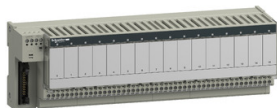


Product datasheet

Specifications



Sub-base with plug-in electromechanical relay ABE7 - 16 channels - relay 12.5 mm

Local distributor code:
402703617

ABE7R16T330

EAN Code: 3389110705096

Main

Range Of Product	Modicon 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	ABR7S33
Contacts Type And Composition	1 C/O
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)
Fixing Mode	By clips (35 mm symmetrical DIN rail) By screws (solid plate with fixing kit)
Maximum Supply Current	1 A
Voltage Drop On Power Supply Fuse	0.3 V
[U _i] Rated Insulation Voltage	2000 V terminals/mounting rails 300 V coil circuit/contact circuits conforming to IEC 60947-1
[U _{imp}] 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 screwdriver
Net Weight	1.3 kg

Environment

Product Certifications	UL CSA DNV GL EAC
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	4 kV (contact) level 3 conforming to IEC 61000-4-2 8 kV (air) level 3 conforming to IEC 61000-4-2
Resistance To Radiated Fields	10 V/m (26000000...1000000000 Hz) conforming to IEC 61000-4-3 level 3
Resistance To Fast Transients	2 kV level 3 conforming to IEC 61000-4-4
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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	8.6 cm
Package 1 Width	10 cm
Package 1 Length	29.2 cm
Package 1 Weight	1.103 kg
Unit Type Of Package 2	S03
Number Of Units In Package 2	6
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	7.059 kg

Contractual warranty

Warranty	18 months
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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

Mercury Free

RoHS Exemption Information Yes

Certifications & Standards

Reach Regulation [REACH Declaration](#)

Eu RoHS Directive Pro-active compliance (Product out of EU RoHS legal scope)

China RoHS Regulation [China RoHS declaration](#)

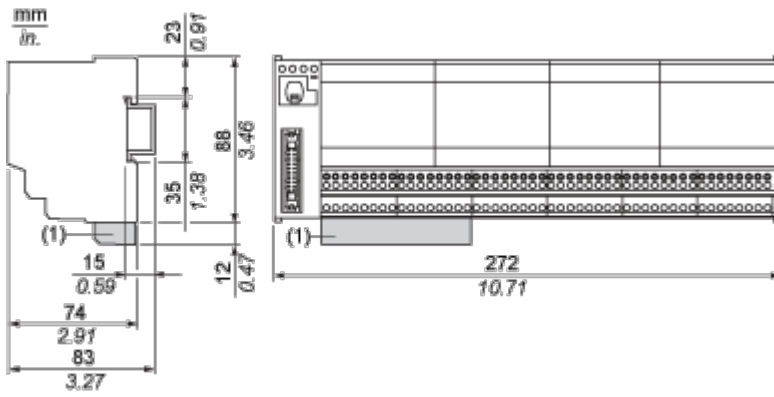
Environmental Disclosure [Product Environmental Profile](#)

Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile [End of Life Information](#)

