



# KILOVAC CAP120 HIGH-VOLTAGE CONTACTORS

COMPACT, HERMETICALLY SEALED FOR HARSH ENVIRONMENTS  
AND RATED FOR 150 A, 400 TO 600 VDC

# KILOVAC CAP120 CONTACTORS

## Single Pole Hermetically Sealed 150 Amp DC Contactors



Designed for harsh environments and loads, the new Kilovac CAP120 contactor from TE Connectivity (TE) offers exceptional performance for a device this small and light. A reduced-size version of our popular MAP and CAP series contactors, the CAP120 contactor's small size and light weight opens up new application possibilities for a 150 A/600 Vdc device.

High break levels—1000 A at 400 Vdc and 600 A at 600 Vdc—help increase system flexibility and reliability.

CAP120 contactors provide reliable and long-lasting performance in military ground, military and commercial aerospace, and marine applications.

### HERMETICALLY SEALED

- Suitable for application in harsh and explosive environments
- No contact oxidation over periods of non-use

### SPACE AND WEIGHT SAVINGS

- Size reduced version of MAP/CAP 100 Series contactors

### VERSATILE

- Bidirectional switching
- Main contacts not polarity sensitive
- Panel mount
- Not position sensitive: mounts in any orientation

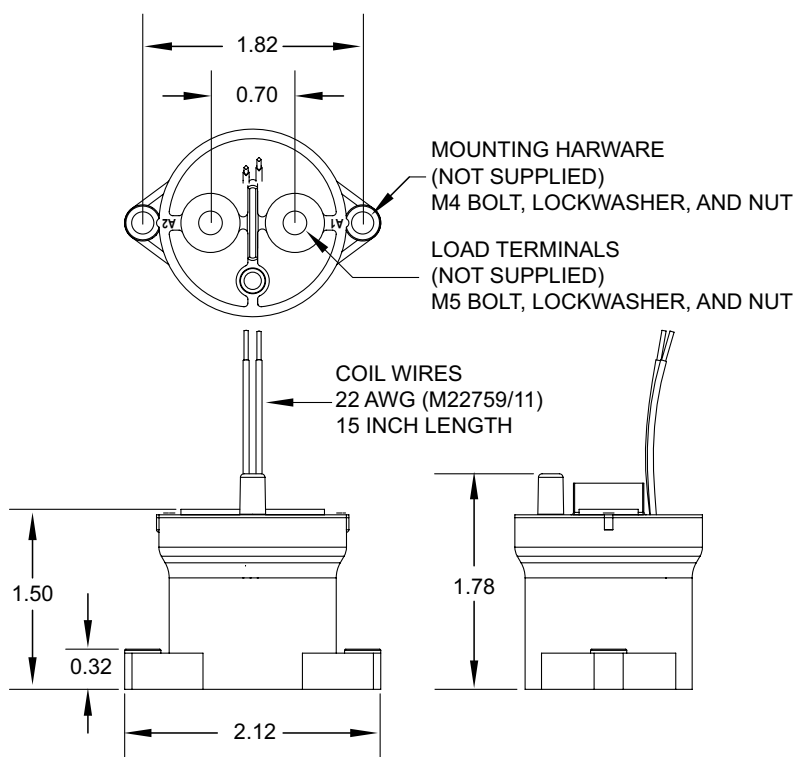
### EFFICIENT

- Integrated dual-coil electronic "cut-throat" economizer with suppression

### APPLICATIONS

- Energy storage systems
- Power distribution
- High-current battery systems
- Lithium ion battery systems
- Solar power

### PRODUCT DIMENSIONS (inches)



Coil Voltage	Description	Part No.
28 Vdc	CAP120ASANG	2-1618403-6
12 Vdc	CAP120AVANG	2-1618411-9

### TE Components . . . TE Technology . . . TE Know-how . . .

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Polamco | Raychem | Rochester | DEUTSCH SEACON Phoenix | L.L. Rowe | Phoenix Optix | AFP | SEACON

Get your product to market faster with a smarter, better solution.



