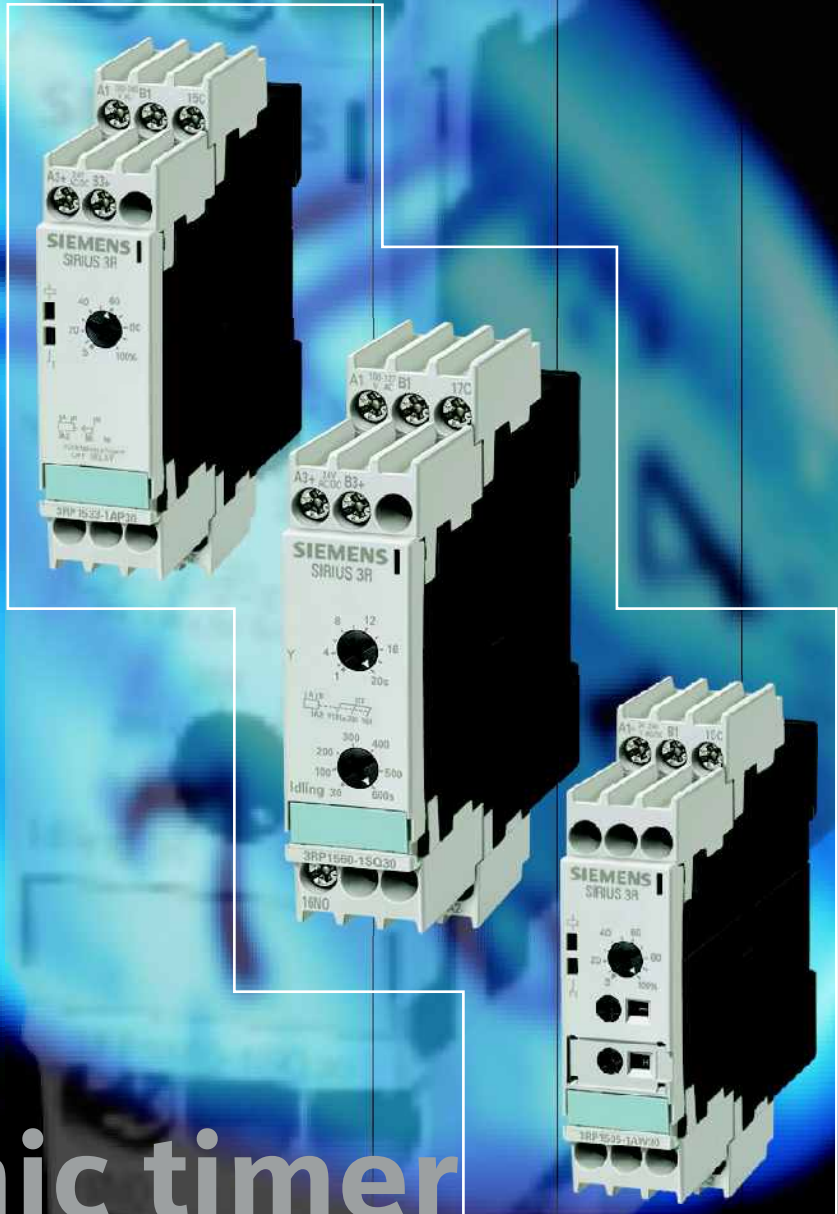


A timed perfection



Datasheet

# electronic timer TYPE 3RP



**SIEMENS**

## Introduction

Siemens introduces the new generation 3RP electronic timers to meet the various control timing requirements of industry. These timers comply with IEC 60 947-5-1 IEC 61 000-6-2/EN 50 081-1 (EMC) Carry CE marking

## Range

- ON delay:** Discrete time / Discrete voltage.  
Universal time (0.05sec to 100Hrs) / Discrete voltage  
Universal time / Universal voltage (20-240V AC/DC)
- OFF delay:** 0.5sec to 100 sec, Discrete voltage
- Star Delta:** 2 – 60 seconds with 50 msec changeover delay
- Multifunction:** 1 timer 8 functions (ON delay, OFF delay, ON+OFF delay, Cyclic, Make Contact, Break contact, Pulse shaping, Additive ON delay), with universal time and universal voltage

## Application

3RP15 electronic timers can be used for all delayed switching applications in control, starting and protection circuits. They are ideal for use in application like machine tools, material handling, process control and motor control.

