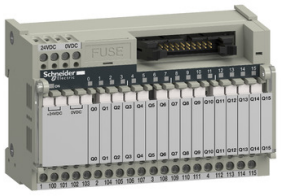
Product data sheet

Specifications



Sub-base with plug-in electromechanical relay ABE7, 16 channels, relay 5 mm

ABE7R16T111

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
Connections - terminals	Screw type terminals, 1 x 0.14...1 x 1.5 mm² (AWG 26...AWG 16) flexible with cable end Screw type terminals, 1 x 0.14...1 x 2.5 mm² (AWG 26...AWG 14) flexible without cable end Screw type terminals, 1 x 0.14...1 x 4 mm² (AWG 26...AWG 12) solid Screw type terminals, 2 x 0.14...2 x 0.75 mm² (AWG 26...AWG 18) flexible with cable end Screw type terminals, 2 x 0.14...2 x 1.5 mm² (AWG 26...AWG 16) solid

Complementary

supply voltage type	DC
Product compatibility	ABR7S11
Contacts type and composition	1 NO
Status LED	1 LED power ON 1 LED per channel channel status
Polarity distribution	Common distribution group of 4
Short-circuit protection	1 A internal fuse, 5 x 20 mm, fast blow (PLC end)
Mounting mode	By clips (35 mm DIN rail) By screws (surface mount with kit)
Maximum supply current	1 A
Voltage drop on power supply fuse	0.3 V
Maximum current per output common	5 A screw type terminals
[Ui] rated insulation voltage	2000 V between terminals/mounting rails 300 V between coil circuit/contact circuits conforming to IEC 60947-1
Maximum current per module	12 A
[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 screwdriver
Net weight	0.6 kg

Environment

Product certifications	CSA UL DNV GL EAC
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 conforming to IEC 60068-2-6 (f = 10…150 Hz)
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	7 cm
Package 1 Width	8.2 cm
Package 1 Length	13.7 cm
Package 1 Weight	312 g
Unit Type of Package 2	S03
Number of Units in Package 2	24
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	7.902 kg

Contractual warranty

Warranty	18 months

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	1037
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	1bbe7d20-74c0-4e7e-b98b-d2946f4ab8b4
REACh Regulation	REACh Declaration
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

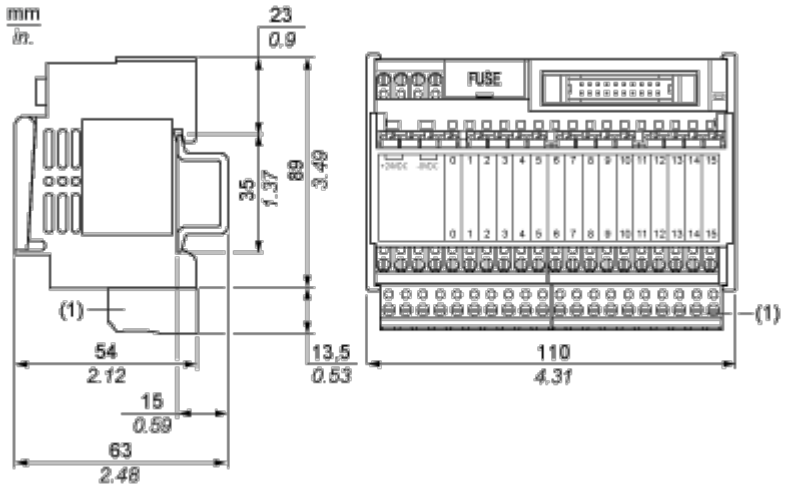
Use Again

Repack and remanufacture

End of life manual availability	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

