SIEMENS

Data sheet 3UF7114-1BA00-0

Current/voltage measuring module Set current 63...630 A voltage measurement up to 690 V, Overall width 145 mm, busbar connection



product brand name	SIRIUS
product designation	Current/voltage measuring module
General technical data	
size of the circuit-breaker	S10, S12
product function	
● current measurement	Yes
● voltage measurement	Yes
● active power measurement	Yes
● energy measurement	Yes
● frequency measurement	No
current measuring range extension with external current transformers	No
measurable supply voltage between the line conductors at AC maximum rated value	690 V
product component	
● input for thermistor connection	No
consumed active power	0.3 W
insulation voltage	
● with degree of pollution 3 at AC rated value	690 V
● for wires of main circuit according to IEC 60947-1 rated value	6 kV
surge voltage resistance rated value	8 000 V
shock resistance according to IEC 60068-2-27	15 g / 11 ms
vibration resistance	1 … 6 Hz / 15 mm; 6 … 500 Hz / 2 g
reference code according to IEC 81346-2	F
Substance Prohibitance (day/month/year)	05/28/2009
SVHC substance name	Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1
Net Weight	1.84 kg
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 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
Inputs/ Outputs	

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number of outputs as contact-affected switching element	0
Protective and monitoring functions	
product function	
● power factor monitoring	Yes
● ground-fault monitoring	No
● voltage detection	Yes
trip class	CLASS 5E, 10E, 15E, 20E, 25E, 30E, 35E and 40E adjustable
product function	
● current detection	Yes
● overload protection	Yes
Installation/ mounting/ dimensions	
mounting position	any
fastening method	direct mounting / stand-alone installation
height	147 mm
width	145 mm
depth	149 mm
required spacing	
● top	30 mm
● bottom	30 mm
● left	0 mm
● right	0 mm
Connections/ Terminals	
type of electrical connection	
● for main current circuit	busbar connection
● for auxiliary and control circuit	screw-type terminals
type of electrical connection at the measurement inputs for voltage	screw-type terminals
type of connectable conductor cross-sections at the measurement inputs for voltage	
● finely stranded with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
● solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
● for AWG cables solid	1x (20 ... 14), 2x (20 ... 14)
● for AWG cables stranded	1x (20 ... 14), 2x (20 ... 16)
tightening torque at the measurement inputs for voltage	0.8 ... 1.2 N·m
tightening torque [lbf·in] at the measurement inputs for voltage	7 ... 10.3 lbf·in
type of connectable conductor cross-sections at the measurement inputs for current	
● solid with core end processing	50 mm² ... 240 mm²
● stranded with core end processing	70 mm² ... 240 mm²
● for AWG cables	6 kcmil ... 300 kcmil
design of the thread of the connection screw at the measurement inputs for current	M8 x 25
test voltage for isolation test note	For insulation tests, it is recommended to disconnect the voltage terminals; this is mandatory for DC test voltages.
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)
ambient temperature	
● during operation	-25 ... +60 °C
● 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 %

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Short-circuit protection	
product function short circuit protection	No
IEC 61508	
Safety Integrity Level (SIL) according to IEC 61508	1
ATEX	
certificate of suitability	
• according to ATEX directive 2014/34/EU	BVS 06 ATEX F001
explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2) D, I (M2)
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	63 ... 630 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

Approvals Certificates

Environment	General Product Approval				
Environmental Confirmations	EPD	CCC	cULus	UL	EAC

General Product Approval		EMV		For use in hazardous locations	
EG-Konf.	UKCA		RCM	IECEx	ATEX

For use in hazardous locations	Test Certificates			Maritime application	
Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report	Special Test Certificate	ABS	DNV

Maritime application	other		Industrial Communication
LRS	Confirmation	产品合格 QC PASS	Profibus

