

# 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

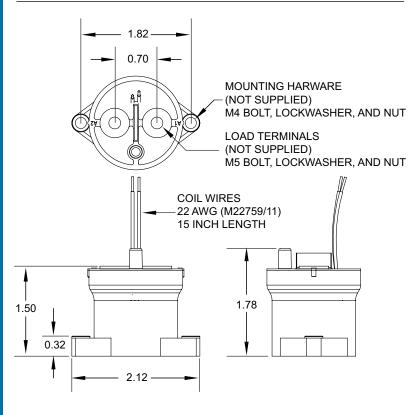
# **EFFICIENT**

 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
g²/Hz	0.002	0.002	0.12	0.12	0.083

• Operating Temperature Range: -40°C to +85°C

Weight: 0.14 kgSealing: Hermetic

# **ELECTRICAL DATA**

Contact Arrangement: SPST-NO (form X)

• Voltage Rating: 600 Vdc

• Current Rating: 150 A continuous

• Contact Resistance:  $0.6~\text{m}\Omega$ 

• 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 V<sub>rms</sub> Terminals to Coil: 1 mA max. @1500 V<sub>rms</sub>

• 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

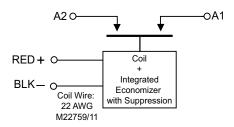
• Mechanical Life: 100,000 cycles min.

# 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:	$6.5~\Omega$	$2.5~\Omega$
Hold Coil Resistance:	200 $\Omega$	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

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# **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**

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# te.com/cap120

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Consult TE for the latest dimensions and design specifications.

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