

Features

HIGH CURRENT CARRY AND HIGH VOLTAGE

Inert gas filled arc chamber suitable for high voltage switching

COMPACT STRUCTURE, LOW NOISE

Small, low-profile design with low noise while carrying or switching loads

COIL ECONOMIZER

Economized coil for low power consumption

SAFE FOR EXPLOSIVE ENVIRONMENTS

No arc leakage due to a hermetically sealed design

HIGH RELIABILITY DESIGN

Hermetic sealing creates a stable environment for high voltage switching

NO SPECIFIC MOUNTING ARRANGEMENT

Mountable in any orientation without reduction of performance

VARIOUS APPLICATIONS

Battery disconnect, EV charging, energy storage systems, photovoltaics, power control, circuit protection and much more

Sealing Type: Epoxy/Resin

- ✓ PCB mount contactor
- ✓ Internal coil economizer



Certification Information

1. Meet RoHS (2011/65/EU)
2. CE certified

Nomenclature

ASEV250

D

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Series code:
"ASEV250" = ASEV250

Coil Voltage Code:
"D" = 9-36 VDC

Options (applied in this order):
Blank = Std. Options (Bottom Mount, Without Aux. Contact & Polarized Load Terminals)

Product Data Sheet

MAIN CONTACT

Contact Arrangement	1 Form X (SPST-NO)	
Rated Operating Voltage	900VDC	
Rated Current	250A	
Max. Short Circuit Current	3,000A@450VDC (1s)	
Short Term Current	300A (7min) / 400A (9min) 500A (1min)	
Dielectric Withstanding Voltage (initial)	Between Open Contacts	4000VDC 1mA 1min
	Between Contacts to Coil	2200VAC 1mA 1min
Insulation Resistance (initial)	Terminal to Terminal	Min 1000 M Ω @1000VDC
	Terminals to Coil	
Contact Resistance	Max. 125mV (250A)	
Limit breaking	2000A@450VDC,1 Cycle	

OPERATE / RELEASE TIME

Operate Time (includes bounce)	25ms, Max. @20°C
Release Time	12ms, Max. @ 20°C

ENVIRONMENTAL DATA

Shock	Functional	196m/s ² Sine half-wave pulse
	Destructive	490m/s ² Sine half-wave pulse
Operating Temperature	-40 to +85°C	
Humidity	5% to 85%RH	
Weight	0.95Lb (0.43kg)	

EXPECTED LIFE

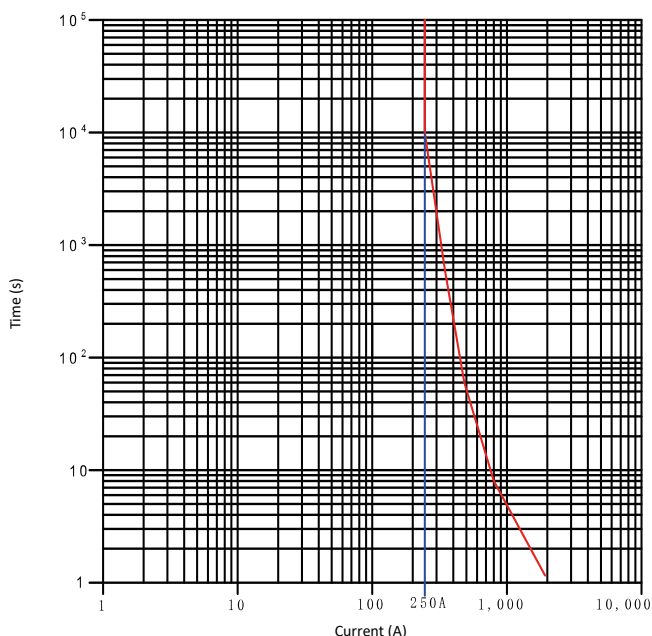
Electrical Endurance, Make/Break, 250A@650VDC	500 Cycle
Electrical Endurance, Make/Break, 250A@450VDC	5000 Cycle
Mechanical life	200,000 Cycles

