

### 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
Connections - terminals	Screw type terminals, 1 x 0.14...1 x 1.5 mm <sup>2</sup> AWG 26...AWG 16) flexible with cable end Screw type terminals, 1 x 0.14...1 x 2.5 mm <sup>2</sup> AWG 26...AWG 14) flexible without cable end Screw type terminals, 1 x 0.14...1 x 4 mm <sup>2</sup> AWG 26...AWG 12) solid Screw type terminals, 2 x 0.14...2 x 0.75 mm <sup>2</sup> AWG 26...AWG 18) flexible with cable end Screw type terminals, 2 x 0.14...2 x 1.5 mm <sup>2</sup> 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 terminals/mounting rails 300 V coil circuit/contact circuits IEC 60947-1
Maximum current per module	12 A
[Uimp] rated impulse withstand voltage	2.5 kV
Installation category	II IEC 60664-1
Tightening torque	5.31 lbf.in (0.6 N.m) flat Ø 3.5 mm
Net Weight	1.32 lb(US) (0.6 kg)

### Environment

Product Certifications	CSA UL DNV GL EAC
IP degree of protection	IP2X conforming to IEC 60529
Resistance to incandescent wire	1382 °F (750 °C) 30 s IEC 60695-2-11
Shock resistance	15 gn 11 ms IEC 60068-2-27
Vibration resistance	2 gn 10...150 Hz)IEC 60068-2-6
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	9.14 V/m (10 V/m) 26000000...100000000 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	22375-INTERFACE MODULE(ABA,R,S)
Discount Schedule	CP2
GTIN	3389110250800
Returnability	No
Country of origin	LV

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.76 in (7 cm)
Package 1 Width	3.23 in (8.2 cm)
Package 1 Length	5.39 in (13.7 cm)
Package 1 Weight	11.01 oz (312 g)
Unit Type of Package 2	S03
Number of Units in Package 2	24
Package 2 Height	11.81 in (30 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	17.42 lb(US) (7.902 kg)

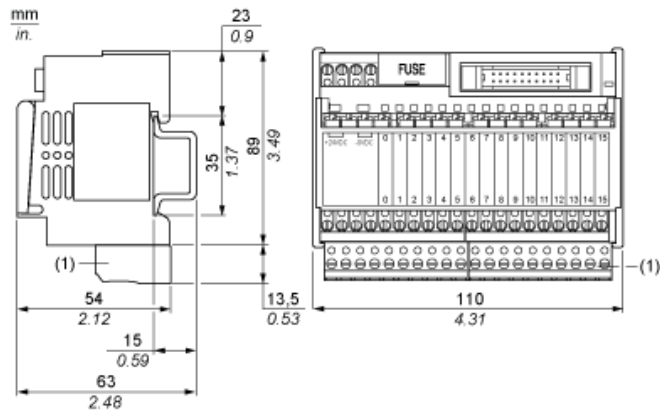
## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

## Contractual warranty

Warranty	18 months
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## Dimensions

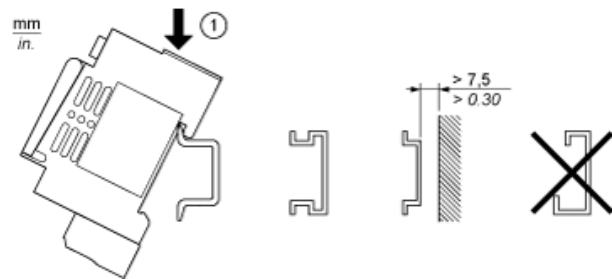


(1) ABE7BV10 / BV20

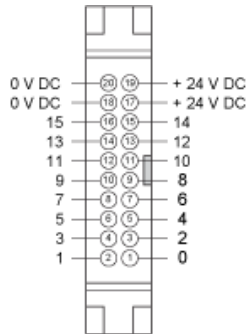
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Mounting

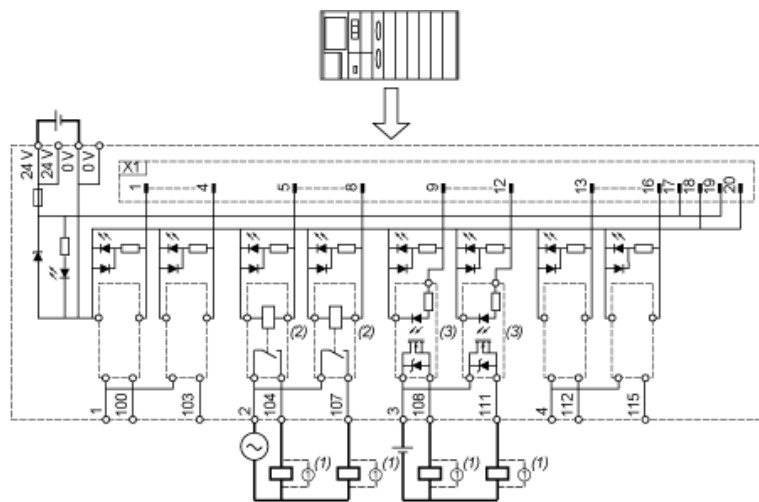
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HE10 16 Channels



