

AZ2505

120 AMP LATCHING POWER RELAY

FEATURES

- Low cost
- 120 Amp switching
- Heavy loads to 30000 VA
- 4 kV dielectric
- Single or Dual Coil Latching available
- Multiple Termination Options
- UL pending



CONTACTS

Arrangement	SPST-NO (1 Form A) SPST-NC (1 Form B)
Ratings	Resistive load: Max. switched power: 30000 VA Max. switched current: 120 A Max. switched voltage: 250 VAC
Rated Load UL, CUR	60 A at 250 VAC 80 A at 250 VAC 100 A at 250 VAC 120 A at 250 VAC
Material	silver alloy
Resistance	< 2 milliohms initially (6 V, 1 A voltage drop method)

COIL

Power At Pickup Voltage (typical)	563 mW Single Coil 1.125 W Dual Coil
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NOTES

1. All values at 23°C (73.4°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.
4. Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁶ 1 x 10 ⁴ at 60 A, 250 VAC Res.
Set Time (max)	20 ms at nominal coil voltage
Reset Time (max)	20 ms at nominal coil voltage
Dielectric Strength (at sea level for 1 min.)	4000 VAC coil to contact 1500 VAC between open contacts
Insulation Resistance	1000 megohms min. at 500 VDC
Ambient Temperature Operating Storage	At nominal coil voltage -40°C (-40°F) to 85°C (194°F) -40°C (-40°F) to 90°C (194°F)
Vibration	0.059" DA at 10–55 Hz
Operating Humidity	20 - 85%RH (non-condensing)
Shock Operating Non-Operating	10 g 100 g
Enclosure	P.B.T. polyester
Terminals	Quick connect terminal
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Weight	50 grams

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RELAY ORDERING DATA

COIL SPECIFICATIONS -Single Coil					ORDER NUMBER	
Nominal Coil VDC	Set Voltage VDC	Reset Voltage VDC	Max. Continuous VDC[1]	Coil Resistance $\pm 10\%$	1 Form A	1 Form B
5	3.75	4.0	6.5	25	AZ2505P1-1A-5D	AZ2505P1-1B-5D
6	4.50	4.8	7.8	36	AZ2505P1-1A-6D	AZ2505P1-1B-6D
9	6.75	7.2	11.7	81	AZ2505P1-1A-9D	AZ2505P1-1B-9D
12	9.00	9.6	15.6	144	AZ2505P1-1A-12D	AZ2505P1-1B-12D
24	18.00	19.2	31.2	576	AZ2505P1-1A-24D	AZ2505P1-1B-24D

Add suffix 'E' after A or B for 80A contacts, 'H' for 100A contacts, or 'T' for 120A contacts. Add Termination Suffix as seen in Chart below. Note[1]: Max continuous voltage should not be applied for more than 30 seconds.

COIL SPECIFICATIONS -Dual Coil					ORDER NUMBER	
Nominal Coil VDC	Set Voltage VDC	Reset Voltage VDC	Max. Continuous VDC[1]	Coil Resistance $\pm 10\%$	1 Form A	1 Form B
5	3.75	4.0	6.5	12.5 + 12.5	AZ2505P2-1A-5D	AZ2505P2-1B-5D
6	4.50	4.8	7.8	18 + 18	AZ2505P2-1A-6D	AZ2505P2-1B-6D
9	6.75	7.2	11.7	40.5 + 40.5	AZ2505P2-1A-9D	AZ2505P2-1B-9D
12	9.00	9.6	15.6	72 + 72	AZ2505P2-1A-12D	AZ2505P2-1B-12D
24	18.00	19.2	31.2	288 + 288	AZ2505P2-1A-24D	AZ2505P2-1B-24D

Add suffix 'E' after A or B for 80A contacts, 'H' for 100A contacts, or 'T' for 120A contacts. Add Termination suffix as seen in chart below. Note[1]: Max continuous voltage should not be applied for more than 30 seconds.

TERMINATION OPTIONS

MS	Stationary Contact: Shunt	Moveable Contact: Lead Wire
MH	Stationary Contact: Shunt	Moveable Contact: Tab
MC	Stationary Contact: Shunt	Moveable Contact: Shunt
WHS	Stationary Contact: Tab	Moveable Contact: Lead Wire
WHH	Stationary Contact: Tab	Moveable Contact: Tab
CH	Stationary Contact: Tab	Moveable Contact: Shunt

WSS	Stationary Contact: Lead Wire	Moveable Contact: Lead Wire
WSH	Stationary Contact: Lead Wire	Moveable Contact: Tab
CS	Stationary Contact: Lead Wire	Moveable Contact: Shunt
* PCB	Printed Circuit Board	Tin Plated Terminals

