

Electronic timing relay ON delay With semiconductor output 90-240 V AC/DC Time range 0.05...100 s Can be snapped on at the front For contactors 3RT2, S2, S3 and 3RH2 S00 contactor relays Screw terminal



product brand name	SIRIUS
Product designation	function module
Product type designation	3RA28
General technical data	
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
• Protection class IP of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	15g / 11 ms

Vibration resistance	
• acc. to IEC 60068-2-6	10 ... 59 Hz: 0.35 mm, 60 ... 150 Hz: 2g
Mechanical service life (switching cycles)	
• typical	100 000 000
Mechanical service life (switching 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 (switching cycles)	
• at AC-15 at 230 V typical	10 000 000
Electrical endurance (switching 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 acc. to DIN EN 81346-2	K
relative repeat accuracy	1 %

Product Function

Product function star-delta circuit	No
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Control circuit/ Control

Type of voltage of the control supply voltage	AC/DC
Control supply voltage 1 at AC	
• at 50 Hz	90 ... 240 V
• at 60 Hz	90 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz
Control supply voltage 1	
• at DC	90 ... 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 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
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• switching function ON-delay/instantaneous contact	No
• switching function passing make contact	No
• switching function passing make contact/instantaneous contact	No
• Switching function OFF delay	No
Switching function	
• flashing symmetrically starting with interval/instantaneous	No
• flashing symmetrically starting with interval	No
• flashing symmetrically starting with pulse/instantaneous	No
• flashing symmetrically starting with pulse	No
• flashing asymmetrically starting with interval	No
• flashing asymmetrically starting with pulse	No
Switching function	
• fixed clock cycle beginning with pulse	No
• fixed clock cycle beginning with interval	No
Switching function	
• variably clocked start with impulse	No
• variably clocked start with interval	No
Switching function	
• star-delta circuit with delay time	No
• star-delta circuit	No
• Switching function with control signal additive ON delay	No
• Switching function with control signal passing break contact	No
• Switching function with control signal passing break contact/instantaneous	No
• Switching function with control signal OFF delay	No
• Switching function with control signal OFF delay/instantaneous	No
• Switching function with control signal pulse delayed	No
• Switching function with control signal pulse delayed/instantaneous	No
• switching function with control signal pulse-shaping	No
• Switching function with control signal pulse-shaping/instantaneous	No
• Switching function with control signal additive ON delay/instantaneous	No

• Switching function with control signal ON-delay/OFF-delay	No
• Switching function with control signal ON-delay/OFF-delay/instantaneous	No
• Switching function with control signal passing make contact	No
• Switching function with control signal passing make contact/instantaneous contact	No
Switching function of interval relay with control signal	
• retrotriggerable with deactivated control signal/instantaneous contact	No
• retrotriggerable with activated control signal	No
• retrotriggerable with activated control signal/instantaneous contact	No
• retriggerable with deactivated control signal	No
Design of the control terminal non-floating	Yes
Auxiliary circuit	
Number of NO contacts	
• delayed switching	1
operating frequency with 3RT2 contactor maximum	2 500 1/h
influence of the surrounding temperature	±1 %
Power supply influence	±1 %
Main circuit	
type of voltage	AC/DC
Inputs/ Outputs	
• Product function non-volatile	No
Electromagnetic compatibility	
EMI immunity	
• acc. to IEC 61812-1	Environment A (industrial area)
Conducted interference	
• due to burst acc. to IEC 61000-4-4	2 kV network connection / 1 kV control connection
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	8 kV
Safety related data	
Protection against electrical shock	finger-safe
Type of insulation	Basic insulation
Category acc. to EN 954-1	none

Connections/ Terminals

Product function	
• removable terminal for auxiliary and control circuit	Yes
• Type of electrical connection for auxiliary and control current circuit	screw-type terminals
• type of connectable conductor cross-sections solid	0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²)
• Type of connectable conductor cross-sections finely stranded with core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• Type of connectable conductor cross-sections finely stranded without core end processing	2x (0.5 ... 1.5 mm ²)
• Type of connectable conductor cross-sections at AWG conductors solid	2x (20 ... 14)
• Type of connectable conductor cross-sections at AWG conductors stranded	2x (20 ... 14)
• connectable conductor cross-section solid	0.5 ... 4 mm ²
• connectable conductor cross-section finely stranded with core end processing	0.5 ... 2.5 mm ²
• connectable conductor cross-section finely stranded without core end processing	0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
• solid	20 ... 14
• stranded	20 ... 14

Installation/ mounting/ dimensions

• mounting position	any (like contactor)
Mounting type	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
- for live parts
 - forwards
 - Backwards
 - upwards
 - downwards
 - at the side

0 mm

0 mm

0 mm

0 mm

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 %

Certificates/ approvals

General Product Approval	Test Certificates	Marine / Shipping
 UL	 Type Test Certificates/Test Report	 ABS  BUREAU VERITAS  LRS

Marine / Shipping	other
 PRS  RINA  RMRS  TYPE-APPROVED PRODUCT DNV-GL DNVGL.COM/AF	Confirmation

Further information

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=3RA2831-1DH10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2831-1DH10>

