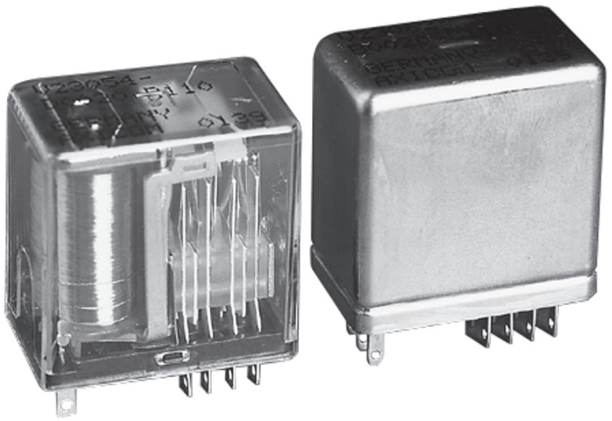
Cradle S Relay V23054/V23062

- **Strong magnet system and wide voltage range**
- **Highly reliable**
- **Contacts for signal loads and currents up to 5A**
- **DC coils operating voltage 6VDC to 220VDC; AC, latching and non-latching coils on request**
- **Multi purpose relay**
- **Great variety of contact arrangements and materials to meet specific applications**
- **Sockets for easy and quick mounting of relays**

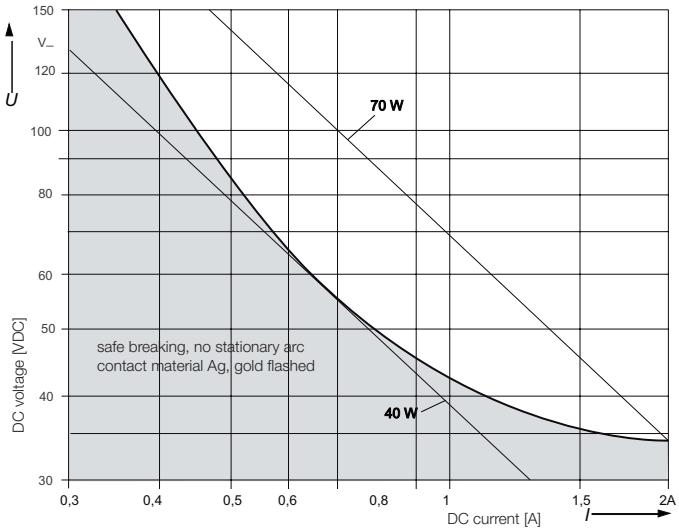


Typical applications
Press controls with high safety requirements (forcibly guided springs), traffic and railroad signalling, motor vehicle traffic controls, power plants and nuclear power plants controls

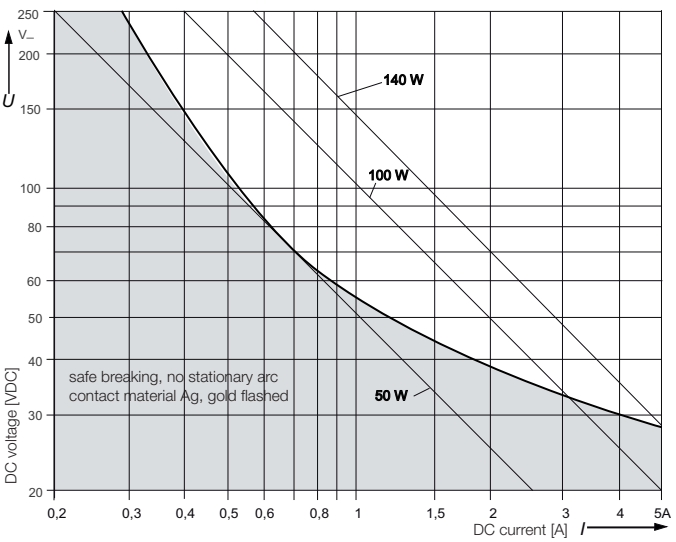
Contact Data

Product code block 3	B104/B110/ B112/B133	B604/B610/ B612/B633	C104/C110/ C112/C133	C404/C410/ C422/C433	F104/F105/ F110
Contact arrangement	max. 6 form C (6 CO) contacts or 6 form A (6 NO) contacts (see product code table)				
Max. switching voltage	150VDC 125VAC	36VDC 30VAC	150VDC 125VAC	36VDC 30VAC	260VDC 250VAC
Rated current	2A	0.2A	2A	0.2A	5A
Limiting continuous current at max. ambient temperature	2A	2A	2A	2A	5A
Breaking capacity max.	35 to 70W	5W, 5VA	35 to 70W	5W, 5VA	50 to 140W
see DC load breaking capacity curve below	50VA	-	50VA	-	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.	50 ops./s	max. 50 ops./s	max. 50 ops./s	max. 50 ops./s	max. 10 ops./s
Operate / release time typ.	16/2ms	16/2ms	16/2ms	16/2ms	16/2ms
Mechanical endurance	app. 10^7 ops.	app. 10^7 ops.	app. 10^7 ops.	app. 10^7 ops.	app. 10^7 ops.

