

# ABE7R08S111

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



## Main

Range of product	Advantys Telefast ABE7
Product or component type	Electromechanical output relay sub-base
[Us] rated supply voltage	24 V DC (PLC end)
Number of channels	8
Number of terminal per channel	1

## Complementary

Terminal block type	Removable
Polarity distribution	Polarity distribution contact common per group of 4 channels
Fixing mode	By clips on 35 mm symmetrical DIN rail By screws on solid plate with fixing kit
Width	84 mm
Current per output common	$\leq 12$ A
Current per channel	2 A (preactuator end)
Minimum switching current	1 mA at $\geq 5$ V
Drop-out voltage	2.4 V at 20 °C (PLC end)
Threshold tripping voltage	19.2 V at 40 °C
Drop-out current	0.5 mA at 20 °C
Power dissipation per channel in W	$\leq 0.22$ W (PLC end)
Contacts type and composition	1 NO(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
Number of channel per common	4
Electrical durability	500000 cycles, maximum switching current: 200 mA at 24 V DC-13 10 ms (preactuator end) 500000 cycles, maximum switching current: 400 mA at 230 V AC-15 (preactuator end) 500000 cycles, maximum switching current: 600 mA at 230 V AC-12 (preactuator end) 500000 cycles, maximum switching current: 600 mA at 24 V DC-12 (preactuator end)
Electrical reliability	1e-008
Operating time	$\leq 10$ ms between coil energisation and NO closing $\leq 6$ ms between coil de-energisation and NO opening
Contact bounce time	$\leq 5$ ms 1 NO
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 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 $\varnothing 3.5$ mm)
Product weight	0.252 kg

## Environment

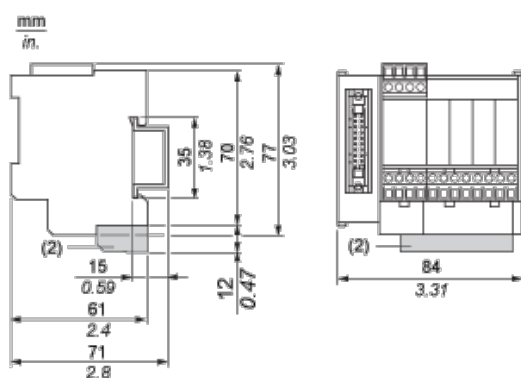
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max immunity to microbreaks	<= 5 ms
dielectric strength	2000 V conforming to IEC 60947-1
product certifications	BV CSA DNV GL LROS (Lloyds register of shipping) UL
IP degree of protection	IP2x conforming to IEC 60529
protective treatment	TC
resistance 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 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

## Offer Sustainability

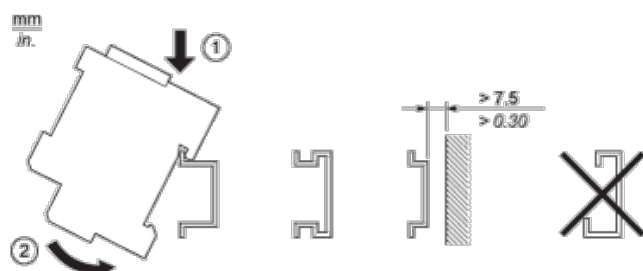
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0841 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

## Dimensions

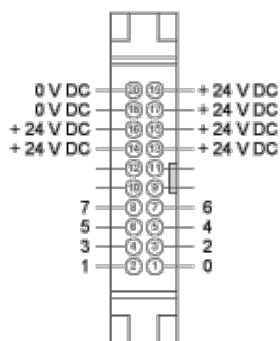


(2) ABE7BV20 / ABE7BV20E

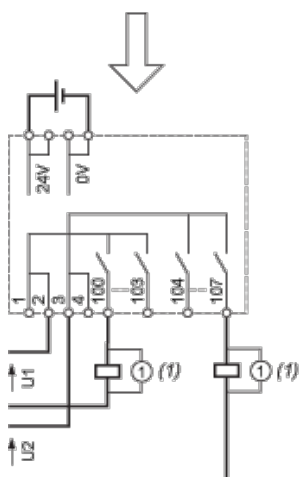
## Mounting



## HE10 8 Channels



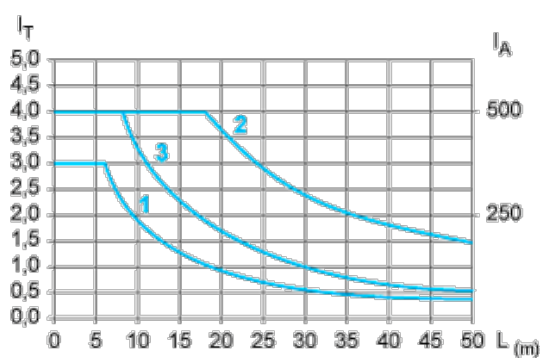
## Wiring Diagram



(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)