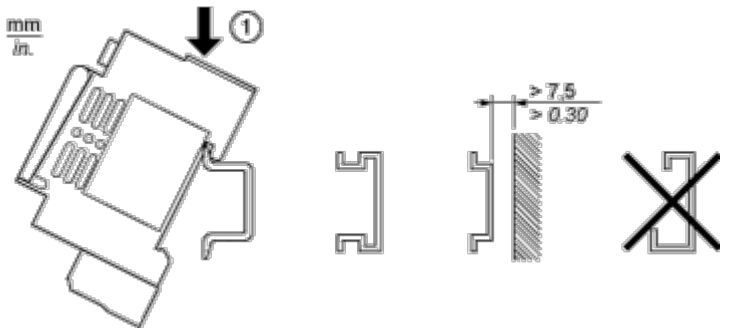
Dimensions



(1) ABE7BV10 / BV20

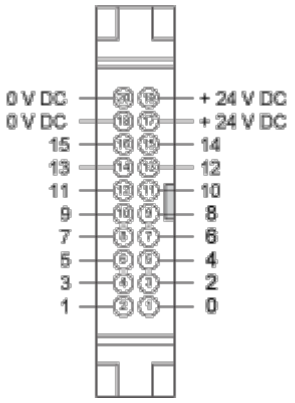
Mounting and Clearance

Mounting

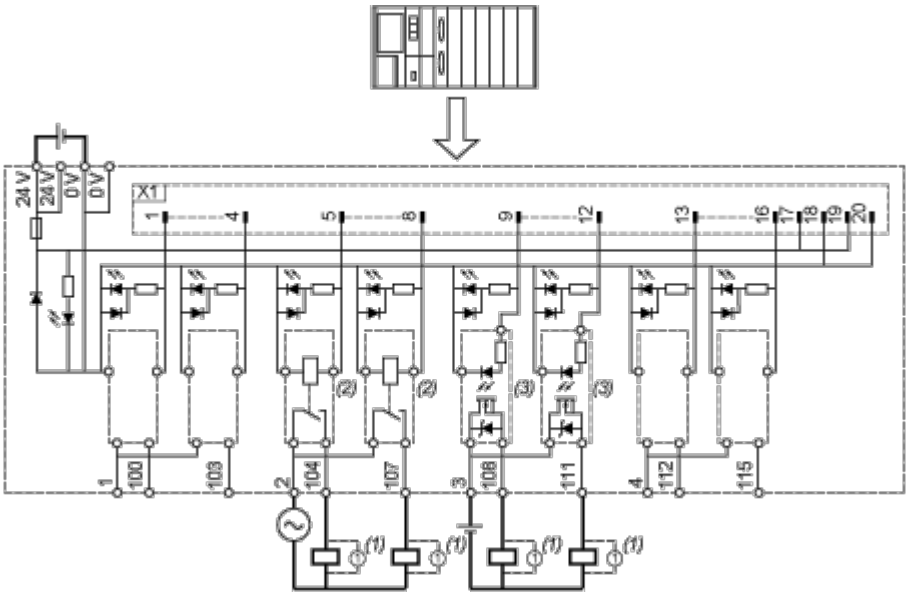


Connections and Schema

HE10 16 Channels



Wiring Diagram



(1) Inductive load

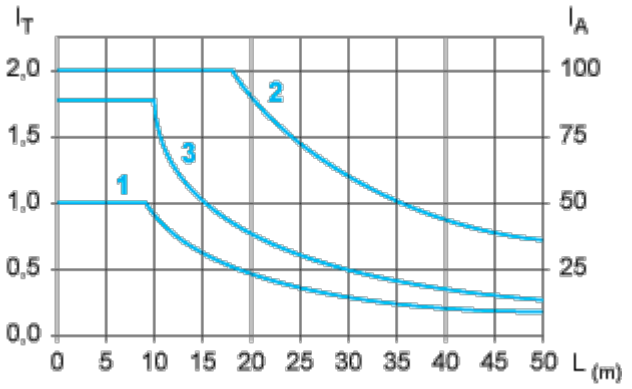
(2) ABR7S11 (1F) - N/O Ith = 6 A (supplied for ABE7R16T111 and not supplied for ABE7P16T111)

(3) ABS7SC1B 24 V DC Imax. = 2 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).

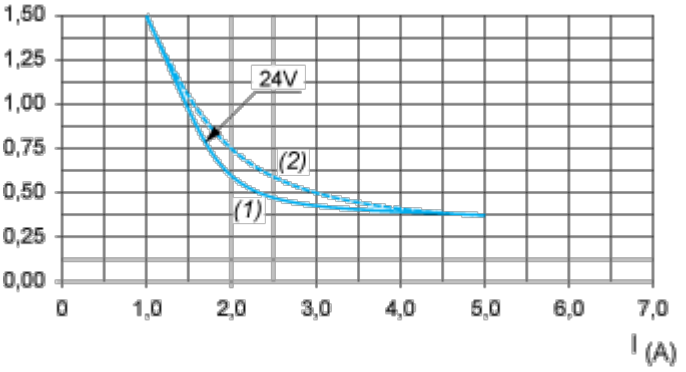
(3) Cables with c.s.a. 0.13 mm^2 (AWG 26).

