

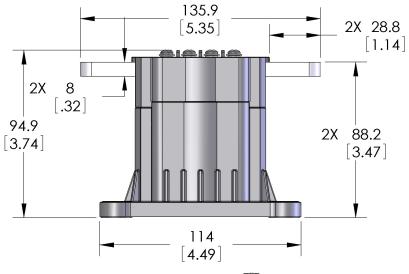


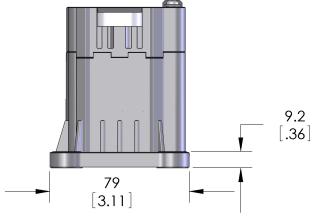
**Bottom Mount | Contactor** 

**MX46** 

600A

12V - 48V





#### Power Terminals M12 Hardware

Torque 23-34 Nm [200-300 in-lb]

Coil/Auxiliary Terminals

18-8 Stainless Steel Hardware
M4x.7 6mm Phillips Machine Screw
Internal-Tooth Washer

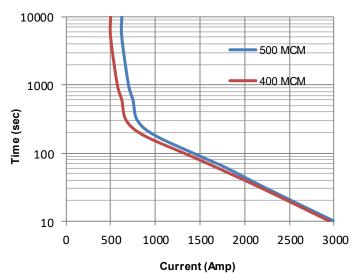
Torque .75 Nm [6.6 in-lb] max

Mounting Hardware
M8 [5/16 in] Bolts (not incl.)
Torque 2-4 Nm [18-35 in-lb]

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

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	
www.gigavac.com		info@gigavac.com	+805-684	-8401
Rev 4	07/1 /00	© 2013 GIGAVAC, LLC	D 4 - 6 0	MX46

Technical Specification			
Continuous Current	600A w/ 500MCM (see graph on reverse)		
Max Current—1 sec	4000A		
Max Current—10 sec	3000A		
Max Current—90 sec	1500A		
Contact Voltage Drop (max)	150mV at 600A		
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	2.1 lb (950 grams)		
Res	Resistive Load Switching		
600A at 24 VDC	100,000 cycles		

Ordering Key
MX46_ D _
Coil Voltage:  B = 12V C = 24V F = 48V
Auxiliary Contacts:  Blank = none  B = SPST, Normally Open

**Power Circuit and Installation** 

T2 (Aux NO)

A1 (-) O

X2 (Coil -)

X1

X1 (Coil +)

T2 0

**X2** 

(Optional) Auxiliary contacts Normally Open

Resistive Load Switching		
600A at 24 VDC	100,000 cycles	
Mechanical Life	300,000 cycles	
Fault Interrupt @ 28VDC	4000A	
Environmental Specifications		
Seal	Hermetic 10 F-9 atm cc/sec	

Environmental Specifications			
Seal	Hermetic, 10 E-9 atm cc/sec		
Temperature Range	-55°C to +90°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

Auxiliary contacts (optional) - Form A, SPST Normally Open			
Switching Current (max)	1A at 28VDC		
Switching Current (min)	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	30 VDC	
Dropout Voltage	0.5 to 4.5 VDC	0.5 to 7.5 VDC	2 to 15 VDC	
Pick-Up Current, Max (75ms)	3.8 A	1.9 A	0.9 A	
Coil Current	0.64 A	0.32 A	0.16 A	
Coil Power	7.8 W	7.8 W	7.8 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		

GIGAVAC®			P.O. Box 4428 Santa Barbara	
www.g	igavac.com	info@gigavac.com	m +805-684-8401	
Rev 4	27/Jan/22	© 2013 GIGAVAC, LLC	Page 2 of 2	MX46

Datasheets provided by Sensata Technologies, Inc., its subsidiaries and/or affiliates ("Sensata") are solely intended to assist third parties ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata datasheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its datasheets or components without notice.

Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com. SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

#### **CONTACT US**

**Regional head offices:** 

**United States of America** 

Sensata Technologies Attleboro, MA

**Phone:** 508-236-3800

**E-mail:** support@sensata.com

**Netherlands** 

Sensata Technologies Holland B.V.

Hengelo

Phone: +31 74 357 8000 E-mail: support@sensata.com

China

Sensata Technologies China Co., Ltd.

Shanghai

**Phone:** +8621 2306 1500 **E-mail:** support@sensata.com

Copyright © 2023 Sensata Technologies, Inc.

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

### Sensata:

MX46BD MX46CDB MX46FD MX46CD