High Voltage DC Contactor
AEVT1000 Series
1000AMPS/1800VDC

ALTRAN MAGNETICS

Product Data Sheet

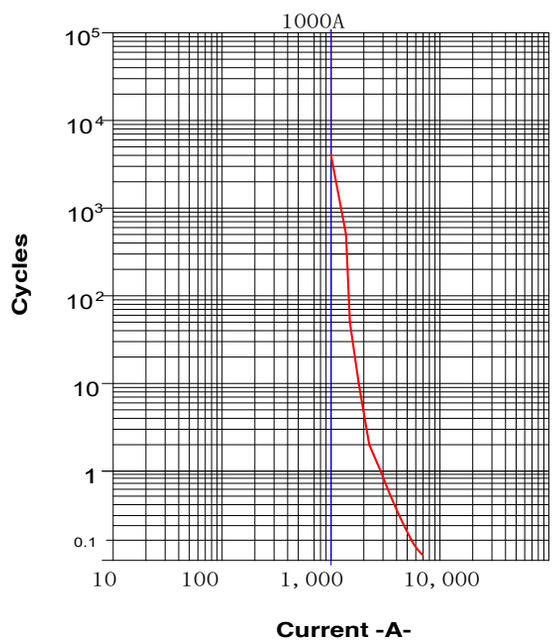
Features

HIGH CURRENT AND HIGH VOLTAGE
Hydrogen sealed contacts 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 hermetic seal.
HIGH CONTACT RELIABILITY
Stable contact resistance no matter how harsh the environment with sealed contacts.
NO SPECIAL MOUNTING REQUIREMENT
Light weight actuator is less impacted by gravity with no special mounting orientation requirements.
VARIOUS APPLICATIONS
Application includes battery switch and standby equipment, DC power control, circuit protection, etc.

Certification Information

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

Performance Data



Nomenclature

AEVT1000	C	-

Series code:
"AEVT1000" = AEVT1000

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

Options (applied in this order):
Blank = Std. Options (Bottom Mount, Without Aux)
(Without Aux. Contact & Polarized Load Terminals
"A" = With Aux. Contact (SPST-NO)

MAIN CONTACT		
Contact Arrangement		1 Form X (SPST-NO)
Max. Switching Voltage		1,800 VDC
Rated current		600A
		1000A
Max Short Circuit Current		3000A (1s)
Dielectric Withstanding Voltage (initial)	Between Open Contacts	6000 VDC，≤1mA
	Between Contacts to Coil	2500VAC，≤1mA
Insulation Resistance (Initial)	Terminal to Terminal	Min 1000MΩ @1000VDC
	Terminals to Coil	
Contact Voltage Drop(initial)		Max.10mV（@20A）
Limit breaking		3000A@800VDC，1 Cycle

EXPECTED LIFE	
Electrical Life (make/break) 600A@800VDC	500 Cycles
Electrical Life (make/break) 750A@800VDC	200 Cycles
Electrical Life (make/break) 600A@1000VDC	350 Cycles
Mechanical Life	200,000 Cycles

Note:

1. **Do not meet dielectric & IR after the test.**
2. **ON:OFF= 0.6s:5.4s.**
3. **The ambient environment of application should not cause any dewing or icing inside the relay. Otherwise, the relay may fail to work consequently.**

