



Compact, Hermetically Sealed for Harsh Environments and Rated up to 1000 A at 1000 VDC

# A Heritage of Switching Performance

For 35 years, KILOVAC contactors have been used to reliably switch high-voltage DC loads. As pioneers in the development of lightweight, sealed contactors for 270 VDC operation, we have extensive capabilities in the design, manufacture and testing of these products for use in aerospace and military applications.

While early contactor models were rated for only 25 A, some of our latest designs are rated to make, break and carry 500 A, with fault interrupt capability to 8000 A. We offer contactors with either electronic or mechanical economizers, or we can provide basic contactors to which you may apply your own economizer circuits.

We realize that your critical application could require a highly specialized contactor, and we're ready to help. Our technical sales team and engineers will work with you to provide a unit meeting your precise requirements.



## **High-Voltage DC Contactors**

Lightweight, High-Voltage DC Contactors for Aerospace and Defense Applications



#### **HIGH PERFORMANCE**

- Operating temperature ranges from -40°C to as high as +125°C
- Continuous current ratings up to 1000 A at 1000 VDC

#### **VERSATILE**

- Bidirectional switching
- Not position sensitive; mount in a variety of orientations
- Standard and customized contactors available

#### **HERMETICALLY SEALED**

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

#### **SPACE AND WEIGHT SAVINGS**

• Choose from a full range of compact, lightweight DC contactors

KILOVAC DC contactors from TE Connectivity (TE) deliver the switching performance demanded by aerospace and defense applications.

These lightweight contactors offer continuous current ratings up to 1000 A at 1000 VDC in very compact packages.

### High-Performance Sealed Designs

Their unique, sealed designs incorporate innovative, proprietary technology to achieve high levels of performance and rugged reliability.

Standard KILOVAC and customized individual contactors are available, as well as custom-designed, fully qualified main power and high-voltage distribution assemblies.

### A Full Range of Solutions

In addition to our contactors and panels, TE also offers a standard line of 100 A and 500 A remote power controllers for use in 12 to 900 VDC applications.



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

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH

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



## KILOVAC High-Voltage DC Contactors

## **Product Specification Overview**

Product Series		MAP101	MAP100	CAP202	CAP200 MAP200
Main Contact Data					
Continuous Current	A	100	100	300	500
Contact Voltage Range	VDC	12-900	12-900	12-900	12-900
Electrical Life at Rated Current, 270 VDC, Resistive Load	Cycles	25,000	15,000	10,000	1000
Overload (Make / Break) @ 350 VDC	А	2000 / 2000	500 / 1500	650 / 2000	650 / 2000
Rupture (Break Only) @ 350 VDC	А	2000	1500	2000	2000
Contact Arrangement		SPST	SPST	DPST	SPST
Contact Form		Latch	X (NO) or Latch	X (NO)	X (NO) or Latch
Contact Resistance  @ Rated Current	mΩ	0.75	0.5	0.2	0.2
Auxilliary Contact Data					
Contact Form / Quantity of Sets (Max.)	0	Form A / 1	Form A / 1	Form C / 4	Form A / 2
Current Rating @ 30 VDC (Ag / Au), Max.	А	2.0 / 0.1	2.0 / 0.1	2.0 / 0.1	2.0 / 0.1
Minimal Signal Level, Gold Plating	VDC/mA dc	6/15	6/15	6/15	6/15
Minimal Signal Level, Silver Plating	VDC/mA dc	5/5	5/5	5/5	5/5
<b>Dielectric Withstanding Voltage</b>					
	Vrms	1500	1500	2200	2200
Insulation Resistance					
	ΜΩ	100	100	100	100
	ΜΩ	50	50	50	50
Environmental Data					
Operating Temperature Range	°C	-55 to +85	-55 to +85	-55 to +85	-55 to +85
Storage Temperature Range	°C	-65 to +125	-65 to +125	-65 to +125	-65 to +125
Shock, 11 ms, ½ Sine	g	20	20	30	20
Vibration, Sine (55-2000 Hz)	g	20	20	20	20
Coil Transient Suppression					
		No	X, Yes / Latch, No	Yes	Yes
Mechanical Data					
Operate Time @ 25°C (Including Bounce), Max. / Typ.	ms	40 / 20	40 / 20	40 / 20	40 / 20
Release Time, Max.	ms	15	15	15	15
Bounce Time, Max.	ms	5	5	5	5
Mechanical Life (Min.)	Cycles	100,000	100,000	100,000	100,000
Weight (Nom.)	Lb. (kg)	0.79 (.35)	0.79 (.35)	1.3 (.59)	.95 (.43)
Coil Voltage, Nom.					
	VDC	28	28	28	28