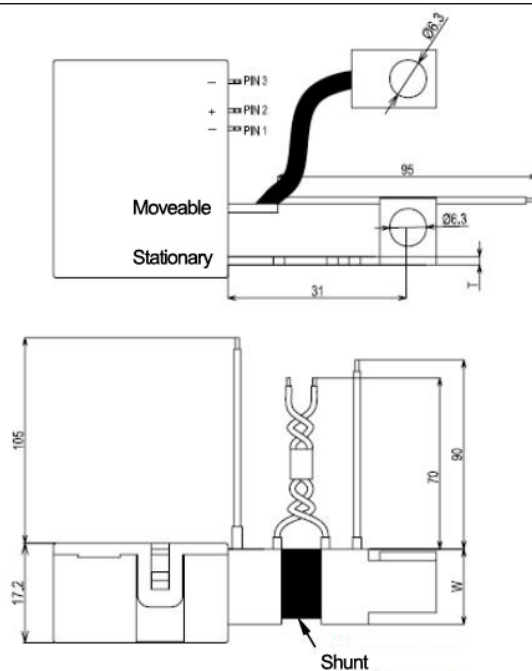
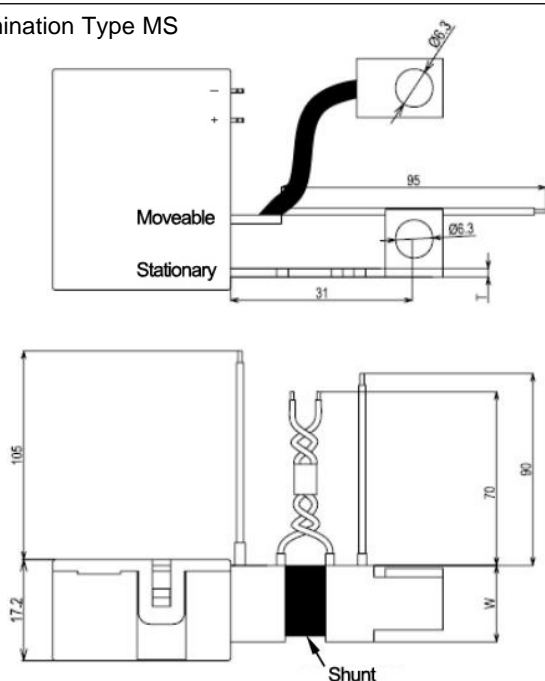
* Only available in 60A, 80A, and 100A version

MECHANICAL DATA

Single Coil

Dual Coil

Termination Type MS



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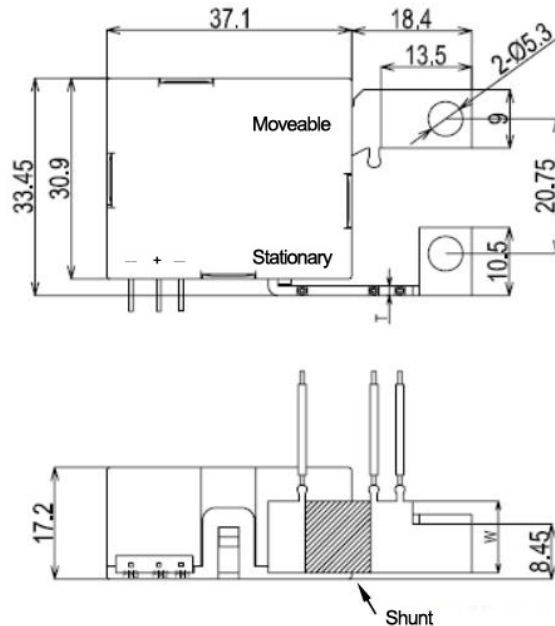
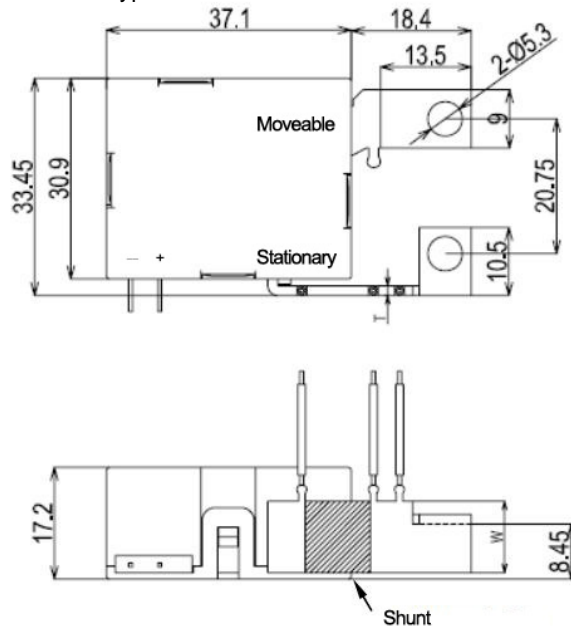
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Single Coil

