

ASEV150 Series

High Voltage DC Contactor

150 Amps / 900 Vdc



Certification information

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

Preliminary

Application

AEV150 series DC contactors are used for battery power supply, DC power control, circuit protection and other electric vehicle power switch controls. Can also be used in uninterruptible power supply and other electronic control systems.

Features

HIGH CURRENT AND HIGH VOLTAGE

Contact chamber is filled with inert gas to minimize arcing

COMPACT STRUCTURE, LOW NOISE

Contact design yields reduced unit size, low noise while carrying or switching currents.

HIGH SAFETY

There is no arc leakage due to tight sealing.

HIGHLY RELIABLE CONTACT

Stable contact resistance no matter how harsh the environment.



Nomenclature

ASEV150

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M

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Series code:

ASEV150 = ASEV150 Series

Coil Voltage:

"M" = 12-24 Vdc

Options:

Blank = Std. Options (Bottom Mount, Without Aux. Contact & Polarized Load Terminals)

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Performance Data

Main Contact			Expected Life			
Contact Arrangement		1 Form A (SPST-NO)		Electrical Endurance	Make / Break	
Max. Switching Voltage		900 VDC			150A@450VDC	5,000 Cycle
					Make/Break	150 Cycle
					150A@650VDC	
Rated current		150A		Mechanical Life		
Max. Short Circuit Current		2,000A@320VDC (1s)				
Short Term Current		300A (5min) 400A (1min) 500A (0.5min)				
Dielectric Withstanding Voltage (Initial)	Between Open Contacts	4000VDC 1mA 1min				
	Between Contacts to Coil	2200VAC 1mA 1min				
Insulation Resistance (Initial)	Terminal to Terminal	Min1000 MΩ @ 1000VDC				
	Terminals to Coil					
Contact Resistance		10mΩ (1A 6V)				
Environmental Data			Operate / Release Time			
Shock	Functional	196m/s2 Sine half-ware pulse	Operate Time (includes bounce)		50ms, Max. @20C	
	Destructive	490m/s2 Sine half-ware pulse				
Operating Temperature		-40 - +85°C	Release Time		12ms, Max. @ 20C	
Humidity		5% - 85%RH				
Weight		.88Lb (0.4kg)				
Coil Data						
Coil Code		M				
Nominal Voltage		12-24 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				

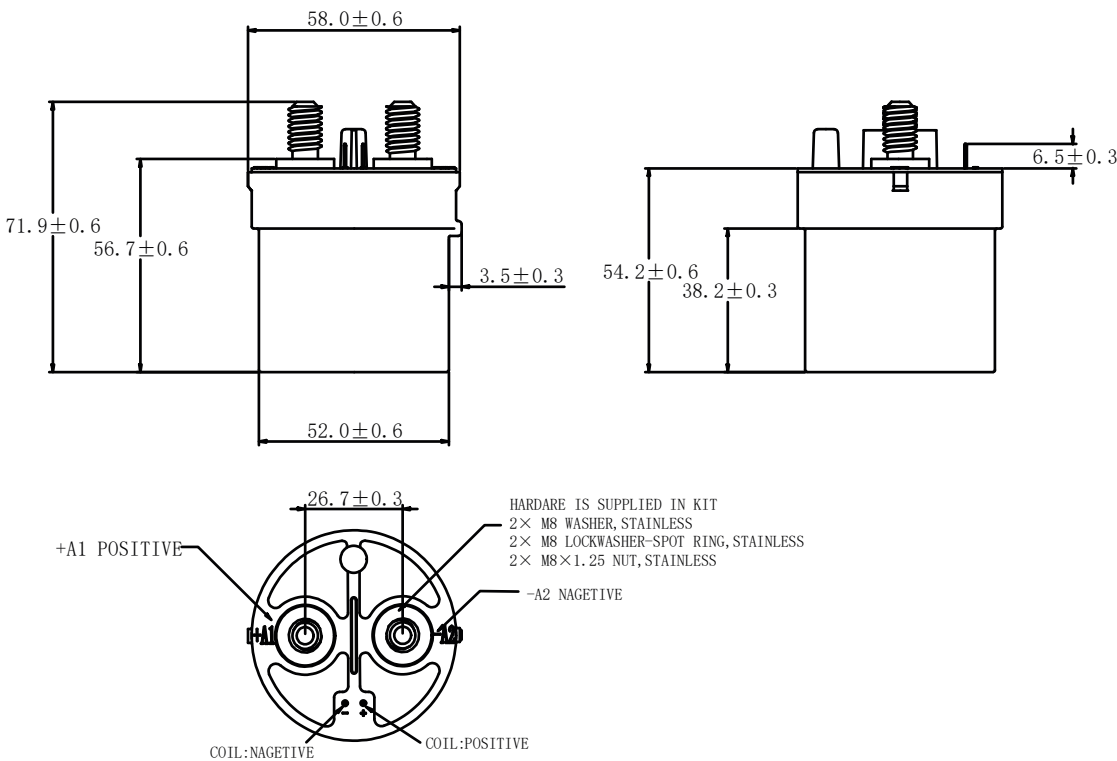
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Outline Dimensions (mm)



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Application Notes

1. Be sure to use washers to prevent screws from loosening, all the terminals or copper bars must be in direct contact with the contactor's terminals.
Screw tightening torque is specified below. Exceeding the maximum torque can lead to product failure.
 - Main Terminals 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. 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 matching them according to their own conditions of use. If in doubt, contact Altran. However, customer will be responsible for what they chosen it is the user's responsibility.
14. Altran reserves the right to make changes. Customers should reconfirm the contents of the specification before first orders and ask for us to supply a new specification if necessary.