## SIEMENS

## Data sheet

## 3RA2831-2DG10



electronic timing relay, ON-delay, with semiconductor output, time range 0.05-100 s, 24-90 V AC/DC, 50/60 Hz, varistor for attenuation of the contactor coils integrated, spring-loaded terminal, can be snapped on at the front on contactors 3RT2.3 / 3RT2.4

product brand name	SIRIUS
product designation	function module
product type designation	3RA28
General technical data	
size of contactor can be combined company-specific	S2, S3
product component semi-conductor output	Yes
product extension required remote control	No
product extension optional remote control	No
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
test voltage for isolation test	1.5 kV
degree of pollution	3
surge voltage resistance rated value	4 kV
test voltage for surge voltage test	4 800 V
consumed current at 24 V	24 mA
protection class IP of the terminal	IP20
shock resistance according to IEC 60068-2-27	15g / 11 ms
vibration resistance according to IEC 60068-2-6	10 59 Hz: 0.35 mm, 60 150 Hz: 2g
mechanical service life (operating cycles) typical	100 000 000
mechanical service life (operating cycles)	
<ul> <li>with contactor 3R.2 of frame size S2</li> </ul>	5 000 000
with contactor 3R.2 of frame size S3	3 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	10 000 000
electrical endurance (operating cycles)	
<ul> <li>with contactor 3R.2 of frame size S2</li> </ul>	5 000 000
with contactor 3R.2 of frame size S3	3 000 000
adjustable time	0.05 100 s
relative setting accuracy relating to full-scale value	15 %
recovery time	50 ms
reference code according to IEC 81346-2	К
relative repeat accuracy	1 %
influence of the surrounding temperature	±1 %
power supply influence	±1 %
Substance Prohibitance (Date)	10/01/2009
Product Function	
product function star-delta circuit	No
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
● at 50 Hz	24 90 V

• at 60 Hz	24 90 V
control supply voltage frequency 1	24 90 V 50 60 Hz
control supply voltage 1	
• at DC	24 90 V
operating range factor control supply voltage rated value at	
DC	
initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at	
AC at 60 Hz	0.05
• initial value	0.85
• full-scale value     design of the surge suppressor	with varistor
Switching Function	with valision
switching function	
ON-delay	Yes
ON-delay/instantaneous contact	No
passing make contact	No
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No
• OFF delay	No
switching function	
<ul> <li>flashing symmetrically with interval start/instantaneous</li> </ul>	No
<ul> <li>flashing symmetrically with interval start</li> </ul>	No
<ul> <li>flashing symmetrically with pulse start/instantaneous</li> </ul>	No
<ul> <li>flashing symmetrically with pulse start</li> </ul>	No
flashing asymmetrically with interval start	No
flashing asymmetrically with pulse start	No
switching function	No
constant clock cycle with pulse start	No
constant clock cycle with interval start     switching function	
variably clocked with pulse start	No
variably clocked with interval start	No
switching function	
star-delta circuit with delay time	No
• star-delta circuit	No
switching function with control signal	
additive ON-delay	No
<ul> <li>passing break contact</li> </ul>	No
<ul> <li>passing break contact/instantaneous</li> </ul>	No
• OFF delay	No
OFF delay/instantaneous	No
pulse delayed	No
pulse delayed/instantaneous	No
pulse-shaping	No
<ul> <li>pulse-shaping/instantaneous</li> <li>additive ON-delay/instantaneous</li> </ul>	No
ON-delay/OFF-delay	No
ON-delay/OFF-delay/instantaneous	No
passing make contact	No
passing make contact/instantaneous contact	No
switching function of interval relay with control signal	
retrotriggerable with deactivated control	No
signal/instantaneous contact	
retrotriggerable with switched-on control signal	No
<ul> <li>retrotriggerable with switched-on control signal/instantaneous contact</li> </ul>	No
retriggerable with deactivated control signal	No
- reinggerable mitri deactivated control signal	

