# SIEMENS

## **Product data sheet**

### 3RP1505-1BP30



TIME RELAY, MULTI-FUNCTION 2 CHANGEOVER, 16 FUNCTIONS, 15 TIME SETTING RANGES AC 24/200... 240 V AND DC 24V, WITH LED, SCREW CONNECTION

General technical data:		
product brand name		SIRIUS
product designation		timing relay
Protection class IP / on the front		IP40
Protection class IP / of the terminal		IP20
mounting position		any
Supply voltage frequency		
<ul> <li>1 / for auxiliary and control current circuit</li> </ul>		
initial rated value	Hz	50
final rated value	Hz	60
Product function		
star-delta circuit		Yes
<ul> <li>with auxiliary voltage / pulse-shaping</li> </ul>		Yes
• at the relay outputs / changeover delayed/without delay	_	Yes
Product component / semi-conductor output		No
Product extension / optional / remote control		No
Product extension / strictly required / remote control		No
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
during storage	°C	-40 +85

during operating	°C	-25 +60
during transport	°C	-40 +85
Relative humidity	-	
during operating phase	%	15 70
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4		2 kV network connection / 1 kV control connection
Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5		2 kV
Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5		1 kV
Electrostatic discharge / according to IEC 61000-4-2		4 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling / according to IEC 61000-4-3		10 V/m
Resistance against vibration		10 55 Hz / 0.35 mm
Impulse voltage resistance / rated value	V	4,000
Insulation voltage / rated value	V	300
Active power loss / total / typical	W	2
Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		К
Item designation / according to DIN EN 61346-2		К
Category / according to EN 954-1		none
Protection against electrical shock		finger-safe

