

## **Power PCB Relay Card E**

- 1 pole 8A, 1 form C (CO) or 1 form A (NO) contact
- 4kV coil-contact
- **■** Vertical and horizontal version
- Wash tight
- RoHS compliant (Directive 2011/65/EC)



DYE CPLUS

Typical applications I/O modules, heating control, timers

| Approvals |       |       |    |         |  |  |
|-----------|-------|-------|----|---------|--|--|
| VDE Cert  | . No. | 5146, | UL | E214025 |  |  |
|           |       |       |    |         |  |  |

Technical data of approved types on request

| Contact Data                         | A8          | 5A              | bifurcated |  |  |
|--------------------------------------|-------------|-----------------|------------|--|--|
| Contact arrangement                  | 1 form      | C (CO) or 1 for | m A (NO)   |  |  |
| Rated voltage                        | 250VAC      |                 |            |  |  |
| Max. switching voltage               |             | 400VAC          |            |  |  |
| Rated current                        | 8A          | 5A              | 5A         |  |  |
| Limiting making current,             |             |                 |            |  |  |
| max 4 s, duty factor 10%             | 15A         | -               | -          |  |  |
| Breaking capacity max.               | 2000VA      | 1250VA          | 1250VA     |  |  |
| Contact material                     | AgCdO,      | AgNi0.15        | AgNi0.15   |  |  |
|                                      | AgNi20      |                 |            |  |  |
| Contact style                        | single      | single          | bifurcated |  |  |
|                                      | contact     | contact         | contact    |  |  |
| Frequency of operation, with/without | 360/72000h- | 1               |            |  |  |
| Operate/release time typ.            |             | 7/3ms           |            |  |  |
| Bounce time typ., form A/form B      | 0.5/3ms     |                 |            |  |  |

| Type          | Contact  | Load                           | Cycles             |
|---------------|----------|--------------------------------|--------------------|
| IEC61810      |          |                                |                    |
| AgCdO         | C (CO)   | 8A, 250VAC, resistive, 70°C    | 20x10 <sup>3</sup> |
| AgNi20        | C (CO)   | 8A, 250VAC, resistive 70°C     | 20x10 <sup>3</sup> |
| AgCdO         | A (NO)   | 8A, 250VAC, resistive, 70°C    | 20x10 <sup>3</sup> |
| AgNi20        | A (NO)   | 8A, 250VAC, resistive, 70°C    | 30x10 <sup>3</sup> |
| AgNi0.15      | A (NO)   | 5A, 250VAC, resistive, 70°C    | 20x10 <sup>3</sup> |
|               |          |                                |                    |
| Mechanical er | ndurance | >20x10 <sup>6</sup> operations |                    |

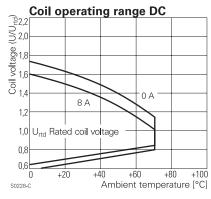
|                  | Ma  | ax. | DC          | ) lo                | ac          | d b           | rea | kin          | g ca          | ара  | cit | V   |
|------------------|-----|-----|-------------|---------------------|-------------|---------------|-----|--------------|---------------|------|-----|-----|
| 300              |     |     | $\sqcap$    |                     | Ш           |               |     |              |               | П    |     |     |
| 200              |     | _/\ | Ш           | Ш                   | Ш           | Щ_            |     |              | Ш             | Ш    |     | Щ   |
|                  | Αç  | CdC | $\setminus$ | N.                  | <br>AgN<br> | <br>\i0,1<br> | 5   |              |               |      |     |     |
| 100              |     | +   | +           | $\langle \ \rangle$ | H           | ₩             | _   | +            |               | ₩    |     |     |
|                  |     |     |             |                     | N           |               | _   |              |               | #    |     |     |
| <del></del> 50   |     |     | +           |                     | 1           |               |     | res          | sistive       | load | _ b |     |
| \(\infty\)       |     |     |             |                     | Ш           |               |     |              | Ш             | Ш    |     |     |
| > 20             |     |     |             |                     |             |               |     | $\checkmark$ |               |      |     |     |
| Φ 30             |     |     | Т           | П                   | Ш           |               |     |              | $\overline{}$ |      |     |     |
|                  |     |     | $\perp$     | Ш                   | Ш           | Щ_            |     |              | Ш             | Ш    |     | Щ   |
| <u>6</u>         |     |     |             |                     |             |               |     |              |               | Ш    |     |     |
| DC voltage [VDC] |     |     |             |                     |             |               |     |              |               |      |     |     |
|                  | 0,1 | 0,2 |             | 0,5                 |             | 1             | 2   |              | 5             | 10   | 2   |     |
| S0227-0          |     |     |             |                     |             |               |     |              | DC            | curr | ent | ĮΑJ |

| Coil Data          |             |
|--------------------|-------------|
| Coil voltage range | 6 to 110VDC |

| Coil vers | sions, DC co | il      |         |                        |            |
|-----------|--------------|---------|---------|------------------------|------------|
| Coil      | Rated        | Operate | Release | Coil                   | Rated coil |
| code      | voltage      | voltage | voltage | resistance             | power      |
|           | VDC          | VDC     | VDC     | $\Omega \pm 15\%^{1)}$ | mW         |
| 001       | 6            | 4.2     | 0.6     | 80 <sup>1)</sup>       | 450        |
| 002       | 12           | 8.3     | 1.2     | 3301)                  | 436        |
| 006       | 24           | 16.8    | 2.4     | 1200                   | 480        |
| 013       | 48           | 33.6    | 4.8     | 4700                   | 490        |
| 023       | 60           | 42.0    | 6.0     | 7200                   | 500        |
| 028       | 110          | 77.0    | 11.0    | 23400                  | 517        |

1) Coil resistance ±10%.

