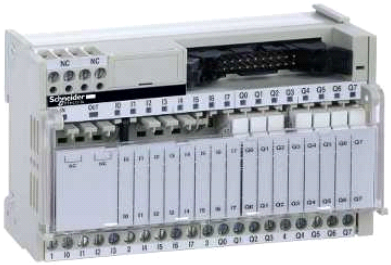
Product datasheet
Characteristics

ABE7R16M111

sub-base - soldered electromechanical relays ABE7 - 16 channels - relay 5 mm



Main

Range of product	Advantys Telefast 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, clamping capacity: 1 x 0.14...1 x 2.5 mm² AWG 26...AWG 14 flexible without cable end Screw type terminals, clamping capacity: 1 x 0.14...1 x 1.5 mm² AWG 26...AWG 16 flexible with cable end Screw type terminals, clamping capacity: 1 x 0.14...1 x 4 mm² AWG 26...AWG 12 solid Screw type terminals, clamping capacity: 2 x 0.14...2 x 0.75 mm² AWG 26...AWG 18 flexible with cable end Screw type terminals, clamping capacity: 2 x 0.14...2 x 1.5 mm² AWG 26...AWG 16 solid

Complementary

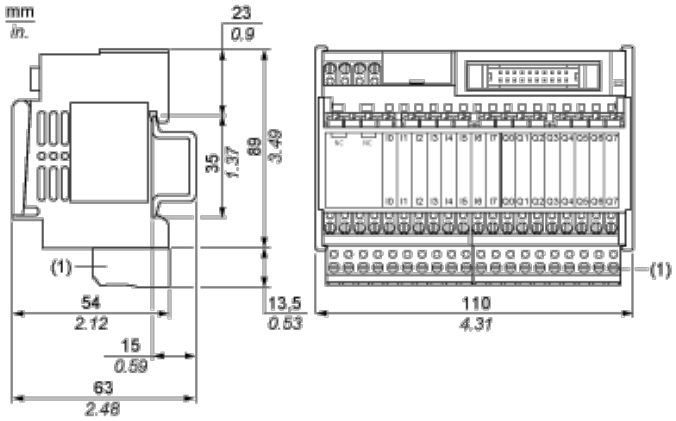
Supply circuit type	DC
Product compatibility	ABR7S11
Contacts type and composition	1 NO
Status LED	1 LED for power ON 1 LED per channel for channel status
Polarity distribution	Common distribution group of 4 + 2 inputs common terminals
Short circuit protection	1 A internal fuse, 5 x 20 mm, fast blow (PLC end)
Mounting mode	By clips on 35 mm DIN rail By screws on surface mount with kit
Supply current	<= 1 A
Voltage drop on power supply fuse	0.3 V
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
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)
Product weight	0.6 kg

Environment

product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) UL
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 (f = 10...150 Hz) conforming to IEC 60068-2-6
resistance to electrostatic discharge	4 kV (contact) conforming to IEC 61000-4-2 level 3 8 kV (air) conforming to IEC 61000-4-2 level 3

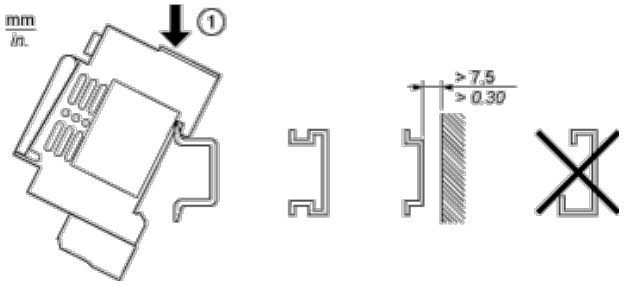
resistance to radiated fields	10 V/m (26000000...1000000000 Hz) conforming to IEC 61000-4-3 level 3
resistance to fast transients	2 kV conforming to IEC 61000-4-4 level 3
ambient air temperature for operation	-5...60 °C conforming to IEC 61131-2
ambient air temperature for storage	-40...80 °C conforming to IEC 61131-2
pollution degree	2 conforming to IEC 60664-1

