SIEMENS

Data sheet 3UF7102-1AA00-0



Current measuring module, Set current 10...100 A Overall width 55 mm, straight-through transformer

Current measuring module	product brand name	SIRIUS
product function • current measurement • voltage measurement • voltage measurement • active power measurement • frequency measurement • frequency measurement • input for thermistor connection • occurred active power • vith degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated • for wires of main circuit according to IEC 60947-1 rated • value surge voltage resistance rated value • for wires of main circuit according to IEC 60947-1 rated • surge voltage resistance rated value • for wires odd according to IEC 60947-1 • shock resistance according to IEC 81346-2 Full to surge the full to surge the following the surge that the following the surge that the surge according to IEC 60947-1 • conducted interference • due to burst according to IEC 60947-1 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • fleld-based interference according to IEC 61000-4-5 • fleld-based interference according to IEC 61000-4-5 • fleld-based interference according to IEC 61000-4-5 • fleld-based i	product designation	Current measuring module
• current measurement • voltage measurement • carbon power measurement • power measurement • power measurement • power measurement • ingue for thermistor connection • input for thermistor connection • input for thermistor connection • input for thermistor connection • or wires of main circuit according to IEC 60947-1 rated value • with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value • surge voltage resistance rated value protection class IP shock resistance according to IEC 60947-1 rated value protection class IP shock resistance according to IEC 60068-2-27	General technical data	
• voltage measurement • active power measurement • power measurement • power measurement • frequency measurement • frequency measurement • input for thermistor connection • input for thermistor connection • or with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value • of or wires of main circuit according to IEC 60947-1 rated value • surge voltage resistance rated value • for wires of main circuit according to IEC 60947-1 rated value • surge voltage resistance rated value • for wires of main circuit according to IEC 60947-1 rated value • surge voltage resistance rated value • for wires of main circuit according to IEC 60068-2-27 • field-based prohibitance (Date) • certificate of suitability • according to IEC 81346-2 • F Substance Prohibitance (Date) • according to IEC 414/34/EU • according to IEC 414/34/EU • according to IEC 414/34/EU • according to UKCA • possion device group and category according to ATEX directive 2014/34/EU • according to IEC 60947-1 • Conducted interference according to IEC 60947-1 conducted interference according to IEC 60947-1 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-carding to IEC 61000-4-3 • due to conductor-carding to IEC 61000-4-3 • due to conductor-carding to IEC 61000-4-3 • field-based interference according to IEC 61000-4-3 • field-based interference	product function	
active power measurement power measurement frequency measurement frequency measurement frequency measurement input for thermistor connection input for thermistor connection input for thermistor connection no consumed active power insulation voltage with degree of pollution 3 at AC rated value for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value protection class IP IP20 shock resistance according to IEC 60068-2-27 Ibg/11 ms vibration resistance 1-6 Hz / 15 mm; 6-500 Hz / 2 g reference code according to IEC 81346-2 FSubstance Prohibitance (Date) certificate of suitability according to MECA ITSZIUKEX0464 explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EICC emitted interference according to IEC 60947-1 conducted interference due to burst according to IEC 60947-1 conducted interference due to burst according to IEC 60947-1 conducted interference due to burst according to IEC 61000-4-4 due to burst according to IEC 61000-4-3 edue to conductor-conductor surge according to IEC 61000-4-3 field-based interference according to IEC 61000-4-3 field-based interference according to IEC 61000-4-3 Inputs/Outputs number of outputs as contact-affected switching element Protective and monitoring functions	 current measurement 	Yes
• power measurement • frequency measurement Product component • input for thermistor connection No consumed active power Insulation voltage • with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 60068-2-27 15g / 11 ms 15g / 11	 voltage measurement 	No
• frequency measurement product component • input for thermistor connection consumed active power of virus of main circuit according to IEC 60947-1 rated value • with degree of poliution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 60068-2-27 IF20 shock resistance according to IEC 60068-2-27 IF20 shock resistance according to IEC 81346-2 For substance Prohibitance (Date) of zording to ATEX directive 2014/34/EU according to ATEX directive 2014/34/EU according to ATEX directive 2014/34/EU according to WKCA ITS21UKEX0464 It(2) G, II(2) D, I (M2) Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference due to burst according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 field-based interference according to IEC 61000-4-3 Inputs/ Outputs outputs as contact-affected switching element Protective and monitoring functions product function	 active power measurement 	No
product component input for thermistor connection No consumed active power insulation voltage insulation vol	 power measurement 	No
• input for thermistor connection consumed active power insulation voltage • with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 60068-2-27 fbg / 11 ms vibration resistance reference code according to IEC 81346-2 Fsubstance Prohibitance (Date) certificate of suitability • according to ATEX directive 2014/34/EU according to ATEX directive 2014/34/EU according to WCA explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 fputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	frequency measurement	No
consumed active power insulation voltage • with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 60068-2-27 • fleat according to IEC 81346-2 reference code according to IEC 81346-2 Fubstance Prohibitance (Date) certificate of suitability • according to IEC 81346-2 explosion device group and category according to ATEX directive 2014/34/EU • according to UKCA intestive 2014/34/EU Electromagnetic compatibility Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-5 • due to conductor-carth surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions	product component	
insulation voltage • with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 60068-2-27 15g / 11 ms vibration resistance 1-6 Hz / 15 mm; 6-500 Hz / 2 g reference code according to IEC 81346-2 F Substance Prohibitance (Date) 05/28/2009 certificate of suitability • according to ATEX directive 2014/34/EU • according to ATEX directive 2014/34/EU explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-carth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	input for thermistor connection	No
with degree of pollution 3 at AC rated value for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value for owner of main circuit according to IEC 60947-1 rated surge voltage resistance rated value for owner of main circuit according to IEC 60068-2-27 for owner owne	consumed active power	0.2 W