With multifunction timer, you can configure the same timer as per your application need. Thus one timer is suited for many applications (refer timing diagram)

## Benefits

- **Reduction in inventory cost** (upto 80%) due to universal time and universal voltage ON delay timers.
- **High accuracy** (<±1% repeat accuracy & <±5% setting accuracy) and switching reliability.
- **High mechanical endurance** of 30x10<sup>6</sup> operations ensures trouble free operation
- **Integral surge suppression** – No voltage surges during switching makes them ideal for use with electronic circuits
- Clear visual **status indication** through 2 separate LEDs both for actuation of control supply and the change over status.
- High level of Electromagnetic compatibility (EMC) i.e. maximum immunity to interferences.
- **No more failures** of contactors in Star Delta starting during changeover
- **Sleek 22.5mm wide** housing and compact design saves panel space.

Thus 3RP timers ensure unmatched reliability and offer excellent 'Value for Money'

## Configuration

- Changing the time setting ranges and the functions will only be effective when carried out in de-energised (OFF) state.
- Start input B1 or B3 must only be triggered when the supply voltage is applied.
- OFF delay timers are with aux. voltage (refer wiring diagram fig.1). Same potential must be applied to A1 and B1, or A3 and B3.
- With the two-voltage version, only one voltage range must be connected.
- The activation of loads parallel to the start input is not permissible when using AC control voltage (see diagram below).

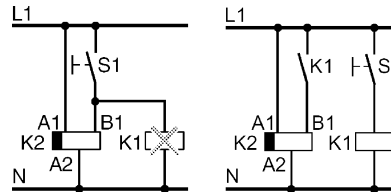
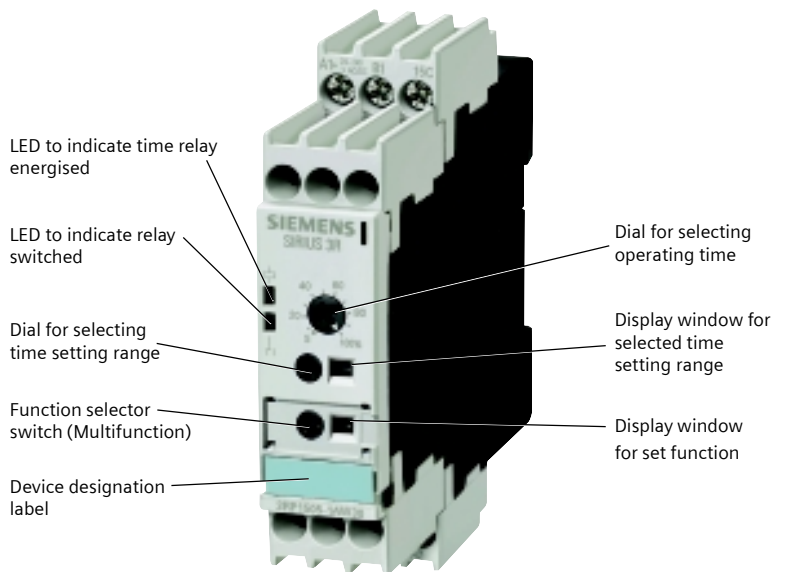


fig.1

## Mounting

3RP electronic timers are suitable for snap mounting onto 35 mm standard DIN rails. Accessory for mounting 3RP timers on base plate is available and can be ordered separately.

