## Product data sheet Characteristics

## RSB2A080FD

Harmony, Interface plug-in relay, 8 A, 2 CO, 110 V DC





#### Main

IVICIIII		9
Range of product	Harmony Electromechanical Relays	for
Series name	Interface relay	
Product or component type	Plug-in relay	
Device short name	RSB	f the
Contacts type and composition	2 C/O	C
Contact operation	Standard	- Leilar
[Ithe] conventional enclosed thermal current	8 A at -4040 °C	ability or
Status LED	Without	
Control type	Without push-button	i

#### Complementary

Main		
Range of product	Harmony Electromechanical Relays	
Series name	Interface relay	
Product or component type	Plug-in relay	
Device short name	RSB	
Contacts type and composition	2 C/O	
Contact operation	Standard	
[Ithe] conventional enclosed thermal current	8 A at -40…40 °C	
Status LED	Without	
Status LED Control type Complementary	Without Without push-button	
Control type		
Control type Complementary Shape of pin	Without push-button Flat (PCB type)	
Control type Complementary Shape of pin Average coil resistance	Without push-button Flat (PCB type) 30250 Ohm network: AC at 20 °C +/- 10 %	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage	Without push-button Flat (PCB type) 30250 Ohm network: AC at 20 °C +/- 10 % 77165 V DC	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage	Without push-button Flat (PCB type) 30250 Ohm network: AC at 20 °C +/- 10 %	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage	Without push-button Flat (PCB type) 30250 Ohm network: AC at 20 °C +/- 10 % 77165 V DC	
Control type Complementary Shape of pin	Without push-button           Flat (PCB type)           30250 Ohm network: AC at 20 °C +/- 10 %           77165 V DC           400 V conforming to EN/IEC 60947           3.6 kV IEC 61000-4-5           Silver alloy (AgNi)	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage [Uimp] rated impulse withstand voltage Contacts material	Without push-button           Flat (PCB type)           30250 Ohm network: AC at 20 °C +/- 10 %           77165 V DC           400 V conforming to EN/IEC 60947           3.6 kV IEC 61000-4-5	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage [Uimp] rated impulse withstand voltage Contacts material [Ie] rated operational current	Without push-button Flat (PCB type) 30250 Ohm network: AC at 20 °C +/- 10 % 77165 V DC 400 V conforming to EN/IEC 60947 3.6 kV IEC 61000-4-5 Silver alloy (AgNi) 4 A (AC-1/DC-1) NC conforming to IEC	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage [Uimp] rated impulse withstand voltage Contacts material [le] rated operational current Minimum switching current	Without push-button         Flat (PCB type)         30250 Ohm network: AC at 20 °C +/- 10 %         77165 V DC         400 V conforming to EN/IEC 60947         3.6 kV IEC 61000-4-5         Silver alloy (AgNi)         4 A (AC-1/DC-1) NC conforming to IEC         8 A (AC-1/DC-1) NO conforming to IEC	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage [Uimp] rated impulse withstand voltage Contacts material [le] rated operational current Minimum switching current Maximum switching voltage	Without push-button         Flat (PCB type)         30250 Ohm network: AC at 20 °C +/- 10 %         77165 V DC         400 V conforming to EN/IEC 60947         3.6 kV IEC 61000-4-5         Silver alloy (AgNi)         4 A (AC-1/DC-1) NC conforming to IEC         8 A (AC-1/DC-1) NO conforming to IEC         10 mA	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage [Uimp] rated impulse withstand voltage Contacts material [Ie] rated operational current Minimum switching current Maximum switching voltage Minimum switching voltage	Without push-buttonFlat (PCB type)30250 Ohm network: AC at 20 °C +/- 10 %77165 V DC400 V conforming to EN/IEC 609473.6 kV IEC 61000-4-5Silver alloy (AgNi)4 A (AC-1/DC-1) NC conforming to IEC8 A (AC-1/DC-1) NO conforming to IEC10 mA300 V DC conforming to IEC	
Control type Complementary Shape of pin Average coil resistance [Ue] rated operational voltage [Ui] rated insulation voltage [Uimp] rated impulse withstand voltage	Without push-button         Flat (PCB type)         30250 Ohm network: AC at 20 °C +/- 10 %         77165 V DC         400 V conforming to EN/IEC 60947         3.6 kV IEC 61000-4-5         Silver alloy (AgNi)         4 A (AC-1/DC-1) NC conforming to IEC         8 A (AC-1/DC-1) NO conforming to IEC         10 mA         300 V DC conforming to IEC         12 V	



Operating rate	<= 600 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	3000000 cycles
Electrical durability	100000 cycles, 8 A at 250 V, AC-1 NO 100000 cycles, 4 A at 250 V, AC-1 NC
Operating time	20 ms operating 20 ms reset
Marking	CE
Average coil consumption	0.45 W DC
Drop-out voltage threshold	>= 0.1 Uc DC
Safety reliability data	B10d = 100000
Protection category	RT I
Test levels	Level A group mounting
Operating position	Any position
Net weight	0.014 kg
Sale per indivisible quantity	10
Device presentation	Complete product

#### Environment

Dielectric strength	1000 V AC between contacts 2500 V AC between poles 5000 V AC between coil and contact
Standards	EN/IEC 61810-1 CSA C22.2 No 14 UL 508
Product certifications	UL CSA EAC
Ambient air temperature for storage	-4085 °C
Vibration resistance	+/- 1 mm (f= 1055 Hz) conforming to EN/IEC 60068-2-6
IP degree of protection	IP40 conforming to EN/IEC 60529
Shock resistance	10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27 5 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27
Ambient air temperature for operation	-4085 °C (DC)

### Packing Units

<u> </u>		
Package 1 Weight	15.000 g	
Package 1 Height	0.170 dm	
Package 1 width	3.330 dm	
Package 1 Length	0.270 dm	

### Offer Sustainability

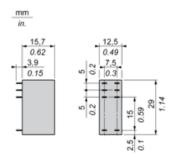
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental 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
California proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds, which is know to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the

Contractual warranty	
Warranty	18 months

Product data sheet Dimensions Drawings

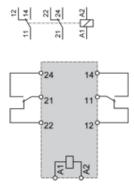
# RSB2A080FD

### Dimensions



# RSB2A080FD

### Wiring Diagram

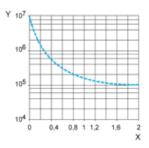


NOTE: For DC input, A1 have to be +, otherwise it would short circuit from protection module

## RSB2A080FD

#### **Electrical Durability of Contacts**

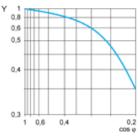
Durability (inductive load) = durability (resistive load) x reduction coefficient. Resistive AC load



X Switching capacity (kVA)

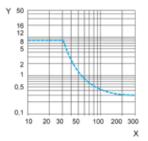
Y Durability (Number of operating cycles)

Reduction coefficient for inductive AC load (depending on power factor  $\cos \phi$ )



Y Reduction coefficient (A)

Maximum switching capacity on resistive DC load



X Voltage DC

Y Current DC

Note : These are typical curves, actual durability depends on load, environment, duty cycle, etc.