| GV210 Series SPST-NO 900 VDC CONTACTOR

Introduction

Sensata | GIGAVAC GV210 Series contactors are hermetically sealed, gas filled contactors suitable for use in harsh environments. With contact voltage ratings from 12Vdc to 900Vdc and a hot switchable continuous carry current of 100A, the compact GV210 Series is ready to solve your next challenging application problem. Like all Sensata | GIGAVAC advanced switching solutions these contactors can be mounted in any axis or orientation and are sealed to withstand a variety of harsh environments. GV210 Series contactors meet RoHS and CE Conformance requirements and are built in accordance to IATF-16949.

Features

• Hermetically sealed and intrinsically safe. Not mounting position sensitive.

Sensata

Technologies

- Operates in explosive/harsh environments without oxidation or contamination of contacts.
- Eligible for use in hazardous/classified operating environments
- High voltage isolation between open contacts, inert gas filled contact chamber
- Designed and built in accordance to IATF-16949
- Flying leads for coil connections

Applications

- Battery electric vehicles
- DC motor controller protection
- DC fast charging
- Photovoltaic controls
- Energy Storage systems

Contact Arrangement		Main Contacts SPST-NO (Form X)			
Mechanical Life		1 million cycles			
Contact Resistance		0.5mΩ (max) @ 100A			
Shock, 11ms 1/2 sine (op	erating)	20G peak			
Sine Vibration, 55-2,000 I	łz.	20G peak			
Weight		6.7 oz (190g)			
Voltage Rating: Main Co	ntacts (max)	900VDC			
Current Rating: Main Contacts	Continuous (8.4 mm² / 8 AWG)¹	100A			
	Continuous (21 mm² / 4 AWG) ¹	150A			
	Short Term 3 Minutes ²	200A			
Maximum Short Circuit Current (1/2 cycle, 60 Hz) (through closed contacts)		1,250A			
Dielectric Withstand Voltage (ASTM D149)	Between Open Contacts	>5,000Vrms			
	Contacts to Coil	>3,000Vrms			
Insulation Resistance, Terminal to Terminal / Terminals to Coil	When New	500 MΩ, min. @ 500Vdc			
	At End of Life	50 MΩ, min. @ 500Vdc			
Operating Temperature Range		-40°C to +85°C			
Environmental Seal		Exceeds IP67 and IP69			
Salt Fog Spray		MIL-STD-810G			
		Page 1			







SPECIFICATIONS

COIL RATINGS at 25°C

Nominal Voltage	12Vdc	24Vdc	48Vdc	
Maximum Voltage	16Vdc	28Vdc	52Vdc	
Pick Up Voltage	Up to 9.6Vdc	16Vdc	33Vdc	
Drop Out Voltage	1.2Vdc	2.4Vdc	4.8Vdc	
Coil Current	461mA	250mA	122mA	
Coil Power	5.5W	6.0W	6.0W	
Coil Resistance ± 5% (ohms)	26	96	392	
Operate Time	25ms			
Release Time		10ms		



DIMENSIONS

Dimensions are in millimeters [inches] Coil terminal polarity is X1 (+) and X2 (-)

M5 FEMALE LOAD TERMINALS - 2 PLACES HARDWARE : 2 X M5 BOLT, LOCKWASHER AND WASHER [0.700] TORQUE: 30 TO 40 IN-LBS [3.4 TO 4.5 NM] [0.700] 17.78 [0.18] 0 4.50 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.64 [1.60] 0 40.6









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Family —					
GV21					
Mounting -					
1: Upright					
Coil Voltage					
B: 12 Vdc C: 24 Vdc					
F: 48 Vdc					
Coil Termina	ation				
A: Flying leads 3	8 cm (15 in)				
Auxiliary Co	ontacts				

X: None



GENERAL NOTES

- Current rating depends upon conductor size. Keep power terminals below 150°C (max).
- 3 minutes at +40°C ambient with 8.4 mm2 (#8 AWG) conductor. 2
 - WARNINGS

- RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE • The product's side panels may be hot, allow the product to cool before touching
- DANGER
- · Follow proper mounting instructions including torque values
- · Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.

À	
Danger	
Electric shock risk	
	L

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- · Disconnect all power before installing or working with this equipment
- · Verify all connections and replace all covers before turning on power
- Failure to follow these instructions will result in death or serious injury.

Page 3

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