




# DG34

automotive/ industrial relays

# DURAKOOL



- General purpose automotive or industrial relays
- High resistance to inrush current
- For pcb or chassis mounting
- Flat insert faston terminal options
- AC and DC coils
- High Current automotive optimized version available
- Recognitions, certificates, directives: RoHS,   

## Contacts

Contact number & arrangement		SPST-NO (1NO), SPST-NC (1NC), SPDT (1 C/O)
Contact material		AgSnOInO, AgCdO
Max. switching voltage		277VAC / 30VDC
Min. switching voltage	AC / DC	10V
Rated Load	AC1	7200VA
	DC1	30A 30V
Min. switching current		10mA
Max. inrush current		80A (SPST-NO), 50A/20A (SPDT)
Rated current		SPST-NO: 30A, SPST-NC: 15A / 277VAC, 10A / 30VDC, SPDT: 20A (NO), 15A (NC)
Max. breaking capacity	AC1	30A
Min. breaking capacity		1W
Resistance		< 50m at 0.1A / 6VDC
Max. operating frequency at rated load no load	AC1	1200 cycles / hour
		10,000 cycles / hour

## Coil

Rated voltage	AC	12... 220VAC 50/60Hz
	DC	5... 110VDC
Must release voltage	AC: 0.15U <sub>n</sub> DC: 0.05U <sub>n</sub>	
Operating range of supply voltage		See Tables 1, 2, 3
Rated power consumption	AC: 2VA (approx.)    DC: 1W std, 0.9W sensitive	

## Insulation

Insulation category	C250	
Insulation rated voltage	250VAC	
Dielectric strength	coil - contact	AC Coils: 1500Vrms / 1min    DC Coils: 2500Vrms / 1min
	contact - contact	
	pole - pole	
	1500Vrms / 1 min	
Contact - coil distance	clearance	3 mm
	creepage	3 mm

## General data

Operating time (typical value)	15msec	
Release Time	15msec	
Electrical Life	resistive AC1	> 10 <sup>5</sup>
	cos Ø	
Mechanical life	> 10 <sup>7</sup>	
Motor Load	2hp (NO), 1hp (NC)	
Dimensions (L x W x H)	various - see dimensional drawings	
Weight	20...25g	
Ambient Temperature	storage	-55... + 130°C
	operating	-55... + 85°C
Cover protection category	IP00, IP40, IP67 depending on version	
Shock resistance	20g, 11ms	
Vibration resistance	DA 1.5mm, 20-200Hz	

Coil Data - standard DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance ± 10% at 20°C	Must Operate Voltage Max VDC	Must Release Voltage Min VDC
1005	5	25	3.75	0.5
1006	6	36	4.50	0.6
1009	9	81	6.75	0.9
1012	12	144	9.00	1.2
1015	15	225	11.25	1.5
1018	18	324	13.50	1.8
1022	22	484	16.50	2.2
1024	24	576	18.00	2.4
1048	48	2304	36.00	4.8
1110	110	12100	82.50	11.0

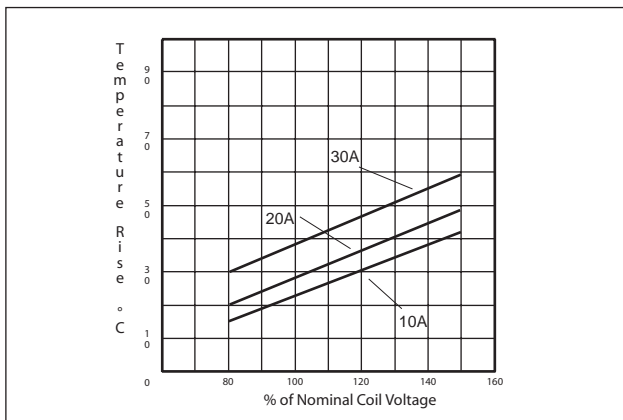
Coil Data - sensitive 0.9W DC voltage version

Table 2

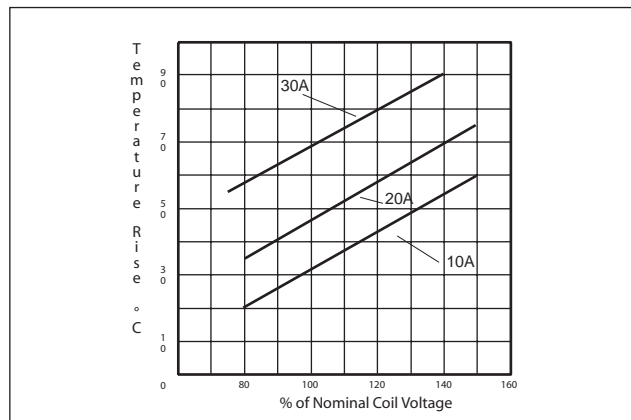
Coil code	Rated voltage V DC	Coil resistance ± 10% at 20°C	Must Operate Voltage Max VDC	Must Release Voltage Min VDC
S005	5	27	3.75	0.5
S006	6	40	4.50	0.6
S009	9	97	6.75	0.9
<b>S012</b>	<b>12</b>	<b>155</b>	<b>9.00</b>	<b>1.2</b>
S015	15	256	11.25	1.5
S018	18	380	13.50	1.8
S022	22	545	16.50	2.2
<b>S024</b>	<b>24</b>	<b>660</b>	<b>18.00</b>	<b>2.4</b>
S048	48	2560	36.00	4.8
S110	110	13450	82.50	11.0

