# Product data sheet

Specifications





## 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 °F (20 °C) PLC end)
Switching Frequency	<= 10 Hz <= 0.5 Hz
Threshold Tripping Voltage	19.2 V 104 °F (40 °C)
Drop-Out Current	0.5 mA 68 °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	5.31 lbf.in (0.6 N.m) flat Ø 3.5 mm
Width	4.92 in (125 mm)
Height	3.03 in (77 mm)
Depth	2.28 in (58 mm)
Net Weight	0.89 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 °F (750 °C) 30 s IEC 60695-2-11
Shock Resistance	15 gn 11 ms IEC 60068-2-27
Resistance To Radiated Fields	9.14 V/m (10 V/m) 26000000100000000 Hz)IEC 61000-4-3 level 3
Resistance To Fast Transients	2 kV level 3 IEC 61000-4-4
Ambient Air Temperature For Operation	23140 °F (-560 °C) IEC 61131-2
Ambient Air Temperature For Storage	-40176 °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	2.76 in (7.0 cm)
Package 1 Width	3.23 in (8.2 cm)
Package 1 Length	5.35 in (13.6 cm)

Package 1 Weight	12.42 oz (352.0 g)
Unit Type Of Package 2	S03
Number Of Units In Package 2	30
Package 2 Height	11.81 in (30.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	24.88 lb(US) (11.285 kg)

## **Contractual warranty**

Warranty

18 months

## Sustainability Screen Premium

**Green Premium<sup>TM</sup> 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-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

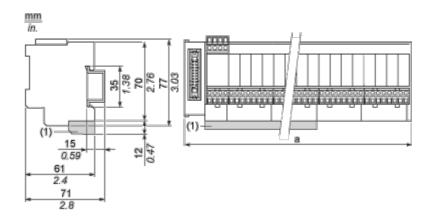
Rohs Exemption Information
Yes

## **Certifications & Standards**

Reach Regulation	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.	
Circularity Profile	End of Life Information	

#### **Dimensions Drawings**

#### Dimensions



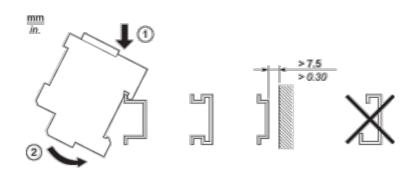
(1) ABE7BV20 / ABE7BV20E

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

Product data sheet

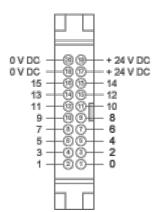
Mounting and Clearance

#### Mounting

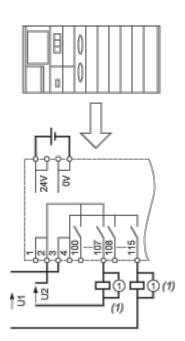


Connections and Schema

#### HE10 16 Channels



#### Wiring Diagram



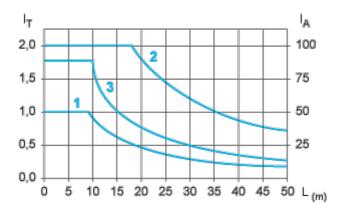
(1) Inductive load

## ABE7R16S111

#### Performance Curves

#### Curves for Determining Cable Type and Length According to the Current

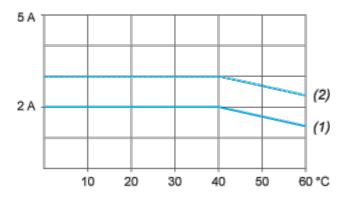
#### 16-channel Sub-base



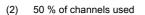
- L Cable length
- I<sub>T</sub> Total current per sub base (A)
- I<sub>A</sub> Average current per channel (mA)
- (1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm<sup>2</sup> (AWG 28).
- (2) TSXCDP••3 cables with c.s.a.  $0.34 \text{ mm}^2$  (AWG 22).
- (3) Cables with c.s.a. 0.13 mm<sup>2</sup> (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.

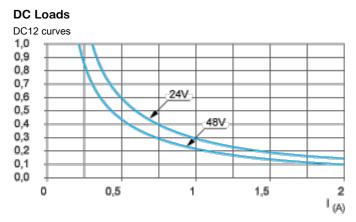
#### Temperature Derating Curves

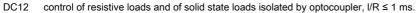


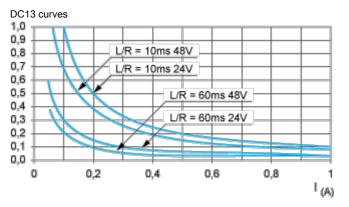
(1) 100 % of channels used



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

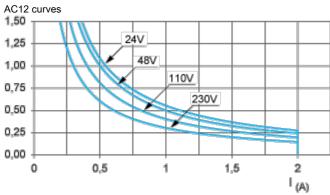


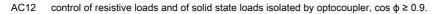




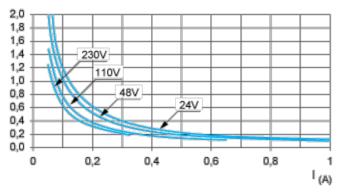
DC13 switching electromagnets,  $L/R \le 2 x$  (Ue x le) in ms, Ue: rated operational voltage, le: rated operational current (with a protective diode on the load, DC12 curves must be used with a coefficient of 0.9 applied to the number in millions of operating cycles)

#### AC Loads

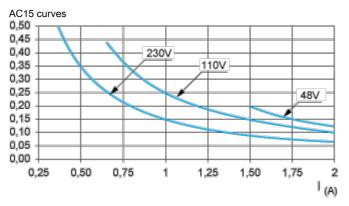




AC14 curves



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



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