

# Product data sheet

Specifications



sub-base - soldered  
electromechanical relays ABE7 - 8  
channels - relay 10 mm

ABE7R08S210

## Main

Range Of Product	Modicon ABE7
Product Or Component Type	Electromechanical output relay sub-base
[Us] Rated Supply Voltage	24 V DC for PLC end
Number Of Channels	8
Number Of Terminal Per Channel	2

## Complementary

Terminal Block Type	Removable
Polarity Distribution	Volt-free
Fixing Mode	By clips (35 mm symmetrical DIN rail) By screws (solid plate with fixing kit)
Maximum Current Per Output Common	10 A
Current Per Channel	5 A for preactuator end
Minimum Switching Current	10 mA at >= 5 V
Drop-Out Voltage	2.4 V at 20 °C (PLC end)
Switching Frequency	<= 0.5 Hz <= 10 Hz
Threshold Tripping Voltage	19.7 V at 40 °C
Drop-Out Current	1 mA at 20 °C
Maximum Power Dissipation Per Channel In W	0.36 W (PLC end)
Contacts Type And Composition	1 NO for preactuator end
Maximum Switching Voltage	250 V AC 50/60 Hz conforming to IEC 60947-5-1 30 V DC conforming to IEC 60947-5-1
Electrical Durability	500000 cycles, maximum switching current: 600 mA at 24 V DC-13 10 ms (preactuator end) 500000 cycles, maximum switching current: 1500 mA at 230 V AC-12 (preactuator end) 500000 cycles, maximum switching current: 1500 mA at 24 V DC-12 (preactuator end) 500000 cycles, maximum switching current: 900 mA at 230 V AC-15 (preactuator end)
Electrical Reliability	1e-008
Operating Time	<= 10 ms coil energisation and NO closing <= 5 ms coil de-energisation and NO opening
Contact Bounce Time	<= 5 ms 1 NO
Operating Rate In Hz	10 Hz no load 0.5 Hz at 1e

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

Mechanical Durability	20000000 cycles
[Uimp] Rated Impulse Withstand Voltage	2.5 kV conforming to IEC 60947-1
[Ui] Rated Insulation Voltage	2000 V
Installation Category	II conforming to IEC 60664-1
Tightening Torque	0.6 N.m with flat Ø 3.5 mm screwdriver
Width	125 mm
Net Weight	0.448 kg

## Environment

Max Immunity To Microbreaks	5 ms
Dielectric Strength	2000 V conforming to IEC 60947-1
Product Certifications	UL DNV CSA GL EAC
Ip Degree Of Protection	IP2X conforming to IEC 60529
Protective Treatment	TC
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
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	7.200 cm
Package 1 Width	8.200 cm
Package 1 Length	13.700 cm
Package 1 Weight	351.000 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	9
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.572 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-CO<sub>2</sub> 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

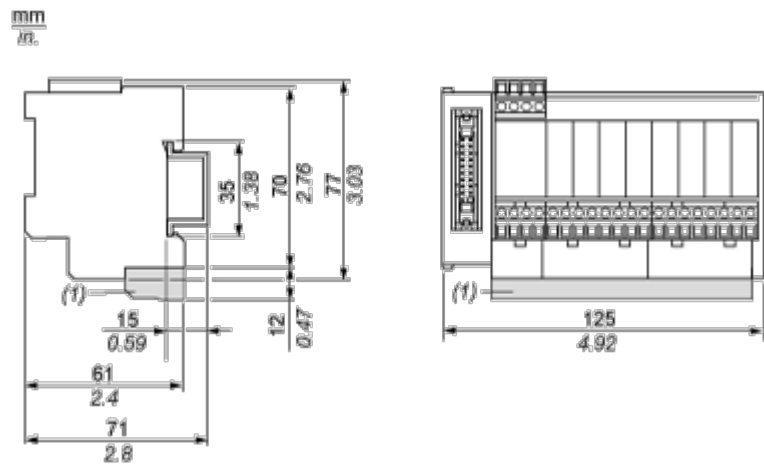
✓ Rohs Exemption Information   [Yes](#)

## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	<a href="#">End of Life Information</a>
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>

Dimensions Drawings

Dimensions

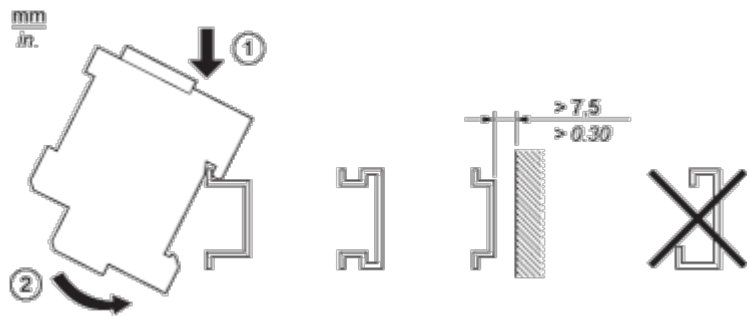


(1) ABE7BV10 / ABE7BV10E

Mounting and Clearance

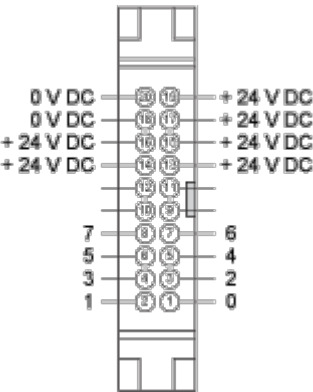
Mounting

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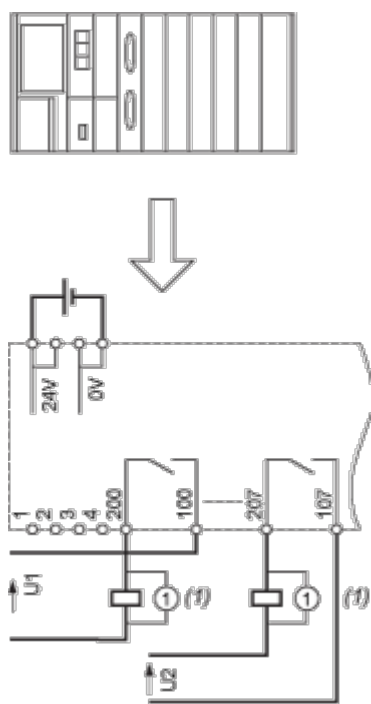


Connections and Schema

HE10 8 Channels



Wiring Diagram

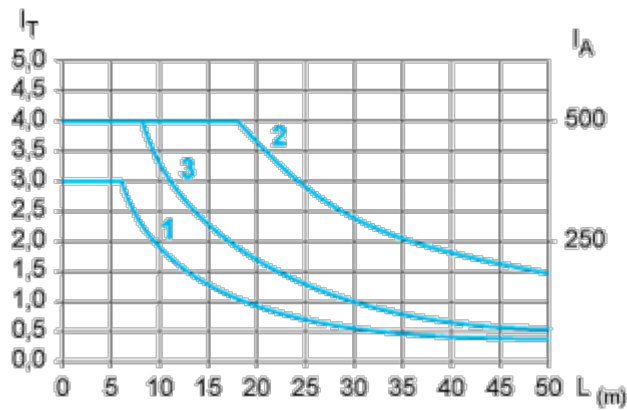


(1) Inductive load

Performance Curves

Curves for Determining Cable Type and Length According to the Current

8-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<sup>2</sup> (AWG 28).
- (2) TSXCDP••3 cables with c.s.a. 0.34 mm<sup>2</sup> (AWG 22).
- (3) Cables with c.s.a. 0.13 mm<sup>2</sup> (AWG 26).

