

3RP Timing Relays

3RT19 timing relays for mounting onto contactors

Technical specifications

According to IEC 61812-1/DIN VDE 0435 Part 2021

Type		3RT19 16-2C 3RT19 16-2D 3RT19 26-2C 3RT19 26-2D	3RT19 16-2E 3RT19 16-2F 3RT19 16-2G 3RT19 16-2L 3RT19 26-2E 3RT19 26-2F 3RT19 26-2G
Rated insulation voltage Degree of pollution 3 Overvoltage category III according to DIN VDE 0110	V AC	300	
Operating range of excitation		0.8...1.1 x U_s , 0.95 ... 1.05 times rated frequency	0.85...1.1 x U_s , 0.95...1.05 times rated frequency
Rated power Power consumption at 230 V AC, 50 Hz	W VA	1 1	2 (1 W for 3RT1916-2L) 4
Rated operational currents I_e • AC-140 and DC-13	A	0.3 for 3RT1916 0.5 for 3RT1926	--
• AC-15 at 24 ... 400 V AC, 50 Hz	A	--	3
• DC-13 at 24 V	A	--	1
• DC-13 at 125 V	A	--	0.2
• DC-13 at 250 V	A	--	0.1
DIAZED fuse gL/gG operational class	A	--	4
Switching frequency • When loaded with I_e 230 V AC • When loaded with 3RT1016 contactor, 230 V AC	1/h 1/h	2500 2500	2500 5000
Recovery time	ms	50	150
Minimum ON period	ms	35	200 (OFF-delay, without auxiliary voltage) 3RT1916-2L: 35 (OFF-delay, with auxiliary voltage)
Residual current (two-wire)	mA	≤ 5	--
Voltage drop with conducting output	VA	≤ 3.5	--
Short-time loading capacity	A	10 (to 10 ms)	--
Setting accuracy with reference to upper limit of scale		≤ ± 15 %	
Repeat accuracy		≤ ± 1 %	
Mechanical endurance Operating cycles		100 x 10 ⁶	10 x 10 ⁶
Permissible ambient temperature During operation During storage	°C °C	-25 ... +60 -40 ... +85	
Degree of protection according to EN 60529		IP 40 cover IP 20 terminals	
Conductor cross-sections • Solid	mm ²	2 x (0.5 ... 1.5) ¹⁾ 2 x (0.75 ... 4) ¹⁾	
• Finely stranded with end sleeve	mm ²	2 x (0.5 ... 2.5)	
• Solid or stranded	AWG	2 x (18 ... 14)	
Terminal screw		M3	
Tightening torque	Nm	0.8 ... 1.2	
Permissible mounting position		Any	
Shock resistance Half-sine according to IEC 60068-2-27	g/ms	15/11	
Vibration resistance according to IEC 60068-2-6	Hz/mm	10 ... 55 / 0.35	
EMC tests according to basic specification		IEC 61000-6-2/IEC 61000-6-4	
Overvoltage protection Varistor		Integrated into timing relay	Integrated into 3RT19 16

¹⁾ If two different conductor cross-sections are connected to one clamping point, both cross-sections must lie in the range specified. If identical cross-sections are used, this restriction does not apply.