SIEMENS

Data sheet 3RA2816-0EW20

function module star-delta (wye-delta), consisting of lateral basic module and two coupling modules, time range 0.05-60 s, 24-240 V AC/DC, 50/60 Hz, varistor for attenuation of the contactor coils integrated, for contactors 3RT20



product brand name	SIRIUS
product designation	function module
design of the product	comprising basic module and two coupling modules
product type designation	3RA28
General technical data	
size of contactor can be combined company-specific	S00, S0, S2, S3
product component semi-conductor output	No
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
● at 240 V	7 mA
protection class IP of the terminal	IP20
shock resistance according to IEC 60068-2-27	15g / 11 ms
mechanical service life (operating cycles) typical	10 000 000
mechanical service life (operating cycles)	
 with contactor 3R.2 of frame size S00 	10 000 000
 with contactor 3R.2 of frame size S0 	10 000 000
 with contactor 3R.2 of frame size S2 	10 000 000
 with contactor 3R.2 of frame size S3 	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
electrical endurance (operating cycles)	
 with contactor 3R.2 of frame size S00 	100 000
 with contactor 3R.2 of frame size S0 	100 000
 with contactor 3R.2 of frame size S2 	100 000
 with contactor 3R.2 of frame size S3 	100 000
adjustable time	0.5 60 s
relative setting accuracy relating to full-scale value	15 %
recovery time	150 ms
reference code according to IEC 81346-2	К
active principle	electronic
relative repeat accuracy	1 %
influence of the surrounding temperature	±1 %
power supply influence	±2 %

Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Duadust Frantisus	Lead monoxide (lead oxide) - 1317-36-8
Product Function	V
product function star-delta circuit	Yes
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
● at 50 Hz	24 240 V
• at 60 Hz	24 240 V
control supply voltage frequency 1	50 60 Hz
control supply voltage 1 at DC	
•	24 240 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	6.1
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 	No
 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	Yes
switching function with control signal	
additive ON-delay	No
passing break contact	No
 passing break contact/instantaneous 	No
OFF delay	No
OFF delay/instantaneous	No
pulse delayed	No
 pulse delayed/instantaneous 	No
• pulse-shaping	No
 pulse-shaping/instantaneous 	No
 additive ON-delay/instantaneous 	No
ON-delay/OFF-delay	No

passing make contact	No
passing make contact/instantaneous contact	No
switching function of interval relay with control signal	
 retrotriggerable with deactivated control signal/instantaneous contact 	No
 retrotriggerable with switched-on control signal 	No
 retrotriggerable with switched-on control signal/instantaneous contact 	No
retriggerable with deactivated control signal	No
design of the control terminal non-floating	No
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A
Auxiliary circuit	
material of switching contacts	AgSnO2
number of NO contacts	
delayed switching	2
operating frequency with 3RT2 contactor maximum	2 500 1/h
Main circuit	
type of voltage	AC/DC
Inputs/ Outputs	
product function	
at the relay outputs switchover delayed/without delay	No
• 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 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	
category according to EN 954-1 Electrical Safety	none
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
type of insulation	Basic insulation
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
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 	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
 for live 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 %
Approvals Certificates	

General Product Approval



Confirmation









Test Certificates

Marine / Shipping

Type Test Certificates/Test Report











Marine / Shipping

other

Railway

Environment



Confirmation

Special Test Certificate

Environmental Confirmations

Further information

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=3RA2816-0EW20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2816-0EW20

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

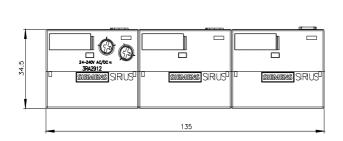
https://support.industry.siemens.com/cs/ww/en/ps/3RA2816-0EW20

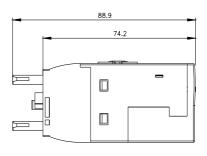
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

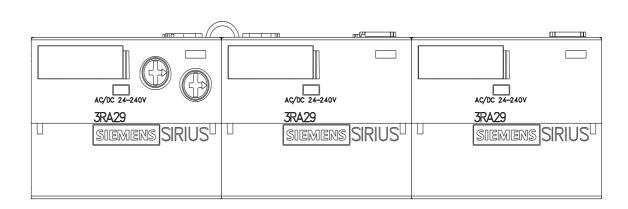
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2816-0EW20&lang=en

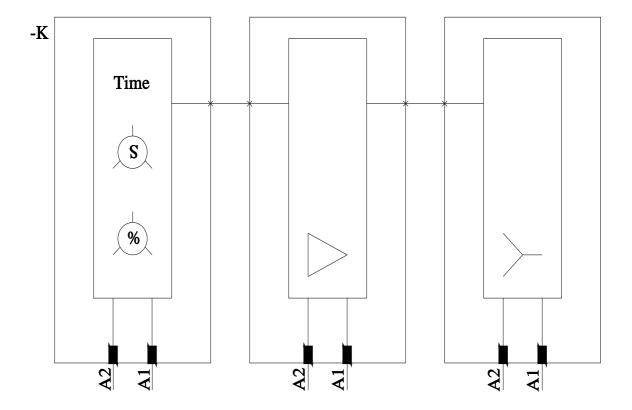
Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RA2816-0EW20/manual









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