## Switching Function:

Switching functionI• slow-operatingYes• making pulse contactNo• firmly clocked beginning with pulseNo• firmly clocked beginning with pauseYes• relapse delayedYes• variably clocked start with impulseNo• variably clocked start with pauseNo• with auxiliary voltageYes• in an additive way slow-operatingYes• relapse delayedYes• relapse delayedYes• relapse delayedYes• relapse delayedYes• relapse delayedYes• with auxiliary voltage / relapse delayedNo• with auxiliary voltage / relapse delayedYes• with auxiliary voltageYes• with auxiliary voltageYes• helapse delayed/instantaneous contactYes• helapse delayed/instantaneous contactYes• helapse delayed/instantaneous contactYes• firmly clocked beginning with pause/instantaneous contactYes	ormonning i anotion.	
• making pulse contactNo• firmly clocked beginning with pulseNo• firmly clocked beginning with pauseYes• relapse delayedYes• variably clocked start with impulseNo• with auxiliary voltageNo• in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedYes• without auxiliary voltageYes• relapse delayed/instantaneous contactYes• relapse delayed/instantaneous contactYes	Switching function	
Prime firmly clocked beginning with pulseNofirmly clocked beginning with pauseYesrelapse delayedYes• variably clocked start with impulseNo• impuls variably clocked start with pauseNo• with auxiliary voltageYes• in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• with auxiliary voltage / relapse delayedYes• slow-operating/instantaneous contactYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	• slow-operating	Yes
• firmly clocked beginning with pauseYes• relapse delayedYes• variably clocked start with impulseNo• impuls variably clocked start with pauseNo• with auxiliary voltageYes• in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• with auxiliary voltage / relapse delayedYes• slow-operating/instantaneous contactYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	making pulse contact	No
• relapse delayedYes• variably clocked start with impulseNo• impuls variably clocked start with pauseNo• with auxiliary voltageYes• in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• with auxiliary voltageYes• without auxiliary voltage / relapse delayedYes• without auxiliary voltage / relapse delayedYes• without auxiliary voltage / relapse delayedYes• with auxiliary voltageYes• with auxiliary voltageYes• with auxiliary voltageYes• relapse delayed/instantaneous contactYes• with auxiliary voltageYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	<ul> <li>firmly clocked beginning with pulse</li> </ul>	No
• variably clocked start with impulseNo• impuls variably clocked start with pauseNo• with auxiliary voltageVes• in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• with auxiliary voltage / relapse delayedYes• with auxiliary voltage / relapse delayedYes• with auxiliary voltage / relapse delayedYes• slow-operating/instantaneous contactYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	<ul> <li>firmly clocked beginning with pause</li> </ul>	Yes
· impuls variably clocked start with pauseNo• with auxiliary voltageYes• in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• slow-operating/instantaneous contactYes• relapse delayed/instantaneous contactYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	relapse delayed	Yes
<ul> <li>with auxiliary voltage</li> <li>in an additive way slow-operating</li> <li>temporary line fault</li> <li>relapse delayed</li> <li>without auxiliary voltage / relapse delayed</li> <li>slow-operating/instantaneous contact</li> <li>relapse delayed/instantaneous contact</li> <li>relapse delayed/instantaneous contact</li> <li>slow-operating/relapse delayed/instantaneous contact</li> <li>Yes</li> </ul>	<ul> <li>variably clocked start with impulse</li> </ul>	No
in an additive way slow-operatingYes• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• slow-operating/instantaneous contactYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	<ul> <li>impuls variably clocked start with pause</li> </ul>	No
• temporary line faultYes• relapse delayedYes• without auxiliary voltage / relapse delayedNo• slow-operating/instantaneous contactYes• with auxiliary voltageYes• relapse delayed/instantaneous contactYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	with auxiliary voltage	
• relapse delayedYes• without auxiliary voltage / relapse delayedNo• slow-operating/instantaneous contactYes• with auxiliary voltageYes• relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes• slow-operating/relapse delayed/instantaneous contactYes	<ul> <li>in an additive way slow-operating</li> </ul>	Yes
<ul> <li>without auxiliary voltage / relapse delayed</li> <li>slow-operating/instantaneous contact</li> <li>with auxiliary voltage</li> <li>relapse delayed/instantaneous contact</li> <li>slow-operating/relapse delayed/instantaneous contact</li> <li>Yes</li> <li>Yes</li> </ul>	temporary line fault	Yes
<ul> <li>slow-operating/instantaneous contact</li> <li>with auxiliary voltage         <ul> <li>relapse delayed/instantaneous contact</li> <li>slow-operating/relapse delayed/instantaneous contact</li> <li>Yes</li> </ul> </li> </ul>	relapse delayed	Yes
<ul> <li>with auxiliary voltage</li> <li>relapse delayed/instantaneous contact</li> <li>slow-operating/relapse delayed/instantaneous contact</li> <li>Yes</li> </ul>	<ul> <li>without auxiliary voltage / relapse delayed</li> </ul>	No
relapse delayed/instantaneous contact     slow-operating/relapse delayed/instantaneous contact     Yes	<ul> <li>slow-operating/instantaneous contact</li> </ul>	Yes
slow-operating/relapse delayed/instantaneous contact     Yes	with auxiliary voltage	
	<ul> <li>relapse delayed/instantaneous contact</li> </ul>	Yes
firmly clocked beginning with pause/instantaneous contact     Yes	<ul> <li>slow-operating/relapse delayed/instantaneous contact</li> </ul>	Yes
	<ul> <li>firmly clocked beginning with pause/instantaneous contact</li> </ul>	Yes

<ul> <li>making pulse contact/instantaneous contact</li> </ul>		Yes
with auxiliary voltage		
<ul> <li>temporary line fault/instantaneous contact</li> </ul>		Yes
<ul> <li>pulse modelling/instantaneous contact</li> </ul>		Yes
<ul> <li>slow-operating/instantaneous contact</li> </ul>		Yes
Adjustable time	s / h	0.05 100

Control circuit/ Control	ol:

Type of voltage / of the controlled supply voltage		AC/DC
Control supply voltage frequency		
• 1	Hz	50 60
Control supply voltage		
• 1		
• at 50 Hz / for AC / rated value	V	24
• at 60 Hz / for AC / rated value	V	24
• for DC / rated value	V	24
•2		
• at 50 Hz		
• for AC	V	200 240
• at 60 Hz		
• for AC	V	200 240
Operating range factor control supply voltage rated value		
• at 50 Hz		
• for AC		0.85 1.1
• at 60 Hz		
• for AC		0.85 1.1
• for DC		0.85 1.1