Dimensions Drawings

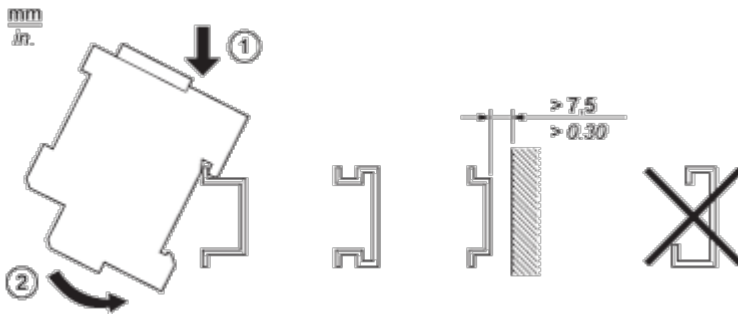
Dimensions



(1) ABE7BV10 / BV20, ABE7BV10E / BV20E

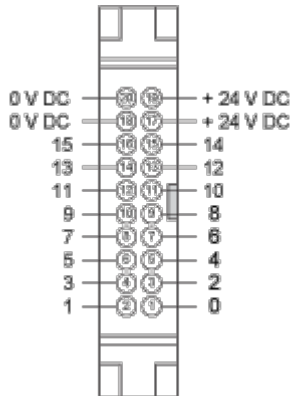
Mounting and Clearance

Mounting

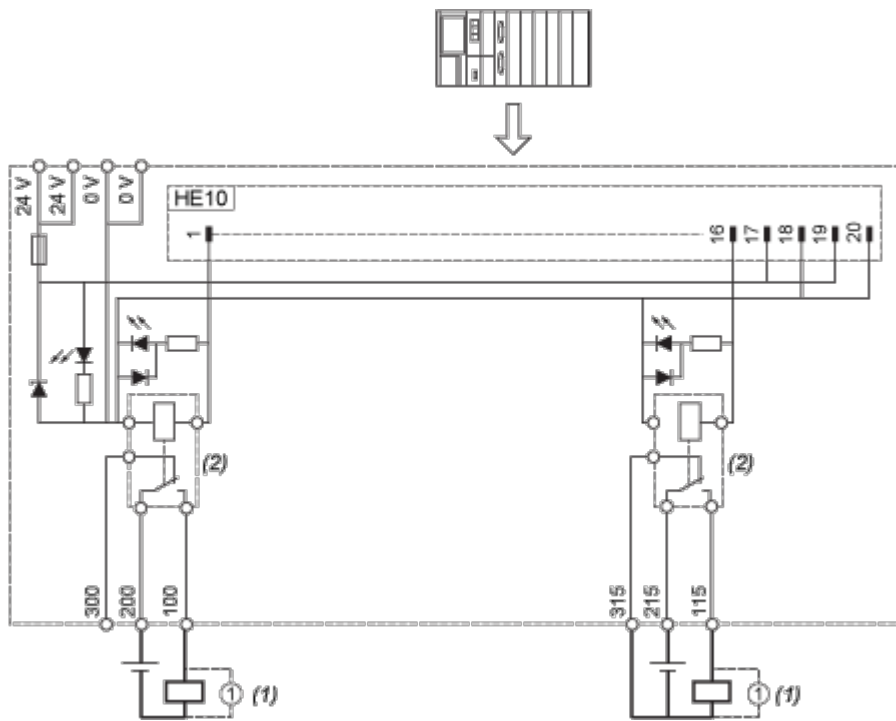


Connections and Schema

HE10 16 Channels

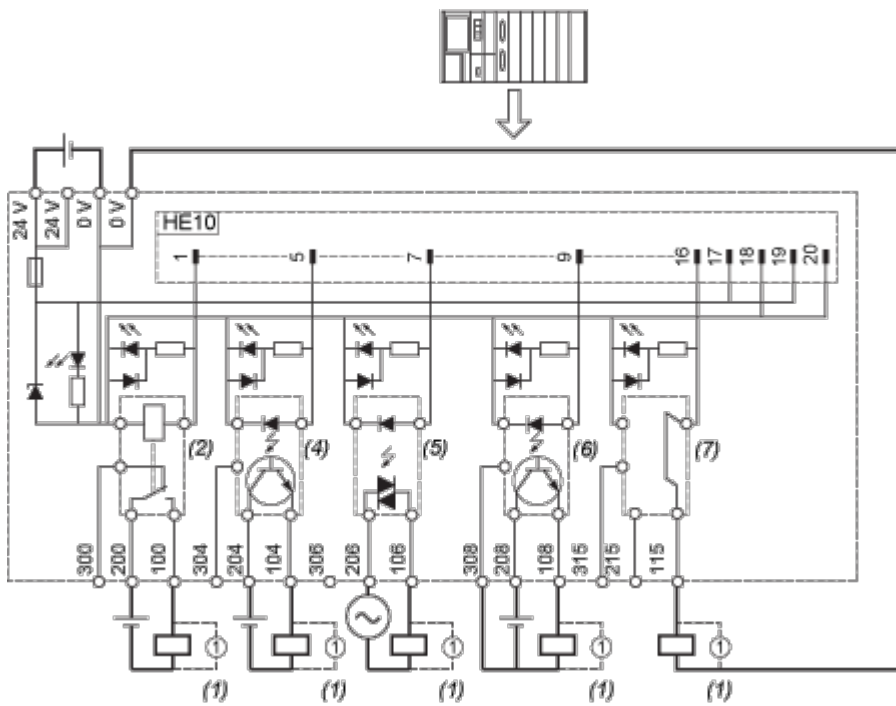


Wiring Diagram with Supplied Relays



- (1) Inductive load
- (2) ABR7S33 (1 "OF" "DPDT") Ith = 10 A (supplied)

Wiring Diagram

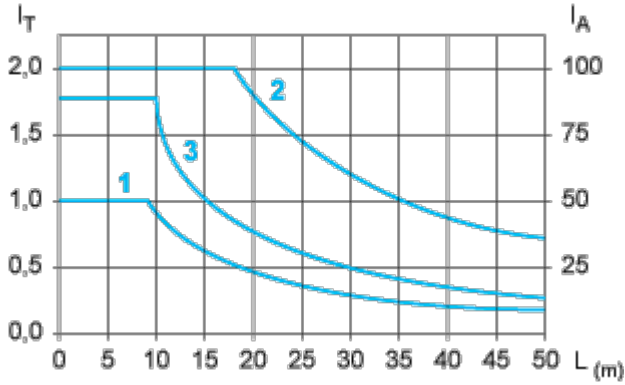


- (1) Inductive load