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.

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

DC Loads

DC12 curves

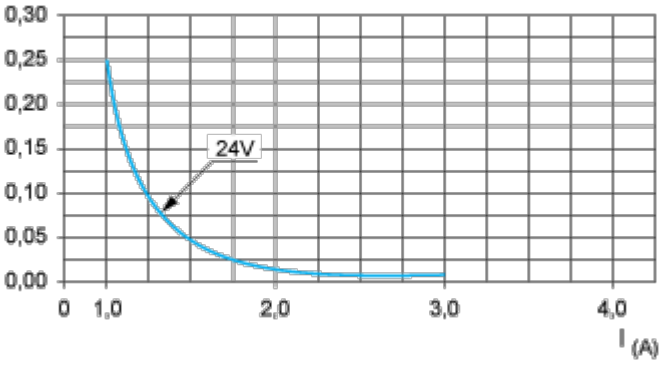


DC12 control of resistive loads and of solid state loads isolated by optocoupler, I/R ≤ 1 ms.

(1) Resistive loads

(2) Inductive loads

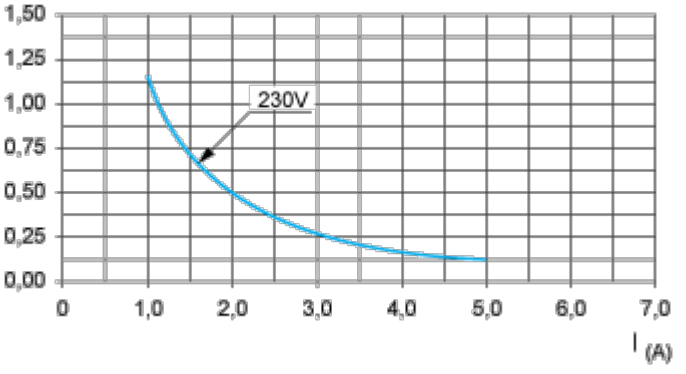
DC13 curves



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)

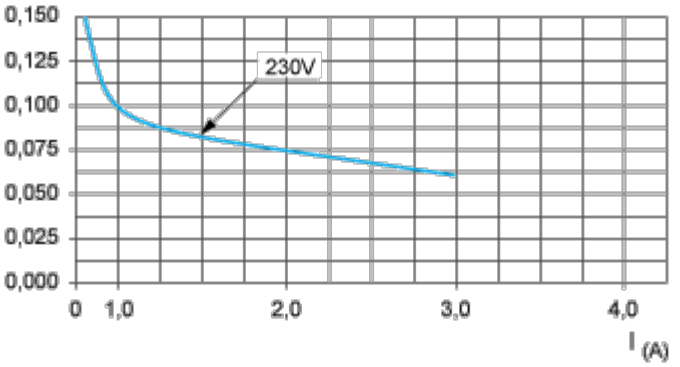
AC Loads

AC12 curves



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

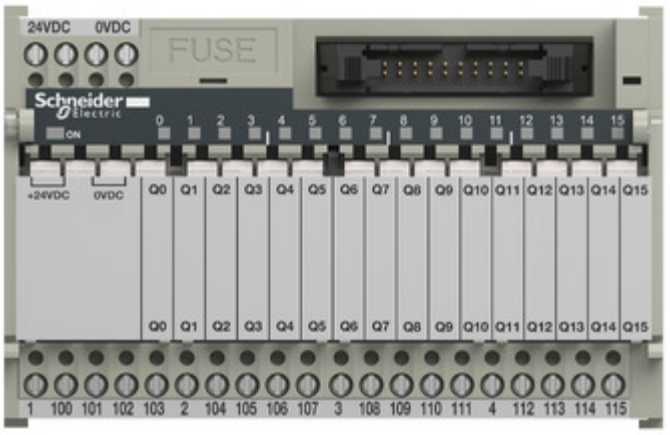
AC15 curves



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

Image of product / Alternate images

Alternative


24VDC
0VDC
FUSE
Schneider Electric
ON
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
+24VDC
0VDC
Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15
Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15
1 100 101 102 103 2 104 105 106 107 3 108 109 110 111 4 112 113 114 115