SIEMENS

Data sheet 3RA2831-1DG10



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, screw 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)	
 with contactor 3R.2 of frame size S2 	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)	
 with contactor 3R.2 of frame size S2 	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	K
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	50 60 Hz
control supply voltage 1	
• at DC	24 90 V
operating range factor control supply voltage rated value at DC	
initial value 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	
• initial value	0.85
• full-scale value	1.1
design of the surge suppressor	with varistor
Switching Function	
switching function	
ON-delay	Yes
ON-delay/instantaneous contact	No
passing make contact	No
passing make contact/instantaneous contact	No
OFF delay	No
switching function	
flashing symmetrically with interval start/instantaneous	No
 flashing symmetrically with interval start 	No
• flashing symmetrically with pulse start/instantaneous	No
 flashing symmetrically with pulse start 	No
 flashing asymmetrically with interval start 	No
flashing asymmetrically with pulse start	No
switching function	
 constant clock cycle with pulse start 	No
constant clock cycle with interval start	No
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
passing break contact	No
passing break contact/instantaneous	No No
OFF delay	No No
OFF delay/instantaneous	No No
pulse delayed pulse delayed/instantaneous	No No
pulse delayed/instantaneous pulse shaping	No No
pulse-shaping pulse-shaping/instantaneous	No
pulse-shaping/instantaneousadditive ON-delay/instantaneous	No
ON-delay/OFF-delay	No
ON-delay/OFF-delay/instantaneous	No
passing make contact	No
passing make contact 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
 retrotriggerable with switched-on control 	No
signal/instantaneous contact	N.
retriggerable with deactivated control signal	No

decign of the control forming non-flecting	Yes
design of the control terminal non-floating	165
Auxiliary circuit number of NO contacts	
	1
• delayed switching operating frequency with 3RT2 contactor maximum	2 500 1/h
Main circuit	2 300 1/11
type of voltage	AC/DC
Inputs/ Outputs	ACIDO
product function	
• non-volatile	No
Electromagnetic compatibility	
EMC immunity according to IEC 61812-1	Environment A (industrial area)
conducted interference	
 due to burst according to IEC 61000-4-4 	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	1 kV
61000-4-5	
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	1000
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	V
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• solid	0.5 4 mm², 2x (0.5 2.5 mm²)
 finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
 finely stranded without core end processing 	2x (0.5 1.5 mm²)
 at AWG cables solid 	2x (20 14)
at AWG cables stranded	2x (20 14)
connectable conductor cross-section	
• solid	0.5 4 mm ²
finely stranded with core end processing	0.5 2.5 mm ²
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	
 with side-by-side mounting 	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	0
— forwards	0 mm
— backwards	0 mm 0 mm
— upwards — at the side	0 mm
— at the side — downwards	0 mm
for live parts	Viinii
◆ IOI IIVE Parts	

— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-25 +60 °C
during storage	-40 +85 °C
during transport	-40 +85 °C
relative humidity during operation	0 95 %

General Product Approval

Declaration of Conformity

Test Certificates

Confirmation









Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping

other



Confirmation

Further information

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

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

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=3RA2831-1DG10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2831-1DG10

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

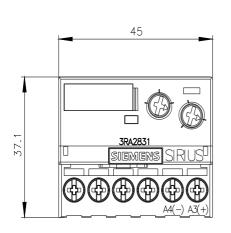
https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-1DG10

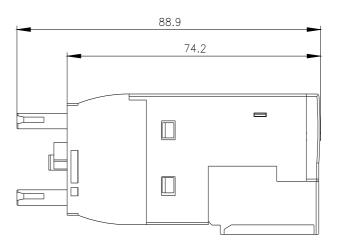
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

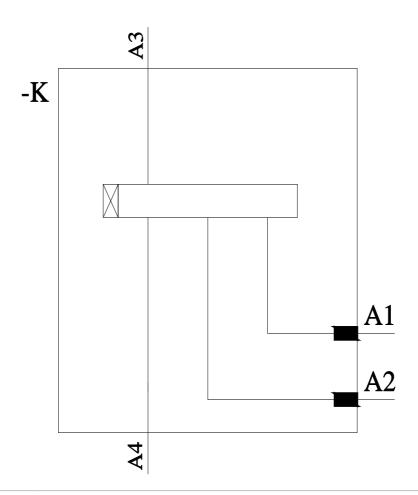
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2831-1DG10&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-1DG10/manual







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