Standard coil rated voltages marked with bold type, some types may be subject to special order quantities

Coil Temperature Rise - Open Type



Coil Temperature Rise - Covered type

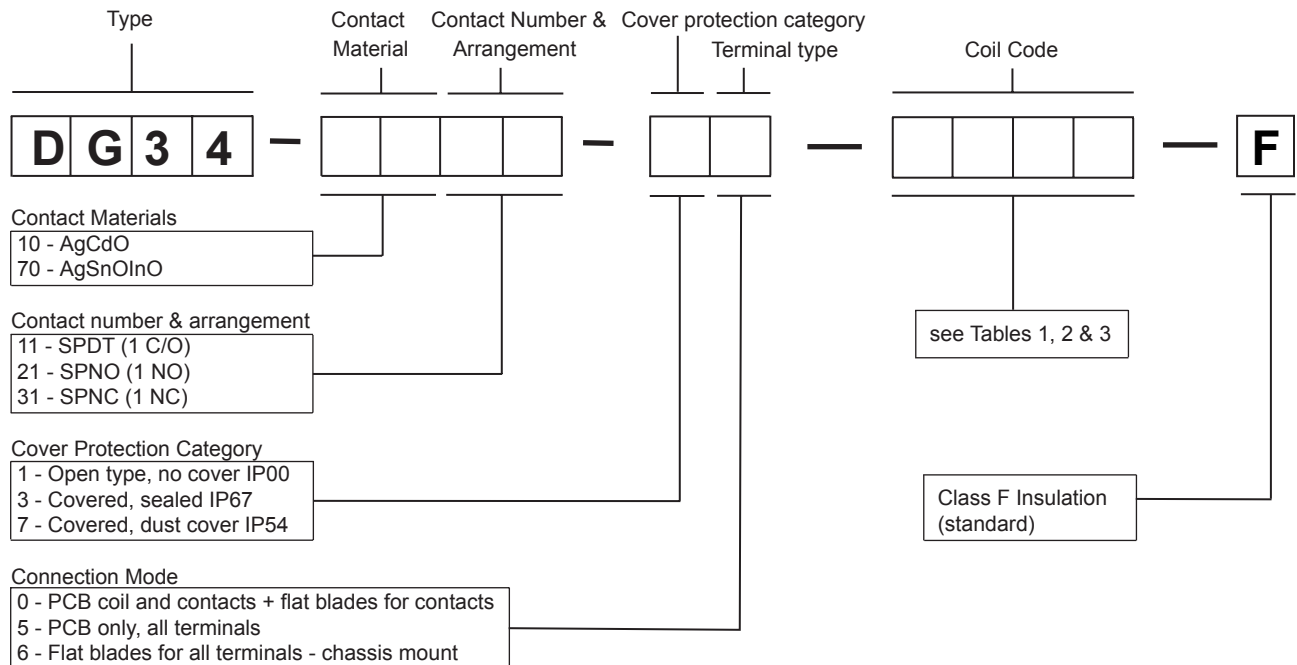


## Coil Data - AC 50/60Hz voltage version

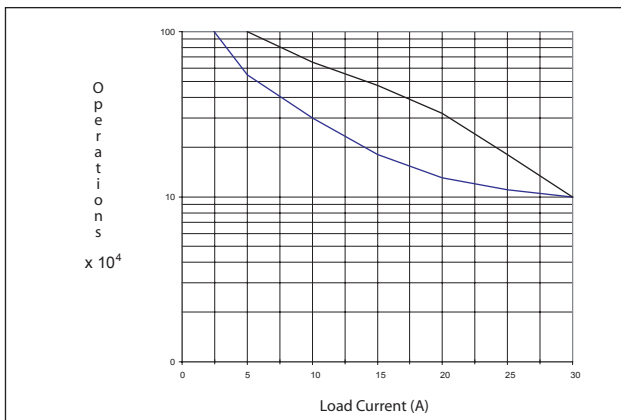
Table 3

Coil code	Rated voltage V AC	Coil resistance ± 10% at 20°C Ω	Must Operate Voltage Max VAC	Must Release Voltage Min VAC
5012	12	26	10.2	1.8
5024	24	106	20.4	3.6
5110	110	2750	93.5	16.0
5220	220	11000	187.0	33.0

