

AZSR180

80A

POWER RELAY

FEATURES

- 80 Amp switching
- Wide contact gap > 2.05mm
- Holding power <100 mW
- Dielectric strength 5000 Vrms
- Isolation spacing greater than 10 mm
- Double insulation, EN 60730-1 (VDE 0631, part 1)
- Reinforced insulation, EN 60335-1 (VDE 0700, part 1)
- UL, CUR E44211
- VDE certificate 40044305



CONTACTS

Arrangement	SPST (1 Form A)
Ratings	Resistive load: Max. switched power: 2400 W or 22160 VA Max. switched current: 80A (1000 cycles) Max. continuous current: 80A Max. switched voltage: 150 VDC* or 440 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory.
Rated Load UL	80A at 277VAC, resistive, 1K cycles 80A at 380VAC, resistive, 1K cycles, 85°C 30A at 380VAC, resistive, 30K cycles, 85°C
VDE	80A at 277VAC, resistive, 1k cycles, 85°C 30A at 263VAC, AC-7a, 30k cycles, 85°C
Material	Silver tin oxide
Resistance	< 50 milliohms initially

COIL

Power At Pickup Voltage (typical)	270 mW
Max. Continuous Dissipation	2.0 W at 20°C (68°F) ambient
Temperature Rise	15°C (27°F) at nominal coil voltage
Temperature	Max. 155°C (311°F) Class F

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.
4. Recommended PCB cross section 16 mm².

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁵ 3 x 10 ⁴ at 30 A 250 VAC Res.
Operate Time (typical)	40 ms at nominal coil voltage
Release Time (typical)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	5000 Vrms coil to contact 2500 Vrms between open contacts
Insulation Resistance	1000 megohms min. at 20°C 500 VDC 50% RH
Insulation (according to DIN VDE 0110, IEC 60664-1)	C250 Overvoltage category: III Pollution degree: 3 Nominal voltage: 250 VAC
Dropout	Greater than 5% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)
Vibration	0.062" (1.5 mm) DA at 10–55 Hz
Shock	10 g
Enclosure	PA
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Weight	105 grams
Packing unit in pcs	10 per inner carton / 100 per carton box

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RELAY ORDERING DATA

COIL SPECIFICATIONS - SPST (1 FORM A)					
Nominal Coil VDC	Must Operate VDC	Min. Holding VDC	Max. Continuous VDC	Coil Resistance Ohm $\pm 10\%$	ORDER NUMBER
12	9.00	4.0	24.0	300	AZSR180-1AE-12D
24	18.00	8.0	48.0	1200	AZSR180-1AE-24D

MECHANICAL DATA

Front view dimensions: 40.0 (width), 49.2 (height), 2.0 (bottom offset).
Side view dimensions: 25.0 (width), 4.5 (bottom offset).

PC BOARD LAYOUT

Dimensions: 7.0 x 2.5 (4x), 3.3 x 1.3 (2x), 14.7, 10.0, 22.8, 3.5.

Viewed toward terminals

Dimensions: 2.8 x 0.8 (2x), 6.5 x 2 (4x), 8.2, 14.7, 3.5, 22.8, 10.0.

Viewed toward terminals

WIRING DIAGRAM

Viewed toward terminals

It is absolute necessary to provide a connection between pin 3 and 4 (5 and 6) on the PCB to avoid a malfunction of the relay! Check also note 4 on first page, please.

Dimensions in mm. Tolerance: $\pm .25$ mm