**Note:** Current Sensing and Remote Power Controller (RPC) versions of our standard contactors are available in the KILOVAC KCS Series utilizing imbedded Hall Effect Current Sensors with no impact to the standard package size. Contact TE for additional information on these products.



MAP201	CAP200B	CAP120	KHR500	K1K	Product Series
					Main Contact Data
350	500	150	600	1000	Continuous Current
12-900	12-900	12-600	28-1000	12-1000	Contact Voltage Range
5000	2000	1000	4000	3500	Electrical Life at Rated Current, 270 VDC, Resistive Load
2000 / 2000	650 / 1500	100 A @ 600 VDC / (not rated)	200 A @ 400 VDC / 600 A @ 400 VDC	200 A @ 1000 VDC / 600 A @ 1000 VDC	Overload (Make / Break) @ 350 VDC
2000	1500	1000	3000	1000 A / 1200 VDC	Rupture (Break Only) @ 350 VDC
SPST	SPST	SPST	SPST	SPST	Contact Arrangement
X (NO) or Latch	Y (NC)	X (NO)	X (NO)	X (NO)	Contact Form
0.3	0.2	0.6	0.3	0.2	Contact Resistance  @ Rated Current
					Auxilliary Contact Data
Form A / 2	Form A / 1	N/A	Form C / 1	N/A	Contact Form / Quantity of Sets (Max.)
2.0 / 0.1	2.0 / 0.1	N/A	1	N/A	Current Rating @30 VDC (Ag / Au), Max.
6/15	6/15	N/A	6/15	N/A	Minimal Signal Level, Gold Plating
5/5	5/5	N/A	5/5	N/A	Minimal Signal Level, Silver Plating
					Dielectric Withstanding Voltage
2200	2200	1500	2800	2800	
					Insulation Resistance
100	100	100	100	100	
50	50	50	50	50	
					Environmental Data
-55 to +85	-55 to +85	-40 to +85	-55 to +125	-40 to +105	Operating Temperature Range
-65 to +125	-65 to +125	-65 to +125	-65 to +125	-65 to +125	Storage Temperature Range
20	20	20	25 (Z) / 35 (X, Y)	20	Shock, 11 ms, ½ Sine
20	20	25	20	20	Vibration, Sine (55-2000 Hz)
					Coil Transient Suppression
Yes	Yes	Yes	Yes	Yes	
					Mechanical Data
40 / 20	40 / 20	8 (Typ.)	25 (Typ.)	30 (Typ.)	Operate Time @ 25°C (Including Bounce), Max. / Typ.
15	15	5 (Typ.)	15 max.	5 (Typ.)	Release Time, Max.
5	5	5 (Typ.)	5 max.	5 (Typ.)	Bounce Time, Max.
100,000	100,000	100,000	100,000	250,000	Mechanical Life (Min.)
0.95 (.43)	0.95 (.43)	0.31 (.14)	1.23 (.56)	2.25 (1.02)	Weight (Nom.)
					Coil Voltage, Nom.
28	28	28	24	24	

#### 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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Consult TE for the latest dimensions and design specifications

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