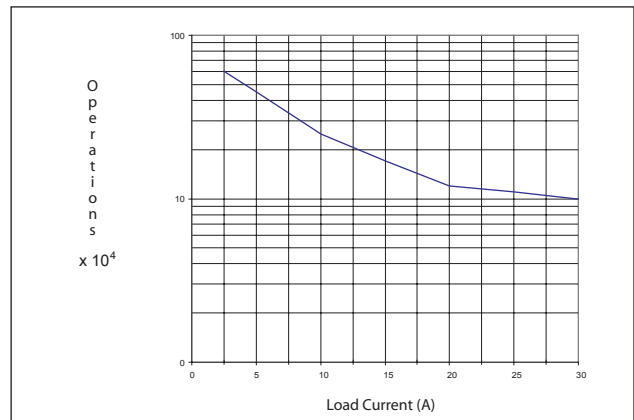
## Ordering Codes



Life Expectancy - Open Type



Life Expectancy - Covered type



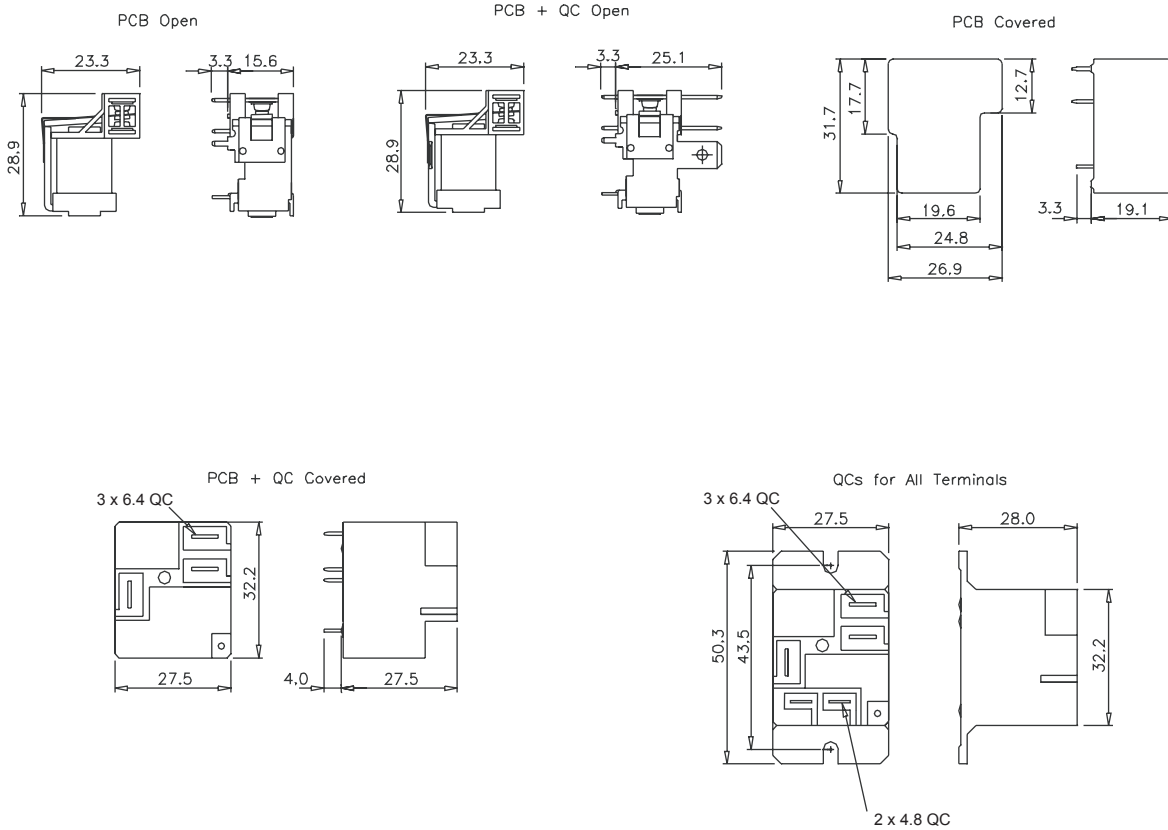
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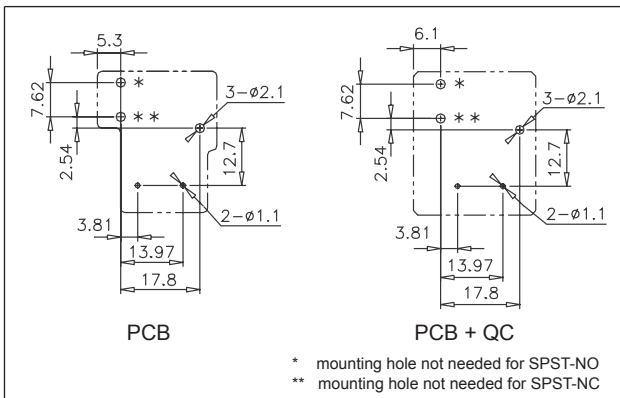


## Dimensions

Dimensions in mm



## PCB Mounting Holes Dimensions



## Wiring Diagrams

