



- General purpose relays
- Good inrush current resistance
- Flat insert connectors - faston 6.35 x 0.8 mm
- Optional DIN rail mount or screw mounting
- > 3mm contact gap (NO types)
- Meets IEC, CEI, VDE & RoHS standards

Contacts

Contact number & arrangement		1NO, 2NO, 3NO, 1CO, 2CO, 3CO
Contact material		AgNi
Max. switching voltage		400V AC
Min. switching voltage	AC / DC	10V
Rated Load	AC1	30A / 250V AC
	DC1	30A / 24V DC
Min. switching current		10mA
Max. inrush current		35A (0.5 sec)
Rated current		30A
Max. breaking capacity	AC1	7500 VA 1HP
Min. breaking capacity		1W
Resistance		< 30mΩ
Max. operating frequency at rated load	AC1	1200 cycles / hour
		no load

Coil

Rated voltage	AC	6... 400V AC 50/60Hz
	DC	6... 110V DC
Must release voltage		AC: $\geq 0.15U_n$ DC: $\geq 0.05U_n$
Operating range of supply voltage		See Tables 1, 2 & 3
Rated power consumption		AC: 3.9VA (50Hz) DC: 2W

Insulation

Insulation category		C250
Insulation rated voltage		250VAC
Dielectric strength	coil - contact	2500V AC
	contact - contact	2000V AC (C/O), 2500V AC (NO)
	pole - pole	2500V AC
Contact - coil distance	clearance	7.5mm
	creepage	7.5mm

General data

Operating time (typical value)		15msec
Release Time		12msec
Electrical Life	resistive AC1	> 10 ⁵
	cos Ø	
Mechanical life		> 10 ⁶
Motor Load		½ hp
Dimensions (L x W x H)		42 x 44 x 66mm
Weight		135... 155g
Ambient Temperature	storage	-25... + 80°C
	operating	-10... + 55°C, -10...+45°C (3PDT / 3CO only)
Cover protection category		IP40
Shock resistance		5g
Vibration resistance		4g (NO), 1g (C/O)

Coil data - DC voltage version

Table 1

Coil code	Rated voltage V DC	Coil resistance ± 10% at 20°C Ω	Coil operating range at 20°C V DC	
			min.	max.
1006	6	22	4.8	6.6
1012	12	88	9.6	13.2
1024	24	350	19.2	26.4
1048	48	1400	38.4	52.8
1110	110	7500	88.0	121.0

Coil data - AC 50Hz voltage version

Table 2

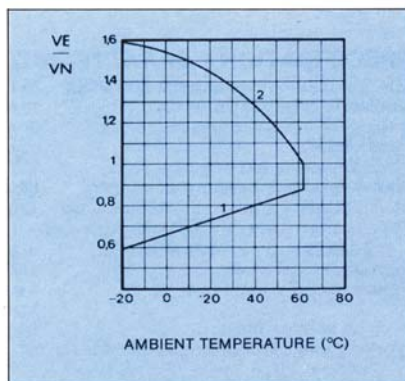
Coil code	Rated voltage V AC	Coil resistance ± 10% at 20°C Ω	Coil operating range at 20°C V DC	
			min.	max.
3006	6	2	4.8	6.6
3012	12	8	9.6	13.2
3024	24	32	19.2	26.4
3110	110	670	88.0	121.0
3230	230	2900	184.0	253.0
3400	400	8700	320	440

Coil data - AC 60Hz voltage version

Table 3

Coil code	Rated voltage V AC	Coil resistance ± 10% at 20°C Ω	Coil operating range at 20°C V DC	
			min.	max.
6006	6	1.70	4.8	6.6
6012	12	6.50	9.6	13.2
6024	24	29	19.2	26.4
6110	110	600	88.0	121.0
6230	230	2500	184.0	253.0
6400	400	6900	320	440

