

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

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

- ✓ Compact design, pre-charge contactor



Certification Information

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

Nomenclature

ASEV30

B

-

H

Series code:
"ASEV30 " = ASEV30

Coil Voltage Code:
"B" = 12VDC
"C" = 24VDC

Options (applied in this order):
Blank = Std. Options (Bottom Mount, Without Aux)

"H" = 1000 Volts Switching Voltage

Performance Data for 900V Switching Option

MAIN CONTACT

Contact Arrangement	1 Form X (SPST-NO)	
Rated Operating Voltage	12-900VDC	
Continuous (Carry)Current	50A	
Max Short Circuit Current	1,250A (1/2 cycle, 60Hz) (through closed contacts)	
Dielectric Withstanding Voltage (initial)	Between Open Contacts	5,600Vrms/8,000VDC
	Between Contacts to Coil	2,200Vrms/4,000VDC
Insulation Resistance (initial)	Terminal to Terminal	New: Min 100 M Ω @500VDC End of life: Min 50 M Ω @500VDC
	Terminals to Coil	
Contact Voltage Drop	60mV (@30A)	

OPERATE / RELEASE TIME

Operate Time Close (includes bounce)	25ms, Max. @20°C
Release Time	10ms, Max @20°C

ENVIRONMENTAL DATA

Shock, 11ms ½ sine, operating	20G Peak
Vibration, Sine, Peak, 20G	55 to 2000Hz
Operating Temperature	-40 to +85°C
Altitude	<4000m
Weight	0.28 Lb (0.13 kg)
Noise (@100mm)	70dB

EXPECTED LIFE

Electrical Life (make/ break) 30A @+450VDC	10,000 Cycles
Electrical Life (make/ break) 30A @+750VDC	4,000 Cycles
Mechanical Life	200,000 Cycles

COIL DATA

Nominal Voltage	12VDC	24VDC
Pickup voltage (25°C)	8VDC	18VDC
Max. Pick-up Voltage (85°C)	9.6VDC	19VDC
Drop-out Voltage (25°C)	1.2VDC	2.4VDC
Rated coil resistance \pm 5% (25°C)	25 Ω	92 Ω
Coil current (25°C)	480mA	260mA
Coil watts (25°C)	6.0W	6.0W

Performance Data for ASEV30-XX-H/1000V Switching Option

MAIN CONTACT		
Contact Arrangement	1 Form X (SPST-NO)	
Form of the load outlet	M5 Internal Thread	
Rated Operating Voltage	1000VDC	
Continuous (Carry)Current	50A	
Current Endurance	120A (3 minutes)	
Contact Resistance	≤5m Ω @50A	
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 MΩ @1000VDC
	Terminals to Coil	
Limit breaking	300A@320VDC,1 Cycle	

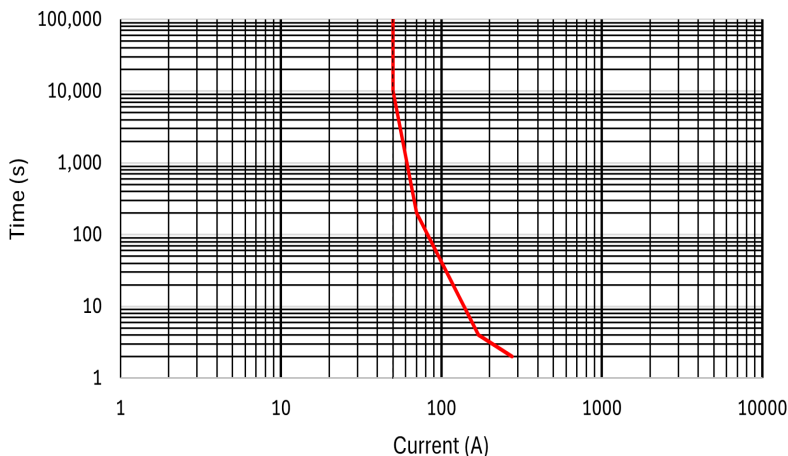
OPERATE / RELEASE TIME	
Operate Time	25ms, Max. @20°C
Release Time	10ms, Ma x @20°C

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 95%RH
Weight		0.28Lb (0.13Kg)

EXPECTED LIFE	
Electrical Life (break) 30A@1000VDC	200 Cycles
Electrical Life (break) 30A@650VDC	1500 Cycles
Mechanical Life	200,000 Cycles

COIL DATA		
Nominal Voltage	12VDC	24VDC
Pickup voltage (20°C)	8VDC	18VDC
Max. Pick-up Voltage (20°C)	9VDC	18VDC
Min. Drop-out Voltage (20°C)	1.2VDC	2.4VDC
Rated coil resistance±5% (20°C)	25 Ω	92 Ω
Coil current (20°C)	480mA	260mA
Coil Power (20°C)	6.0W	6.0W