## Auxiliary circuit:

Operating current / of auxiliary contacts		
<ul> <li>as normally closed contact / for AC-15</li> </ul>		
• at 24 V	А	3
• at 250 V	А	3
<ul> <li>as normally open contact / for AC-15</li> </ul>		
• at 24 V	А	3
• at 250 V	А	3
• at AC-15		
• maximum	А	3
• at DC-13		
• at 24 V	А	1
• at 125 V	А	0.2

• at 250 V	А	0.1
Number of NC contacts / delayed switching		0
Number of NC contacts / non-delayed		0
Number of NO contacts / delayed switching		0
Number of NO contacts / non-delayed		0
Number of change-over switches / delayed switching		2
Number of change-over switches / non-delayed		0

Short-circuit:	
Design of the fuse link / for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 4 A
Type of mounting	screw and snap-on mounting onto 35 mm standard mounting rail

Installation/	' mountina/	dimensions:
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Installation/ mounting/ dimensions:		
Width	mm	22.5
Height	mm	102
Depth	mm	91
Distance, to be maintained, to the ranks assembly		
• upwards	mm	0
• forwards	mm	0
• sidewards	mm	0
backwards	mm	0
downwards	mm	0
Distance, to be maintained, to earthed part		
backwards	mm	0
• sidewards	mm	0
• upwards	mm	0
forwards	mm	0
downwards	mm	0
Distance, to be maintained, conductive elements		
downwards	mm	0
backwards	mm	0
• sidewards	mm	0
• forwards	mm	0
• upwards	mm	0

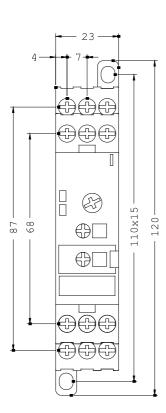
Connections/ terminals:	
Design of the snap-on socket base	none
Design of the electrical connection	
• jumper socket	No
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals

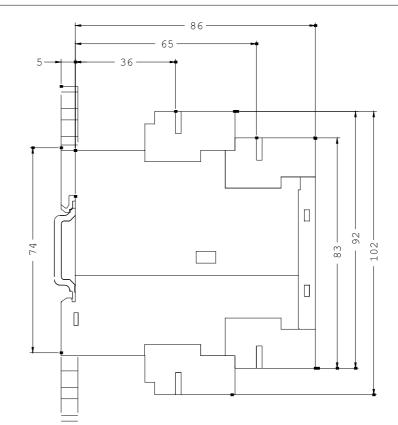
Type of the connectable conductor cross-section / for auxiliary contacts / solid		0.5 4	↓ mm², 2x (0.5 2.5 r	nm²)
Conductor cross-section that can be connected / for auxiliary contact / solid	_			
• minimum	mm²	0.5		
• maximum	mm²	4		
Type of the connectable conductor cross-section / for auxiliary contacts / finely stranded / with conductor end processing	_	0.5 2	2.5 mm², 2x (0.5 1.8	5 mm²)
Conductor cross-section that can be connected / for auxiliary contact / finely stranded / with conductor end processing	_			
• minimum	mm²	0.5		
• maximum	mm²	2.5		
Type of the connectable conductor cross-section / for AWG conductors / for auxiliary contacts	_	2x (20	14)	
AWG number / as coded connectable conductor cross-section / for auxiliary contact				
• minimum		20		
• maximum		14		
Certificates/ approvals:				
Verification of suitability		CE / UI	L/CSA	
General Product Approval	Declaration of Conformity		Test Certificates	
	EG-Konf.		Special Test Certificate	
Shipping Approval				
BUREAU VERITAS	Lloyd's Register LRS		PRS	RINA
Shipping Approval other				
RMRS Confirmation other	Environment Confirmation			
Further information:				
Information- and Downloadcenter (Catalogs, Brochures,) http://www.siemens.com/industrial-controls/catalogs				
Industry Mall (Online ordering system)				
http://www.siemens.com/industrial-controls/mall				

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RP1505-1BP30/all

#### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RP1505-1BP30





last change:

Aug 19, 2013