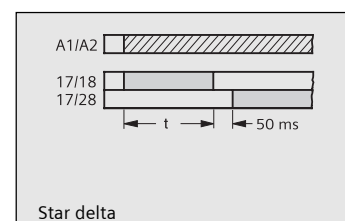
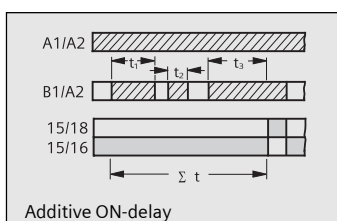
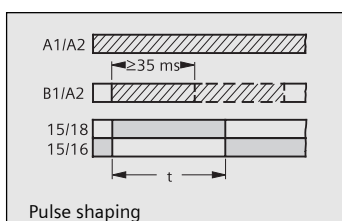
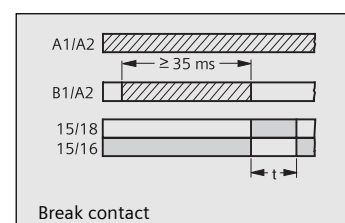
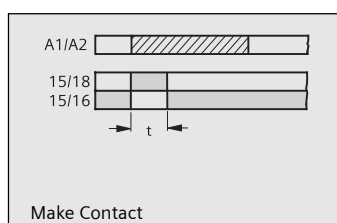
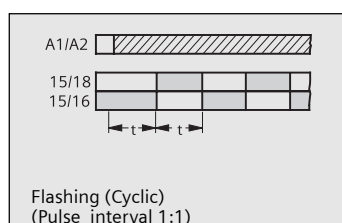
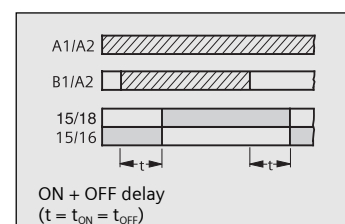
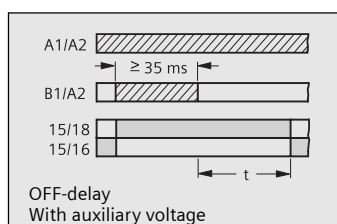
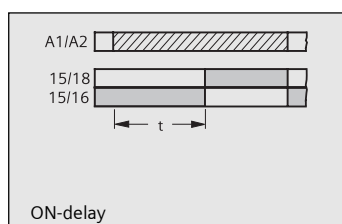
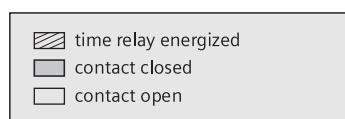
## Layout



## Technical data

Type			3RP15 05	3RP15 11	3RP15 76
			3RP15 31	3RP15 13	
				3RP15 33	3RP15 25
<b>Rated insulation voltage</b> (Pollution degree 3) Overvoltage category III acc. to DIN VDE 0110	V AC	300			
<b>Permissible ambient temperature</b>	during operation	°C	-25 to +60		
	during storage	°C	-40 to +85		
<b>Mechanical endurance</b>	operating cycles	30 x 10 <sup>6</sup>			
<b>Rated operational currents I<sub>e</sub></b> AC-15 at 230 V AC, 50 Hz DC-13 at 24 V DC-13 at 110 V DC-13 at 230 V	A	3			
	A	1			
	A	0.2			
	A	0.1			
<b>Control voltage tolerance</b>	V	0.85 - 1.1 x U <sub>s</sub> for AC; 0.8 - 1.25 x U <sub>s</sub> for DC			
	Hz	0.95 to 1.05 x rated frequency			
<b>Operating frequency</b> at rated current I <sub>e</sub> , 230 V AC	1/h	2500			
<b>Setting accuracy</b> referred to upper limit of scale			< ±5%		
<b>Repeat accuracy</b>			< ±1%		
<b>Recovery time</b> Minimum ON period	ms	150			
	ms	35			
<b>Degree of protection</b>	cover	IP 40			
	terminals	IP 20			
<b>Rated power</b> Power consumption at 230 V AC, 50 Hz	W	2			
	VA	6			
<b>Rated control fuse</b> - Utilization category gL/gG	A	4			
<b>Permissible mounting position</b>			any		
<b>Conductor cross-sections – main / auxiliary conductors</b>	solid	mm <sup>2</sup>	1x(0.5-4), 2x(0.5-2.5)		
	finely stranded with end sleeve	mm <sup>2</sup>	1x(0.5-2.5), 2x(0.5-1.5)		
	solid or stranded AWG conductors	AWG	2x(20-14)		
	terminal screw	M	3.5		
	tightening torque	Nm	0.8 to 1.2		