Further information

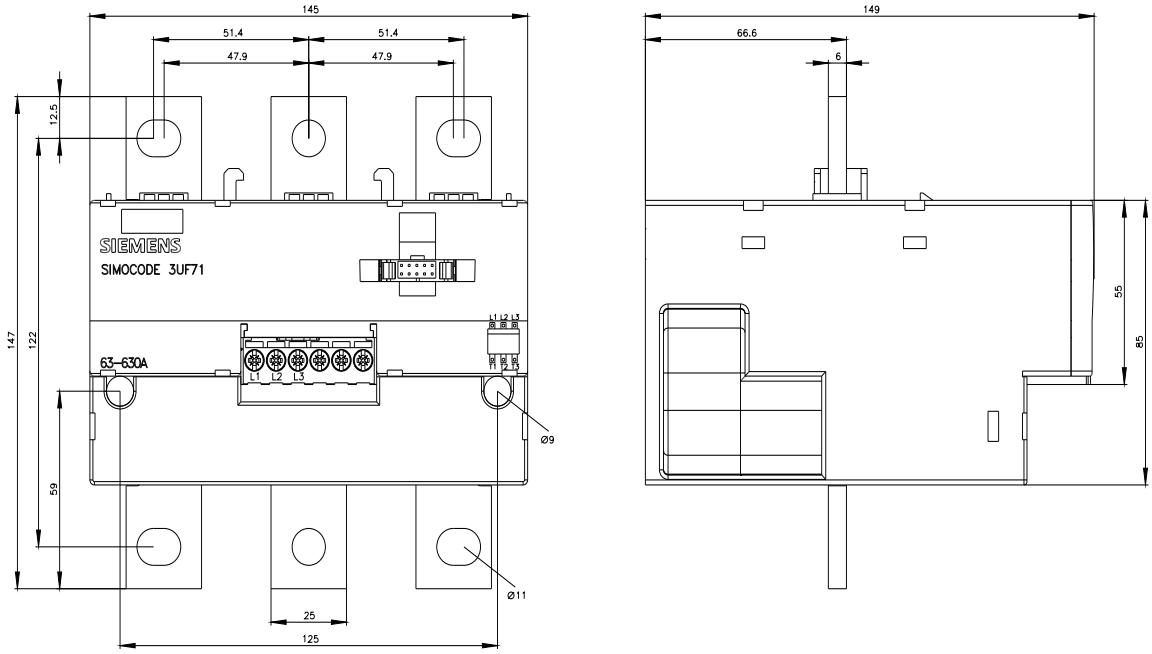
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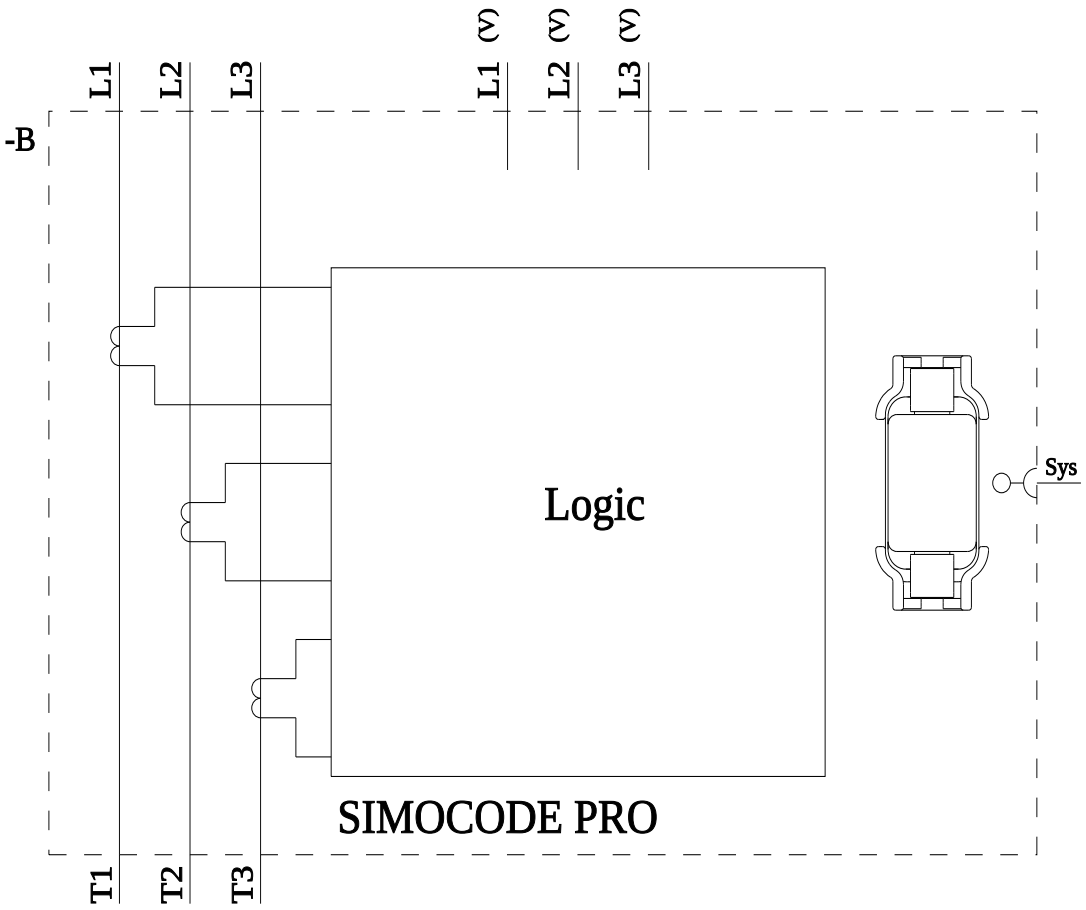
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

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