• for wires of main circuit according to IEC 60947-1 rated value surge voltage resistance rated value for wires of main circuit according to IEC 60068-2-27 shock resistance according to IEC 60068-2-27 if 5g / 11 ms vibration resistance reference code according to IEC 81346-2 substance Prohibitance (Date) o5/28/2009 certificate of suitability according to ATEX directive 2014/34/EU substance proup and category according to ATEX directive 2014/34/EU explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 61000-4-3 intputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	insulation voltage	
surge voltage resistance rated value 6 000 V protection class IP shock resistance according to IEC 60068-2-27 15g / 11 ms vibration resistance 1-6 Hz / 15 mm; 6-500 Hz / 2 g reference code according to IEC 81346-2 F Substance Prohibitance (Date) 05/28/2009 certificate of suitability • according to ATEX directive 2014/34/EU BVS 06 ATEX F001 • according to UKCA ITS21UKEX0464 explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 class A EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-canductor surge according to IEC 61000-4-5 2 kV • due to conductor-conductor surge according to IEC 61000-4-3 10 V/m Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions	 with degree of pollution 3 at AC rated value 	690 V
protection class IP IP20 shock resistance according to IEC 60068-2-27 15g / 11 ms vibration resistance 1-6 Hz / 15 mm; 6-500 Hz / 2 g reference code according to IEC 81346-2 F Substance Prohibitance (Date) 05/28/2009 certificate of suitability • according to ATEX directive 2014/34/EU BVS 06 ATEX F001 • according to UKCA ITS21UKEX0464 explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 class A EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference • due to burst according to IEC 61000-4-4 2 kV • due to conductor-carth surge according to IEC 61000-4-5 2 kV • due to conductor-conductor surge according to IEC 61000-4-3 10 V/m Inputs/ Outputs number of outputs as contact-affected switching element 0 Protective and monitoring functions		6 kV
shock resistance according to IEC 60068-2-27 vibration resistance reference code according to IEC 81346-2 Substance Prohibitance (Date) o 25/28/2009 certificate of suitability • according to ATEX directive 2014/34/EU • according to UKCA explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-carth surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	surge voltage resistance rated value	6 000 V
vibration resistance reference code according to IEC 81346-2 F Substance Prohibitance (Date) 05/28/2009 certificate of suitability • according to ATEX directive 2014/34/EU BVS 06 ATEX F001 • according to UKCA iTS21UKEX0464 explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 corresponds to degree of severity 3 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	protection class IP	IP20
reference code according to IEC 81346-2 Substance Prohibitance (Date) certificate of suitability according to ATEX directive 2014/34/EU according to UKCA explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference due to burst according to IEC 61000-4-4 due to conductor-certh surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	shock resistance according to IEC 60068-2-27	15g / 11 ms
Substance Prohibitance (Date) certificate of suitability	vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
certificate of suitability according to ATEX directive 2014/34/EU according to UKCA Explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference according to IEC 61000-4-4 active to conductor-earth surge according to IEC 61000-4-5 active to conductor-conductor surge according to IEC 61000-4-3 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	reference code according to IEC 81346-2	F
according to ATEX directive 2014/34/EU according to UKCA explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 class A EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference due to burst according to IEC 61000-4-4 due to conductor-earth surge according to IEC 61000-4-5 due to conductor-conductor surge according to IEC 1 kV field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	Substance Prohibitance (Date)	05/28/2009
according to UKCA explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 class A EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference due to burst according to IEC 61000-4-4 2 kV due to conductor-earth surge according to IEC 61000-4-5 2 kV due to conductor-conductor surge according to IEC 1 kV field-based interference according to IEC 61000-4-3 10 V/m Inputs/ Outputs number of outputs as contact-affected switching element 0 Protective and monitoring functions product function	certificate of suitability	
explosion device group and category according to ATEX directive 2014/34/EU Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 class A EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference • due to burst according to IEC 61000-4-4 2 kV • 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 Inputs/ Outputs number of outputs as contact-affected switching element 0 Protective and monitoring functions product function	 according to ATEX directive 2014/34/EU 	BVS 06 ATEX F001
Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 class A EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference • due to burst according to IEC 61000-4-4 2 kV • due to conductor-earth surge according to IEC 61000-4-5 2 kV • due to conductor-conductor surge according to IEC 1 kV field-based interference according to IEC 61000-4-3 10 V/m Inputs/ Outputs number of outputs as contact-affected switching element 0 Protective and monitoring functions product function	according to UKCA	ITS21UKEX0464
EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 corresponds to degree of severity 3 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function		II (2) G, II (2) D, I (M2)
conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	Electromagnetic compatibility	
conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	EMC emitted interference according to IEC 60947-1	class A
• due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC • 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function 2 kV 1 kV 10 V/m Protective and monitoring functions	EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
• due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function 2 kV 1 kV 10 V/m Protective and monitoring functions	conducted interference	
• due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function 1 kV 10 V/m 10 V/m	 due to burst according to IEC 61000-4-4 	2 kV
field-based interference according to IEC 61000-4-3 Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function	 due to conductor-earth surge according to IEC 61000-4-5 	2 kV
Inputs/ Outputs number of outputs as contact-affected switching element Protective and monitoring functions product function		1 kV
number of outputs as contact-affected switching element 0 Protective and monitoring functions product function	field-based interference according to IEC 61000-4-3	10 V/m
Protective and monitoring functions product function	Inputs/ Outputs	
product function	number of outputs as contact-affected switching element	0
	Protective and monitoring functions	
power factor monitoring No	product function	
	power factor monitoring	No