## Specifications

### MECHANICAL/ENVIRONMENTAL

- **Shock:** 11ms 1/2 sine (operating): 20 g peak
- **Sine Vibration:** 25 g peak: 55 to 2000 Hz
- **Random Vibration:** 13.3 grms:

Hz	15	100	450	900	2000
<b>g<sup>2</sup>/Hz</b>	0.002	0.002	0.12	0.12	0.083

- **Operating Temperature Range:** -40°C to +85°C
- **Weight:** 0.14 kg
- **Sealing:** Hermetic

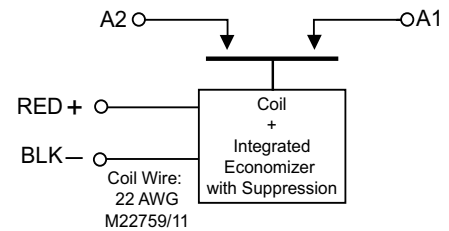
### ELECTRICAL DATA

- **Contact Arrangement:** SPST-NO (form X)
- **Voltage Rating:** 600 Vdc
- **Current Rating:** 150 A continuous
- **Contact Resistance:** 0.6 mΩ
- **Contact Voltage Drop @ 150 A:** 80 mV max.
- **Hot-Switching Performance, Resistive Load @ 600 Vdc:**  
 100 A Make/Break: 1000 cycles  
 600 A Break: 5 cycles  
 600 A Make: 25 cycles
- **Hot-Switching Performance, Resistive Load @ 400 Vdc:**  
 150 A Make/Break: 3250 cycles  
 1000 A Break Only: 5 cycles
- **Maximum Pulse Through Closed Contacts:** 1250 A
- **Dielectric Withstanding Voltage over Life:**  
 Terminal to Terminal: 1 mA max. @2800 Vrms  
 Terminals to Coil: 1 mA max. @1500 Vrms
- **Insulation Resistance over Life:**  
 Terminal to Terminal: 100 MΩ @ 500 Vdc new  
 Terminals to Coil: 50 MΩ min. @ 500 Vdc end of life
- **Mechanical Life:** 100,000 cycles min.

### COIL DATA (@ 20°C unless noted)

	<b>28 Vdc Contactors</b>	<b>12 Vdc Contactors</b>
<b>Coil Voltage, nom.:</b>	28 Vdc	12 Vdc
<b>Pick Up Voltage, max. over temperature range:</b>	16 Vdc	8.5 Vdc
<b>Hold Voltage, min:</b>	12 Vdc	7 Vdc
<b>Dropout Voltage:</b>	6 Vdc min.	7 Vdc max.
<b>Pickup Coil Resistance:</b>	6.5 Ω	2.5 Ω
<b>Hold Coil Resistance:</b>	200 Ω	51 Ω
<b>Coil Inrush Current @ 28 Vdc nom.:</b>	4.5 A	4.5 A
<b>Hold Current @28 Vdc</b>	0.15 A	0.25 A
<b>Coil Inrush Time, max.:</b>	100 ms	100 ms
<b>Operate Times:</b>		
<b>Operate Time:</b>	8 ms	15 ms
<b>Operate Bounce:</b>	3 ms	5 ms
<b>Release Time:</b>	5 ms	5 ms
<b>Coil Suppression (max.)</b>	42 V	42 V

### Schematic



## LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit [www.te.com/industrial](http://www.te.com/industrial) to chat with a Product Information Specialist.

## Technical Support

[te.com/support-center](http://te.com/support-center)

North America	+1 800 522 6752	Asia Pacific	+86 400 820 6015
North America (Toll)	+1 717 986 7777	Japan	044 844 8180
EMEA/South Africa	+800 0440 5100	Australia	+61 2 9554 2695
EMEA (Toll)	+31 73 624 6999	New Zealand	+64 (0) 9 634 4580
India (Toll-Free)	+800 440 5100		

[te.com/cap120](http://te.com/cap120)

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Consult TE for the latest dimensions and design specifications.

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