

DG34

pcb power relay

DURAKOOL



- Up to 40A /240VAC continuous rating
- 110VDC maximum switching voltage
- Industry standard style
- Cost effective
- RoHS Compliant



Contacts

Contact number & arrangement	SPST-NO (1 Normally Open); SPDT (1 Changeover)
Contact material	AgCdO; AgSnO ₂
Max. switching voltage	AgSnO ₂ : 250VAC / 110VDC AgCdO : 250VAC / 28VDC
Min. switching current / voltage	500mA/12VDC (AgCdO, AgSnO ₂)
Max. continuous current	AgSnO ₂ : SPST-NO: 40A / SPDT: 40A (NO), 30A (NC) AgCdO : SPST-NO: 30A / SPDT: 30A (NO), 20A (NC)
Max. switching current	AgSnO ₂ : SPST-NO: 40A / SPDT: 40A (NO), 30A (NC)
Max. switching power	AgSnO ₂ : 7200VA / 1100W :: AgCdO: 6000VA / 560W
Initial resistance	≤ 100mΩ, max. at 0.1A/6VDC

Coil

Rated voltage	3...110VDC; 12...220VAC
Must release voltage	DC ≥ 0.1U _n ; AC ≥ 0.3U _n
Operating range of supply voltage	See coil tables 1 & 2
Rated power consumption	0.9W (DC), 2VA (AC)

Insulation

Insulation resistance	>1000MΩ at 500VDC, 50%RH	
Dielectric strength	coil to contact	4000Vrms, 1min (50Hz)
	between open contacts	1500Vrms, 1min (50Hz)
	creepage / clearance - coil to contact	≥ 3mm

General Data

Operating time (typical)	mS	15
Release time (typical)	mS	10
Electrical Life	ops	1 x 10 ⁵
Mechanical life	ops	1 x 10 ⁶
Dimensions	L x W x H	32.5 x 27.6 x 20.2mm (covered)
Weight		≤ 36g
Ambient temperature	storage	-40 to 155°C
	operating	-40 to 125°C (Class F)
Shock resistance		Functional: 200ms ² 11mS; Destructive: 100g
Drop resistance		1M height drop on to concrete (sealed type only)
Vibration resistance		10-55Hz: DA 1.5mm

DG34

pcb power relay



Coil Data

Table 1

DC Coil

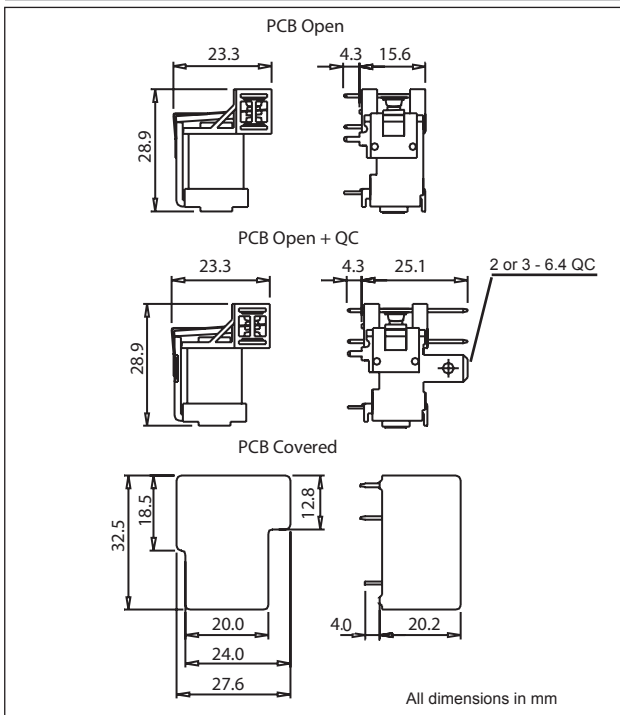
Coil Voltage Code	Nominal Voltage (VDC)	Coil Resistance (Ω) $\pm 10\%$	Nominal Operating Power	Must operate voltage max. (VDC)	Max. allowable voltage (VDC)	Must release voltage min. (VDC)
1003	3	10	0.9W	2.25	130% of nominal	0.30
1005	5	28		3.75		0.50
1006	6	40		4.50		0.60
1009	9	90		6.75		0.90
1012	12	160		9.00		1.20
1018	18	360		13.50		1.80
1024	24	640		18.00		2.40
1048	48	2,560		36.00		4.80
1110	110	13,445		82.50		11.00

AC Coil

Coil Voltage Code	Nominal Voltage (VAC)	Coil Resistance (Ω) $\pm 10\%$	Nominal Operating Power	Must operate voltage max. (VAC)	Max. allowable voltage (VDC)	Must release voltage min. (VAC)
5012	12	27	2VA	9.00	130% of nominal	3.60
5024	24	120		18.00		7.20
5110	110	2,360		82.50		33.00
5120	120	3,040		90.00		36.00
5220	220	13,490		165.00		66.00

