Product data sheet
Characteristics

ABE7R16S210
sub-base - soldered electromechanical relays
ABE7 - 16 channels - relay 10 mm

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	16
Number of terminal per channel	2

Complementary

Terminal block type	Removable
Polarity distribution	Volt-free
Fixing mode	By clips on 35 mm symmetrical DIN rail By screws on solid plate with fixing kit
Width	206 mm
Current per output common	<= 10 A
Current per channel	5 A (preactuator end)
Minimum switching current	10 mA at >= 5 V
Drop-out voltage	2.4 V at 20 °C (PLC end)
Switching frequency	<= 10 Hz <= 0.5 Hz
Threshold tripping voltage	At 40 °C
Drop-out current	1 mA at 20 °C
Power dissipation per channel in W	<= 0.36 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 30 V DC conforming to IEC 60947-5-1
Electrical durability	500000 cycles, maximum switching current: 1500 mA at 230 V AC-12 (preactuator end) 500000 cycles, maximum switching current: 1500 mA at 24 V DC-12 (preactuator end) 500000 cycles, maximum switching current: 600 mA at 24 V DC-13 10 ms (preactuator end) 500000 cycles, maximum switching current: 900 mA at 230 V AC-15 (preactuator end)
Electrical reliability	1e-008

Operating time	<= 10 ms between coil energisation and NO closing <= 5 ms between coil de-energisation and NO opening
Contact bounce time	<= 5 ms 1 NO
Operating rate in Hz	10 Hz no load 0.5 Hz at Ie
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	0.6 N.m (withflat Ø 3.5 mm
Product weight	0.405 kg

Environment

Max immunity to microbreaks	<= 5 ms
Dielectric strength	2000 V conforming to IEC 60947-1
Product certifications	DNV CSA BV LROS (Lloyds register of shipping) UL GL
IP degree of protection	IP2x conforming to IEC 60529
Protective treatment	TC
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
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

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0841 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available End of life manual
Product end of life instructions	Available End of life manual

Contractual warranty

Warranty period	18 months

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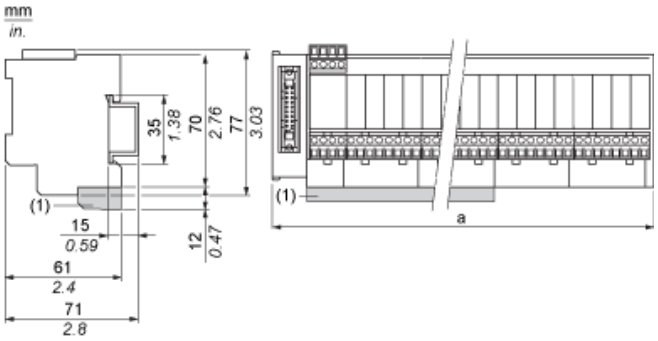
Dimensions



(1) ABE7BV20 / ABE7BV20E

ABE7	a in mm	a in in.
R16S111 / R16S111E	125	4.92
R16S21 / R16S21•E	206	8.11

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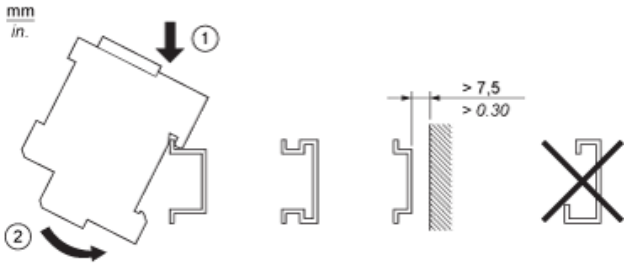
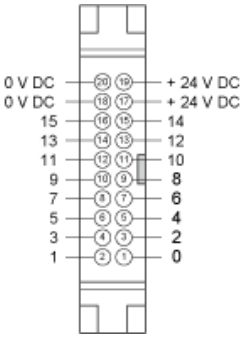
Mounting