Dual Coil

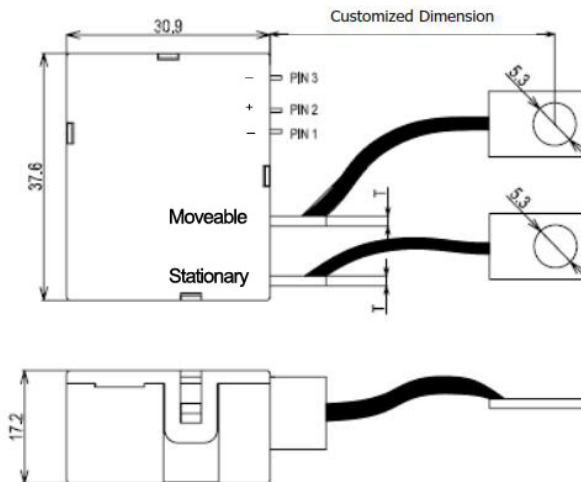
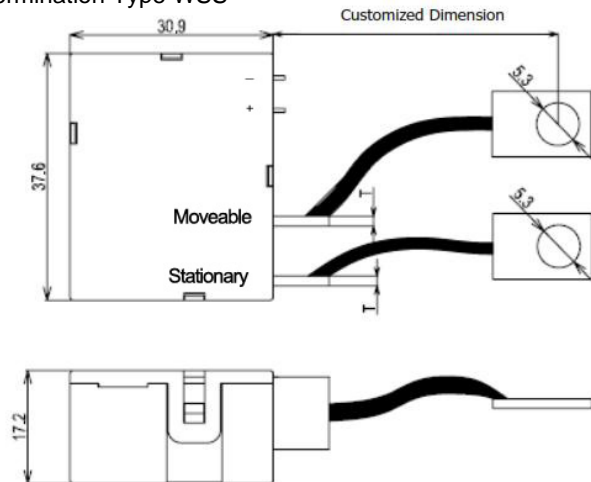
Termination Type MH



Single Coil

Dual Coil

Termination Type WSS



Load Current	Tab Thickness(T)
60A	1.0mm
80A	1.5mm
100A	2.0mm
120A	2.5mm

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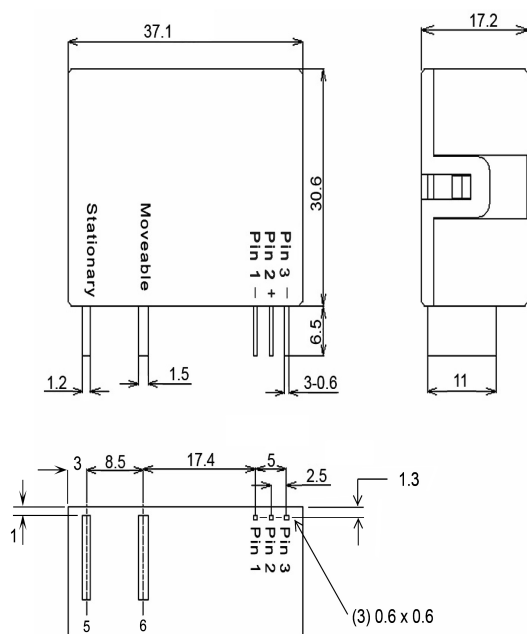
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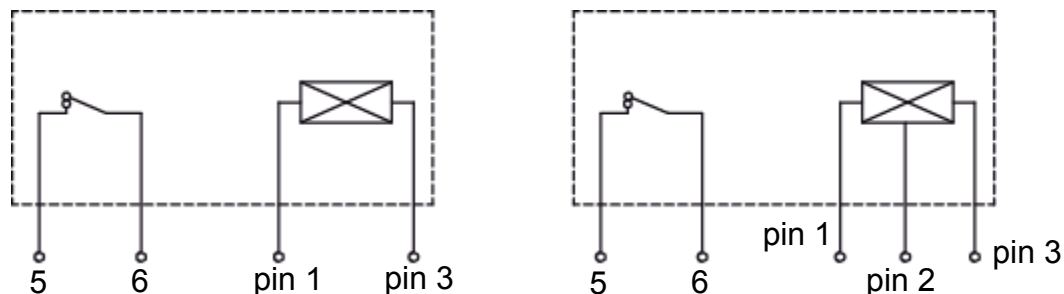
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Dual Coil

Termination Type PCB



Wiring Diagram



NOTE:

1. Single Coil Latching Version

- (1). After energizing Pin 3(+) and Pin 1(-), 50 ms pulse, Terminal 5 and 6 is connected.
- (2). After energizing Pin 1(+) and Pin 3(-), 50 ms pulse, Terminal 5 and 6 is disconnected.

1. Double Coil Latching Version

- (1). After energizing Pin 2(+) and Pin 1(-), 50 ms pulse, Terminal 5 and 6 is connected.
- (2). After energizing Pin 2(+) and Pin 3(-), 50 ms pulse, Terminal 5 and 6 is disconnected.

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