- (2) ABR7S33 (1 "OF" "DPDT") lth = 10 A (supplied)
- (3) ABR7S37 (2 "OF" "DPDT") lth = 8 A (supplied)
- (4) ABS7SC3E (5...48 VDC) I_{max.} = 1.5 A (not supplied)
- (5) ABS7SA3M (24...240 VAC) I_{max.} = 1.5 A (not supplied)
- (6) ABS7SC3BA (24 VDC) I_{max.} = 2 A (not supplied)
- (7) ABE7ACC21 (24 VDC) I_{max.} = 0.5 A (not supplied)

Performance Curves

Curves for Determining Cable Type and Length According to the Current

16-channel Sub-base



L Cable length

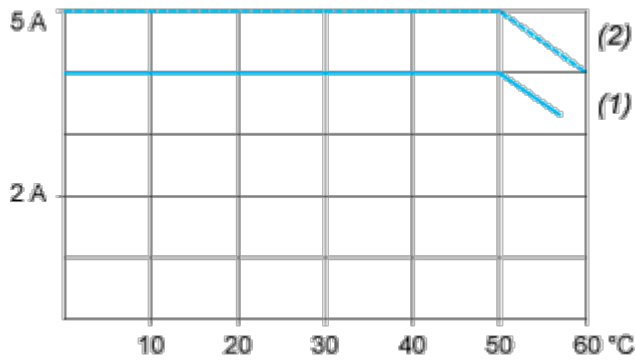
I_T Total current per sub base (A)

