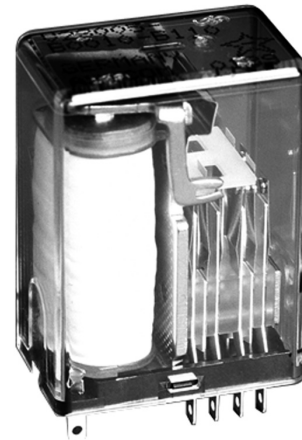


## Cradle W Relay V23005

- Highly reliable
- Great variety of contact arrangements and materials to meet specific applications
- Contacts for signal loads and currents up to 5A
- For AC operating only
- Neutral, monostable

### Typical applications

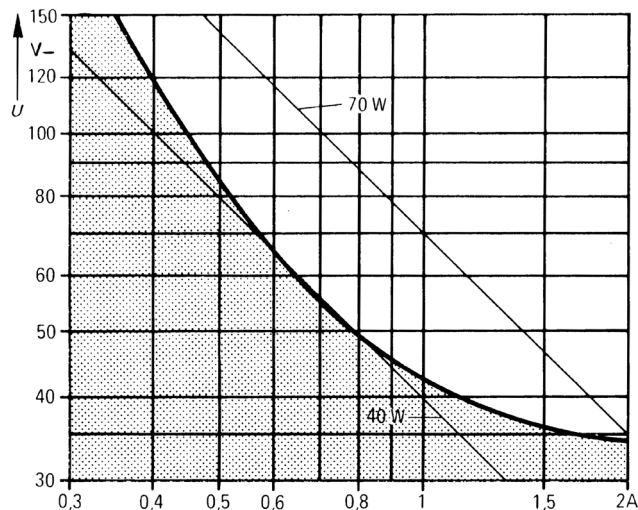
Operation of the coil with alternating voltage, machine controls



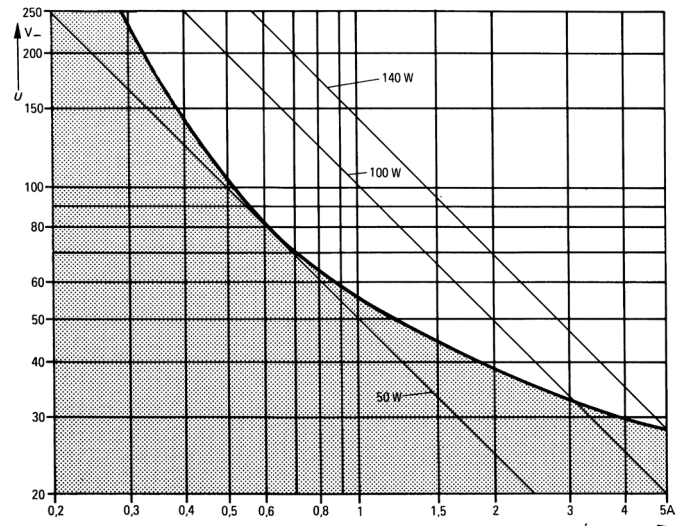
### Contact Data

| Product code block 3                                    | B104/B110                                                                                                   | B604/B610                 | C104/C110                 | C404/C410                 | F104 to F107              |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Contact arrangement                                     | max. 4 form C (4CO) contacts, 2 form B (2 NC) contacts or 2 form A (2 NO) contacts (see product code table) |                           |                           |                           |                           |
| Max. switching voltage                                  | 150VDC<br>125VAC                                                                                            | 36VDC<br>30VAC            | 150VDC<br>125VAC          | 36VDC<br>30VAC            | 250VDC<br>250VAC          |
| Rated current                                           | 2A                                                                                                          | 0.2A                      | 2A                        | 0.2A                      | 5A                        |
| Limiting continuous current at max. ambient temperature | 2A                                                                                                          | 2A                        | 2A                        | 2A                        | 5A                        |
| Breaking capacity                                       | 35 to 70W<br>see DC load breaking capacity curve below 50VA                                                 | 5W, 5VA                   | 35 to 70W<br>50VA         | 5W, 5VA                   | 50 to 140W<br>500VA       |
| Contact material                                        | silver, gold-flashed                                                                                        | gold F                    | silver, gold-flashed      | gold F                    | silver, gold-flashed      |
| Contact style                                           | single contact                                                                                              | single contact            | bifurcated contacts       | bifurcated contacts       | single contact            |
| Frequency of operation, without load, max.              | 20 ops./s                                                                                                   | 20 ops./s                 | 20 ops./s                 | 20 ops./s                 | 20 ops./s                 |
| Mechanical endurance                                    | app. 10 <sup>7</sup> ops.                                                                                   | app. 10 <sup>7</sup> ops. | app. 10 <sup>7</sup> ops. | app. 10 <sup>7</sup> ops. | app. 10 <sup>8</sup> ops. |

