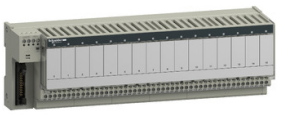
Product data sheet

Specifications



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

ABE7R16T330

Product availability: Stock - Normally stocked in distribution facility

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 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
[Ui] rated insulation voltage	2000 V terminals/mounting rails 300 V coil circuit/contact circuits IEC 60947-1
[Uimp] rated impulse withstand voltage	2.5 kV
Installation category	II IEC 60664-1
Tightening torque	5.3 lbf.in (0.6 N.m) flat Ø 3.5 mm
Net Weight	2.9 lb(US) (1.3 kg)

Environment

Product Certifications	UL CSA DNV GL EAC
IP degree of protection	IP2X conforming to IEC 60529
Resistance to incandescent wire	1382 °F (750 °C) IEC 60695-2-11
Shock resistance	15 gn 11 ms IEC 60068-2-27
Vibration resistance	2 gn (f= 10…150 Hz) conforming to IEC 60068-2-6

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Resistance to electrostatic discharge	4 kV contact) level 3 IEC 61000-4-2 8 kV air) level 3 IEC 61000-4-2
Resistance to radiated fields	9.1 V/m (10 V/m) 26000000…1000000000 Hz)IEC 61000-4-3 level 3
Resistance to fast transients	2 kV level 3 IEC 61000-4-4
Ambient air temperature for operation	23…140 °F (-5…60 °C) IEC 61131-2
Ambient air temperature for storage	-40…176 °F (-40…80 °C) IEC 61131-2
Pollution degree	2 IEC 60664-1

Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
GTIN	3389110705096
Returnability	Yes
Country of origin	LV

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	3.386 in (8.600 cm)
Package 1 Width	3.937 in (10.000 cm)
Package 1 Length	11.496 in (29.200 cm)
Package weight(Lbs)	2.438 lb(US) (1.106 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	6
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	15.562 lb(US) (7.059 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**1 006 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**31 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.2 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.3 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**972 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**2 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
SCIP Number	**1bbe7d20-74c0-4e7e-b98b-d2946f4ab8b4**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**

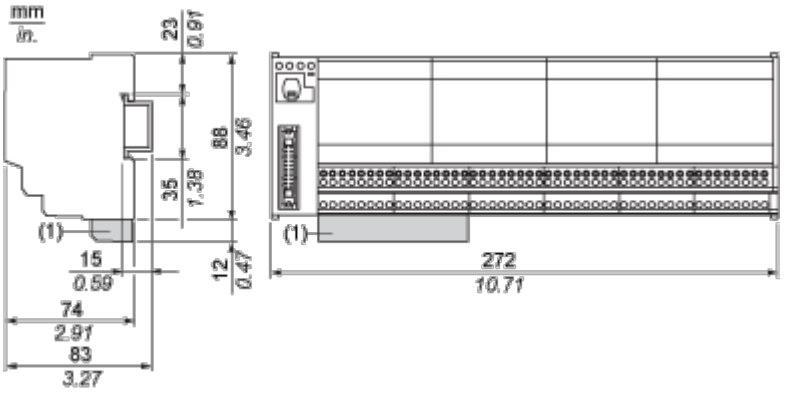
Use Again

Repack and remanufacture

Recyclability potential, in %	**6**
Circularity Profile	**End of Life Information**
Take-back	**No**
WEEE Label	**The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.**