Dimensions

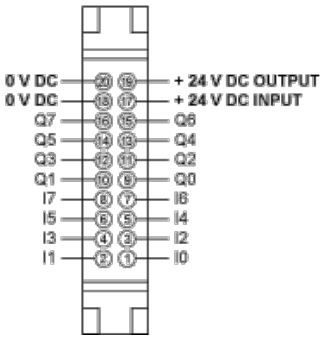


(1) ABE7BV10 / BV20

Mounting



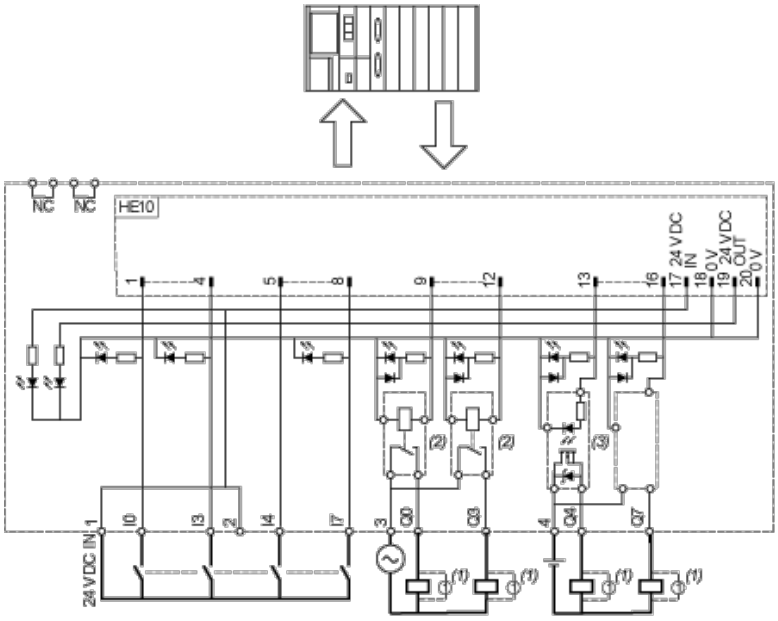
Wiring channels



Qx Outputs

Ix Inputs

Wiring Diagram



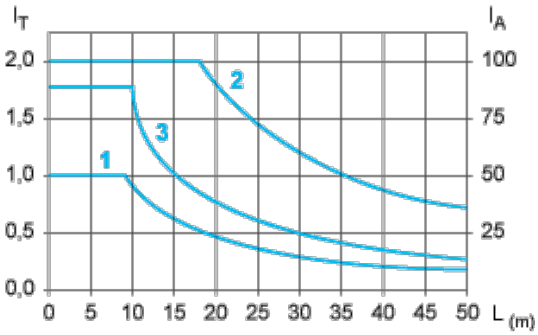
(1) Inductive load

(2) ABR7S11 (1F) - N/O Ith = 6 A (supplied for ABE7R16M111 and not supplied for ABE7P16M111)

(3) ABS7SC1B 24 VDC Imax. = 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) 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).

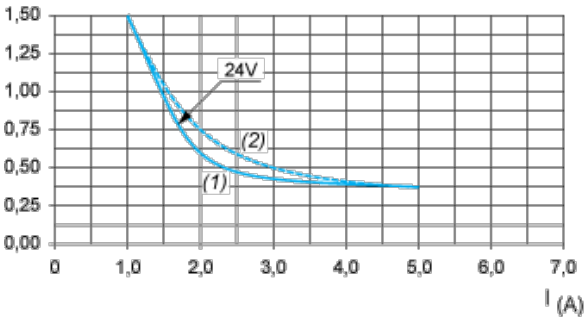
(3) Cables with c.s.a. 0.13 mm^2 (AWG 26).

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

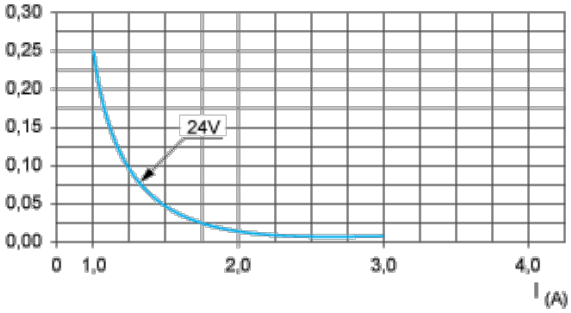


DC12control of resistive loads and of solid state loads isolated by optocoupler, l/R ≤ 1 ms.

(1) Resistive loads

(2) Inductive loads

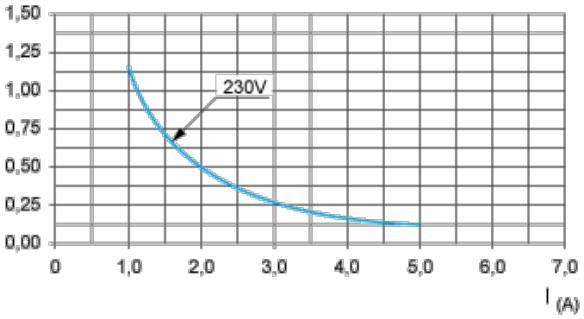
DC13 curves



DC13switching 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)

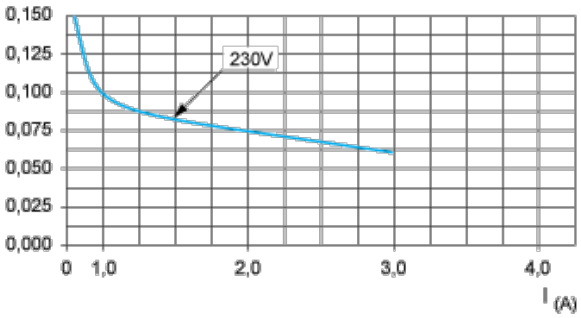
AC Loads

AC12 curves



AC12control of resistive loads and of solid state loads isolated by optocoupler, cos ϕ ≥ 0.9.

AC15 curves



AC15control of electromagnetic loads > 72 VA, make: cos ϕ = 0.7, break: cos ϕ = 0.4.