### Max. DC breaking capacity, contact sets B1xx, C1xx



### Max. DC breaking capacity, contact sets F1xx



## Cradle W Relay V23005 (Continued)

### Coil Data

|                            |                           |
|----------------------------|---------------------------|
| Magnetic system            | neutral                   |
| Coil voltage range         | 6 to 220 VAC (50Hz/ 60Hz) |
| Operative range, IEC 61810 | 1                         |
| Operating voltage          | 80% of rated coil voltage |
| Rated coil power, typ.     | 1.15VA                    |
| Max. coil temperature      | 100°C                     |
| Thermal resistance         | 35K/W                     |

### Coil versions, AC coil

| Coil code | Rated voltage VAC | Operate voltage VAC | Coil resistance $\Omega \pm 15\%$ | Rated coil power VA <sup>1)</sup> |
|-----------|-------------------|---------------------|-----------------------------------|-----------------------------------|
| 015       | 6                 | 4.8                 | 8                                 | 1.15                              |
| 017       | 12                | 9.6                 | 40                                | 1.15                              |
| 021       | 18                | 14.4                | 108                               | 1.15                              |
| 010       | 24                | 19.2                | 170                               | 1.15                              |
| 009       | 42                | 33.6                | 550                               | 1.15                              |
| 019       | 48                | 38.4                | 620                               | 1.15                              |
| 008       | 60                | 48                  | 1000                              | 1.15                              |
| 007       | 110               | 88                  | 3200                              | 1.15                              |
| 004       | 220               | 176                 | 14000                             | 1.15                              |

1) Typical value.

All figures are given for coil without pre-energization, at ambient temperature +23°C.

### Insulation Data B1xx,B6xx,C1xx,C4xx F1xx

|                                                    |                                                                                                        |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Initial dielectric strength between coil and frame | 500VAC <sub>rms</sub> at rated voltages $\leq 60V$<br>2000VAC <sub>rms</sub> at rated voltages $> 60V$ |
| between contact and contact                        | 500VAC <sub>rms</sub> 1000VAC <sub>rms</sub>                                                           |
| between contact and frame                          | 500VAC <sub>rms</sub> 1000VAC <sub>rms</sub>                                                           |
| Initial insulation resistance, at 500 VDC          | $> 10^6 \Omega$                                                                                        |

### Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

|                                                |                                                                                |
|------------------------------------------------|--------------------------------------------------------------------------------|
| Ambient temperature                            | -40 to + 70°C                                                                  |
| Category of environmental protection IEC 61810 | RT I - dust protected                                                          |
| Degree of protection, IEC 60529                | IP 40                                                                          |
| Terminal type                                  | solder terminals, suitable for plug-in-and socket connection plus screw fixing |

|                      |                 |
|----------------------|-----------------|
| Weight               |                 |
| V23003-A0xxx Size I  | approx. 35g     |
| V23003-B0xxx Size II | approx. 40g     |
| Washing              | not recommended |
| Ultrasonic cleaning  | not recommended |
| Packaging unit       | 5 pcs.          |

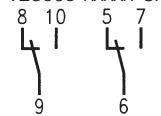
### Accessories

For details see datasheet Cradle Relay, Accessories and Mounting

### Terminal assignment

#### Size I

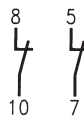
2 form C (2 CO)  
V23005-xxxx-Bx04  
V23005-xxxx-Cx04