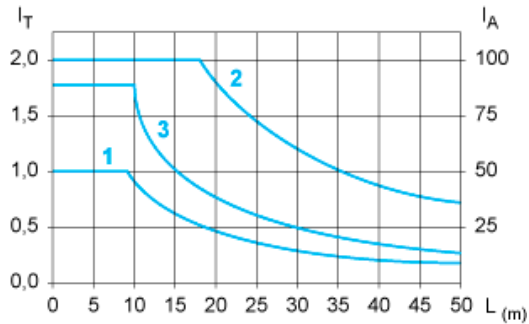
Wiring Diagram



- (1) Inductive load
- (2) ABR7S11 (1F) - N/O Ith = 6 A (supplied for ABE7R16T111 and not supplied for ABE7P16T111)
- (3) ABS7SC1B 24 V DC I<sub>max.</sub> = 2 A (not 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) TSXC DP 2 and ABFH20H 0 cables with c.s.a.  $0.08 \text{ mm}^2$  (AWG 28).

(2) TSXC DP 3 cables with c.s.a.  $0.34 \text{ mm}^2$  (AWG 22).

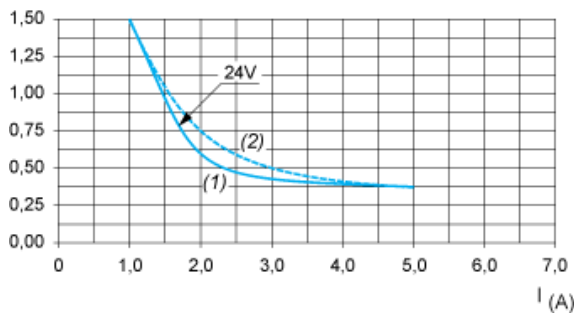
(3) Cables with c.s.a.  $0.13 \text{ mm}^2$  (AWG 26).

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

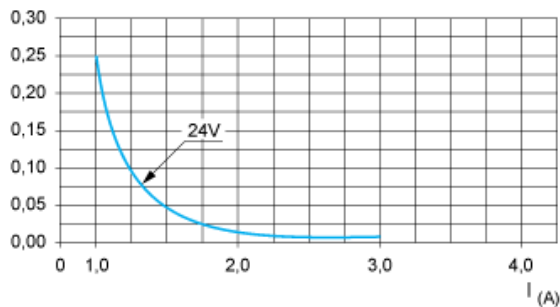


DC12 control of resistive loads and of solid state loads isolated by optocoupler,  $I/R \leq 1 \text{ ms}$ .

(1) Resistive loads

(2) Inductive loads

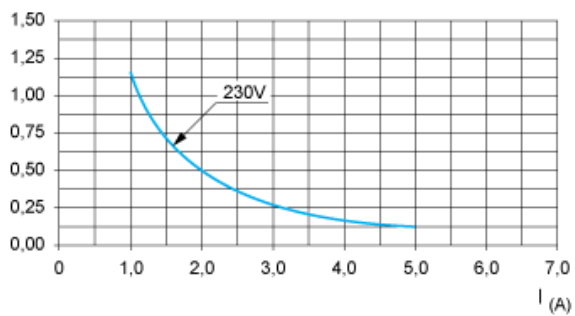
DC13 curves



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)

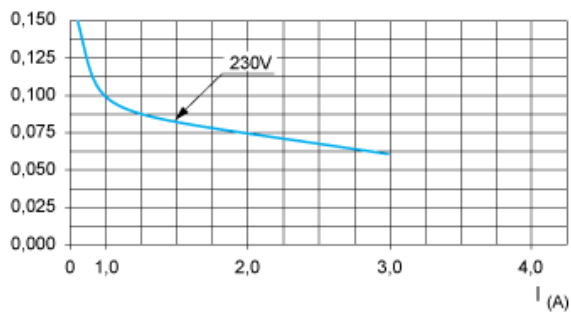
## AC Loads

### AC12 curves



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

### AC15 curves



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