

3RP1/3RP2 Time relays – electronic 3RP20 Time relays in the SIRIUS design, 45 mm

Function	Contact elements	Time range	Control supply voltage	Order No.	List Price \$
8 functions	1 CO (changeover contact)	0.05 s–100 h	AC DC 24 100–127 V AC	3RP2005-□AQ30	
8 functions	1 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP2005-□AP30	
On delay	1 CO	0.05 s–100 h	AC DC 24 100–127 V AC	3RP2025-□AQ30	
On delay	1 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP2025-□AP30	
16 functions	2 CO	0.05 s–100 h	24–240 V AC DC	3RP2005-□BW30	

3RP1/3RP2 Time relays – electronic 3RP15 Time relays in an industrial housing, 22.5 mm

8 functions	1 CO (changeover contact)	0.05 s–100 h	12 V DC	3RP1505-□AA40	
8 functions	1 CO	0.05 s–100 h	AC DC 24 100–127 V AC	3RP1505-□AQ30	
8 functions	1 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP1505-□AP30	
8 functions	1 CO	0.05 s–100 h	24–240 V AC DC	3RP1505-□AW30	
8 functions	2 CO	0.05 s–100 h	24–240 V AC DC	3RP1505-□RW30 ¹⁾	
16 functions	2 CO	0.05 s–100 h	AC DC 24 100–127 V AC	3RP1505-□BQ30	
16 functions	2 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP1505-□BP30	
16 functions	2 CO	0.05 s–100 h	24–240 V AC DC	3RP1505-□BW30	
16 functions	2 CO	0.05 s–100 h	400–440 V AC	3RP1505-1BT20 ²⁾	
On delay	1 CO	0.5–10 s	AC DC 24 100–127 V AC	3RP1511-□AQ30	
On delay	1 CO	0.5–10 s	AC DC 24 200–240 V AC	3RP1511-□AP30	
On delay	1 CO	1.5–30 s	AC DC 24 100–127 V AC	3RP1512-□AQ30	
On delay	1 CO	1.5–30 s	AC DC 24 200–240 V AC	3RP1512-□AP30	
On delay	1 CO	5–100 s	AC DC 24 100–127 V AC	3RP1513-□AQ30	
On delay	1 CO	5–100 s	AC DC 24 200–240 V AC	3RP1513-□AP30	
On delay	1 CO	0.05 s–100 h	AC DC 24 100–127 V AC	3RP1525-□AQ30	
On delay	1 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP1525-□AP30	
On delay	2 CO	0.05 s–100 h	42–48 60 V AC DC	3RP1525-□BR30	
On delay	2 CO	0.05 s–100 h	AC DC 24 100–127 V AC	3RP1525-□BQ30	
On delay	2 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP1525-□BP30	
On delay	2 CO	0.05 s–100 h	24–240 V AC DC	3RP1525-□BW30	
On delay, 2-wire	1 NO contact, solid-state	0.05–240 s	24–66 V AC DC	3RP1527-□EC30	
On delay, 2-wire	1 NO contact, solid-state	0.05–240 s	90–240 V AC DC	3RP1527-□EM30	
Off delay with auxiliary voltage	1 CO	0.5–10 s	AC DC 24 100–127 V AC	3RP1531-□AQ30	
Off delay with auxiliary voltage	1 CO	0.5–10 s	AC DC 24 200–240 V AC	3RP1531-□AP30	
Off delay with auxiliary voltage	1 CO	1.5–30 s	AC DC 24 100–127 V AC	3RP1532-□AQ30	
Off delay with auxiliary voltage	1 CO	1.5–30 s	AC DC 24 200–240 V AC	3RP1532-□AP30	
Off delay with auxiliary voltage	1 CO	5–100 s	AC DC 24 100–127 V AC	3RP1533-□AQ30	
Off delay with auxiliary voltage	1 CO	5–100 s	AC DC 24 200–240 V AC	3RP1533-□AP30	
Off delay without auxiliary voltage	1 CO	0.05–600 s	24 V AC DC	3RP1540-□AB31	
Off delay without auxiliary voltage	1 CO	0.05–600 s	100–127 V AC DC	3RP1540-□AJ31	
Off delay without auxiliary voltage	1 CO	0.05–600 s	200–240 V AC DC	3RP1540-□AN31	
Off delay without auxiliary voltage	1 CO	0.05–600 s	24–240 V AC DC	3RP1540-□AW31	
Off delay without auxiliary voltage	2 CO	0.05–600 s	24 V AC DC	3RP1540-□BB31	
Off delay without auxiliary voltage	2 CO	0.05–600 s	100–127 V AC DC	3RP1540-□BJ31	
Off delay without auxiliary voltage	2 CO	0.05–600 s	200–240 V AC DC	3RP1540-□BN31	
Off delay without auxiliary voltage	2 CO	0.05–600 s	24–240 V AC DC	3RP1540-□BW31	
Clock-pulse relay	1 CO	0.05 s–100 h	42–48 60 V AC DC	3RP1555-□AR30	
Clock-pulse relay	1 CO	0.05 s–100 h	AC DC 24 100–127 V AC	3RP1555-□AQ30	
Clock-pulse relay	1 CO	0.05 s–100 h	AC DC 24 200–240 V AC	3RP1555-□AP30	
Star delta with run-on function	3 x 1 NO contact	1–20 s, 30–600 s (run-on)	AC DC 24 100–127 V AC	3RP1560-□SQ30	
Star delta with run-on function	3 x 1 NO contact	1–20 s, 30–600 s (run-on)	AC DC 24 200–240 V AC	3RP1560-□SP30	
Star delta	1 NO contact + 1 NO contact	1–20 s	AC DC 24 100–127 V AC	3RP1574-□NQ30	
Star delta	1 NO contact + 1 NO contact	1–20 s	AC DC 24 200–240 V AC	3RP1574-□NP30	
Star delta	1 NO contact + 1 NO contact	3–60 s	AC DC 24 100–127 V AC	3RP1576-□NQ30	
Star delta	1 NO contact + 1 NO contact	3–60 s	AC DC 24 200–240 V AC	3RP1576-□NP30	

