

# MRC series

## C5-A3x

### 11-pin, power relay, 3-pole, plug-in, faston

<b>Type</b>	<b>C5-A3x/ ... V</b> Power relays, 3 change-over contacts		
<b>Maximum contact load</b>	<b>16 A/400 V AC1</b>	<b>0,5 A/110 V DC1</b>	
	<b>16 A/30 V DC1</b>	<b>0,2 A/220 V DC1</b>	
<b>Recommended minimum contact load</b>	<b>1 mA/10 V</b> (with 10 µ Au)		
	<b>10 mA/10 V</b> (standard contact)		

<b>Contacts</b>			
Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 10 µ Au
	Optional	Code 9	AgNi + 0,2 µ Au
Rated current	16 A		
Switch-on current max. (20 ms)	40 A		
Switching voltage max.	400 V		
AC load	4 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	2,4 VA (AC)/1,4 W (DC)

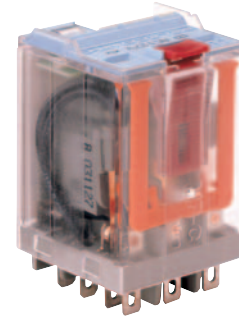
<b>Coil table</b>						
VAC	Ω	mA	VDC	Ω	mA	
24	65	100	24	414	58	
48	286	50	48	1K6	30	
115	1K7	21	110	8K1	13	
230	6K8	10	220	34K5	6,5	
400	18K8	6				

<b>Insulation</b>	
	Volt rms, 1 min
Contact open	1000 V
Contact/contact	4 kV
Contact/coil	4 kV
Insulation resistance at 500 V	≥3 GΩ
Insulation, IEC 61810-5	4 kV/3

<b>Specifications</b>	
Ambient temperature operation/storage	-40 (no ice)...60 °C / -40 ... 80 °C
Pick-up time/bounce time	20 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	95 g

<b>Standard types</b>			
<b>AC 50 Hz/60 Hz: 24, 48, 115, (120), 230, (240)</b>	<b>C5-A30/AC ... V</b>	<b>C5-A38/AC ... V</b>	<b>C5-A39/AC ... V</b>
<b>LED</b>	<b>C5-A30X/AC ... V</b>	<b>C5-A38X/AC ... V</b>	<b>C5-A39X/AC ... V</b>
<b>RC suppressor</b>	<b>C5-A30R/AC ... V</b>	<b>C5-A38R/AC ... V</b>	<b>C5-A39R/AC ... V</b>
<b>DC 24, 48, 110, 220</b>	<b>C5-A30X/DC ... V</b>	<b>C5-A38X/DC ... V</b>	<b>C5-A39/DC ... V</b>
<b>LED</b>	<b>C5-A30X/DC ... V</b>	<b>C5-A38X/DC ... V</b>	<b>C5-A39X/DC ... V</b>
<b>Free wheeling diode</b>	<b>C5-A30DX/DC ... V</b>	<b>C5-A38DX/DC ... V</b>	<b>C5-A39DX/DC ... V</b>
<b>Polarity and free wheeling diode</b>	<b>C5-A30FX/DC ... V</b>	<b>C5-A38FX/DC ... V</b>	<b>C5-A39FX/DC ... V</b>
<b>AC/DC bridge rectifier 24 V, 48 V, 60 V</b>	<b>C5-A30BX/UC ... V</b>	<b>C5-A38BX/UC ... V</b>	<b>C5-A39BX/UC ... V</b>

<b>Accessories</b>	
Socket:	<b>S5-S, S5-L, S5-P, S5-P0</b>
Operational accessories (blanking plug):	<b>SO-NP, SO-OP</b>



#### Connection diagram

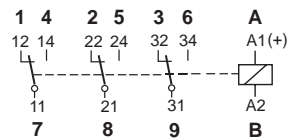


Fig. 1 AC voltage endurance

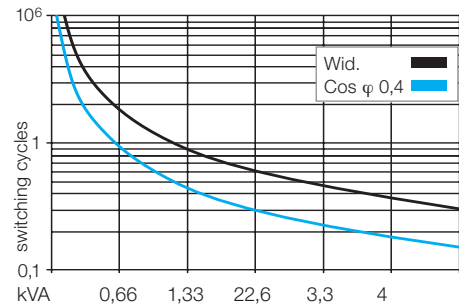
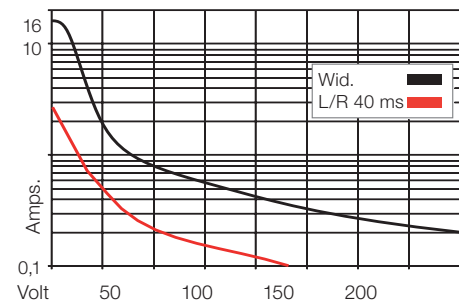
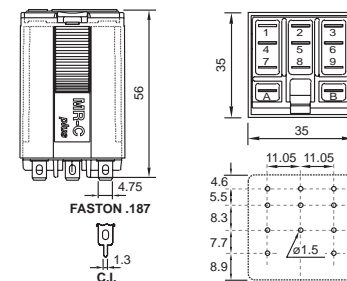


Fig. 2 DC load limit curve



#### Dimensions [mm]



#### Technical approvals, conformities



IEC 60947; IEC 61810



**Kühn Controls AG**

**Notes:**

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