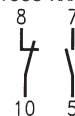
2 form A (2 NO)  
V23005-xxxx-F105



2 form B (2 NC)  
V23005-xxxx-F107

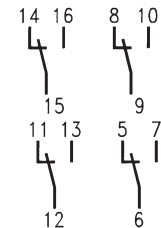


1 form A + 1 form B  
(1 NO + 1 NC)  
V231005-xxxx-F106

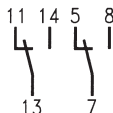


#### Size II

4 form C (4 CO)  
V231005-xxxx-Bx10  
V231005-xxxx-Cx10



2 form C (2 CO)  
V231005-xxxx-F104

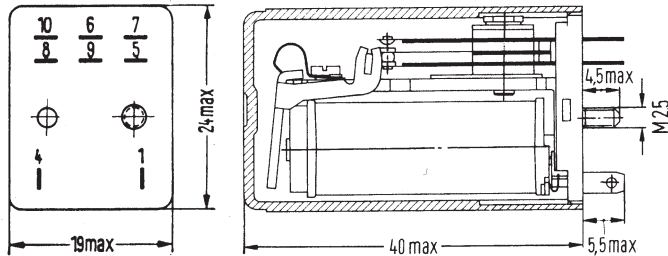


Coil terminals: 1, 4

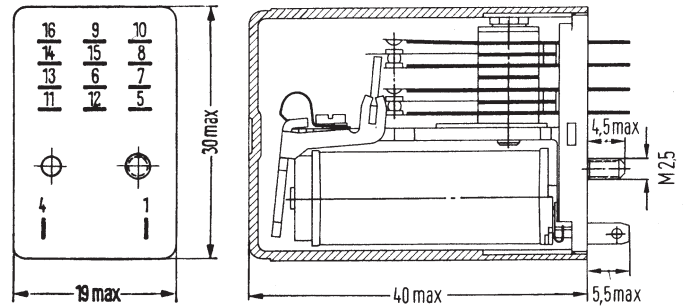
**Cradle W Relay V23005** (Continued)

**Dimensions**

**V23005-A0xx, size I type**



**V23005-B0xx, size II type**



**Product code structure**

Typical product code **V23005 -B0 004 -F104**

|                                                                                                                                                     |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Type</b><br>V23005 Cradle W Relay                                                                                                                |  |  |
| <b>Size</b><br>A0 Size I, dust protected<br>B0 Size II, dust protected                                                                              |  |  |
| <b>Coils</b><br>Coil code: please refer to coil versions table                                                                                      |  |  |
| <b>Contact style</b><br>B1 Single contacts<br>C1 Bifurcated contacts<br>B6 Single contacts<br>C4 Bifurcated contacts<br>F1 Single contacts          |  |  |
| <b>Contact arrangement</b><br>04 2 form C, 2 CO<br>10 4 form C, 4 CO<br>05 2 form A, 1 NO<br>12 6 form A, 6 NO<br>06 1 form A+ 1 form B, 1 NO+ 1 NC |  |  |

