## SIEMENS

## Data sheet

## 3SU1130-7BF10-1QA0-Z X90



Coordinate switch, 22 mm, round, plastic with metal front ring, black, 4 switch positions, momentary contact type, with mechanical interlocking in O position, with holder, 1 NO, 1 NO, 1 NO, 1 NO, screw terminal, Z=20-unit packaging

<b>•</b>	
product brand name	SIRIUS ACT
product designation	Coordinate switches
design of the product	Complete unit
product type designation	3SU1
product line	Plastic with metal front ring, matt, 22 mm
manufacturer's article number	
<ul> <li>of supplied contact module at position 1</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of supplied contact module at position 2</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of supplied contact module at position 3</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of supplied contact module at position 4</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of the supplied holder</li> </ul>	<u>3SU1550-0BA10-0AA0</u>
<ul> <li>of the supplied actuator</li> </ul>	<u>3SU1030-7BF10-0AA0</u>
Enclosure	
shape of the enclosure front	round
Actuator	
design of the actuating element	with mechanical interlocking
principle of operation of the actuating element	momentary contact type
direction of actuation	horizontal / vertical
product extension optional light source	No
color of the actuating element	black
material of the actuating element	plastic
shape of the actuating element	Extended handle
outer diameter of the actuating element	30.5 mm
number of contact modules	4
type of unlocking device	push-to-unlatch mechanism
number of switching positions	4
Maximum deflection angle [°]	30°
Front ring	
product component front ring	Yes
design of the front ring	high
material of the front ring	Metal, matt
color of the front ring	sand gray
Holder	
material of the holder	Plastic
General technical data	
product function positive opening	No
insulation voltage rated value	500 V
degree of pollution	3
type of voltage of the operating voltage	AC/DC

surge voltage resistance rated value	6 kV
protection class IP	IP65, IP67
of the terminal	IP20
shock resistance	
according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance	
according to IEC 60068-2-6	10 500 Hz: 5g
operating frequency maximum	2 400 1/h
mechanical service life (switching cycles)	
<ul> <li>as operating period per direction of actuation typical</li> </ul>	500 000
electrical endurance (switching cycles) typical	10 000 000
electrical endurance (switching cycles) with	10 000 000
contactors 3RT1015 to 3RT1026 typical	
thermal current	10 A
reference code according to IEC 81346-2	S
continuous current of the C characteristic MCB	10 A; for a short-circuit current smaller than 400 A
continuous current of the quick DIAZED fuse link	10 A
continuous current of the DIAZED fuse link gG	10 A
Substance Prohibitance (Date)	10/01/2014
operating voltage	
• at AC	
— at 50 Hz rated value	5 500 V
— at 60 Hz rated value	5 500 V
<ul> <li>at DC rated value</li> </ul>	5 500 V
Power Electronics	
contact reliability	One maloperation per 100 million (17 V, 5 mA), one maloperation per 10
	million (5 V, 1 mA)
Auxiliary circuit	
design of the contact of auxiliary contacts	Silver alloy
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	4
number of NO contacts for auxiliary contacts Connections/ Terminals	4
Connections/ Terminals	
Connections/ Terminals type of electrical connection of modules and accessories	4 Screw-type terminal
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections	Screw-type terminal
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing	Screw-type terminal 2x (0.5 0.75 mm²)
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing	Screw-type terminal 2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> )
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing	Screw-type terminal 2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> )
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing • at AWG cables	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing • at AWG cables	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing • at AWG cables tightening torque of the screws in the bracket tightening torque for auxiliary contacts with screw-type terminals Safety related data	Screw-type terminal 2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded with core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         20 %         20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         20 %         20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         20 %         20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions         ambient temperature	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         100 FIT
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920	Screw-type terminal 2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 250 000 20 % 20 % 100 FIT -25 +70 °C
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         during operation         • during storage	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (1.5 1.5 mm²)         2x (1.6 1.5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         100 FIT         -25 +70 °C         -40 +80 °C
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920	Screw-type terminal 2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 250 000 20 % 20 % 100 FIT -25 +70 °C
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         during operation         • during operation         • during storage         environmental category during operation according to IEC 60721	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (1.5 1.5 mm²)         2x (1.6 1.5 mm²)         2x (1.8 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         100 FIT         -25 +70 °C         -40 +80 °C         3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type         terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920 <t< td=""><td>Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1.0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         100 FIT         -25 +70 °C         -40 +80 °C         3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel)</td></t<>	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1.0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         100 FIT         -25 +70 °C         -40 +80 °C         3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel)
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure generation         • during operation         • during storage         environmental category during operation according to IEC 60721         Installation/ mounting/ dimensions         fastening method	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (1.0 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 12 N·m         0.8 1 N·m         250 000         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         300 FIT         Page 3 C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel)         front plate mounting
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure storage         environmental category during operation according to IEC 60721         Installation/mounting/ dimensions         fastening method         • of modules and accessories	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 1.2 N·m         0.8 1 N·m         250 000         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         300 FIT         Particle for all devices behind front panel)         front plate mounting         Front plate mounting
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure generation         • during operation         • during storage         environmental category during operation according to IEC 60721         Installation/ mounting/ dimensions         fastening method	Screw-type terminal         2x (0.5 0.75 mm²)         2x (1.0 1.5 mm²)         2x (0.5 1.5 mm²)         2x (1,0 1,5 mm²)         2x (18 14)         1 12 N·m         0.8 1 N·m         250 000         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         20 %         300 FIT         Page 2 and 2

shape of the installation opening	round
mounting diameter	22.3 mm
positive tolerance of installation diameter	0.4 mm
mounting height	75.6 mm
installation width	30.5 mm
installation depth	53.7 mm
Certificates/ approvals	

Further information

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

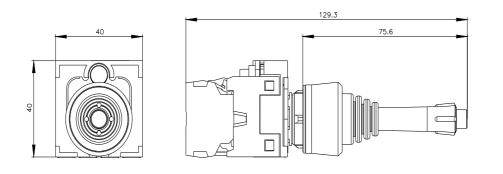
https://www.siemens.com/ic10 Industry Mall (Online ordering system)

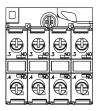
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3SU1130-7BF10-1QA0-Z X90

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SU1130-7BF10-1QA0-Z X90

- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
- https://support.industry.siemens.com/cs/ww/en/ps/3SU1130-7BF10-1QA0-Z X90
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3SU1130-7BF10-1QA0-Z X90&lang=en





last modified:



7/9/2022