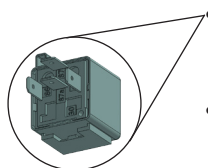


DG55M

electric vehicle relay

DURAKOOL



- General purpose automotive or electric vehicle relays
- Up to 20A @ 80VDC switch capability (100K ops.)
- 40A continuous DC current capacity (at 23°C)
- Fits standard Mini-ISO relay sockets
- Special terminal arrangement - “ordinary” Mini-ISO relay inserted in DG55M socket will be safe.
- RoHS Compliant

Contacts

Contact number & arrangement	SPST-NO (1 Form A)		
Contact material	AgSnO ₂		
Max. switching voltage	DC	110VDC - current dependent (see Fig. 2)	
Contact rating		12VDC	80VDC
Max. continuous current*	SPST-NO	40A	20A
Max. switching current - make (inrush)*	SPST-NO	120A	120A
Max. switching current - break*	SPST-NO	60A	20A
Min. switching current		1A/5VDC	
* At ambient 23°C. At ambient 85°C, Max. continuous current at 80VDC = 8A			
Initial contact resistance		<100mΩ at 0.1A/6VDC	
Coil			
Rated voltage	DC	12V (24V - consult factory)	
Must release voltage		0.10U _n - see coil table 1 for more information.	
Operating range of supply voltage		See coil table 1	
Rated power consumption		2W	
Insulation			
Insulation resistance		100MΩ at 500VDC, 50%RH, 25°C	
Dielectric strength.	Coil to contact	600Vrms / 1 min	
General Data			
Operate time		≤ 10msec	
Release time		≤ 12msec	
Electrical Life	ops	1 x 10 ⁵ (8A @ 80VDC, 1 sec ON / 1 sec OFF, resistive)	
Mechanical life	ops	1 x 10 ⁷	
Dimensions	L x W x H	25.9 x 25.9 x 24.9mm (excluding terminals) - see drawings for more information	
Weight		34g approx.	
Ambient temperature		-40 to 85°C (Operating). Consult factory for ambient above 85°C -40 to 155°C (Storage)	
Shock resistance	Destructive	196m/s ² (20g)	
	Functional	98m/s ² (10g)	
Vibration resistance		10 to 40Hz DA 1.27mm; 40-70Hz:5g / 70-100Hz DA 0.5mm, 100 - 500Hz:5g	
Cover protection category		IP54 Dust cover	