Other types on request

**Cradle W Relay V23005** (Continued)

| Product code                           | Version           | Coil   | Arrangement           | Contacts   | Enclosure      | PartNumber  |
|----------------------------------------|-------------------|--------|-----------------------|------------|----------------|-------------|
| <b>V23005-AXXXX, standard, size I</b>  |                   |        |                       |            |                |             |
| V23005-A0017-B104                      | Standard, size I  | 12VAC  | 2 form C (2 CO)       | Single     | Dust protected | 1-1393816-8 |
| V23005-A0021-C104                      | Standard, size I  | 18VAC  | 2 form C (2 CO)       | Bifurcated | Dust protected | 2-1393816-0 |
| V23005-A0010-B104                      | Standard, size I  | 24VAC  | 2 form C (2 CO)       | Single     | Dust protected | 1-1393816-7 |
| V23005-A0009-B104                      | Standard, size I  | 42VAC  | 2 form C (2 CO)       | Single     | Dust protected | 1-1393816-5 |
| V23005-A0019-B104                      | Standard, size I  | 48VAC  | 2 form C (2 CO)       | Single     | Dust protected | 1-1393816-9 |
| V23005-A0008-B104                      | Standard, size I  | 60VAC  | 2 form C (2 CO)       | Single     | Dust protected | 1-1393816-4 |
| V23005-A0007-B104                      | Standard, size I  | 110VAC | 2 form C (2 CO)       | Single     | Dust protected | 1393816-8   |
| V23005-A0007-B604                      | Standard, size I  | 110VAC | 2 form C (2 CO)       | Single     | Dust protected | 1-1393816-0 |
| V23005-A0007-C104                      | Standard, size I  | 110VAC | 2 form C (2 CO)       | Bifurcated | Dust protected | 1-1393816-1 |
| V23005-A0004-B104                      | Standard, size I  | 220VAC | 2 form C (2 CO)       | Single     | Dust protected | 1393816-1   |
| V23005-A0004-B604                      | Standard, size I  | 220VAC | 2 form C (2 CO)       | Single     | Dust protected | 1393816-3   |
| V23005-A0004-C104                      | Standard, size I  | 220VAC | 2 form C (2 CO)       | Bifurcated | Dust protected | 1393816-4   |
| <b>V23005-BXXXX, 5A, size I</b>        |                   |        |                       |            |                |             |
| V23005-A0009-F106                      | 5A, size I        | 42VAC  | 1 A + 1 B (1 NO+1 NC) | Single     | Dust protected | 1-1393816-6 |
| V23005-A0007-F105                      | 5A, size I        | 110VAC | 2 form A (2 NO)       | Single     | Dust protected | 1-1393816-2 |
| V23005-A0007-F106                      | 5A, size I        | 110VAC | 1 A + 1 B (1 NO+1 NC) | Single     | Dust protected | 1-1393816-3 |
| V23005-A0004-F105                      | 5A, size I        | 220VAC | 2 form A (2 NO)       | Single     | Dust protected | 1393816-6   |
| V23005-A0004-F106                      | 5A, size I        | 220VAC | 1 A + 1 B (1 NO+1 NC) | Single     | Dust protected | 1393816-7   |
| <b>V23005-BXXXX, standard, size II</b> |                   |        |                       |            |                |             |
| V23005-B0017-B110                      | Standard, size II | 12VAC  | 4 form C (4 CO)       | Single     | Dust protected | 4-1393816-5 |
| V23005-B0010-B110                      | Standard, size II | 24VAC  | 4 form C (4 CO)       | Single     | Dust protected | 4-1393816-0 |
| V23005-B0010-C110                      | Standard, size II | 24VAC  | 4 form C (4 CO)       | Bifurcated | Dust protected | 4-1393816-1 |
| <b>V23005-B0010-C410</b>               |                   |        |                       |            |                |             |
| V23005-B0009-B110                      | Standard, size II | 42VAC  | 4 form C (4 CO)       | Single     | Dust protected | 3-1393816-7 |
| V23005-B0009-C110                      | Standard, size II | 42VAC  | 4 form C (4 CO)       | Bifurcated | Dust protected | 3-1393816-8 |
| V23005-B0008-B110                      | Standard, size II | 60VAC  | 4 form C (4 CO)       | Single     | Dust protected | 3-1393816-5 |
| V23005-B0007-B110                      | Standard, size II | 110VAC | 4 form C (4 CO)       | Single     | Dust protected | 3-1393816-0 |
| V23005-B0007-B610                      | Standard, size II | 110VAC | 4 form C (4 CO)       | Single     | Dust protected | 3-1393816-1 |
| V23005-B0007-C110                      | Standard, size II | 110VAC | 4 form C (4 CO)       | Bifurcated | Dust protected | 3-1393816-2 |
| V23005-B0007-C410                      | Standard, size II | 110VAC | 4 form C (4 CO)       | Bifurcated | Dust protected | 3-1393816-3 |
| V23005-B0004-B110                      | Standard, size II | 220VAC | 4 form C (4 CO)       | Single     | Dust protected | 2-1393816-2 |
| V23005-B0004-B610                      | Standard, size II | 220VAC | 4 form C (4 CO)       | Single     | Dust protected | 2-1393816-4 |
| V23005-B0004-C110                      | Standard, size II | 220VAC | 4 form C (4 CO)       | Bifurcated | Dust protected | 2-1393816-5 |
| V23005-B0004-C410                      | Standard, size II | 220VAC | 4 form C (4 CO)       | Bifurcated | Dust protected | 2-1393816-6 |
| <b>V23005-BXXXX, 5A, size II</b>       |                   |        |                       |            |                |             |
| V23005-B0015-F104                      | 5A, size II       | 6VAC   | 2 form C (2 CO)       | Single     | Dust protected | 4-1393816-4 |
| V23005-B0017-F104                      | 5A, size II       | 12VAC  | 2 form C (2 CO)       | Single     | Dust protected | 4-1393816-6 |
| V23005-B0010-F104                      | 5A, size II       | 24VAC  | 2 form C (2 CO)       | Single     | Dust protected | 4-1393816-3 |
| V23005-B0009-F104                      | 5A, size II       | 42VAC  | 2 form C (2 CO)       | Single     | Dust protected | 3-1393816-9 |
| V23005-B0008-F104                      | 5A, size II       | 60VAC  | 2 form C (2 CO)       | Single     | Dust protected | 3-1393816-6 |
| V23005-B0007-F104                      | 5A, size II       | 110VAC | 2 form C (2 CO)       | Single     | Dust protected | 3-1393816-4 |
| V23005-B0004-F104                      | 5A, size II       | 220VAC | 2 form C (2 CO)       | Single     | Dust protected | 2-1393816-8 |