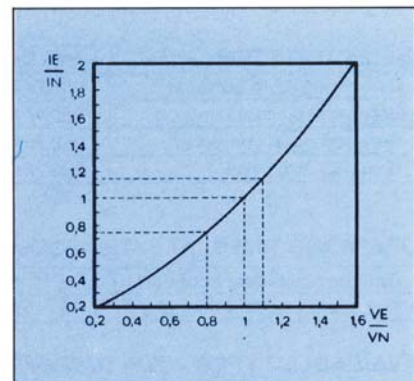
MAX ADMITTED OPERATING RANGE (DC) VERSUS AMBIENT TEMPERATURE



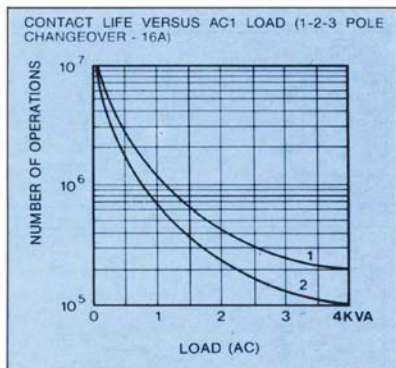
Curve 1: Min. coil operation voltage at stabilized temperature
Curve 2: Max. coil operation voltage at rated load.

VE - Operating voltage
VN - Rated voltage

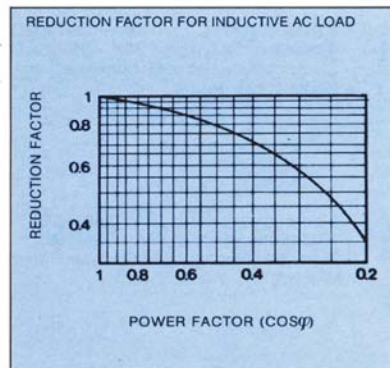
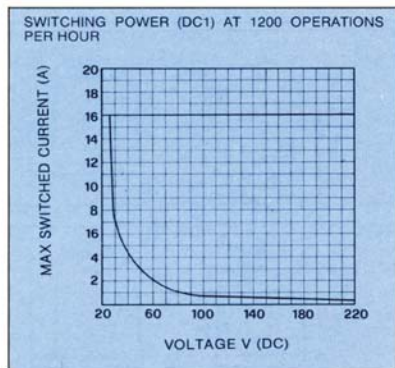
VARIATION OF POWER CONSUMPTION VERSUS OPERATING RANGE (AC - 50 Hz)



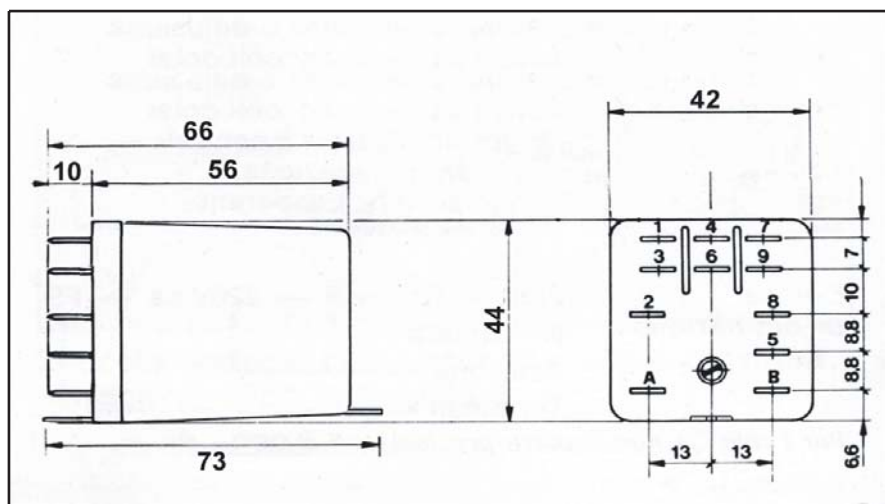
IE - Operating current
IN - Rated current
VE - Operating voltage
VN - Rated voltage