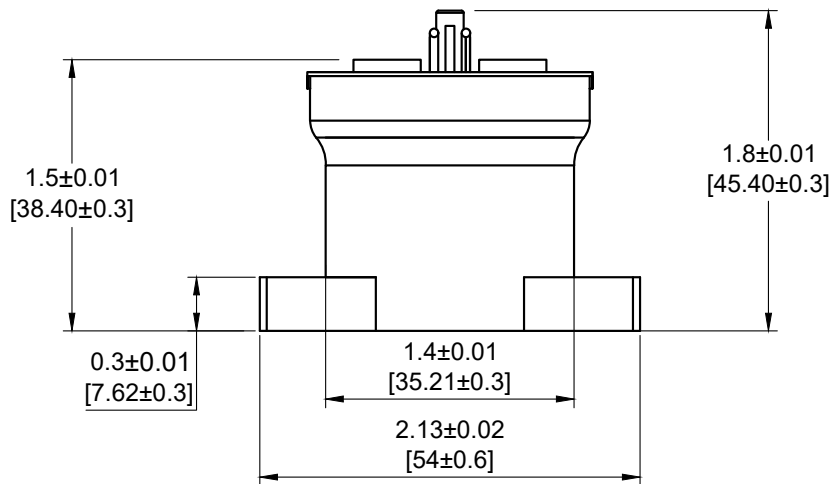
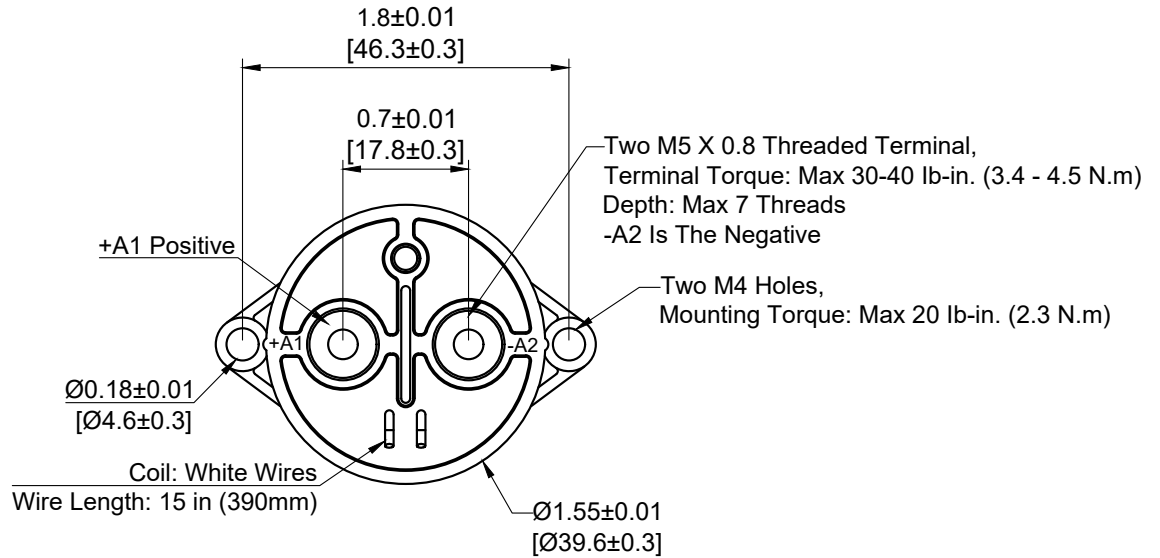
Current Carry Curve



Note:

- 1: Current is relevant to the cross-sectional area of contactor
- 2: Ambient temperature: +40°C, 3 minutes

Outline Dimensions : inches (mm)



*Note: The wire size is 22 AWG.

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.
 - Contact torque: 30 - 40 lb. in (3.4 - 4.5 N.m)
 - Mounting torque: 20 lb. in (2.3 N.m)
2. Contact terminals are polarized so refer to drawing during connecting. We suggest using a varistor rather than diode as a surge protector.
3. Do not use if dropped.
4. Avoid installing in a strong magnetic field (close to a transformer or magnet), or near a heat source.
5. Electrical life:
Use per load capability and life cycle limits so as not to cause a function failure (treat the contactor as a product with specified life and replace it when necessary). It is possible to make parts burn around the contactor once operating failure occurs. It is necessary to take layout into account and to make sure power shall be cut off within 1 second.
6. Lifetime of internal gas diffusion:
The contactor is sealed and filled with gas, lifetime of gas diffusion is determined by temperature in contact chamber (ambient temperature + temperature generated by contact operation). Operate only in an ambient temperature from -40 to +85 °C.
7. Coil drive power must be greater than coil power or it will reduce performance capability.
8. Avoid debris or oil contamination on the main terminals to optimize contact and avoid excess heat generation.
9. After continuous rated voltage / current has been applied to the coil and contacts, turning off the coil and immediately re-energizing the coil will result in a higher pick-up voltage than the rated value. This is due to increased coil resistance (coil temperature rise) of the device.
10. 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 responsible for what they chosen it is the user's responsibility to determine
11. Altran Magnetics 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.