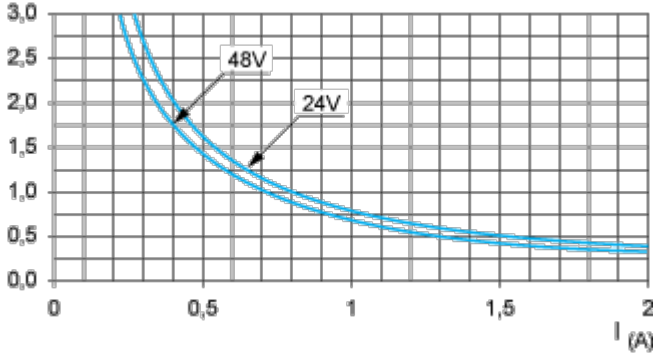
The curves are given for a voltage drop of 1 V in the cable. For n volts tolerance, multiply the length determined from the graph by n.



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

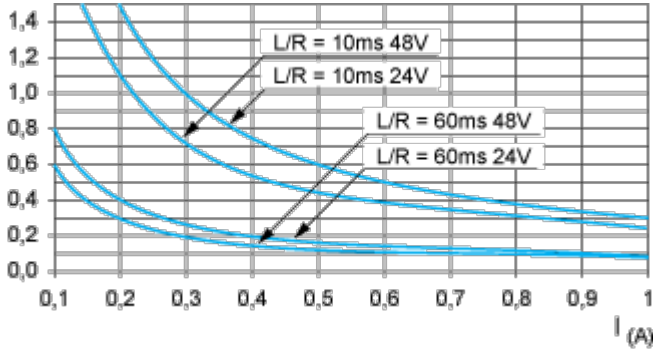
DC Loads

DC12 curves



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

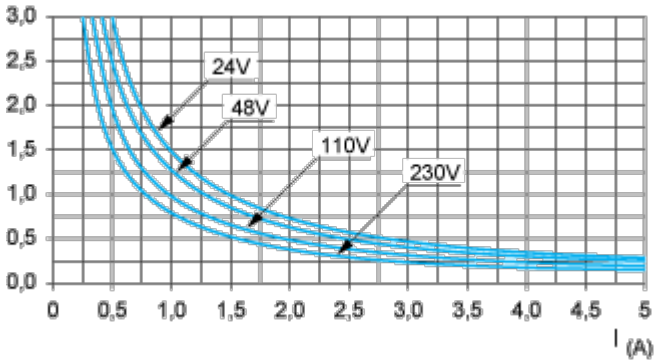
DC13 curves



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)

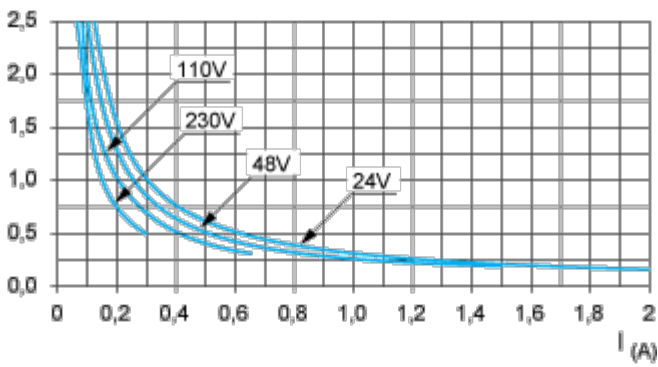
AC Loads

AC12 curves



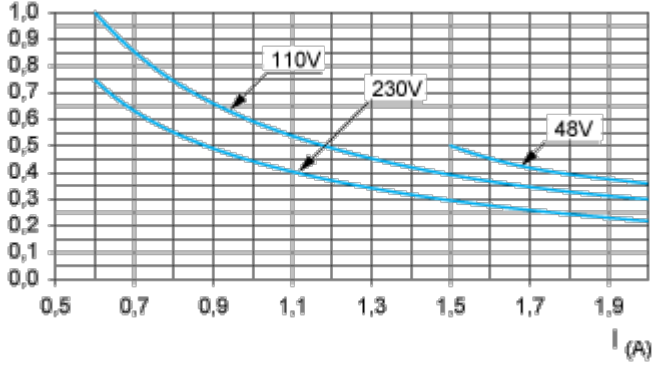
AC12 control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

AC14 curves



AC14 control of small electromagnetic loads  $\leq 72$  VA, make:  $\cos \phi = 0.3$ , break:  $\cos \phi = 0.3$ .

AC15 curves



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