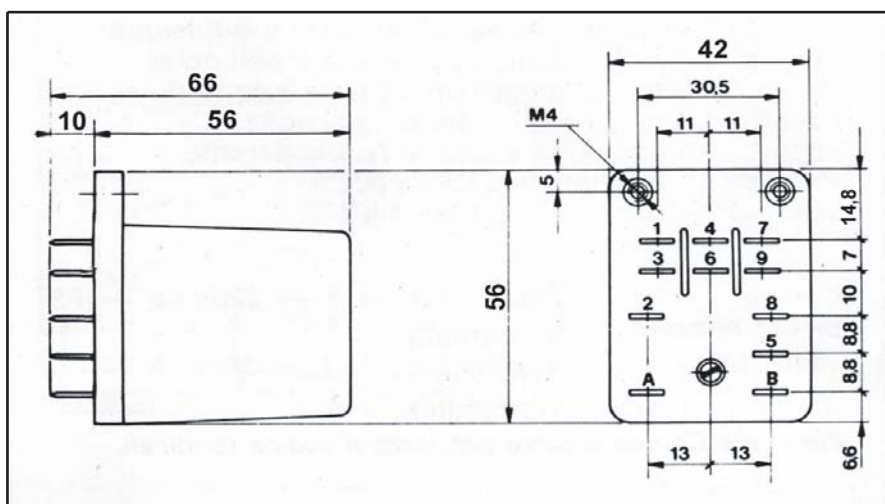
1 - 600 OPERATIONS PER HOUR
2 - 1200 OPERATIONS PER HOUR



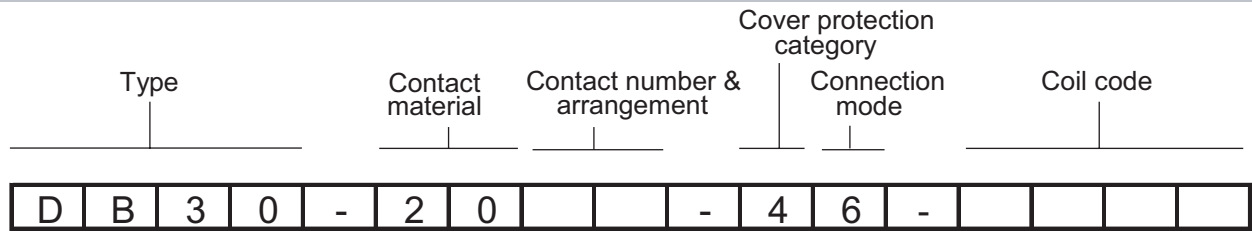
Dimensions - version with mounting flanges top and bottom (standard)



Dimensions - version with mounting flange with threaded inserts on base



Ordering Codes



Contact Material

20 - AgNi

Contact number & arrangement

- 11 - SPDT (1C/O)
- 12 - DPDT (2C/O)
- 13 - 3PDT (3C/O)
- 51 - SPST-NO (1NO) ①
- 52 - DPST-NO (2NO) ①
- 53 - 3PST-NO (3NO) ①

see Tables 1, 2 & 3

Cover protection category

- 2 - in cover, IP 40 with base mounting flange
- 4 - in cover, IP40 with top & bottom flanges (standard)

Connection mode

- 6 - for flat insert connectors
- fast-on 6.3 x 0.8mm

① Contact gap = 3mm or greater

Examples of ordering codes:

DB30-2052-46-1024

relay DB30, contact material AgNi, with two normally open contacts 3mm contact gaps, in cover IP40 with fast-on 6.3mm x 0.8mm terminals coil voltage 24V DC.

DB30-2013-46-6110

relay DB30, contact material AgNi, with three changeover contacts, in cover IP40 with fast-on 6.3mm x 0.8mm terminals, coil voltage 110 V AC 60Hz