Max. DC breaking capacity, contact sets B1xx, C1xx



Max. DC breaking capacity, contact sets F1xx



03-2012, Rev. 0312
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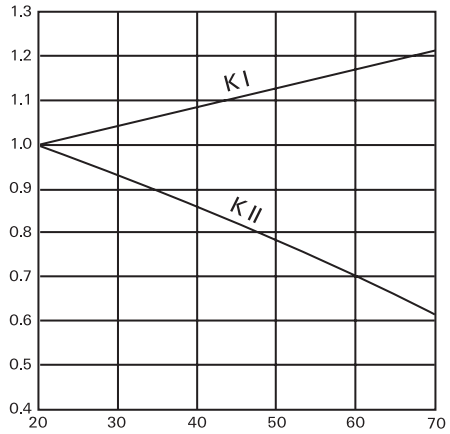
Cradle S Relay V23054/V23062 (Continued)

Coil Data	
Magnetic system	neutral
Coil voltage range	6 to 220 VDC, 1000 - 2000mW power consumption
Max. coil temperature	100 °C
Thermal resistance	< 40K/W

Coil versions, DC coil, monostable

Coil code	Rated voltage VDC	Operate/Limiting voltage[1)] VDC	Coil resistance Ω ± 10%	Rated coil power mW
011	6	-	33	1091
012	8.4	-	70	1008
015	12	-	130	1108
016	12.5	-	185	845
017	16	-	270	948
019	20	-	390	1026
020	24	-	630	914
002	1.2	-	1.75	823
025	28	-	800	980
046	29	-	890	945
021	32	-	1050	975
022	45	-	1900	1066
026	60	-	3800	947
014	76	-	5800	996
004	110	-	9200	1315
013	125	-	15500	1008
003	220	-	25000	1936

1) See part code table.
All figures are given for coil without pre-energization, at ambient temperature +23°C.



Terminals:
coil with 1 winding: start 4, end 1
coil with 2 windings (upon request):
start 3, end 2 for winding I, start 4, end 1 for winding II

The minimum voltage U_I depends on the contact set and the ambient temperature, the maximum voltage U_{II} only depends on the ambient temperature.
Between minimum voltage $U_{I\ tamb}$ and operating voltage U a safety margin of approx. 20% is recommended.

$U_{I\ tamb}$ (1.2)	$< U_I \leq U_{II}$ tamb
$U_{I\ tamb}$	$U_I \cdot U20\ °C \cdot k_{I\ tamb}$
$U_{II\ tamb}$	$U_{II}\ 20\ °C \cdot k_{II\ tamb}$
tamb	Ambient temperature
U	Operating voltage
$U_{I\ tamb}$	Minimum voltage at ambient temperature, tamb
$U_{II\ tamb}$	Maximum voltage at ambient temperature, tamb
k_I and k_{II}	Factors

Insulation Data	B1xx,B6xx,C1xx,C4xx	F1xx
Initial surge withstand voltage		
between open contacts	$500V_{rms}$	$500V_{rms}$
between contact and coil	$500V_{rms}$	$1000V_{rms}$
between adjacent contacts	$500V_{rms}$	$1000V_{rms}$
Initial insulation resistance, at 500VDC	$> 10^6\Omega$	

Other Data	
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-40 to +70°C
Category of environmental protection	
IEC 61810	RT I - dust protected, RT V - hermetically sealed
Degree of protection, IEC 60529	dust-protected IP 30, or hermetically sealed IP 67
Terminal type	PCB, solder terminals
Weight	
V23054 Size I	approx. 20g
V23054 Size II	approx. 25g
V23054Size III	approx. 27g
V23062 Size I	approx. 30g
V23062 Size II	approx. 35g
Washing	not recommended
Ultrasonic cleaning	not recommended
Packaging unit	5 pcs.

Accessories	
For details see datasheet	Cradle Relay, Accessories and Mounting

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