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

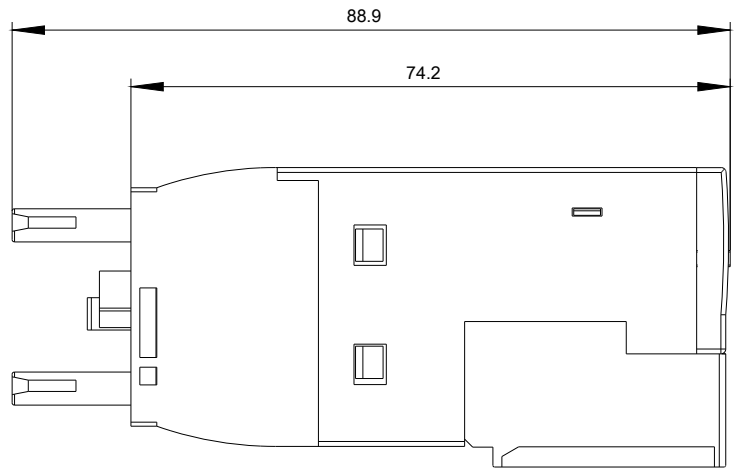
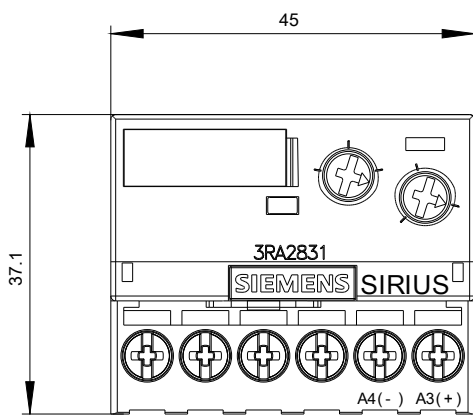
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-1DH10>

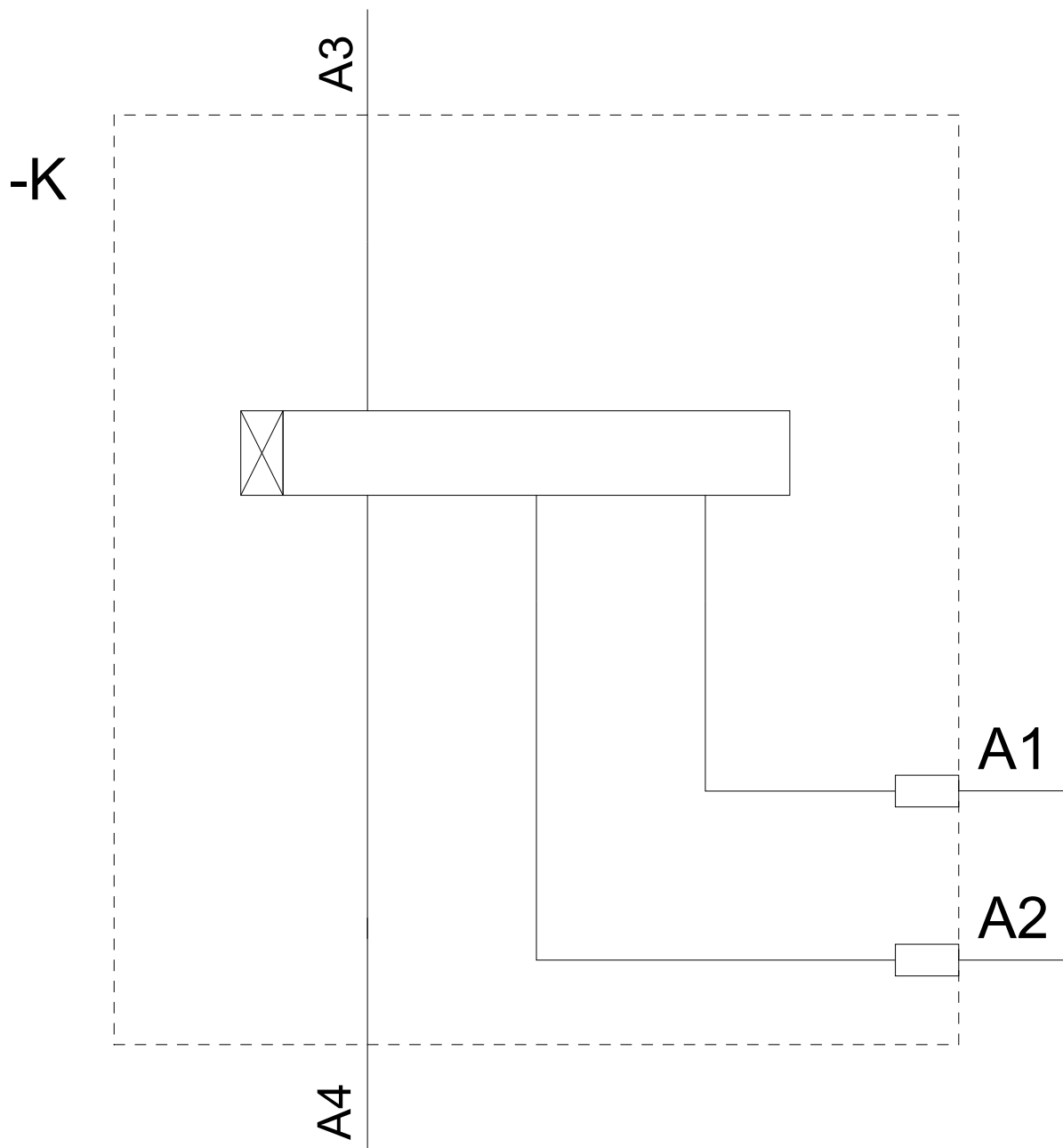
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2831-1DH10&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-1DH10/manual>





last modified:

08/14/2020