

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

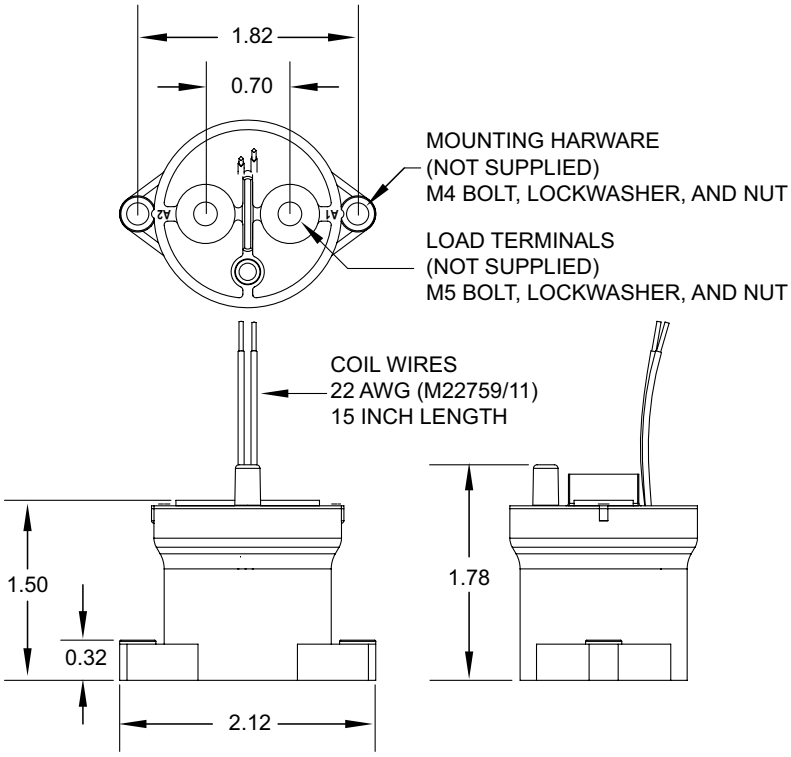
SPACE AND WEIGHT SAVINGS
- Size reduced version of MAP/CAP 100 Series contactors

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 g_{rms}:

Hz	15	100	450	900	2000
g^2/Hz	0.002	0.002	0.12	0.12	0.083

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

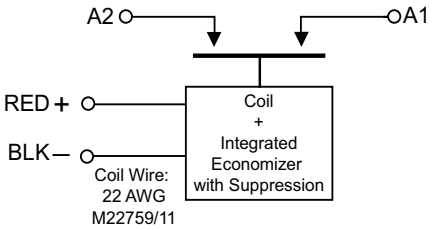
ELECTRICAL DATA

- **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 V_{rms}
  Terminals to Coil: 1 mA max. @1500 V_{rms}
- **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)

	28 Vdc Contactors	12 Vdc Contactors
Coil Voltage, nom.:	28 Vdc	12 Vdc
Pick Up Voltage, max. over temperature range:	16 Vdc	8.5 Vdc
Hold Voltage, min:	12 Vdc	7 Vdc
Dropout Voltage:	6 Vdc min.	7 Vdc max.
Pickup Coil Resistance:	6.5 Ω	2.5 Ω
Hold Coil Resistance:	200 Ω	51 Ω
Coil Inrush Current @ 28 Vdc nom.:	4.5 A	4.5 A
Hold Current @28 Vdc	0.15 A	0.25 A
Coil Inrush Time, max.:	100 ms	100 ms
Operate Times:		
Operate Time:	8 ms	15 ms
Operate Bounce:	3 ms	5 ms
Release Time:	5 ms	5 ms
Coil Suppression (max.)	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 to chat with a Product Information Specialist.

Technical Support

te.com/support-center

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Consult TE for the latest dimensions and design specifications.

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