COIL DATA

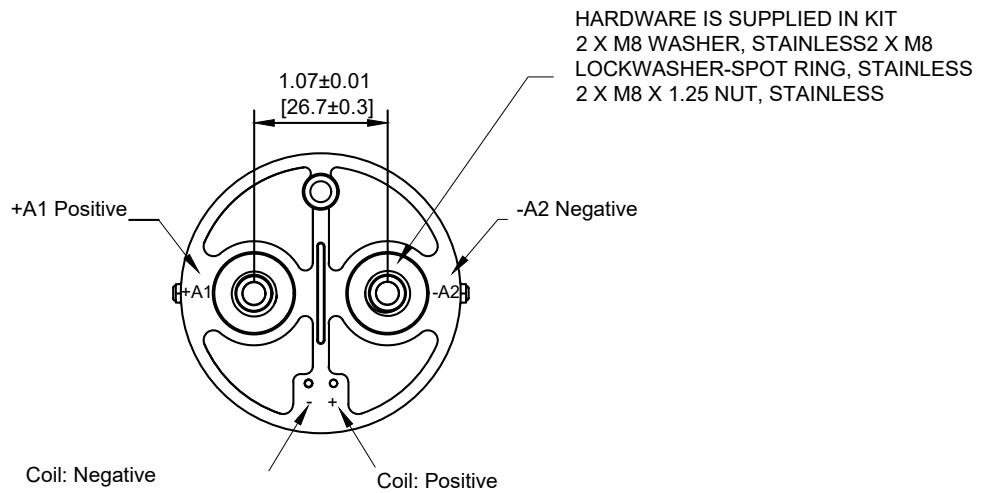
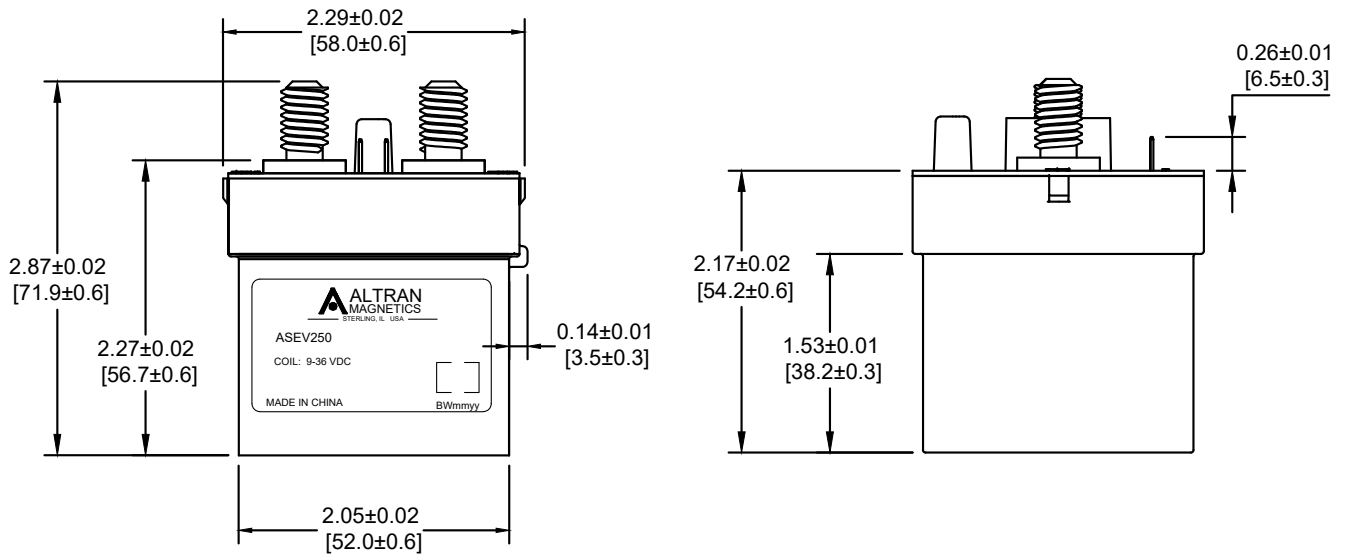
Nominal Voltage	9/36 VDC
(Max.) Pick-up Voltage 20 °C	9VDC
(Min.) Drop-out Voltage 20°C	6VDC
Max. Inrush Current 20°C	3.8A
Average Holding Current 20°C	0.13A@12VDC / 0.07A@24VDC

Current Carry Curve

@85°C using 100mm²



Outline Dimensions (mm)



Application Notes

1. Be sure to use split washers to prevent nuts from loosening, all the terminals or conductors must be in direct contact with the contactor's terminals.
Nut tightening torque is specified below. Exceeding the maximum torque can lead to product failure.
 - Main Terminals 80-100 lb. in. (8.8 - 11 N.m)
2. This is a polar product, please be sure to follow the product label for correct use.
3. Products with circuit boards are already equipped with reverse surge absorption circuits, so there is no need to use surge protectors.
4. Avoid installing in a strong magnetic field (close to a transformer or magnet), or near a heat source.
5. The coil and contact of the relay are continuously energized, and the power supply is cut off and immediately connected. At this time, the resistance of the coil will increase due to the increase of the temperature of the coil, so that the suction voltage of the product will increase, which may lead to the excess of the rated suction voltage. In this case, the following measures should be taken: Reduce the load current; Limit continuous power or use coil voltage higher than rated suction voltage.
6. When the voltage applied to both ends of the coil exceeds the maximum allowable applied voltage, the coil temperature may rise and lead to coil damage and inter-layer short circuit.
7. The rating in the contact parameters is the value at the time of the resistive load. When using an inductive load with $L/R > 1\text{ms}$, connect a surge current protection device in parallel with the inductive load. If no measures are taken, the electrical life may be degraded, and the continuity may be poor. Please consider sufficient margin space in the design.
8. Coil drive power must be greater than coil power or it will reduce performance capability.
9. Do not allow debris and oil to adhere to the main lead end. Make sure that the external terminals are in reliable contact with the main outgoing end of the product, otherwise the temperature rise of the out-going end may be too high due to the excessive contact resistance.
10. The lead wire connected with the high voltage end of the product must have the corresponding current load capacity and heat dissipation capacity. It is recommended to use a copper bar with an appropriate cross-section to prevent overheating affecting the life of the contactor.
11. After the products with energy saving panel are connected to the power supply, the circuit will automatically switch about 100ms later. Please do not repeat the on-off operation during this period, or the energy saving panel of contactor may be damaged.
12. Do not use if dropped.
13. It is impossible to determine all the performance parameters of relays in each specific application area, therefore, customers should choose the products according to their own conditions of use. If in doubt, contact Altran. The customer will be responsible for what they chosen it is the user's responsibility.
14. Altran reserves the right to make product changes. Customers should reconfirm the contents of the specification before first orders and ask for us to supply a new specification if necessary.