- analyzed facult magnifesting	Na
ground-fault monitoring valtage detection	No No
voltage detection	No
trip class	CLASS 5E
product function	
current detection	Yes
overload protection	Yes
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	94 mm
width	55 mm
depth	72 mm
required spacing	
• top	30 mm
• bottom	30 mm
• left	0 mm
• right	0 mm
diameter of inlet opening	14 mm
diameter of inlet opening for current measurement	14 mm
Ambient conditions	
installation altitude at height above sea level	
• 1 maximum	2 000 m
• 2 maximum	3 000 m; max. +50 °C (no protective separation)
• 3 maximum	4 000 m; max. +40 °C (no protective separation)
	4 000 III, IIIax. 140 C (IIO protective separation)
ambient temperature	-25 +60 °C
during operation	
during storage	-40 +80 °C
during transport	-40 +80 °C
environmental category	
 during operation according to IEC 60721 	3K6 (no formation of ice, no condensation, relative humidity 10 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
• during storage according to IEC 60721	1K6 (no condensation, relative humidity 10 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
 during transport according to IEC 60721 	2K2, 2C1, 2S1, 2M2
relative humidity during operation	5 95 %
Short-circuit protection	
product function short circuit protection	No
Galvanic isolation	
(electrically) protective separation according to IEC 60947-1	All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information)
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	10 100 A
operating voltage	
• at AC	
— at 50 Hz rated value	110 690 V
— at 60 Hz rated value	110 690 V
operating frequency rated value	50 60 Hz
Control circuit/ Control	
type of voltage	AC
Certificates/ approvals	
General Product Approval	EMC
General Floudet Approval	ENIC





