Product data sheet
Characteristics

ABE7R08S210
sub-base - soldered electromechanical relays ABE7 - 8 channels - relay 10 mm

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)
Width	125 mm
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 Ie
Mechanical durability	20000000 cycles
[Uimp] rated impulse withstand voltage	2.5 kV 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
Net weight	0.448 kg

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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Environment

Max immunity to microbreaks	5 ms
Dielectric strength	2000 V conforming to IEC 60947-1
Product certifications	UL DNV CSA GL BV LROS (Lloyds register of shipping) 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

Package 1 Weight	0.360 kg
Package 1 Height	0.800 dm
Package 1 width	1.400 dm
Package 1 Length	0.650 dm

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

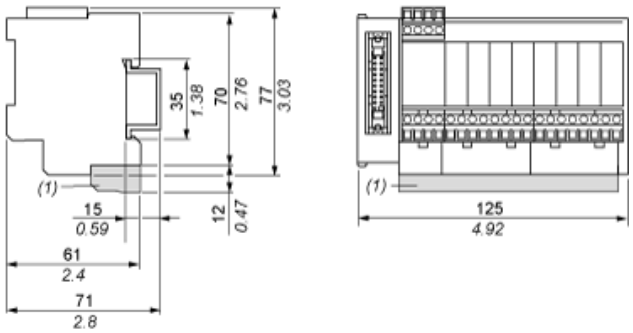
Contractual warranty

Warranty	18 months

ABE7R08S210

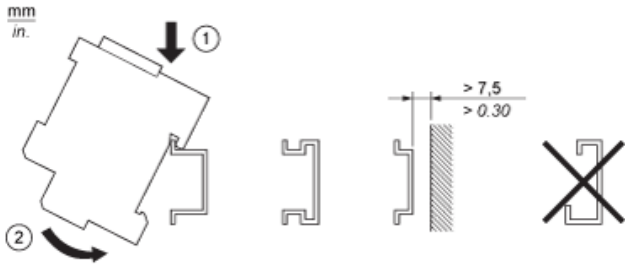
Dimensions

mm
in.

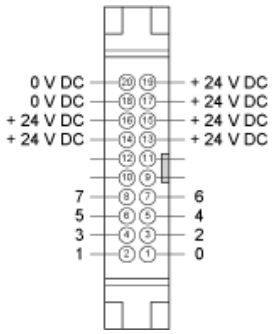


(1) ABE7BV10 / ABE7BV10E

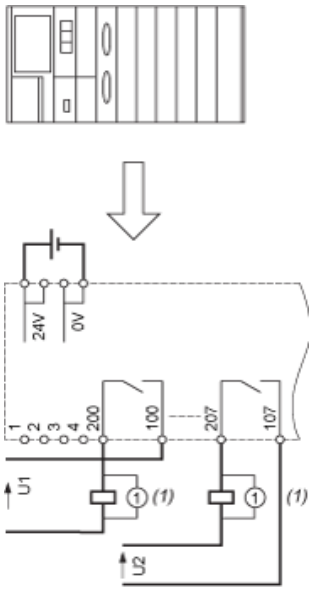
Mounting



HE10 8 Channels



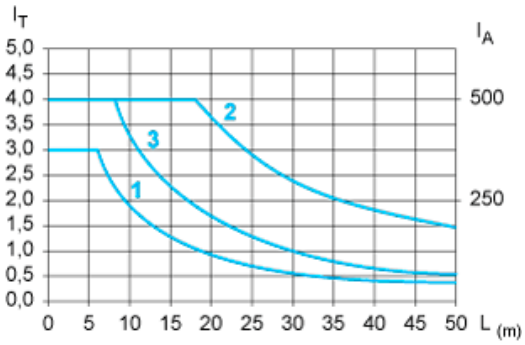
Wiring Diagram



(1) Inductive load

Curves for Determining Cable Type and Length According to the Current

8-channel Sub-base



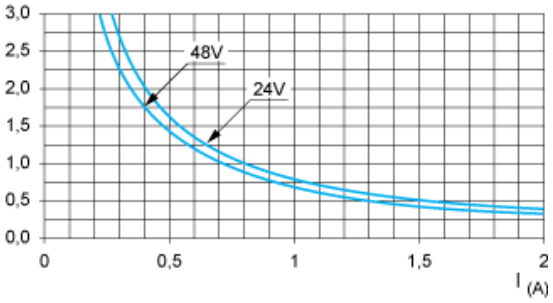
L Cable length
I_T Total current per sub base (A)
I_A Average current per channel (mA)
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm^2 (AWG 28).
(2) TSXCDP••3 cables with c.s.a. 0.34 mm^2 (AWG 22).
(3) Cables with c.s.a. 0.13 mm^2 (AWG 26).

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

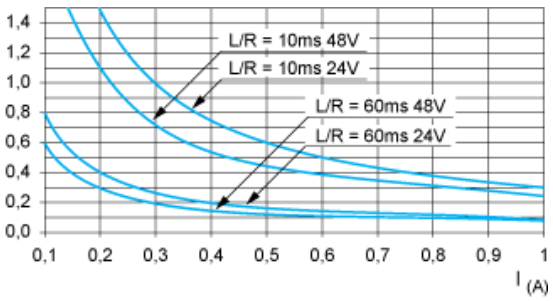
DC Loads

DC12 curves



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

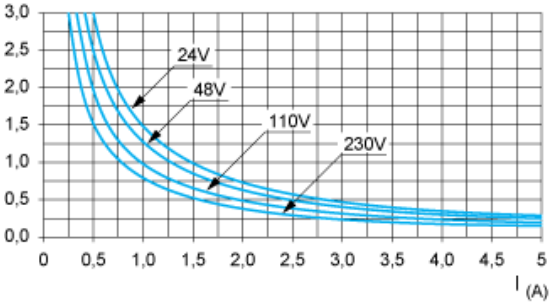
DC13 curves



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)

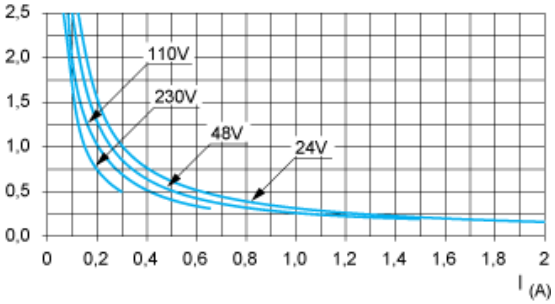
AC Loads

AC12 curves



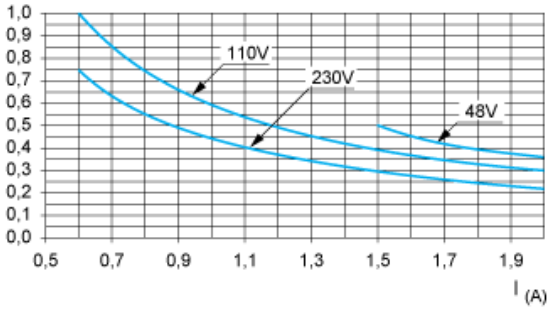
AC12control of resistive loads and of solid state loads isolated by optocoupler, cos ϕ ≥ 0.9.

AC14 curves



AC14control of small electromagnetic loads ≤ 72 VA, make: cos ϕ = 0.3, break: cos ϕ = 0.3.

AC15 curves



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