DG55M series

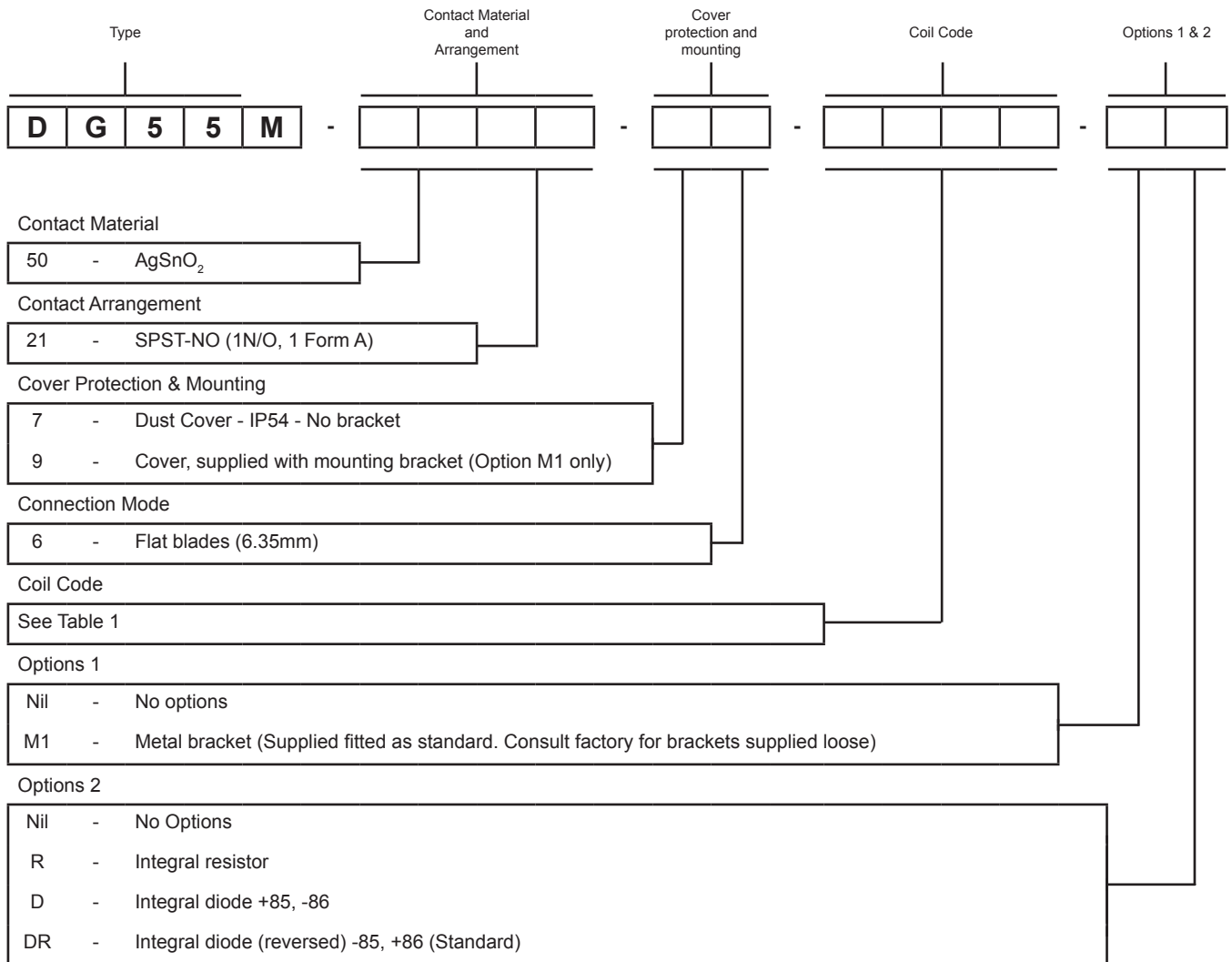
electric vehicle relay



Coil data						
Coil voltage code	Nominal voltage (V DC)	Coil resistance ($\Omega \pm 10\%$)	Must operate voltage max. (V DC)	Must release voltage min. (V DC)	Max allowable voltage at 23°C (VDC)	Max allowable voltage at 85°C (VDC)
1012	12	72	7.2	1.2	18	14
1024	24	288	14.4	2.4	35	25.2

Coil Insulation: Class H

Ordering Codes



Example: DG55M-5021-76-1012-DR

Note: All parameters, unless otherwise specified, are measured at ambient temperature of 23°C

