SIEMENS

Data sheet 3RU2116-0AB0



Overload relay 0.11...0.16 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

product type designation ground type designation ground type designation ground type designation ground type designation size of overload relay	product brand name	SIRIUS
Size of overload relay Size of contactor can be combined company-specific Power loss [W] for rated value of the current at AC in hot operating state per pole Size of contactor can be combined company-specific per pole Size of contactor can be combined company-specific per pole Size of contactor can be combined company-specific surger voltage resistance rated value Size of contactor can be companied of the current can be companied by the companied of the current can be companied by the companied of the current can be companied by the companied of the current can be companied by the companied by	product designation	thermal overload relay
size of contactor can be combined company-specific S00 power loss [M] for rated value of the current at AC in hot operating state • per pole 1.6 W insulation voltage with degree of pollution 3 at AC rated value 690 V maximum permissible voltage for protective separation in networks with grounded star point 440 V • between auxiliary and auxiliary circuit 440 V • between main and auxiliary circuit 440 V • between final for the company of th	product type designation	3RU2
size of contactor can be combined company-specific power loss [VI] for rated value of the current at AC in hot operating state	General technical data	
power loss [W] for rated value of the current at AC in hot operating state • per pole insulation voltage with degree of pollution 3 at AC rated value 690 V surge voltage resistance rated value 680 V surge voltage resistance rated value 6 keV maximum permissible voltage for protective separation in networks with grounded star point • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between main and auxiliary circuit • bot auxiliary circuit • between main and auxiliary circuit • bot west main and auxiliary circuit • auxiliary circuit • bot west main and auxiliary circuit • auxiliary circuit	size of overload relay	S00
operating state • per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for protective separation in networks with grounded star point • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between main and auxiliary circuit • during operation • during operation • during operation • during storage • during prasport • during storage • during transport • during itransport • during itransport • during itransport • during operation • during veration • during operation • during operatio	size of contactor can be combined company-specific	S00
insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for protective separation in networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit • dup of protection according to IEC 60068-2-27 • Bay 11 ms type of protection according to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage • during transport • 40 +70 °C • during storage • during transport • 55 +80 °C temperature compensation • 40 +60 °C relative humidity during operation • 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release • rated value • at AC-3e rated value maximum 690 V • at AC-3e rated value maximum operating frequency rated value operating frequency rated value operating frequency rated value operating frequency rated value operating out at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A		4.8 W
surge voltage resistance rated value maximum permissible voltage for protective separation in networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit shock resistance according to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU erificate of suitability according to ATEX directive 2014/34/EU perference code according to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum • during operation • during storage • during transport -55 +80 °C temperature compensation • during upgration • during dependation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum • operational current at AC-3e at 400 V rated value operational current at AC-3e at 400 V rated value operational current at AC-3e at 400 V rated value oli 6 A	• per pole	1.6 W
maximum permissible voltage for protective separation in networks with grounded star point • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between main and auxiliary circuit • Bg / 11 ms • Ex II (2) GD certificate of suitability according to ATEX directive 2014/34/EU DMT 98 ATEX G 001 reference code according to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage • during transport -55 +80 °C • melative humidity during operation • 10 95 % Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value operating frequency rated value operating frequency rated value operating frequency rated value operating current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	insulation voltage with degree of pollution 3 at AC rated value	690 V
networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit shock resistance according to IEC 60068-2-7 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code according to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation 40 +70 °C • during transport temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	surge voltage resistance rated value	6 kV
between auxiliary and auxiliary circuit between main and auxiliary circuit control auxiliary conditions control auxiliary		
between main and auxiliary circuit between main and auxiliary circuit shock resistance according to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU type of protection according to ATEX directive 2014/34/EU preference code according to IEC 81346-2 Substance Prohibitance (Date) Installation altitude at height above sea level maximum ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport -55 +80 °C temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage at AC-3e rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	 between auxiliary and auxiliary circuit 	440 V
between main and auxiliary circuit shock resistance according to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU put 798 ATEX G 001 reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum during operation during storage during transport during transport eduring transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage e at AC-3e rated value at AC-3e rated value operational current rated value operational current rated value operational current rated value operational current rated value 0.16 A operational current rated value 0.16 A	 between auxiliary and auxiliary circuit 	440 V
shock resistance according to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU pm 98 ATEX G 001 reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum oduring operation during storage oduring transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating value e at AC-3e rated value operational current rated value olici AC-3e at 400 V rated value	 between main and auxiliary circuit 	440 V
type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU pmf 98 ATEX G 001 reference code according to IEC 81346-2 Substance Prohibitance (Date) 10/01/2009 Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport during transport -55 +80 °C during transport -55 +80 °C relative humidity during operation -40 +70 °C 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3e rated value operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	between main and auxiliary circuit	440 V
certificate of suitability according to ATEX directive 2014/34/EU reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release • at AC-3e rated value • at AC-3e rated value operational current rated value 0.16 A DMT 98 ATEX G 001 F DMT 98 ATEX G 001 F BMT 98 ATEX G 001 F DMT 98 ATEX G 001 F Substance Prohibitance -40 +70 °C -40 +70 °C -55 +80 °C -55	shock resistance according to IEC 60068-2-27	8g / 11 ms
reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during transport • during transport • during transport • during transport • during transport • 55 +80 °C • temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum 690 V operating frequency rated value operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage • during transport -55 +80 °C • during transport -55 +80 °C temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum 690 V operating frequency rated value operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	certificate of suitability according to ATEX directive 2014/34/EU	DMT 98 ATEX G 001
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during transport • during transport • during transport • 55 +80 °C • during transport • 755 +80 °C • temperature compensation • 740 +60 °C relative humidity during operation Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum operational current rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	reference code according to IEC 81346-2	F
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during transport • 55 +80 °C temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum operational current rated value operational current at AC-3e at 400 V rated value operational current at AC-3e at 400 V rated value 0.16 A	Substance Prohibitance (Date)	10/01/2009
ambient temperature	Ambient conditions	
 during operation during storage during transport 55 +80 °C temperature compensation 40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3e rated value maximum operating frequency rated value operational current rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A 	installation altitude at height above sea level maximum	2 000 m
• during storage • during transport • during transport • during transport • during transport • 255 +80 °C temperature compensation • 40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum 690 V operating frequency rated value 50 60 Hz operational current rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	ambient temperature	
 during transport -55 +80 °C temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A 	during operation	-40 +70 °C
temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum 690 V operating frequency rated value operational current rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	during storage	-55 +80 °C
relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A	during transport	-55 +80 °C
Main circuit number of poles for main current circuit adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A	temperature compensation	-40 +60 °C
number of poles for main current circuit adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A	relative humidity during operation	10 95 %
adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.11 0.16 A	Main circuit	
dependent overload release operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A	number of poles for main current circuit	3
rated value at AC-3e rated value maximum 690 V operating frequency rated value 50 60 Hz operational current rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A		0.11 0.16 A
 at AC-3e rated value maximum operating frequency rated value operational current rated value operational current at AC-3e at 400 V rated value 0.16 A 	operating voltage	
operating frequency rated value 50 60 Hz operational current rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	rated value	690 V
operational current rated value 0.16 A operational current at AC-3e at 400 V rated value 0.16 A	at AC-3e rated value maximum	690 V
operational current at AC-3e at 400 V rated value 0.16 A	operating frequency rated value	50 60 Hz
	operational current rated value	0.16 A
operating power	operational current at AC-3e at 400 V rated value	0.16 A
	operating power	

