

## MRC series

### C3-X1x

#### 11-pin power relay, 1-pole, double make, according to IEC 67-I-18a

<b>Type</b>	<b>C3-X1x/ ... V</b> Power relays for DC application 1 pole, NO, double make			
<b>Maximum contact load</b>	<b>10 A/250 V AC 1</b>	<b>7 A/110 V DC1</b>		
	<b>10 A/30 V DC 1</b>	<b>1,2 A/220 V DC1</b>		
<b>Contacts</b>				
Material	Standard	Code 0	AgNi	
Rated current	10 A			
Switch-on current max. (20 ms)	30 A			
Switching voltage max.	250 V			
AC load	2,5 kVA			
DC load	see Fig. 2			

<b>Coil</b>				
Coil resistance	see table; tolerance $\pm 10\%$			
Pick-up voltage	$\geq 0,8 \times U_N$			
Release voltage	$\geq 0,1 \times U_N$			
Nominal power	2,4 VA (AC)/1,3 W (DC)			

<b>Coil table</b>	<b>VAC</b>	<b><math>\Omega</math></b>	<b>mA</b>	<b>VDC</b>	<b><math>\Omega</math></b>	<b>mA</b>
	24	65	100	24	443	54
	48	286	50	48	1K7	27
	115	1K7	21	110	9K2	12
	230	6K8	10	220	36K1	6

<b>Insulation</b>	Volt rms, 1 min
Contact open	2500 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	$\geq 1 \text{ G}\Omega$
Insulation, IEC 61810-5	2,5 kV/3

<b>Specifications</b>	
Ambient temperature operation/storage	-40 (no ice)...60 °C / -40 ... 80 °C
Pick-up time/bounce time	20 ms/ $\leq 3$ ms
Release time/bounce time	10 ms/ $\leq 1$ ms
Mechanical life	AC: 10 Mill./DC: 20 Mill. switching cycles
AC voltage endurance at rated load	$\geq 100000$ switching cycles
Switching frequency at rated load	$\leq 1200$ /h
Protection class	IP40
Weight	90 g

**Standard types**  
**AC 50 Hz/60 Hz: 24, 48, 115, (120), 230, (240)**  
**LED**  
**RC Suppressor**

**DC 24, 48, 110, 220**  
**LED**  
**Free wheeling diode**  
**Polarity and free wheeling diode**

**AC/DC bridge rectifier 24 V, 48 V, 60 V**

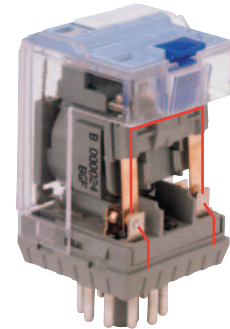
**C3-X10/AC ... V**  
**C3-X10X/AC ... V**  
**C3-X10R/AC ... V**

**C3-X10/DC ... V**  
**C3-X10X/DC ... V**  
**C3-X10DX/DC ... V**  
**C3-X10FX/DC ... V**

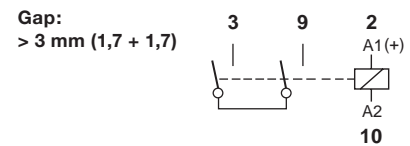
**C3-X10BX/UC ... V**

"..." Enter the voltage for full type designation

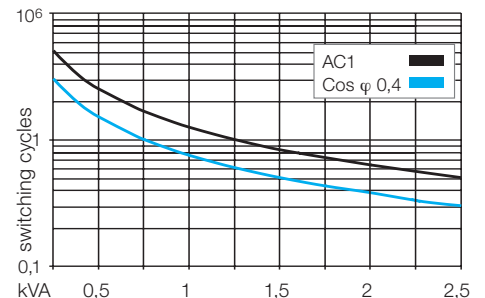
<b>Accessories</b>	
Socket:	<b>S3-B, S3-S, S3-L, S3-P, S3-P0</b>
Operational accessories (blanking plug):	<b>SO-NP, SO-OP</b>



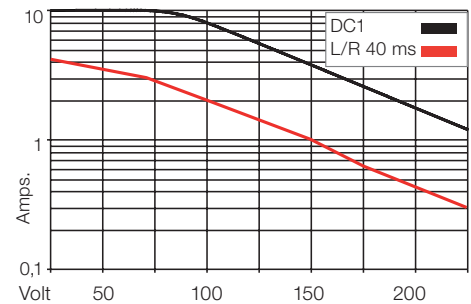
#### Connection diagram



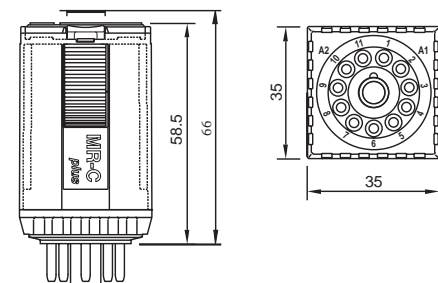
**Fig. 1 AC voltage endurance**



**Fig. 2 DC load limit curve**



#### Dimensions [mm]



#### Technical approvals, conformities



IEC 61810; EN 60947



**Kühn Controls AG**

**Notes:**

You want more information about this product, please call us: tel: +49 (0)7082-940000 or send us a fax: +49 (0)7082-940001, or email: [sales@kuehn-controls.de](mailto:sales@kuehn-controls.de) or visit our Website: [www.kuehn-controls.de](http://www.kuehn-controls.de)