

# 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.

### **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.

### 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



### **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
g²/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 m $\Omega$
- 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 M $\Omega$  @ 500 Vdc new Terminals to Coil: 50 M $\Omega$ 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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## te.com/cap120

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Consult TE for the latest dimensions and design specifications.

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