• at AC-3	
— at 400 V rated value	0.04 kW
— at 500 V rated value	0.04 KW
— at 690 V rated value ■ at AC-3e	0.06 kW
	0.04 kW
— at 400 V rated value	0.04 kW
— at 500 V rated value — at 690 V rated value	0.06 kW
Auxiliary circuit	0.00 KW
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts	1
• note	for contactor disconnection
number of NO contacts for auxiliary contacts	1
• note	for message "Tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 110 V	3 A
• at 120 V	3 A
• at 125 V	3 A
• at 230 V	2 A
• at 400 V	1 A
• at 690 V	0.75 A
operational current of auxiliary contacts at DC-13	
• at 24 V	2 A
• at 60 V	0.3 A
• at 110 V	0.22 A
● at 125 V	0.22 A
• at 220 V	0.11 A
contact rating of auxiliary contacts according to UL	B600 / R300
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.16 A
at 600 V rated value	0.16 A
Short-circuit protection	
design of the fuse link	
design of the fuse link • for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	
design of the fuse link	any
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	any Contactor mounting
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	any Contactor mounting 76 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	any Contactor mounting 76 mm 45 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	any Contactor mounting 76 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals	any Contactor mounting 76 mm 45 mm 70 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	any Contactor mounting 76 mm 45 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and	any Contactor mounting 76 mm 45 mm 70 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit	any Contactor mounting 76 mm 45 mm 70 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	any Contactor mounting 76 mm 45 mm 70 mm
design of the fuse link	any Contactor mounting 76 mm 45 mm 70 mm No
design of the fuse link	any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
design of the fuse link	any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit of or auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
design of the fuse link	any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals Top and bottom
design of the fuse link	any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals Top and bottom 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
design of the fuse link	any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals Top and bottom 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)

— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
tightening torque	
 for main contacts with screw-type terminals 	0.8 1.2 N·m
 for auxiliary contacts with screw-type terminals 	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 6 mm
size of the screwdriver tip	Pozidriv PZ 2
design of the thread of the connection screw	
• for main contacts	M3
 of the auxiliary and control contacts 	M3
Safety related data	
proportion of dangerous failures	
 with low demand rate according to SN 31920 	50 %
 with high demand rate according to SN 31920 	50 %
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
MTTF with high demand rate	2 280 a
T1 value for proof test interval or service life according to IEC 61508	20 a
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
Display	
display version for switching status	Slide switch
Certificates/ approvals	

General Product Approval

For use in hazardous locations

Confirmation











Declaration of Conformity

Test Certificates

Marine / Shipping





Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report





Marine / Shipping











Confirmation

other

other

Railway



Vibration and Shock

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=3RU2116-0AB0

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RU2116-0AB0}$

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AB0

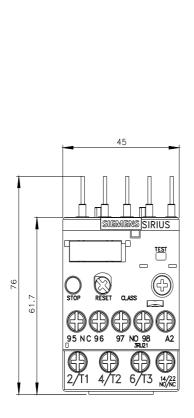
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0AB0&lang=en

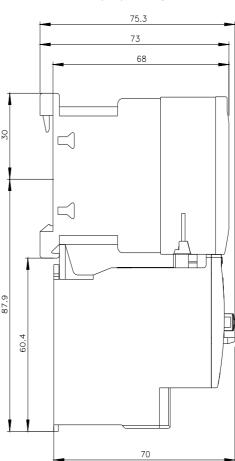
Characteristic: Tripping characteristics, I2t, Let-through current

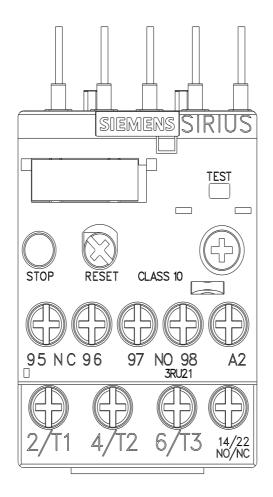
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AB0/char

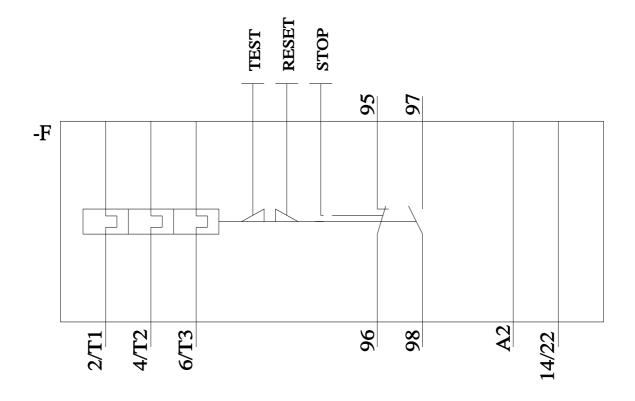
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0AB0&objecttype=14&gridview=view1









last modified: 3/8/2022 🖸