

**Power PCB Relay U/UB**

- 1 pole 7 A, mono or bistable
- 1 CO or 1 NO or 1 NC contact
- Bistable and DC-version
- Wash tight version
- Version for 10 A on request



**Applications**

Heating control, installation, battery powered equipment

F0153-C

**Approvals**

**UL** E194065

Technical data of approved types on request

**Contact data**

Contact configuration	1 CO, 1 NO or 1 NC
Contact set	single contact
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 V
Rated current	standard and bistable: 7 A sensitive: 5 A
Maximum breaking capacity AC	standard and bistable: 1750 VA sensitive: 1250 VA
Limiting making capacity, max 4 s, duty factor 10%	12 A
Contact material	AgNi 90/10
Rated frequency of operation with / without load	10/300 min <sup>-1</sup>
Operate- / reset time	5/3 ms
Operate- / release time	standard: typ. 5/3 ms sensitive: typ. 7/3 ms
Bounce time NO / NC contact	typ. 2/10 ms

**Contact ratings**

Type	Contact	Load	Ambient temp. [°C]	Cycles
UL 508				
all	CO/NO/NC	7 A, 250 VAC, general purpose,	40°C	6.000

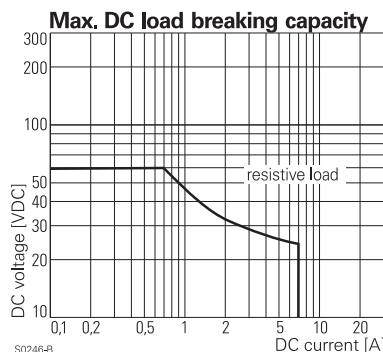
**Coil data**

	monostable	sensitive
Rated coil voltage range DC coil	6 ... 48 VDC	
Operative range to IEC 61810	2	

**Coil versions, DC-coil**

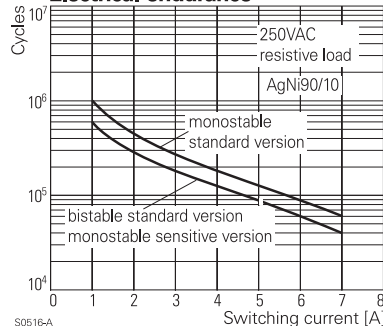
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
<b>standard coil</b>					
003	6	4.2	0.6	80±10%	450
005	12	8.4	1.2	320±10%	450
007	24	16.8	2.4	1280±10%	450
008	48	33.6	4.8	3800±10%	606
<b>sensitive coil</b>					
103	6	4.4	0.6	110±10%	327
105	12	8.8	1.2	440±10%	327
107	24	17.5	2.4	1780±10%	324
108	48	35.0	4.8	4000±10%	576

All figures are given for coil without preenergization, at ambient temperature +23°C  
Other coil voltages on request



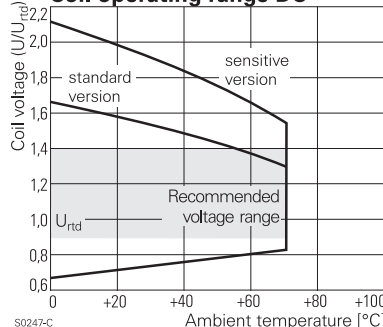
S0246-B

**Electrical endurance**



S0516-A

**Coil operating range DC**



S0247-C

**Power PCB Relay U/UB (Continued)**

**Coil data**

Rated coil voltage range	6 ... 48 VDC
Rated operate power	900...1300 mW / 20 ms
Reset voltage min., % of rated coil voltage	25%
Reset voltage max., % of rated coil voltage	45%

**bistable**

**Coil versions, bistable**

Coil code	Rated voltage VDC	Operate voltage VDC	Reset voltage VDC	Coil resistance Ohm	Rated coil power mW
003	6	4.7	1.5	33±10%	1091
005	12	9.4	3.0	119±10%	1210
007	24	18.7	6.0	475±10%	1213
008	48	37.4	12.0	1750±10%	1317

All figures are given for coil without preenergization, at ambient temperature +23°C  
Other coil voltages on request

**Insulation**

Dielectric strength coil-contact circuit	2000 V <sub>rms</sub> version V23148-*0*** 4000 V <sub>rms</sub> version V23148-*1***
open contact circuit	1000 V <sub>rms</sub>
Clearance / creepage coil-contact circuit	≥ 2.5 / 2.5 mm version V23148-*0*** ≥ 3.5 / 3.5 mm version V23148-*1***
Material group of insulation parts	≥ IIIa
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	basic
open contact circuit	micro disconnection
Rated insulation voltage	250 V
Pollution degree	2
Rated voltage system	230 / 400 V
Overvoltage category	II