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

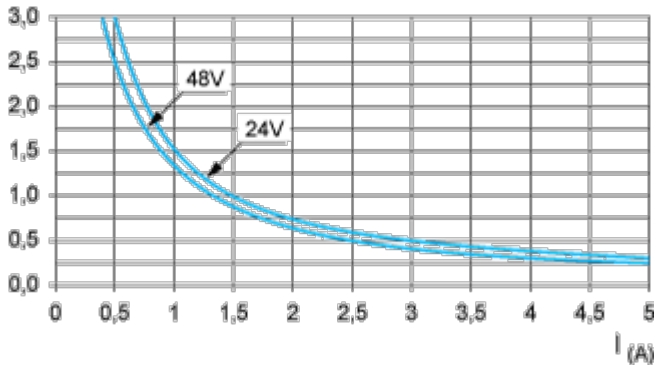


- (1) 100 % of channels used
- (2) 50 % of channels used

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

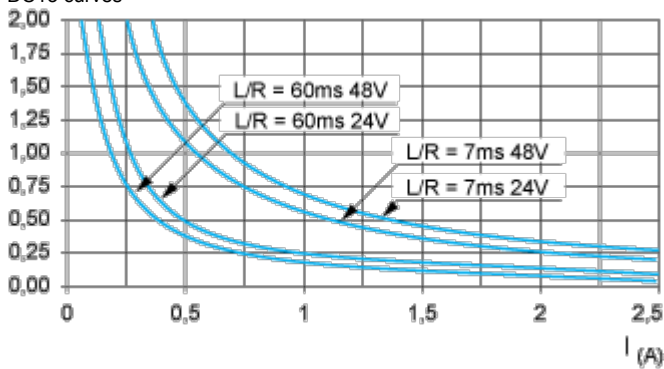
DC Loads

DC12 curves



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

DC13 curves

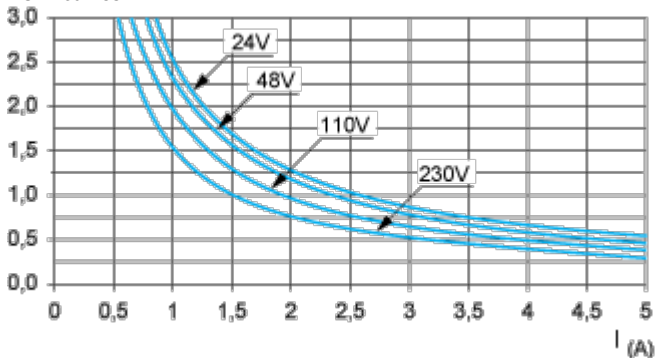


DC13

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)

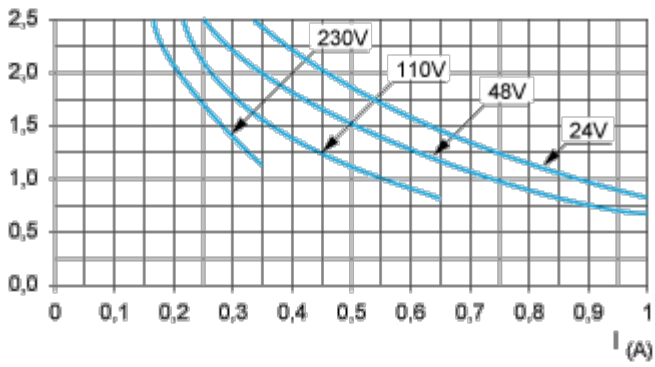
AC Loads

AC12 curves

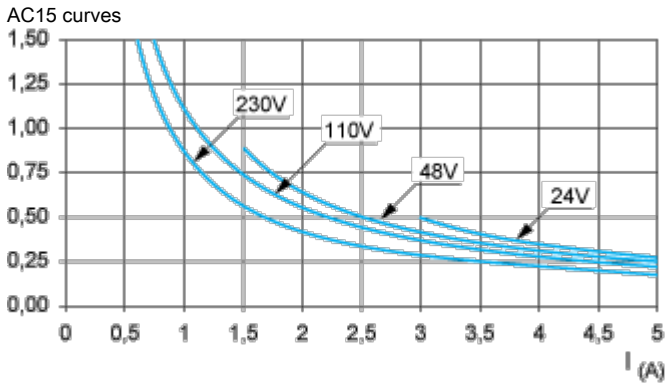


AC12 control of resistive loads and of solid state loads isolated by optocoupler, $\cos \phi \geq 0.9$.

AC14 curves



AC14 control of small electromagnetic loads ≤ 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: $\cos \phi = 0.4$.