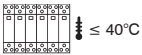
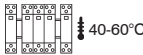


# MODULAR CONTACTOR R20-.., low noise





Technical Data acc. to IEC/EN60947-4-1, IEC/EN60947-5-1, VDE 0660

		Type	R20..
<b>Main Contacts</b> <sup>1) 2) 3)</sup>			
Rated insulation voltage $U_i$		V~	440 <sup>4)</sup>
Rated operation voltage $U_e$		V~	440
Frequency of operations $z$	AC1, AC3	1/h	300
Mechanical life		$S \times 10^6$	1
<b>Utilization category AC1 / AC7a, Switching of resistive load</b>			
Rated operational current $I_e (=I_{th})$	open	at 60°C	<b>A</b> <b>20</b>
Contact life			$S \times 10^6$ 0,1
Minimum switch voltage			V/mA 24/100
Short time current		10s-current	A 72
Power loss per pole at $I_e/AC1$			W 2
<b>Utilization category AC2 and AC3 / AC7b, Switching of three-phase motors</b>			
Rated operational power		230V	kW 1,1
Contact life			$S \times 10^6$ 0,15
<b>Power consumption of coils</b>			
AC operated		inrush	VA 7-9
		sealed	VA 2,2-4,2
			W 0,8-1,6
<b>Operation range of coils</b>			
in multiples of control voltage $U_s$		-40°C to +40°C	0,85-1,1
<b>Maximum ambient temperature</b>			
 $\leq 40^\circ\text{C}$		open	°C -40 to +60
 40-60°C		enclosed	°C -40 to +40
Lagerung			°C -50 to +90
<b>Short circuit protection</b>			
Max. fuse Coordination-type "1"		gL (gG)	A 35
Rated short circuit current		"r"	kA 3
		"Iq"	kA 3
<b>Switching time at control voltage <math>U_s \pm 10\%</math></b>			
		make time	ms 7-16
		release time	ms 6-12
		arc duration	ms 10-15
<b>Cable cross-sections</b>			
Main connector		solid or stranded	mm <sup>2</sup> 1,5-10
		flexible	mm <sup>2</sup> 1,5-6
		flexible with multicore cable end	mm <sup>2</sup> 1,5-6
Clamps per pole			1
Magnetic coil		solid or stranded	mm <sup>2</sup> 0,75-2,5
		flexible	mm <sup>2</sup> 0,5-2,5
		flexible with multicore cable end	mm <sup>2</sup> 0,5-1,5
Clamps per pole			1



Symbol

## Wiring diagrams

R20-10	
R20-20	
R20-11	
R20-02	

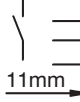

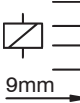

## Weight

0,12kg

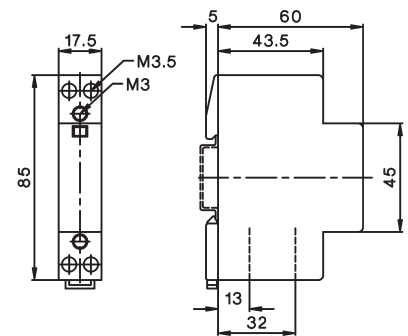
## Coil voltages $U_s$

R20-.. 230	220-240V 50Hz / 230-264V 60Hz
R20-.. 24	24V 50/60Hz
R20-.. 200FR	180-210V 50Hz / 200-240V 60Hz

## Cable cross-sections, screw driver, tightening torque

	1,5-10mm <sup>2</sup> 1,5-6mm <sup>2</sup> 16-8AWG		Pz1 (M3,5) 0,8-1,4Nm 7-12lb.inch
	0,75-2,5mm <sup>2</sup> 0,5-2,5mm <sup>2</sup> 20-14AWG		Pz1 (M3) 0,6-1,2Nm 5-11lb.inch

## Dimensions



- 1) Rated frequency 50/60Hz
- 2) Max. occ switching overvoltage < 4kV
- 3) Duty cycle: 100%
- 4) Suitable for: earthed-neutral systems, overvoltage category 1 to III, pollution degree 3 (standard-industrie):  $U_{imp} = 4kV$

Technical data are subject to change without notice

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