



# KILOVAC DC Contactors

## Lightweight, high voltage DC contactors for aerospace and defense applications

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

These lightweight contactors offer continuous current ratings up to 500 amps at 900 volts dc in very compact packages.

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

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

In addition to our contactors and panels, TE also offers custom 270 volt dc electromechanical remote power controllers with current sensing from 25 amps to 250 amps.



## A HERITAGE OF SWITCHING PERFORMANCE

For thirty years KILOVAC contactors have been used to reliably switch high voltage DC loads. As pioneers in the development of lightweight, sealed contactors for 270 Volt dc 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 amps, some of our latest designs are rated to make, break and carry 500 amps, with overload ratings up to 2,000 amps. 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.

Contactors represent just one area of our product offering. We can also help with your requirements for customized remote power controllers and power distribution assemblies. The lunar rover and international space station and more recently the F-22 Raptor and F-35 Lightning II are just a few of the platforms for which we have supplied high voltage dc contactors, controllers and assemblies.

The table at right provides just a brief overview of some details for a few of the newer, standard, high voltage DC contactors in our product line. Many other models are offered, and all can be customized. Contact your TE sales engineer to learn more about how we can help solve your specific requirements.



# High Voltage DC Contactors

## PRODUCT SPECIFICATION OVERVIEW†

Product Series		MAP101	MAP100	CAP202	CAP200 MAP200	MAP201	CAP200B
<b>Main Contact Data</b>							
Continuous Current	A	100	100	300	500	350	500
Contact Voltage Range	Vdc	12-900	12-900	12-900	12-900	12-900	12-900
Electrical Life at Rated Current, 270Vdc, Resistive Load	Cycles	25,000	15,000	10,000	1,000	5,000	2,000
Overload (Make / Break) @ 350Vdc	A	2,000 / 2,000	500 / 1,500	650 / 2,000	650 / 2,000	2,000 / 2,000	650 / 1,500
Rupture (Break Only) @ 350Vdc	A	2,000	1,500	2,000	2,000	2,000	1,500
Contact Arrangement		SPST	SPST	DPST	SPST	SPST	SPST
Contact Form		Latch	X (NO) or Latch	X (NO)	X (NO) or Latch	X (NO) or Latch	Y (NC)
Contact Resistance @ Rated Current	milliohms	0.75	0.5	0.2	0.2	0.3	0.2
<b>Auxiliary Contact Data</b>							
Contact Form / Quantity of Sets (Max.)		Form A / 1	Form A / 1	Form C / 4	Form A / 2	Form A / 2	Form A / 1
Current Rating @ 30Vdc (Ag / Au), Max.	A	2.0 / 0.1	2.0 / 0.1	2.0 / 0.1	2.0 / 0.1	2.0 / 0.1	2.0 / 0.1
Minimum Signal Level	Vdc / mAdc	Ag 6V / 15mA Au 5V / 5mA	Ag 6V / 15mA Au 5V / 5mA	Ag 6V / 15mA Au 5V / 5mA	Ag 6V / 15mA Au 5V / 5mA	Ag 6V / 15mA Au 5V / 5mA	Ag 6V / 15mA Au 5V / 5mA
<b>Dielectric Withstanding Voltage</b>							
Contacts to Coil to All Other Points	Vrms	1,500	1,500	2,200	2,200	2,200	2,200
<b>Insulation Resistance</b>							
Initially @ 500Vdc	megohms	100	100	100	100	100	100
At End of Life @ 500Vdc	megohms	50	50	50	50	50	50
<b>Environmental Data</b>							
Operating Temperature Range	°C	-55 to +85	-55 to +85	-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	-65 to +125	-65 to +125
Shock, 11ms, 1/2 Sine	G's	20	20	30	20	20	20
Vibration, Sine (55-2,000 Hz)	G's	20	20	20	20	20	20
<b>Coil Transient Suppression</b>							
		No	X, Yes / Latch, No	Yes	Yes	Yes	Yes
<b>Mechanical Data</b>							
Operate Time @25°C (Including Bounce), Max. / Typ.	ms	40 / 20	40 / 20	40 / 20	40 / 20	40 / 20	40 / 20
Release Time, Max.	ms	15	15	15	15	15	15
Bounce Time, Max.	ms	5	5	5	5	5	5
Mechanical Life, Min.	Cycles	100,000	100,000	100,000	100,000	100,000	100,000
Weight (Nominal)	lb. (kg)	0.79 (.35)	0.79 (.35)	1.3 (.59)	.95 (.43)	.95 (.43)	.95 (.43)
<b>Coil Voltage (nominal)</b>							
	Vdc	28	28	28	28	28	28

† Consult TE for complete specifications, detailed performance characteristics and additional models.

## FOR MORE INFORMATION

### Technical Support

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