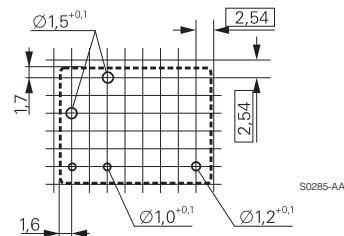
**Other data**

Mechanical endurance	20x10 <sup>6</sup> cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per produc date code 0402
Environment	
Ambient temperature range	-25...+70°C
Vibration resistance (function) NO / NC contact	10 / 10 g
Shock resistance (function) NO / NC contact	10 / 10 g
Category of protection	RT III - wash tight
Processing	
Resistance to soldering heat wash-tight version	260°C / 5 s
Relay weight	9.5 g
Packaging unit	25 pcs

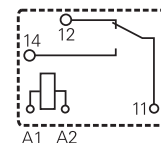
**PCB layout / terminal assignment**

Bottom view on solder pins

Monostable and bistable 1 coil

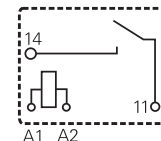


CO contact



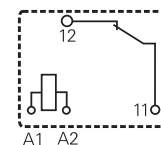
S0285-AB

NO contact



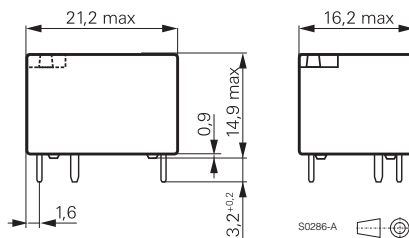
S0285-AC

NC contact



S0285-AD

**Dimensions**



**Power PCB Relay U/UB (Continued)**

<b>Product key</b>	Typical product key		<b>V23148</b>	<b>-A</b>	<b>0</b>	<b>0</b>	<b>07</b>	<b>-A</b>	<b>101</b>
<b>Type</b>	<b>V23148</b> Power PCB Relay U/UB								
<b>Version</b>	<b>A</b> monostable (Miniature power relay U) <b>B</b> bistable (Miniature power relay UB, remanence version)								
<b>Dielectric strength coil-contact</b>	<b>0</b> 2 kV <sub>rms</sub>		<b>1</b> 4 kV <sub>rms</sub>						
<b>Version</b>	<b>0</b> monostable standard <b>1</b> sensitive		<b>0</b> bistable standard						
<b>Coil</b>	<b>03</b> 6 VDC <b>05</b> 12 VDC		<b>07</b> 24 VDC <b>08</b> 48 VDC						
<b>Contact configuration</b>	<b>A</b> 1 CO contact (1 form C) <b>B</b> 1 NO contact (1 form A)		<b>C</b> 1 NC contact (1 form B)						
<b>Contact material</b>	<b>101</b> AgNi10								

Other types on request

Product key	Version	Dielectric	Version	Configuration	Coil	Part number
V23148-A0003-A101	monostable	2000 V <sub>rms</sub>	standard	1 CO contact	6 VDC	1393203-4
V23148-A0003-B101	relay 'U'	contact-coil		1 NO contact		1393203-5
V23148-A0005-A101	AgNi10			1 CO contact	12 VDC	1393203-8
V23148-A0005-B101				1 NO contact		1393203-9
V23148-A0007-A101				1 CO contact	24 VDC	1-1393203-1
V23148-A0007-B101				1 NO contact		1-1393203-2
V23148-A0008-A101				1 CO contact	48 VDC	1-1393203-4
V23148-A0105-A101			sensitive		12 VDC	2-1393203-1
V23148-A0107-A101					24 VDC	2-1393203-4
V23148-A1005-A101		4000 V <sub>rms</sub>	standard		12 VDC	2-1393203-7
V23148-A1007-A101		contact-coil			24 VDC	2-1393203-8
V23148-A1105-A101			sensitive		12 VDC	2-1393203-9
V23148-A1107-A101					24 VDC	3-1393203-1
V23148-B0003-A101	bistable	2000 V <sub>rms</sub>	standard		6 VDC	1393204-4
V23148-B0005-A101	relay 'UB'	contact-coil			12 VDC	1393204-7
V23148-B0007-A101	AgNi10				24 VDC	1-1393204-0
V23148-B0008-A101					48 VDC	1-1393204-3