## Timing Diagrams

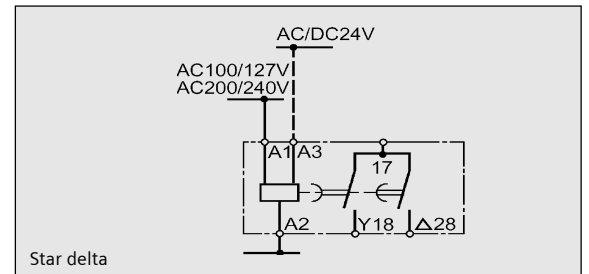
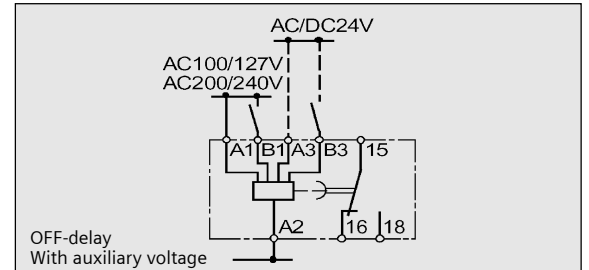
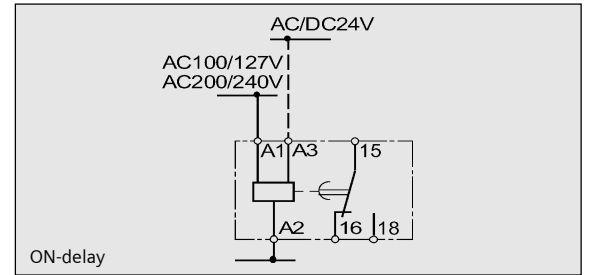


## Selection and ordering data

Time range	Control Voltage		Auxiliary contacts	Type
	AC (50/60Hz)	DC		
<b>ON Delay timers</b>				
0.5 - 10 sec	24/100-127	24	1 C/O	<b>3RP15 11-1AQ30</b>
	24/200-240	24	1 C/O	<b>3RP15 11-1AP30</b>
5 - 100 sec	24/100-127	24	1 C/O	<b>3RP15 13-1AQ30</b>
	24/200-240	24	1 C/O	<b>3RP15 13-1AP30</b>
0.05sec to 100Hrs (15 time setting ranges)	24/100-127	24	1C/O	<b>3RP15 25-1AQ30</b>
	24/200-240	24	1C/O	<b>3RP15 25-1AP30</b>
	24 - 240	24 - 240	2C/O	<b>3RP15 25-1BW30</b>
<b>OFF Dealy timers</b>				
0.5 - 10 sec	24/100-127	24	1 C/O	<b>3RP15 31-1AQ30</b>
	24/200-240	24	1 C/O	<b>3RP15 31-1AP30</b>
5 - 100 sec	24/100-127	24	1 C/O	<b>3RP15 33-1AQ30</b>
	24/200-240	24	1 C/O	<b>3RP15 33-1AP30</b>
<b>Multifunction timer <sup>1)</sup></b>				
0.05sec to 100Hrs (15 time setting ranges)	24 - 240	24 - 240	1C/O	<b>3RP15 05-1AW30</b>
Label set - 8 functions				<b>3RP19 01-1A</b>
<b>Star Delta timers</b>				
3 - 60 sec	24/100-127	24	1NO inst. &	<b>3RP1 576-1NQ30</b>
	24/200-240	24	1NO delayed	<b>3RP1 576-1NP30</b>
<b>Accessory</b>				
Push-in lug (for screw mounting on a base plate) for 3RP15				<b>3RP19 03</b>

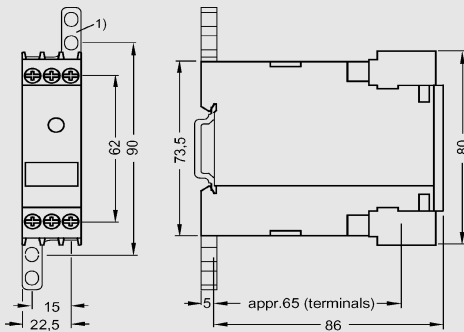
1) Please order label set alongwith multifunction timer (one per timer)

## Wiring diagrams



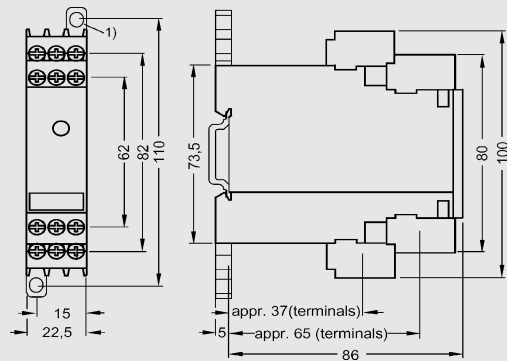
## Dimensions

### 3RP15



1 C/O contact without auxiliary voltage and star delta timer

1) Push-in lug (for screw mounting on a base plate) for 3RP15



1 and 2 C/O contacts, with auxiliary voltage

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SGR-01-111-009

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