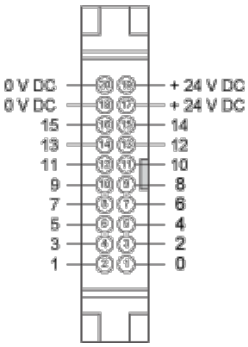


(1) ABE7BV10 / BV20, ABE7BV10E / BV20E

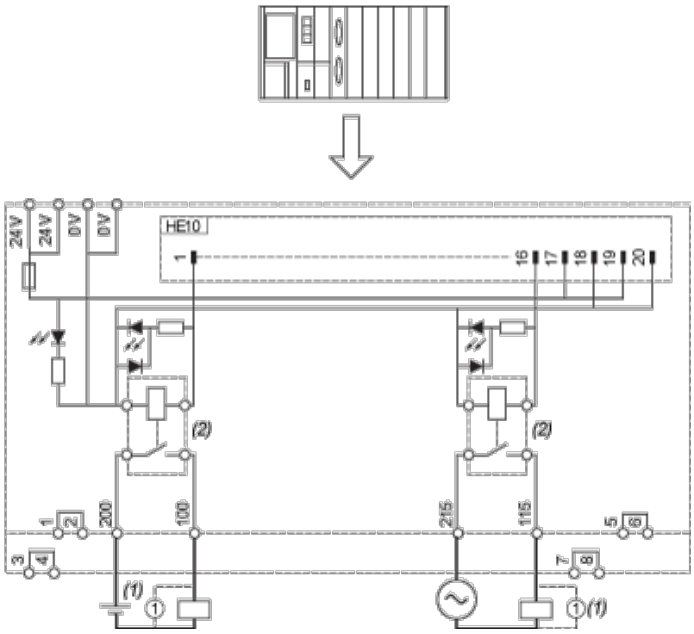
Mounting



HE10 16 Channels



Wiring Diagram

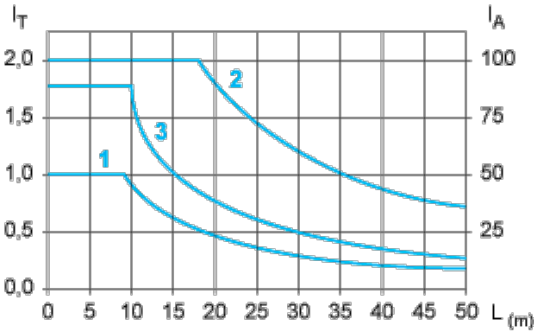


(1) Inductive load

(2) ABR7S21 (1 “F” "SPST") Ith = 5 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)

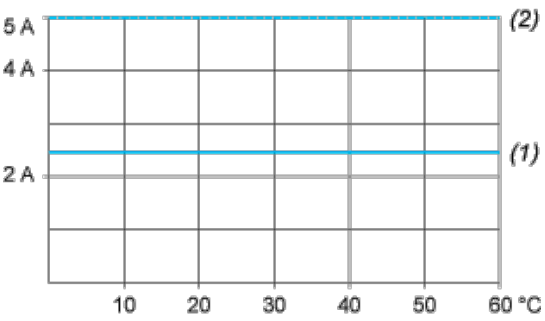
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm^2 (AWG 28).

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

(3) Cables with c.s.a. 0.13 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

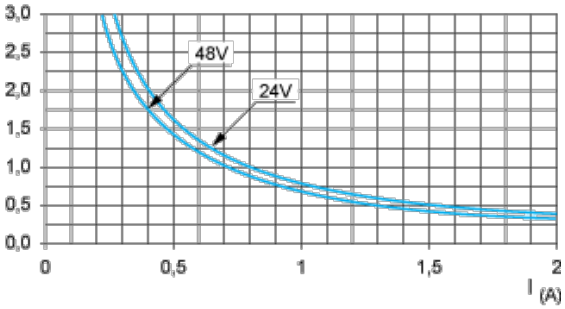
(2) 50 % of channels used

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

Multiply all durability values by 0.75 for ABR7S23.

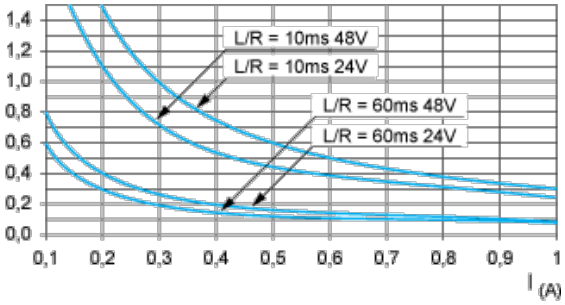
DC Loads

DC12 curves



DC12control of resistive loads and of solid state loads isolated by optocoupler, l/R ≤ 1 ms.

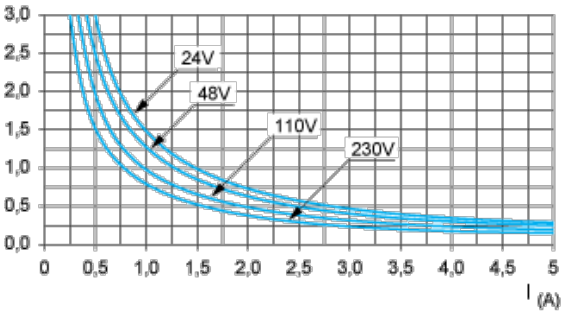
DC13 curves



DC13switching electromagnets, L/R ≤ 2 x (Ue x Ie) in ms, Ue: rated operational voltage, Ie: 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)

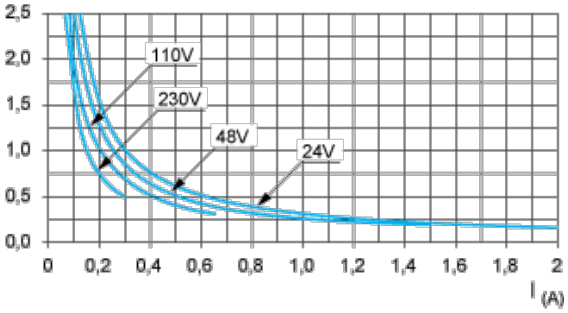
AC Loads

AC12 curves



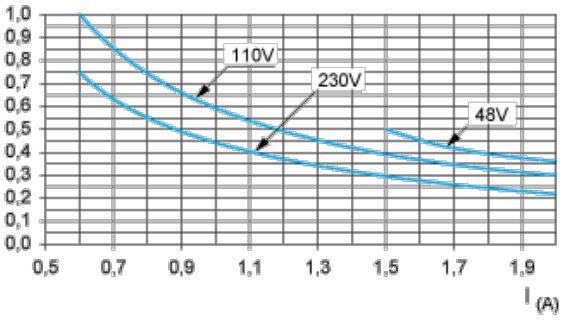
AC12control of resistive loads and of solid state loads isolated by optocoupler, cos ϕ ≥ 0.9.

AC14 curves



AC14control of small electromagnetic loads ≤ 72 VA, make: cos ϕ = 0.3, break: cos ϕ = 0.3.

AC15 curves



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