Dimensions Drawings

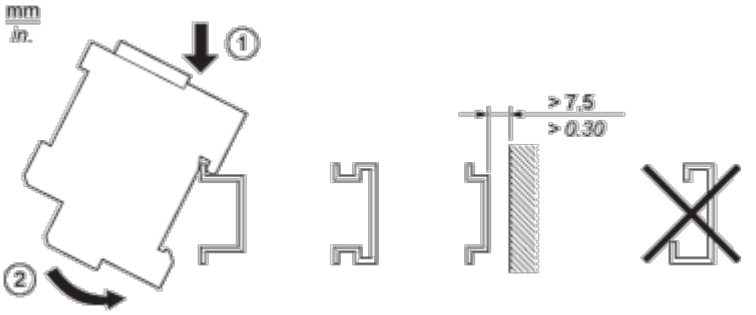
Dimensions



(1) ABE7BV10 / BV20, ABE7BV10E / BV20E

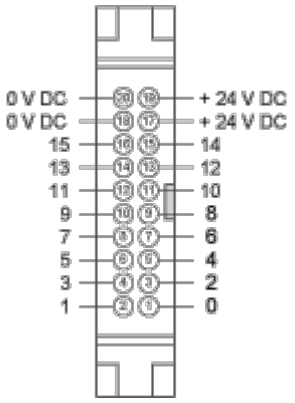
Mounting and Clearance

Mounting

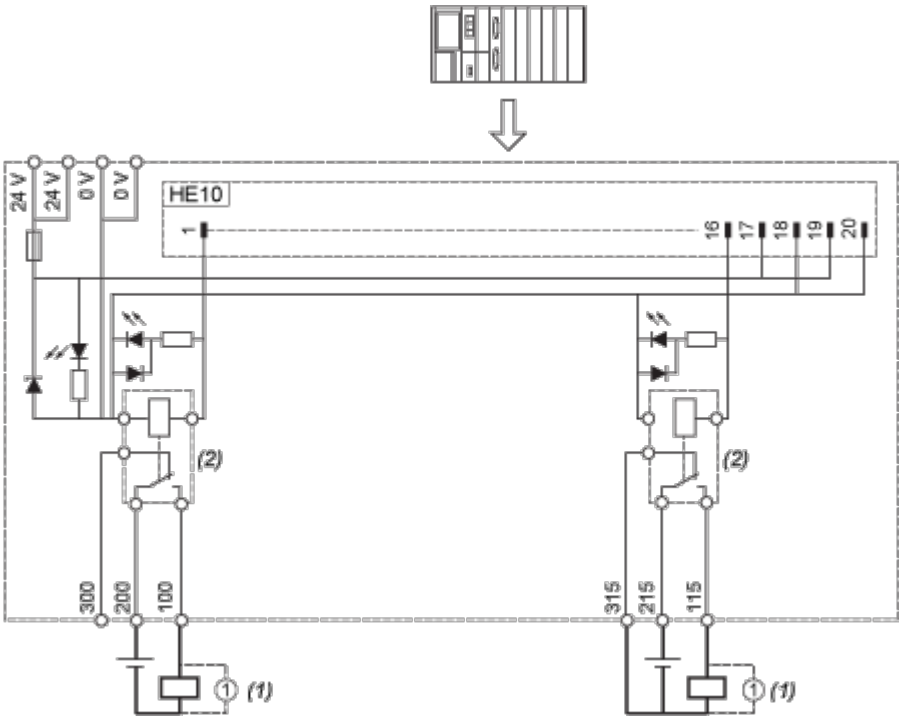


Connections and Schema

HE10 16 Channels



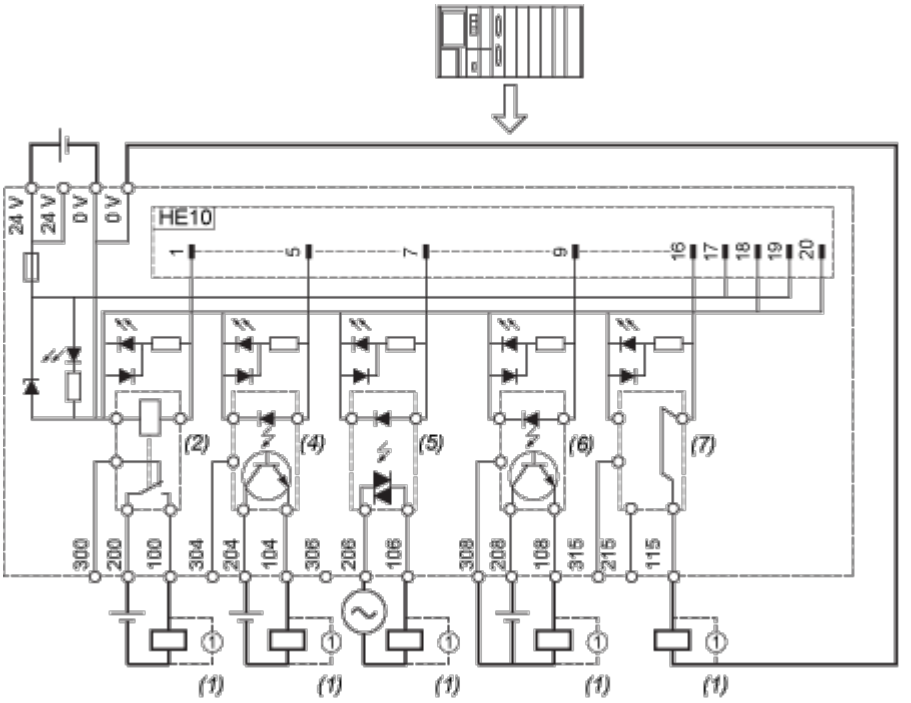
Wiring Diagram with Supplied Relays



(1) Inductive load

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

Wiring Diagram



(1) Inductive load