¹⁾ Positively-driven and hard-gold-plated relay contacts

²⁾ This device is only available with screw terminals

Screw terminal 1
Cage Clamp terminal 2

Function Relays, Interfaces and Converters

Solid-State Time Relays

SIRIUS
RELAYS

3RP20/3RP15/7PV

Technical data acc. to IEC 61 812-1/DIN VDE 0435 Part 2021

Type		3RP20 05 3RP20 25	3RP15 05 3RP15 31 3RP15 32 3RP15 33	3RP15 11 3RP15 12 3RP15 13 3RP15 25 3RP15 55	3RP15 40	3RP15 60	3RP15 74 3RP15 76	3RP15 27	
Rated insulation voltage Pollution degree 3 Overvoltage category III acc. to DIN VDE 0110	AC V	300; 500 for 3RP15 05-1BT20							
Working range of excitation 1)		0.85 to 1.1 x U_s for AC; 0.8 to 1.25 x U_s for DC 0.95 to 1.05 x rated frequency							
Rated power Power consumption at 230 V AC, 50 Hz	W VA	1 4	2 6	2 6	2 2 ²⁾	2 6	2 6	1 1	
Rated operational current I_e AC-15 at AC 230 V, 50 Hz AC-14; DC-13 DC-13 at 24 V DC-13 at 48 V DC-13 at 60 V DC-13 at 110 V DC-13 at 230 V	A	3 ³⁾ – 1 0.45 0.35 0.2 0.1							– 0.01 to 0.6 – – – – –
Required DIAZED fuse 4) Utilisation category	g/L/gG A	4							–
Operating frequency • when loaded with I_e AC 230 V • when loaded with 3RT10 16 contactor, AC 230 V	1/h 1/h	2500 5000							5000 5000
Recovery time	ms	150 ⁵⁾				300	150	50	
Minimum ON period	ms	35	35 ⁶⁾	–	200 ⁷⁾	–	–	–	
Off-state current with non-conducting output	mA	–							≤5
Voltage drop with conducting output	V	–							≤3.5
Short-time loading capacity	A	–							10 (up to 10 ms)
Setting accuracy referred to upper limit of scale		typical ± 5 %							
Repeat accuracy		≤ v ± 1 %							
Mechanical endurance	operating cycles	30 x 10 ⁶							100 x 10 ⁶
Permissible ambient temperature	in operation when stored	°C °C	–25 to +60 –40 to +85						
Degree of protection acc. to EN 60 529		cover IP 40 terminals IP 20							
Conductor cross-sections	Main conductors, auxiliary conductors								
• Screw connection (to connect 1 or 2 conductors for standard screwdriver size 2 and Pozidriv 2)	solid	mm ²	2 x (0.5 to 1.5) 2 x (0.75 to 4)	1 x (0.5 ... 4) 2 x (0.5 ... 2.5)					
	finely stranded with end sleeve	mm ²	2 x (0.5 to 2.5)	1 x (0.5 ... 2.5) 2 x (0.5 ... 1.5)					
	solid or stranded AWG conductors	AWG	2 x (18 to 14)	2 x (20 ... 14)					
	terminal screw		M 3	M 3.5					
• Cage Clamp connection (1 or 2 wire connection; for 22.5 mm time-delay relay use screwdriver with blade width 3 mm or 8WA2 803 opening tool)	solid	mm ²	2 x (0.25 to 2.5)	2 x (0.25 ... 1.5)					
	finely stranded	mm ²	2 x (0.25 to 1)	2 x (0.25 ... 1)					
	• with end sleeve	mm ²	2 x (0.25 to 1)	2 x (0.25 ... 1.5)					
	• without end sleeve	mm ²	2 x (0.25 to 1.5)	2 x (0.25 ... 1.5)					
	solid or stranded AWG conductors	AWG	2 x (24 to 14)	2 x (24 ... 16)					

