

**MRC series**  
**C3-N3x**  
**11-pin standard relays, sensitive, 3-pole, according to IEC 67-I-18a**

<b>Type</b>	<b>C3-N3x/DC ... V</b> Sensitive relays, 800 mw 3 change-over contacts		
<b>Operating range</b>	<b>0,8 ... 1,4 x Un</b>		
<b>Maximum contact load</b>	<b>6 A/250 V</b>	<b>AC 1</b>	<b>6 A/30 V DC1</b>
<b>Recommended minimum contact load</b>	<b>1 mA/10 V</b> (with 10 µm Au) <b>10 mA/10 V</b> (standard contact)		

<b>Contacts</b>			
Material	Standard	Code 4	AgNi + 0,2 µ Au
	Optional	Code 8	AgNi + 10 µ Au
Rated current	6 A		
Switch-on current max. (20 ms)	15 A		
Switching voltage max.	250 V		
AC load	1,5 kVA		
DC load	see Fig. 2		

<b>Coil</b>			
Coil resistance	see table; tolerance ± 10 %		
Pick-up voltage	≥ 0,8 x U <sub>N</sub>		
Release voltage	≥ 0,1 x U <sub>N</sub>		
Nominal power	800 mW		

<b>Coil table</b>	<b>VDC</b>	<b>Ω</b>	<b>mA</b>
	24	720	33
	48	2K8	17
	60	4K5	13
	110	15K	7

<b>Insulation</b>	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
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	18 ms/≤ 3 ms
Release time/bounce time	10 ms/≤ 1 ms
Mechanical life	AC: 10 Mill./DC: 20 Mill. switching cycles
AC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/h
Protection class	IP40
Weight	90 g

<b>Standard types</b>	<b>C3-N34/DC ... V</b>	<b>C3-N38/DC ... V</b>
<b>DC 24, 48, 60, 110</b>	<b>C3-N34D/DC ... V</b>	<b>C3-N38D/DC ... V</b>
Free wheeling diode	<b>C3-N34F/DC ... V</b>	<b>C3-N38F/DC ... V</b>
Polarity and free wheeling diode		

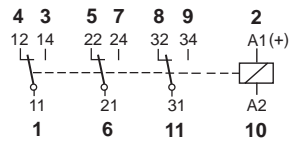
Conncting of diodes to the coil will increase the release time.  
 LED available upon request.

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

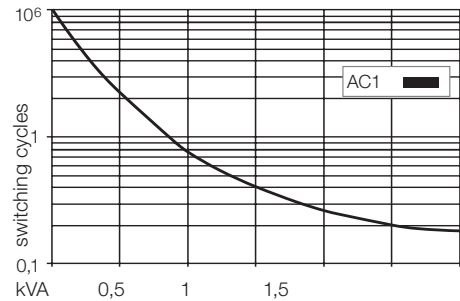
<b>Accessories</b>	
Socket:	<b>S3-B, S3-S, S3-L, S3-P, S3-P0</b>
Operational accessories (blanking plug):	<b>SO-NP, SO-OP</b>



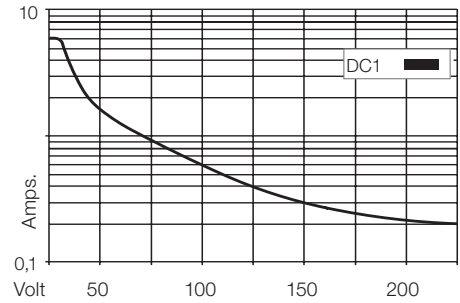
**Connection diagram**



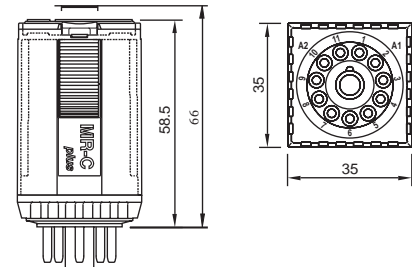
**Fig. 1 AC voltage endurance**



**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)