Confirmation







For use in hazardous locations

Declaration of Conformity







Explosion Protection Certificate





Test Certificates

Marine / Shipping

Special Test Certific-

Type Test Certificates/Test Report









other

Confirmation



Profibus

Further information

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=3UF7102-1AA00-0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7102-1AA00-0

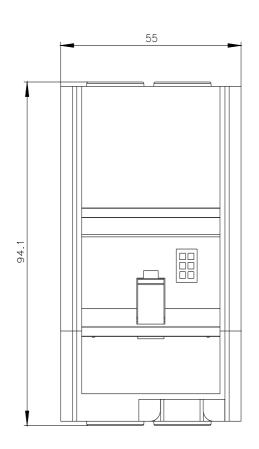
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3UF7102-1AA00-0

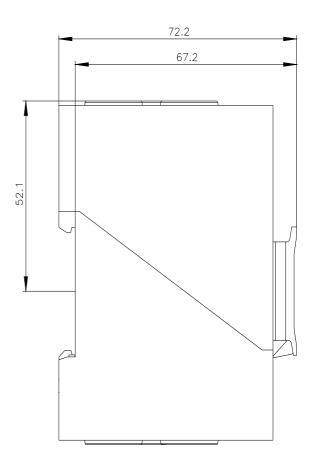
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

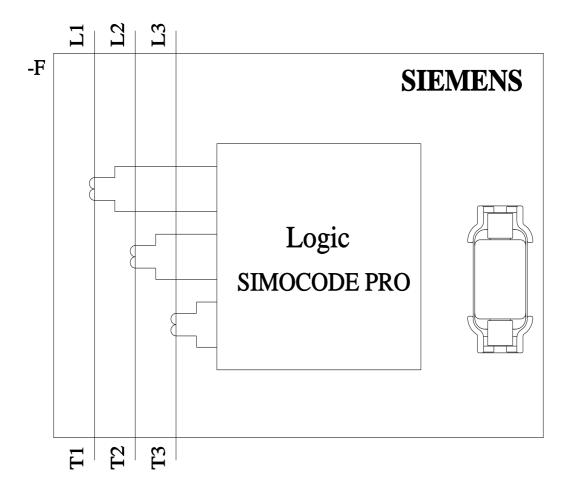
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7102-1AA00-0&lang=en

Test report No. A0258, protective separation

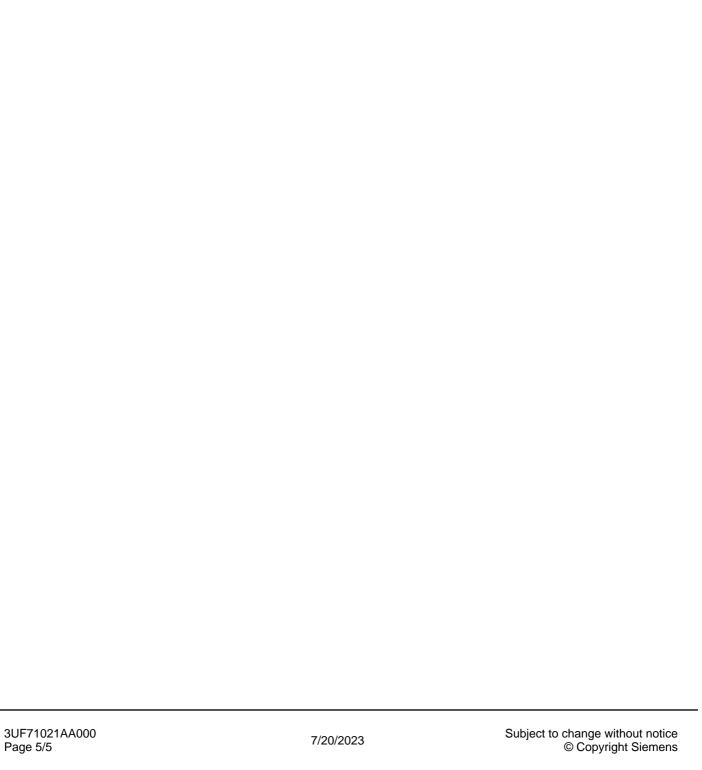
https://support.industry.siemens.com/cs/ww/en/view/109748152







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