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

(3) ABR7S37 (2 "OF" "DPDT") Ith = 8 A (supplied)

(4) ABS7SC3E (5...48 VDC) Imax. = 1.5 A (not supplied)

(5) ABS7SA3M (24...240 VAC) Imax. = 1.5 A (not supplied)

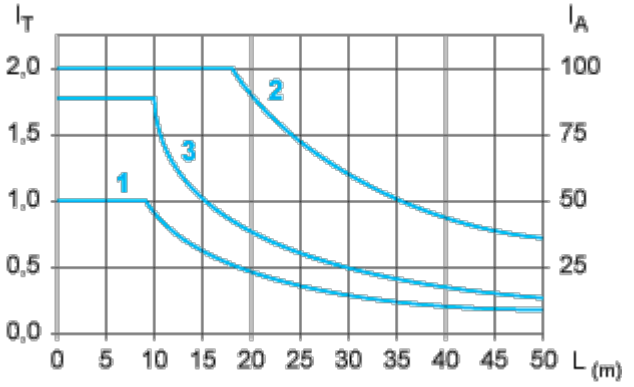
(6) ABS7SC3BA (24 VDC) Imax. = 2 A (not supplied)

(7) ABE7ACC21 (24 VDC) Imax. = 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)

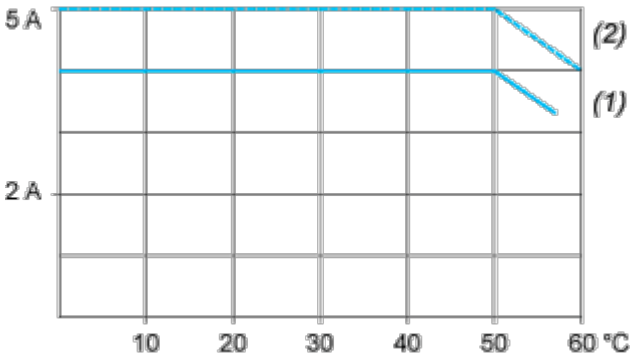
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm^2 (AWG 28).

