



- 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 | 16A / 250V AC |
| | DC1 | 16A / 24V DC |
| Min. switching current | | 10mA |
| Max. inrush current | | 30A |
| Rated current | | 16A |
| Max. breaking capacity | AC1 | 4000 VA |
| 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... 145g |
| Ambient Temperature | storage | -25... + 80°C |
| | operating | -10... + 55°C |
| 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

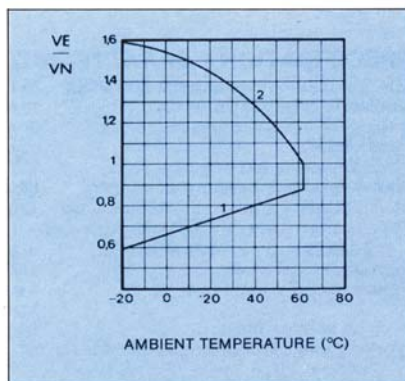
| Coil code | Rated voltage V AC | Coil resistance ± 10% at 20°C Ω | Coil operating range at 20°C V DC | |
|-----------|-----------------------|---------------------------------------|--------------------------------------|-------|
| | | | min. | max. |
| 3006 | 6 | 2 | 4.8 | 6.6 |
| 3012 | 12 | 8 | 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 |

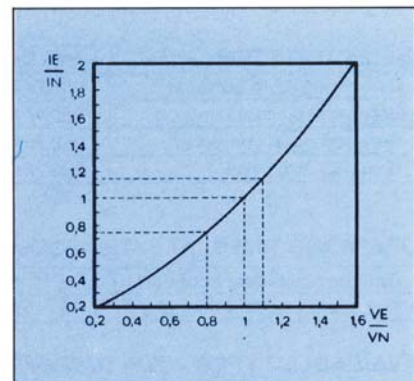
MAX ADMITTED OPERATING RANGE (DC) VERSUS AMBIENT TEMPERATURE



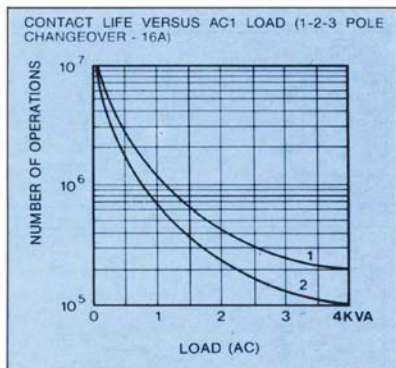
Curve 1: Min. coil operation voltage at stabilized temperature
Curve 2: Max. coil operation voltage at rated load.

VE - Operating voltage
VN - Rated voltage

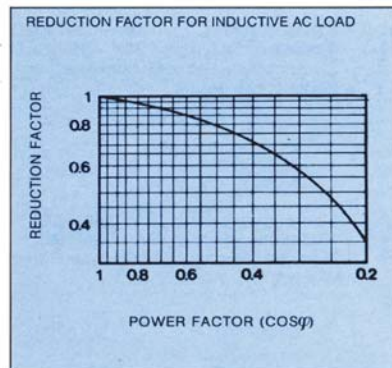
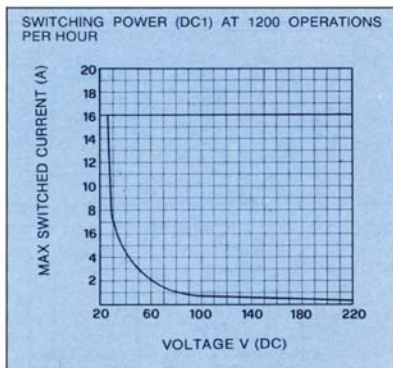
VARIATION OF POWER CONSUMPTION VERSUS OPERATING RANGE (AC - 50 Hz)