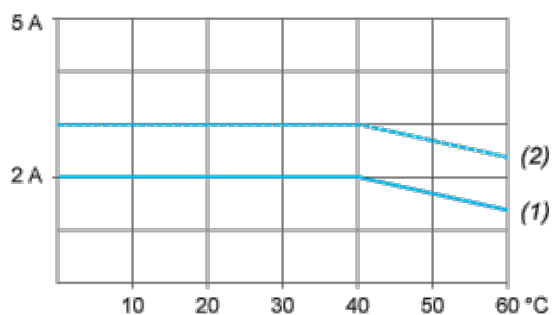
(1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm<sup>2</sup> (AWG 28).

(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.

## Temperature Derating Curves



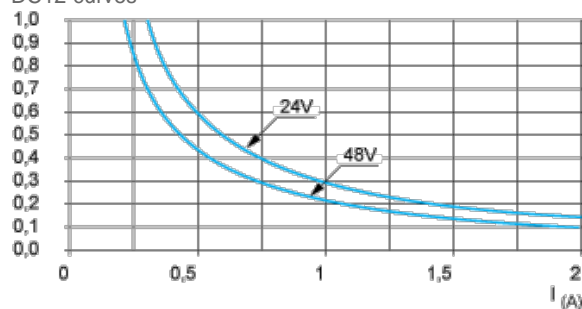
(1) 100 % of channels used

(2) 50 % of channels used

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

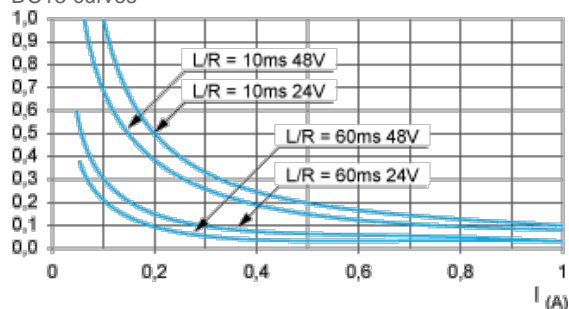
### DC Loads

DC12 curves



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

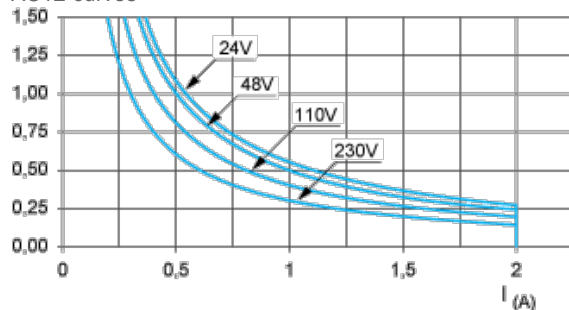
DC13 curves



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)

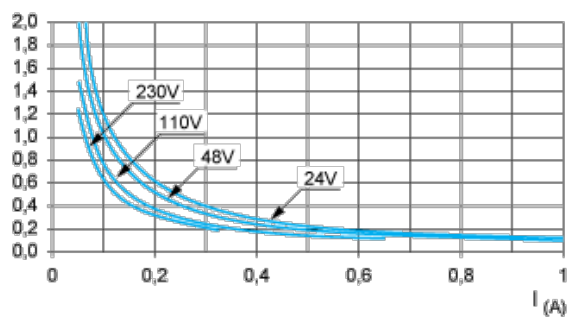
### AC Loads

AC12 curves



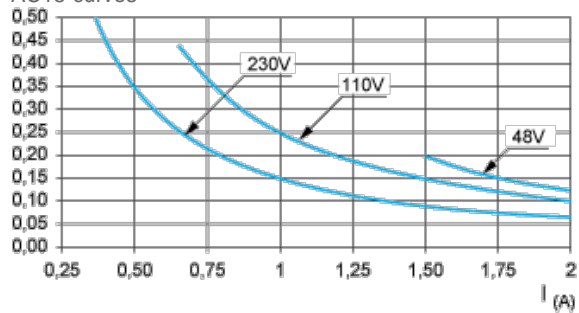
AC12 control of resistive loads and of solid state loads isolated by optocoupler,  $\cos \phi \geq 0.9$ .

AC14 curves



AC14control of small electromagnetic loads  $\leq 72$  VA, make:  $\cos \phi = 0.3$ , break:  $\cos \phi = 0.3$ .

AC15 curves



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