Product data sheet

Specification





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

ABE7R16S111

Product availability: Non-Stock - Not normally stocked in distribution facility

Price*: 561.00 USD

Main

Range of Product	Modicon ABE7	
Product or Component Type	Electromechanical output relay sub-base	
[Us] rated supply voltage	24 V DC PLC end	
Number of channels	16	
Number of terminal per channel	1	

Complementary

Terminal block type	Removable	
Polarity distribution	Polarity distribution contact common per group of 8 channels	
Fixing mode	By clips (35 mm symmetrical DIN rail) By screws (solid plate with fixing kit)	
Maximum current per output common	12 A	
Current per channel	2 A preactuator end	
Minimum switching current	1 mA >= 5 V	
Drop-out voltage	2.4 V 68.0000000000 °F (20 °C) PLC end)	
Switching frequency	<= 10 Hz <= 0.5 Hz	
Threshold tripping voltage	19.2 V 104.0000000000 °F (40 °C)	
Drop-out current	0.5 mA 68.0000000000 °F (20 °C)	
Maximum power dissipation per channel in W	0.22 W PLC end)	
Contacts type and composition	1 NO preactuator end	
Maximum switching voltage	250 V AC 50/60 Hz IEC 60947-5-1 30 V DC IEC 60947-5-1	
Number of channel per common	8	
Electrical durability	500000 cycles 200 mA 24 V DC-13 10 ms preactuator end) 500000 cycles 400 mA 230 V AC-15 preactuator end) 500000 cycles 600 mA 230 V AC-12 preactuator end) 500000 cycles 600 mA 24 V DC-12 preactuator end)	
Electrical reliability	1e-008	
Operating time	<= 10 ms coil energisation and NO closing <= 6 ms coil de-energisation and NO opening	
Contact bounce time	<= 5 ms 1 NO	

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Operating rate in Hz	10 Hz no load 0.5 Hz at le
Mechanical durability	20000000 cycles
[Uimp] rated impulse withstand voltage	2.5 kV IEC 60947-1
[Ui] Rated Insulation Voltage	2000 V
Installation category	II IEC 60664-1
Tightening torque	5.3 lbf.in (0.6 N.m) flat Ø 3.5 mm
Width	4.9 in (125 mm)
Height	3.03 in (77 mm)
Depth	2.3 in (58 mm)
Net Weight	0.893 lb(US) (0.405 kg)

Environment

Max immunity to microbreaks	5 ms	
Dielectric strength	2000 V IEC 60947-1	
Product Certifications	DNV UL CSA GL EAC	
IP degree of protection	IP2X conforming to IEC 60529	
protective treatment	TC	
Resistance to incandescent wire	1382.0000000000 °F (750 °C) 30 s IEC 60695-2-11	
Shock resistance	15 gn 11 ms IEC 60068-2-27	
Resistance to radiated fields	9.1 V/m (10 V/m) 260000001000000000 Hz)IEC 61000-4-3 level 3	
Resistance to fast transients	2 kV level 3 IEC 61000-4-4	
Ambient air temperature for operation	23.000000000140.0000000000 °F (-560 °C) IEC 61131-2	
Ambient air temperature for storage	-40.0000000000176.0000000000 °F (-4080 °C) IEC 61131-2	
Pollution degree	2 IEC 60664-1	

Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
GTIN	3389110545272
Returnability	No
Country of origin	LV

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.756 in (7.000 cm)
Package 1 Width	3.228 in (8.200 cm)
Package 1 Length	5.354 in (13.600 cm)

Package 1 Weight	12.275 oz (348.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	30
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	24.879 lb(US) (11.285 kg)

Contractual warranty

Warranty 18 months

Sustainability Green Premium

Green PremiumTM **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ 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

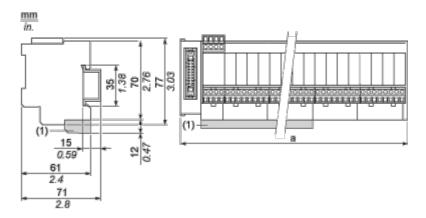
Certifications & Standards

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.	
Weee Circularity Profile	•	

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Dimensions Drawings

Dimensions

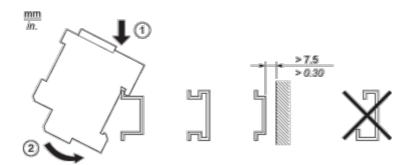


(1) ABE7BV20 / ABE7BV20E

ABE7	a in mm	a in in.
R16S111 / R16S111E	125	4.92
R16S21 / R16S21•E	206	8.11

Mounting and Clearance

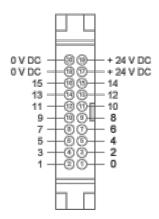
Mounting



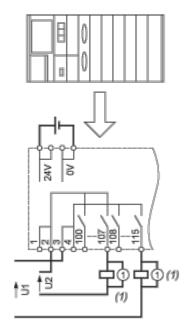
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Connections and Schema

HE10 16 Channels



Wiring Diagram



(1) Inductive load

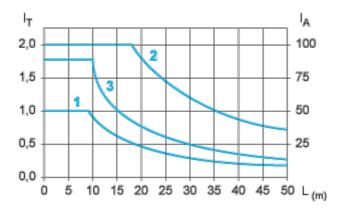
Product data sheet

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Performance Curves

Curves for Determining Cable Type and Length According to the Current

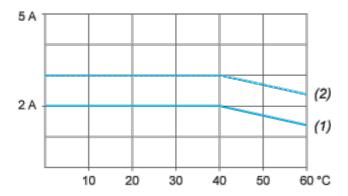
16-channel Sub-base



- 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 mm² (AWG 28).
- (2) TSXCDP••3 cables with c.s.a. 0.34 mm² (AWG 22).
- (3) Cables with c.s.a. 0.13 mm² (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.

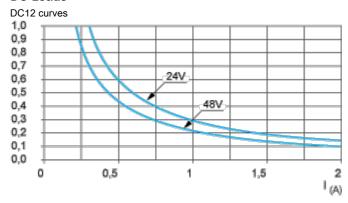
Temperature Derating Curves



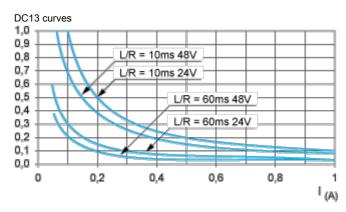
- (1) 100 % of channels used
- (2) 50 % of channels used

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

DC Loads

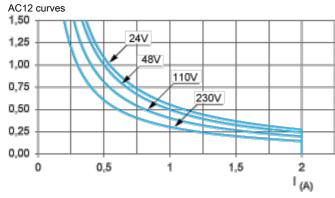


DC12 control of resistive loads and of solid state loads isolated by optocoupler, $I/R \le 1$ ms.



DC13 switching electromagnets, $L/R \le 2 \times (Ue \times Ie)$ 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

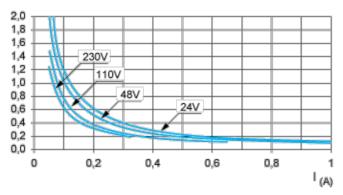


AC12 control of resistive loads and of solid state loads isolated by optocoupler, $\cos \phi \ge 0.9$.

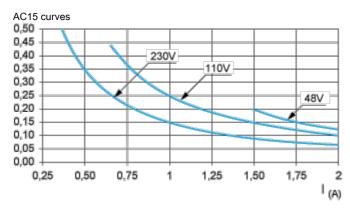
AC14 curves

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



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