

Power Terminals
Stainless M10 X 1.5 Stud
Stainless M10 X 1.5 Flanged Nut

Torque 9-10 Nm [80-90 in-lb]

Mounting Hardware
M5 [No. 10] Bolts (not incl.)

Torque 2-4 Nm [18-35 in-lb]

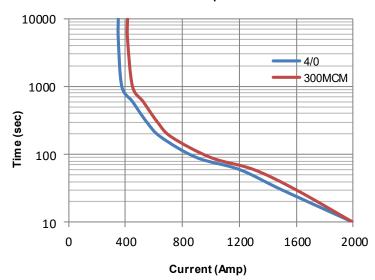
<u>Case Material</u> 25% GF Nylon 6/6, UL 94 V-O

12V - 48V	MX54	
Side Mount	Contactor 400A	



Key Features	
EPIC® Seal	Ceramic to metal braze. Gas filled hermetic chamber protects key components. Exceeds IP69K standard
Temperature	Tested to temperatures up to 200°C
Contacts / Form	Silver / SPST / NO
Coil	Efficient two coil design with no PWM or EMI emissions. Coil suppression built in
High Shock and Vibration	For rugged environments, off-road and tracked vehicles
Installation	Not direction sensitive
Reference	MIL-R-6106, RoHS

Current Carry vs Time with 85°C terminal temperature rise



GIGAVAC®		P.O. Box 4428 Santa Barbara,	CA 93140	
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	27/Jan/22	© 2013 GIGAVAC, LLC	D 4 60	MX54

Technical Specification			
Continuous Current	400A w/ 300MCM (see graph on reverse)		
Max Current—1 sec	3000A		
Max Current—10 sec	2000A		
Max Current—90 sec	1000A		
Contact Voltage Drop (max)	150mV at 400A		
Insulation Resistance (min)	100MΩ (50MΩ after life)		
Dielectric Withstanding	1500VRMS (1050 VRMS after life)		
Operate Time (max)	20 msec (include bounce)		
Release Time (max)	12 msec		
Weight	1.1 lb with hardware (500 grams)		
Res	Resistive Load Switching		
400A at 24 \/DC	100,000 avales		

Ordering Key		
MX54 _ D _		
Coil Voltage: B = 12V C = 24V F = 48V		
Auxiliary Contacts: Blank = none B = SPST, Normally Open		

X2

(Optional) Auxiliary contacts Normally Open

X1 (Coil +)

Power Circuit and Installation

T2 (Aux NO)

X2 (Coil -)

A2 (+) O

A1 (-) O-

Resistive Load Switching			
400A at 24 VDC	100,000 cycles		
Mechanical Life	300,000 cycles		
Fault Interrupt @ 28VDC	3000A		

Environmental Specifications			
Seal	Hermetic, 10 E-9 atm cc/sec		
Temperature Range	-55°C to +100°C		
Shock	Sawtooth @ 20G, 11ms, ½ Sine @ 25G, 11ms		
Vibration	10-2000 Hz, 20G		
Water / Steam	2750 psi waterjet, 105 psi steam, boiling water		
Salt Spray Corrosion	MIL-STD-810G		
	•		

Resistant to corrosion, chemicals, and fungal growth

Switching Current (min)

Auxiliary contacts (optional) - Form A, SPST Normally Open		
Switching Current (max)	1A at 28VDC	

0.1mA at 5V

Coil Ratings at 25°C

*Contact factory for additional coil voltages				
Coil P/N Designation	В	С	F	
Coil Voltage, Nominal	12 VDC	24 VDC	48 VDC	
Coil Voltage, Max	16 VDC	32 VDC	64 VDC	
Pick-Up Voltage, Max	8 VDC	16 VDC	40 VDC	
Drop-Out Voltage	0.5 to 4 VDC	2 to 7.5 VDC	4 to 15 VDC	
Pick-Up Current, Max (75ms)	3.9 A	1.6 A	0.97 A	
Coil Current	0.23 A	0.097 A	0.042 A	
Coil Power	2.8 W	2.3 W	2 W	
Internal Coil Suppression	Transorb	Control Circuit		
Coil Back EMF	55	V	125 V	
Transients, Max (13ms)	±50) V	±75 V	
Reverse Polarity	16 V	32 V	64 V	



Options and Accessories		

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