design of the control terminal non-floating	Voc			
design of the control terminal non-hoating	Yes			
number of NO contacts				
	1			
delayed switching     operating frequency with 3RT2 contactor maximum	1 2 500 1/h			
Main circuit	2 300 1/11			
type of voltage	AC/DC			
Inputs/ Outputs				
product function				
non-volatile	No			
Electromagnetic compatibility				
EMC immunity according to IEC 61812-1	Environment A (industrial area)			
conducted interference				
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV network connection / 1 kV control connection			
• due to conductor-earth surge according to IEC 61000-4-5	2 kV			
• due to conductor-conductor surge according to IEC 61000-4-5	1 KV			
field-based interference according to IEC 61000-4-3	10 V/m			
electrostatic discharge according to IEC 61000-4-2	8 kV			
Safety related data				
protection class IP on the front according to IEC 60529	IP20			
type of insulation	Basic insulation			
category according to EN 954-1	none			
Connections/ Terminals				
product component removable terminal for auxiliary and control circuit	Yes			
type of electrical connection for auxiliary and control circuit	spring-loaded terminals			
type of connectable conductor cross-sections				
• solid	0.5 4 mm², 2x (0.5 2.5 mm²)			
<ul> <li>finely stranded with core end processing</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)			
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 1.5 mm²)			
<ul> <li>at AWG cables solid</li> </ul>	2x (20 14)			
<ul> <li>at AWG cables stranded</li> </ul>	2x (20 14)			
connectable conductor cross-section				
• solid	0.5 4 mm <sup>2</sup>			
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>			
finely stranded without core end processing	0.25 1.5 mm²			
AWG number as coded connectable conductor cross section				
• solid	20 14			
• stranded	20 14			
Installation/ mounting/ dimensions				
mounting position	any (like contactor)			
fastening method	clip-on			
height	38 mm			
width	45 mm			
depth	74 mm			
required spacing				
<ul> <li>with side-by-side mounting</li> </ul>				
— forwards	0 mm			
— backwards	0 mm			
— upwards	0 mm			
— downwards	0 mm			
— at the side	0 mm			
<ul> <li>for grounded parts</li> </ul>				
— forwards	0 mm			
— backwards	0 mm			
— upwards	0 mm			
— at the side	0 mm			
— downwards	0 mm			
• for live parts				

— forwards		0 n	0 mm				
— backwards		0 n	0 mm				
— upwards		0 n	0 mm				
- downwards	i	0 n	0 mm				
— at the side		0 m	0 mm				
Ambient conditions							
installation altitude at height above sea level maximum		mum 20	2 000 m				
ambient temperature							
<ul> <li>during operation</li> </ul>		-25	+60 °C				
<ul> <li>during storage</li> </ul>		-40	-40 +85 °C				
<ul> <li>during transport</li> </ul>		-40	-40 +85 °C				
relative humidity during	operation	0	. 95 %				
Certificates/ approvals							
General Product App	roval		Declaration of Confor	mity	Test Certificates		
Confirmation Marine / Shipping	UL.	EAC	CE EG-Konf.	UK CA	<u>Type Test Certific-</u> ates/Test Report		
ABS	BUREAU		Llovds Register uis	PRS	RINA		
Marine / Shipping	other						
KMRS	<u>Confirmation</u>						
Further information							

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10 Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2831-2DG10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2831-2DG10

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

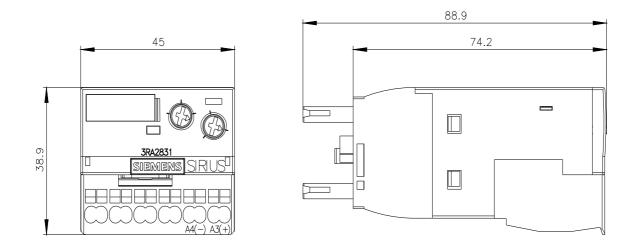
https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-2DG10

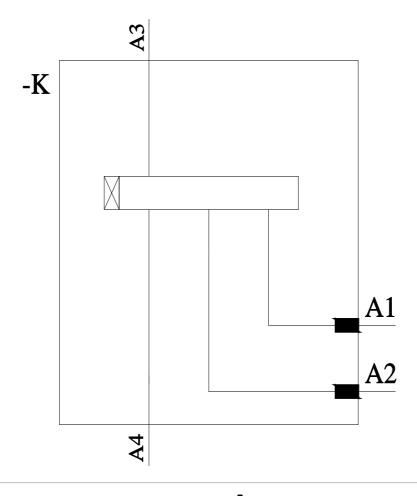
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2831-2DG10&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-2DG10/manual





8/2/2022 🖸