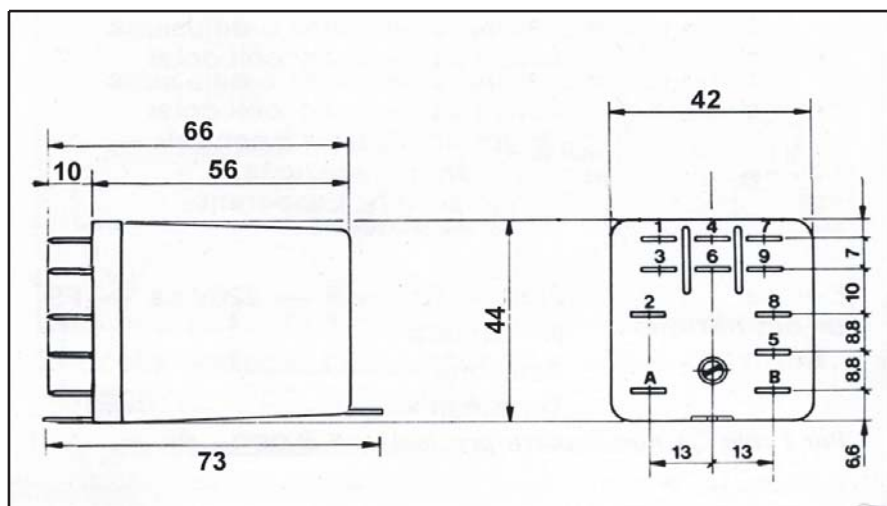
IE - Operating current
IN - Rated current
VE - Operating voltage
VN - Rated voltage



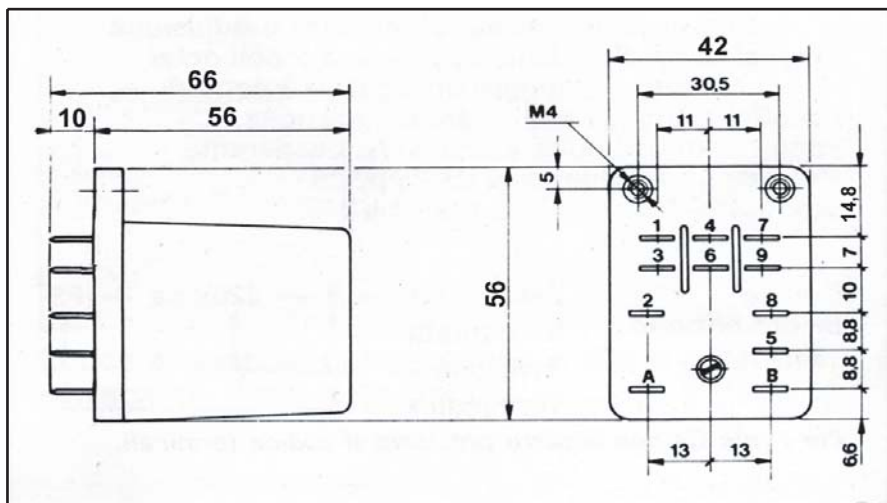
1 - 600 OPERATIONS PER HOUR
2 - 1200 OPERATIONS PER HOUR



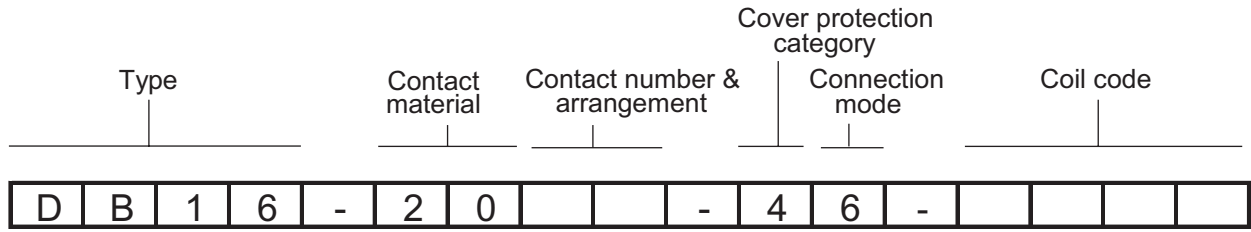
Dimensions - version with mounting flanges top and bottom (standard)



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:

DB16-2052-46-1024

relay DB16, 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.

DB16-2012-46-6110

relay DB16, contact material AgNi, with two changeover contacts, in cover IP40 with fast-on 6.3mm x 0.8mm terminals, coil voltage 110 V AC 60Hz