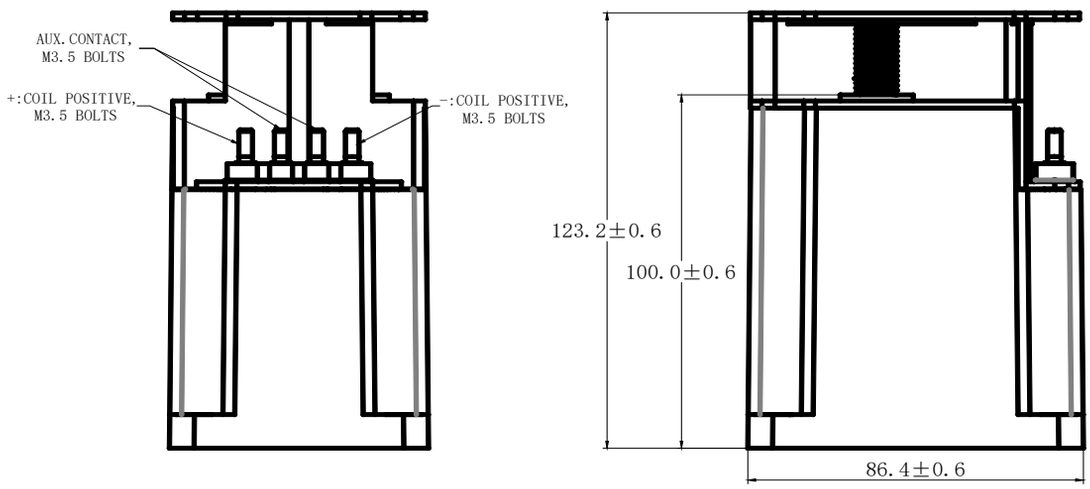
OPERATE/RELEASE TIME	
Operate Time (includes bounce)	40ms, Max. @20°C
Release Time	20ms, Max. @20°C

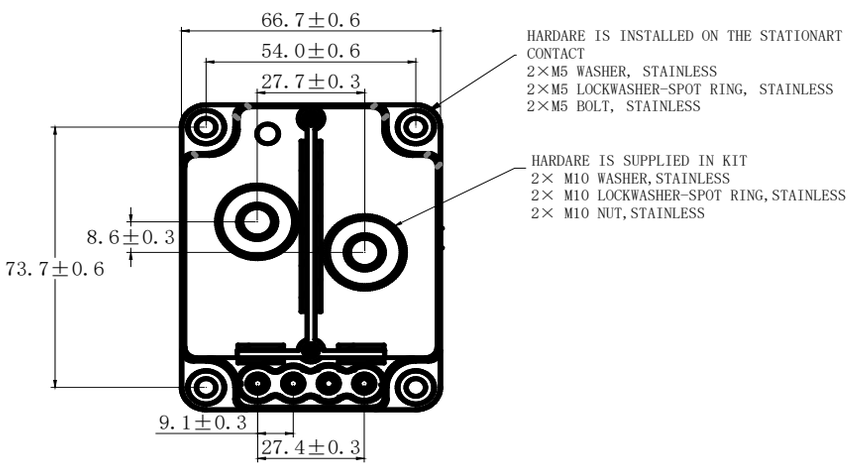
ENVIRONMENTAL DATA		
Shock	Functional	196m/s² Sine half-ware pulse
	Destructive	490m/s² Sine half-ware pulse
Operating Temperature		-40～+85℃
Humidity		5%～85%RH
Weight		3.37Lb（1.53kg）

COIL DATA		
Nominal Voltage	12 VDC	24 VDC
(Max.) Pick-up Voltage (20℃)	10 VDC	20 VDC
(Min.) Drop-out Voltage (20℃)	1.2 VDC	2.4 VDC
Max Inrush Current(20°C, Nominal Voltage)	3.7A	2.0A
Holding Current (20°C, Nominal Voltage)	0.67A	0.35A

AUX. CONTACT	
Aux. Contact Arrangement	1 Form A
Aux. Contact Resistance Max.	0.5ohms
Aux. Contact Max Current	2.0A

Outline Dimensions : inches (mm)





Application Notes

1. Be sure to use washer to prevent screws from loosening, all the terminals or copper bar 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.

   -Contact torque: 13-15 N. m
   -Mounting torque: 1.7-3.3 N.m
2. Load side marked with polarity of the product, please be sure to follow the product label for correct use.When the polarity of the load connection is reversed, the electrical characteristics promised in this specification cannot be guaranteed.
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 > 1ms, 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. Please 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 outgoing 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 wire with min 6mm^2), 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. The ambient environment of application should not cause any dewing or icing inside the relay. Otherwise, the relay may fail to work consequently.
13. Do not use if dropped
14. Altran Magnetics 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 Magnetics ; However, customer will responsible for what they chosen it is the user's responsibility to determine
15. Altran Magnetics 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.