Åll figures are given for coil without pre-energization, at ambient temperature  $+23^{\circ}\text{C}$ .



Other coil voltages on request.

| Insulation Data                    |                      |  |
|------------------------------------|----------------------|--|
| Initial dielectric strength        |                      |  |
| between open contacts              | 1000V <sub>rms</sub> |  |
| between contact and coil           | 4000V <sub>rms</sub> |  |
| Clearance/creepage                 |                      |  |
| between contact and coil           | ≥4/4mm               |  |
| Material group of insulation parts | IIIa                 |  |
| Tracking index of relay base       | PTI225V              |  |
|                                    |                      |  |



# Power PCB Relay Card E (Continued)

### **Other Data**

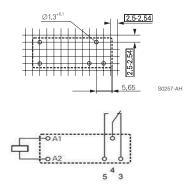
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter

| Ambient temperature -40 to +70°C     |                            |  |
|--------------------------------------|----------------------------|--|
| Category of environmental protection |                            |  |
| IEC 61810                            | RTIII - wash tight         |  |
| Terminal type                        | PCB-THT                    |  |
| Mounting distance                    | 5mm                        |  |
| Weight                               | 14g                        |  |
| Resistance to soldering heat THT     |                            |  |
| IEC 60068-2-20                       | 260°C/5s                   |  |
| Packaging/unit                       | tube/20 pcs., box/400 pcs. |  |

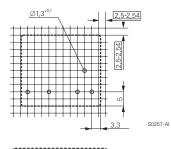
#### PCB layout / terminal assignment

Bottom view on solder pins

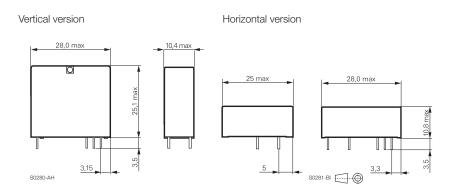
Vertical version

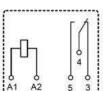


Horizontal version



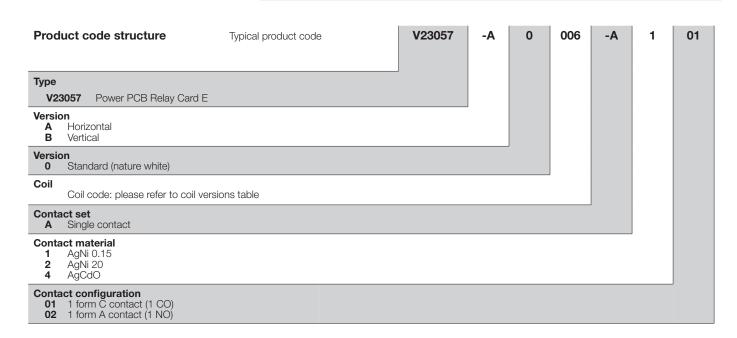
## Dimensions







# Power PCB Relay Card E (Continued)



| Product code      | Version    | Contact arrrangement  | Contact material | Coil  | Part Number |
|-------------------|------------|-----------------------|------------------|-------|-------------|
| V23057-A0002-A101 | Horizontal | 1 form C (CO) contact | AgNi 0.15        | 12VDC | 1393215-4   |
| V23057-A0002-A401 |            |                       | AgCdO            |       | 1393215-9   |
| V23057-A0006-A101 |            |                       | AgNi 0.15        | 24VDC | 2-1393215-1 |
| V23057-A0006-A201 |            |                       | AgNi 20          |       | 2-1393215-3 |
| V23057-A0006-A401 |            |                       | AgCdO            |       | 2-1393215-5 |
| V23057-B0001-A101 | Vertical   |                       | AgNi 0.15        | 6VDC  | 6-1393215-6 |
| V23057-B0002-A101 |            |                       |                  | 12VDC | 6-1393215-7 |
| V23057-B0002-A201 |            |                       | AgNi 20          |       | 6-1393215-9 |
| V23057-B0002-A401 |            |                       | AgCdO            |       | 7-1393215-1 |
| V23057-B0006-A101 |            |                       | AgNi 0.15        | 24VDC | 7-1393215-5 |
| V23057-B0006-A102 |            | 1 form A (NO) contact |                  |       | 7-1393215-9 |
| V23057-B0006-A201 |            | 1 form C (CO) contact | AgNi 20          |       | 8-1393215-1 |
| V23057-B0006-A401 |            |                       | AgCdO            |       | 8-1393215-5 |
| V23057-B0006-A402 |            | 1 form A (NO) contact |                  |       | 8-1393215-6 |
| V23057-B0023-A201 |            | 1 form C (CO) contact | AgNi 20          | 60VDC | 2-1415543-8 |

This list represents the most common types and does not show all variants covered by this data sheet.

Other types on request