HE10 16 Channels



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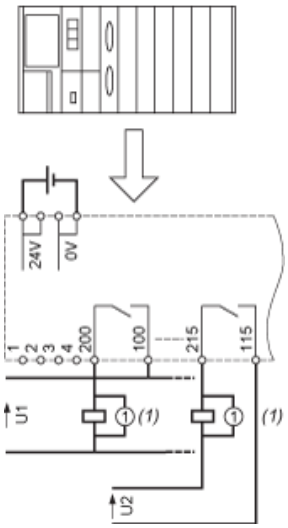
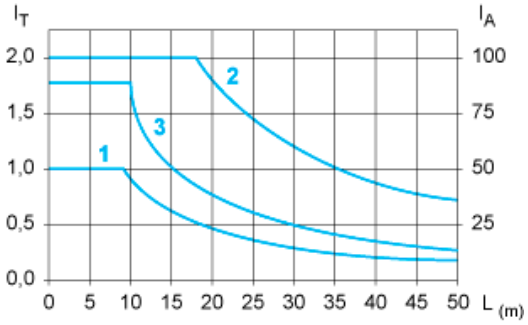
Wiring Diagram



(1) Inductive load

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).

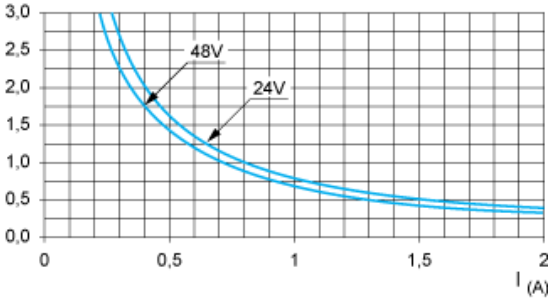
The curves are given for a voltage drop of 1 V in the cable. For n volts tolerance, multiply the length determined from the graph by n.

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

Multiply all durability values by 0.75 for ABR7S23.

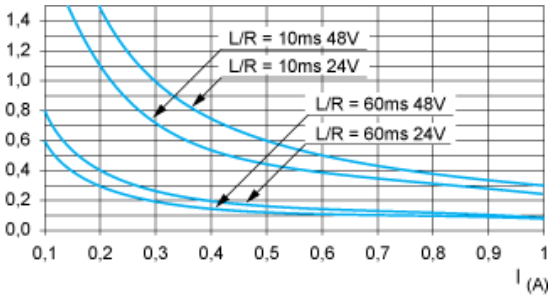
DC Loads

DC12 curves



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

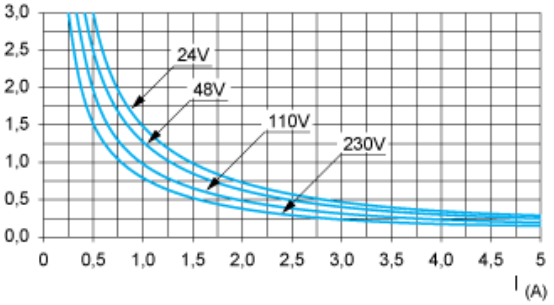
DC13 curves



DC13 switching 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, DC1

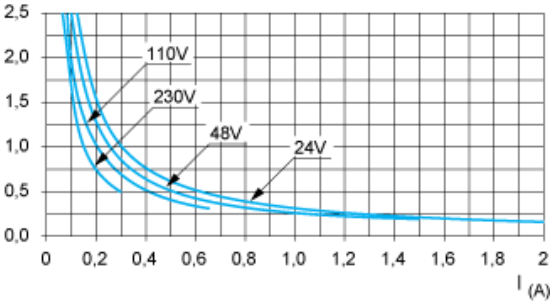
AC Loads

AC12 curves



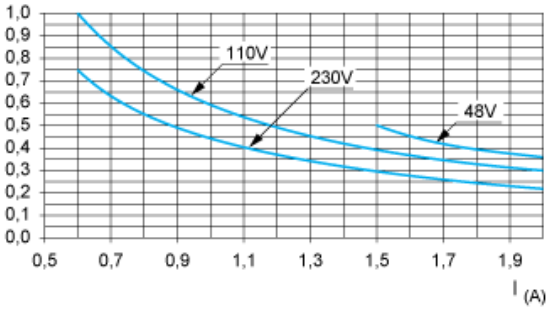
AC12 control of resistive loads and of solid state loads isolated by optocoupler, cos ϕ ≥ 0.9.

AC14 curves



AC14 control of small electromagnetic loads ≤ 72 VA, make: cos ϕ = 0.3, break: cos ϕ = 0.3.

AC15 curves



AC15 control of electromagnetic loads > 72 VA, make: cos ϕ = 0.7, break: cos ϕ = 0.4.