



## COIL CHARACTERISTICS

| Rated Voltage<br>V | DC                  |                   |                     | AC                |                  |                  |
|--------------------|---------------------|-------------------|---------------------|-------------------|------------------|------------------|
|                    | Rated Current<br>mA | Resistance R<br>Ω | Rated Current<br>mA | Resistance R<br>Ω | Reactance X<br>Ω | Impedance Z<br>Ω |
| 6                  | 150                 | 40                | 250                 | 10                | 21.8             | 24               |
| 12                 | 75                  | 160               | 125                 | 38                | 88.2             | 96               |
| 24                 | 38                  | 640               | 63                  | 150               | 350              | 381              |
| 48                 | 18                  | 2600              | 31                  | 680               | 1390             | 1548             |
| 60                 | 15                  | 4000              | -                   | -                 | -                | -                |
| 110                | 8.1                 | 13600             | 14                  | 3100              | 7220             | 7857             |
| 230                | -                   | -                 | 6.5                 | 13200             | 32830            | 35385            |

Power supply voltages:

6-12-24-48-110-230 VAC

6-12-24-48-60-110 VDC

Rated power:

0.9W (DC) ; 1.5 VA (AC)

Operating range:

- 20% to + 10% of nominal

Minimum hold voltage:

80% of nominal (AC)

Must release voltage:

20% of nominal (AC)

10% of nominal (DC)

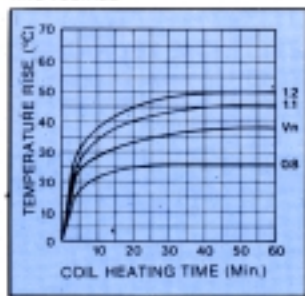
Thermic insulation class of winding

(IEC 317): F (155°C)

Resistance values at 20°C ambient temp.

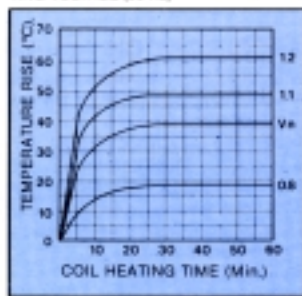
Tolerance on R, X and Z: ± 10%

TEMPERATURE RISE VERSUS DC OPERATING VOLTAGE



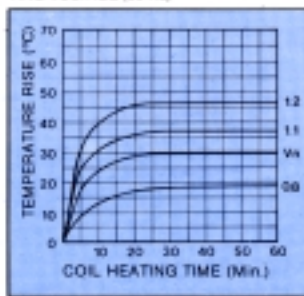
Vn = rated voltage

TEMPERATURE RISE VERSUS AC OPERATING VOLTAGE (50 Hz)



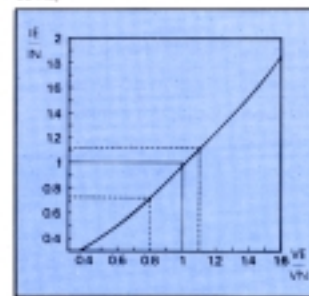
Vn = rated voltage

TEMPERATURE RISE VERSUS AC OPERATING VOLTAGE (60 Hz)



Vn = rated voltage

VARIATIONS OF POWER CONSUMPTION VERSUS AC OPERATING VOLTAGE (50-60 Hz)



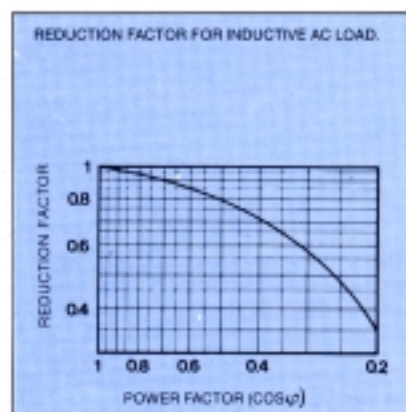
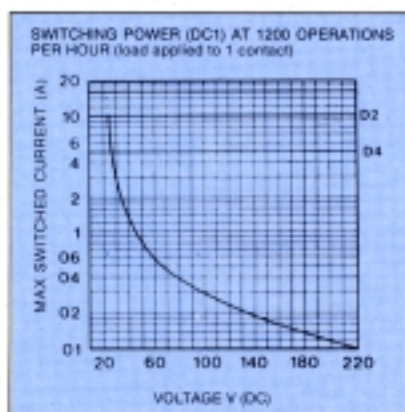
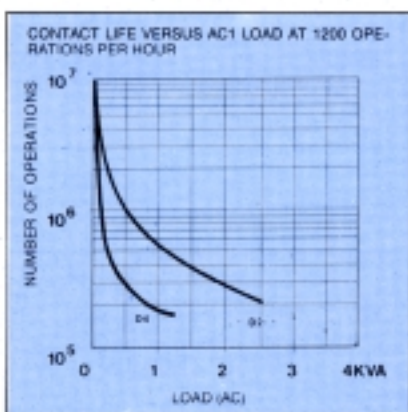
IC = Operating current  
IN = Rated current  
Vn = Operating voltage  
VN = rated voltage

## CONTACT CHARACTERISTICS

|  | 2 pole         | 4 pole        |     |
|--|----------------|---------------|-----|
| Maximum power rating (AC1) :                               | 2500           | 1250          | VA  |
| Rated current :  | 10             | 5             | A   |
| Rated voltage :  | 250            | 250           | VAC |
| Maximum switched voltage :                                 | 400            | 250           | VAC |
| Maximum instantaneous current <sup>(1)</sup> :             | 20             | 10            | A   |
| Switching power (DC1) :                                    | see diagram    |               |     |
| Maximum single-phase motor load (cosφ 0.7 – 250VAC max.) : | 1/3            | 1/10          | HP  |
| Initial contact resistance <sup>(2)</sup> : maximum        | 30             | 50            | mΩ  |
| Standard   | 10             | 15            | mΩ  |
| Standard material  | Ag90% - CdO10% | Ag90% - Ni10% |     |

<sup>(1)</sup> Make & maintaining only - max. 0.5 sec.

<sup>(2)</sup> Category of application (EN 60255) : 3



## ORDERING INFORMATION

**D4N - 230 AC - IL - 5**

1 2 3 4 5 6

1 – Relay Series: D

2 – Number of poles: 2 or 4

3 – Termination variant:

N = solder lugs / plug-in

P = printed circuit

4 – Coil supply voltage: AC or DC

5 – Optional equipment: IL (LED indicator);

DP (protection diode); DL (LED + diode);

VM (grounding bolt).

6 – Alternative contact materials:

None = standard material

1 = Silver / Nickel (Ag-Ni 10%)

2 = Silver / Cadmium (Ag-CdO 15%)

4 = Silver / Tin Oxide (Ag-SnO<sub>2</sub> 12%)

5 = Gold plated silver (Ag-Ni + 5μ Au)

Groups 5 & 6 of code are normally omitted, concerning special types available only on request for agreed quantities.

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