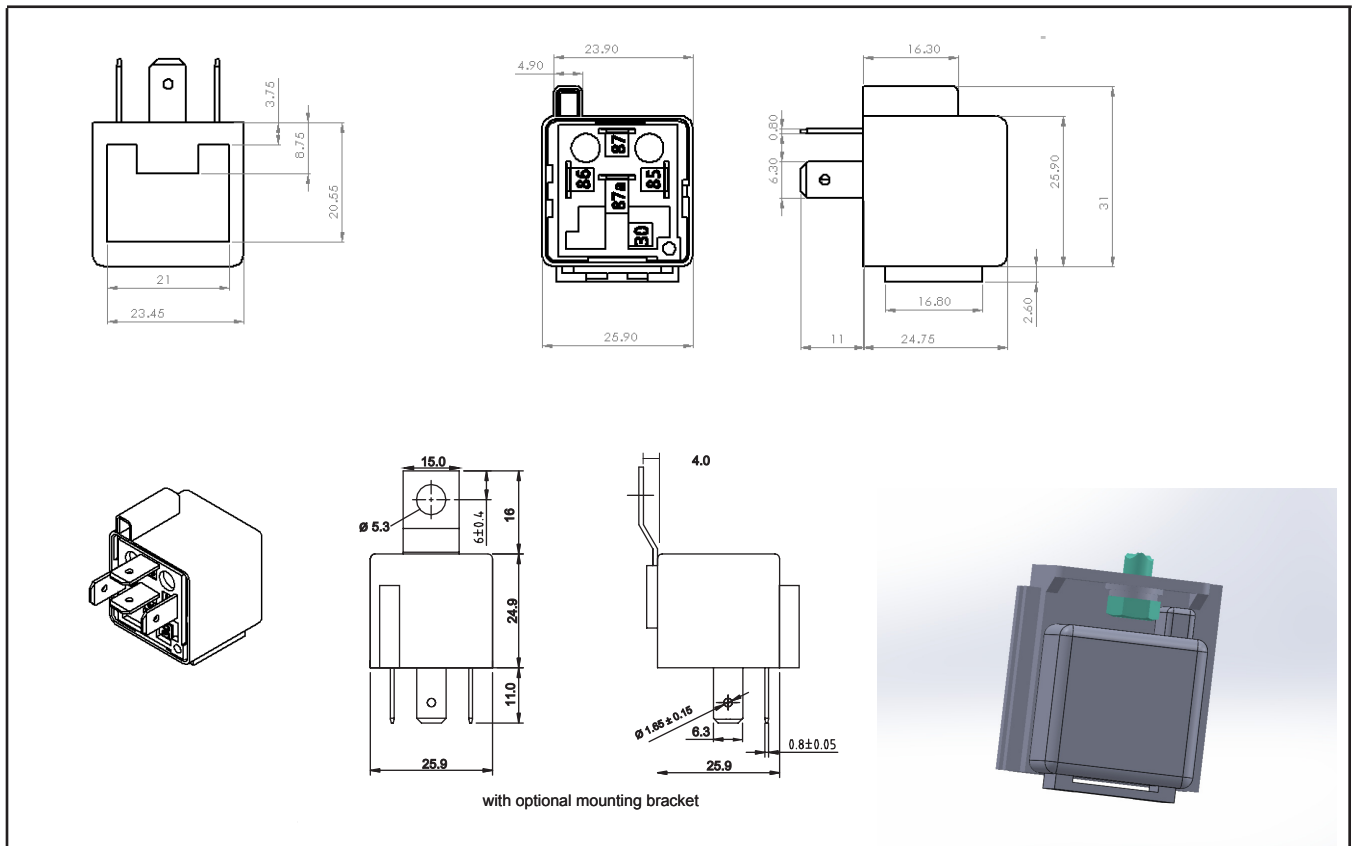
DG55M

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Overall Dimensions

Fig. 1

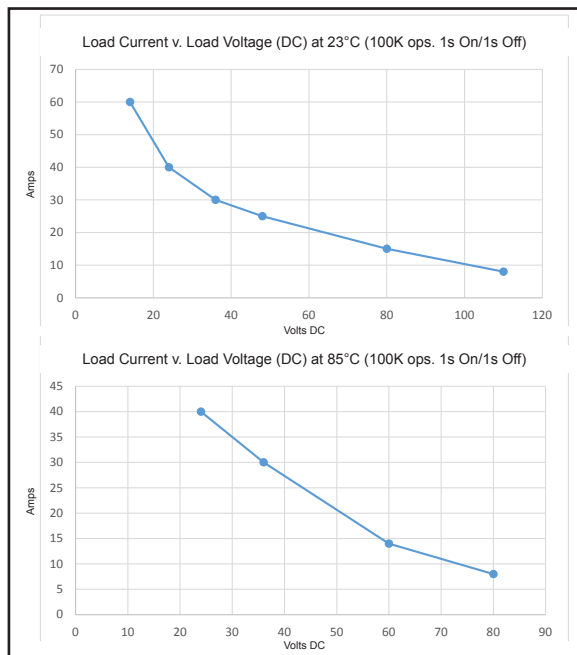


with optional mounting bracket

Top View showing fit on standard socket (DZ85AB-5-WH2)

Dimensions in mm

Fig. 2

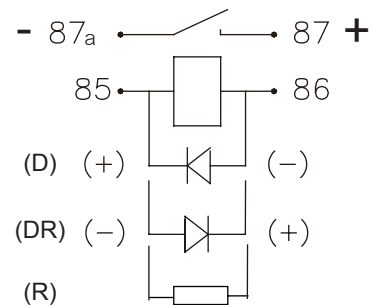


Connection diagram

Fig. 3

Important!

Please observe polarity when connecting the load to Terminals 87 and 87a. Incorrect polarity will lead to reduced life.



1 Form A