(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



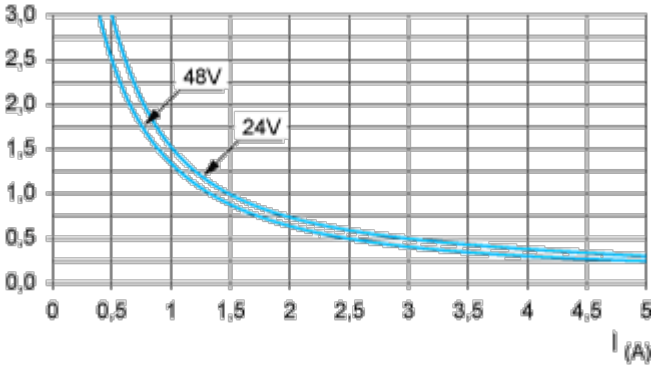
(1) 100 % of channels used

(2) 50 % of channels used

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

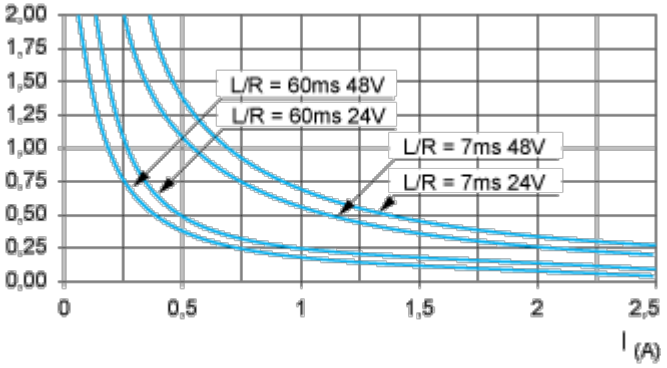
DC Loads

DC12 curves



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

DC13 curves

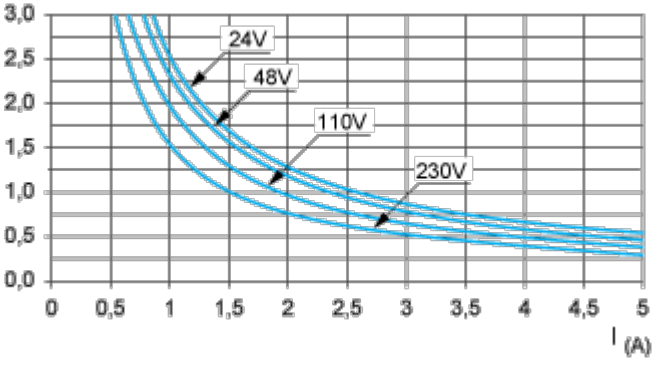


DC13

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, DC12 curves must be used with a coefficient of 0.9 applied to the number in millions of operating cycles)

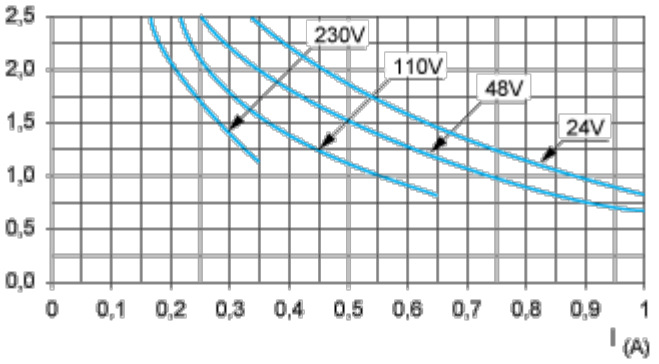
AC Loads

AC12 curves



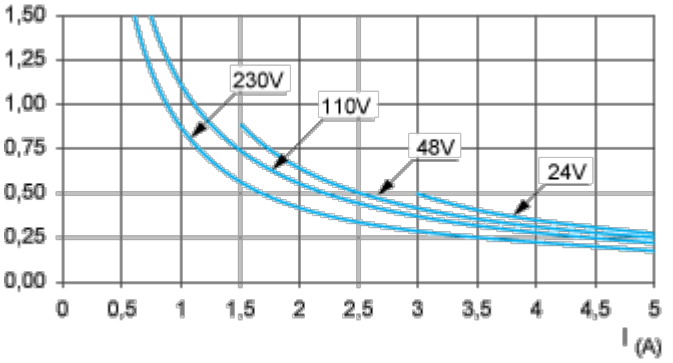
AC12 control of resistive loads and of solid state loads isolated by optocoupler, cos ϕ ≥ 0.9.

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.

Image of product / Alternate images

Alternative