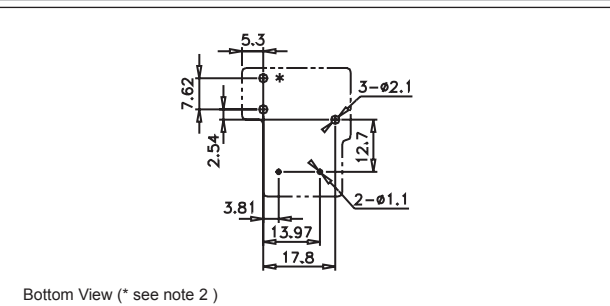
Overall Dimensions

Fig. 1



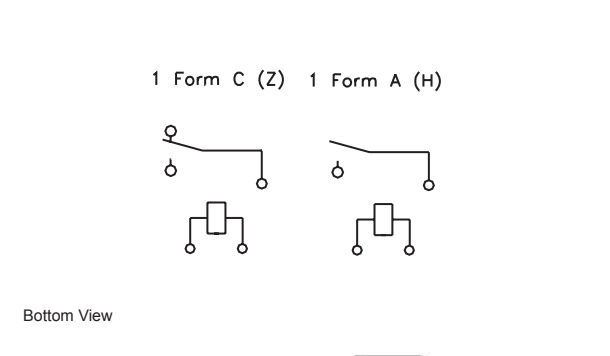
PCB Mounting Dimensions

Fig. 2



Wiring Diagrams

Fig. 3

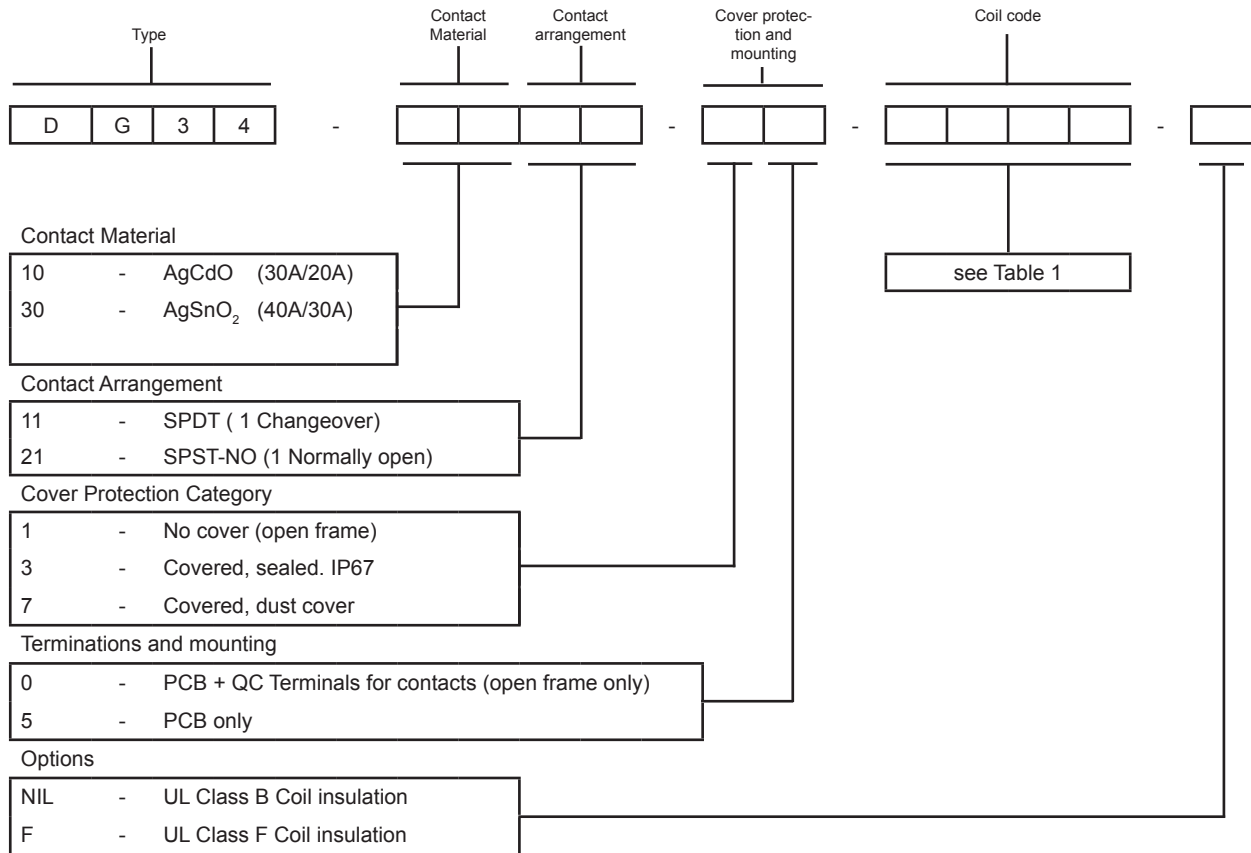


DG34

pcb power relay



Ordering codes



Notes:

- 1) All parameters, unless otherwise specified, are measured at an ambient temperature of 23°C.
- 2) PCB Mounting Holes - the "*" hole is not needed for the SPST-NO version.
- 3) At an ambient temperature of 85°C, the maximum allowable coil voltage should be reduced to 72%.
- 4) Electrical life obtained at resistive or inductive load at 30A/15VDC with suitable arc suppression attached and with an operating frequency of 1 op/sec.