1) If nothing else is stated.

2) Maximum inrush current 1 A/100 ms.

3) For 3RP15 05-R: NC contact → $I_e = 1$ A

4) Without any welds acc. to IEC 60 947-5-1.

5) With 3RP15 05-.BW30/ .AW30/ .RW30 and
3RP15 25-.BW30, 10 to 250 ms, voltage-
dependent.

6) Minimum ON period with 3RP15 00-.BW30, 150
ms until instantaneous contact has switched.

7) For correct operation, observe minimum ON
period.

Technical data acc. to IEC 61 812-1/DIN VDE 0435 Part 2021

Type	3RP20 05 3RP20 25	3RP15 05 3RP15 31 3RP15 32 3RP15 33	3RP15 11 3RP15 12 3RP15 13 3RP15 25 3RP15 55	3RP15 40	3RP15 60	3RP15 74 3RP15 76	3RP15 27
Permissible mounting position	any						
Shock resistance Half sine acc. to IEC 60 068-2-27	g/ms	15/11					
Vibration performance acc. to IEC 60 068-2-6	Hz/mm	10-55 / 0.35					
EMC tests acc. to basic specification	IEC 61 000-6-2 / EN 50 081-1						

Type	7PV33 48	7PV41 48	7PV43 48
Rated insulation voltage Overvoltage category C acc. to DIN VDE 0110	AC V	250	
Working range of excitation	+ 10 ... - 15 %	24 V: - 15 ... + 30 % 115/230 V: - 15 ... + 10 %	
Rated power Power consumption at AC 230 V, 50 Hz	W VA	1 11	
Rated operational current I_e AC-1 at AC 230 V, 50 Hz	A	8	
Operating frequency • when loaded with I_e , AC 230 V • when loaded with 3RT10 16 contactor, AC 230 V	1/h 1/h	600	
Recovery time	ms	50	100
Minimum ON period	ms	50	100
Setting accuracy with reference to upper limit of scale		± 0.03 %, ± 10 ms	± 10 %
Repeat accuracy		± 0.03 %, ± 10 ms	± 2 %
Mechanical endurance operating cycles		5 x 10 ⁶	2 x 10 ⁷
Permissible ambient temperature in operation when stored	°C °C	- 10 ... +60 - 30 ... +70	- 20 ... +60 - 25 ... +70
Degree of protection acc. to EN 60 529		IP 65	IP 50
Permissible mounting position		any	