SIEMENS

Data sheet 5SL6025-6MC

Siemens EcoTech

Miniature Circuit Breaker Measuring, Communication AC 230V 6kA, 1+N pole, B, 25A Please consider Radio approval! List of countries: see Certificates

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
design of the product	Miniature circuit breaker COM compact
type of measured value detection	completely
General technical data	
design of pole	1P+N
apparent power consumption of the power supply	0.4 VA
tripping characteristic class	B
mechanical service life (operating cycles) typical	10 000
electrical endurance (operating cycles) at AC load in the mean value	7 500
measurable line frequency initial value	45 Hz
measurable line frequency full-scale value	65 Hz
overvoltage category	3
degree of pollution	2
frequency with radio transmission minimum	2 400 MHz
frequency with radio transmission maximum	2 483.5 MHz
status display of the measured data	voltage, current, active power, apparent power, reactive power, active energy, line frequency, power factor, temperature, switching cycles, operating hours, tripping, warnings
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui) at AC rated value	250 V
• operational current	
— at 30 °C rated value	25 A
— at 40 °C rated value	22.82 A
— at 50 °C rated value	19.09 A
— at 55 °C rated value	20.41 A
— at 60 °C rated value	17.68 A
• operational current at AC rated value	25 A
measurable current at AC	
• initial value	0.04 A
• full-scale value	66 A
reference current (Iref) 1 at AC rated value	25 A
Supply voltage	

supply voltage	
● at AC	230 V
value range of the supply voltage frequency	50/60 Hz
operating voltage	
● minimum	100 V
● with single-phase operation at AC maximum	250 V
Protection class	
protection class IP	IP20, with connected conductors
protection class IP	
● on the front	IP40
● rear side	IP20
Breaking Capacity	
switching capacity current	
● according to EN 60898 rated value	6 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current	
● at AC in hot operating state per pole	3.4 W
Suitability	
suitability for operation	Residential buildings/infrastructure
suitability for use ammeter	Yes
suitability for use reactive power meter	Yes
suitability for use frequency meter	Yes
suitability for use voltmeter	Yes
suitability for use wattmeter	Yes
Product details	
product feature touch protection	Yes
product component	
● combined terminal top	No
● combined terminal bottom	No
● neutral conductor switching	Yes
product feature properties for main switches in accordance with EN 60204-1	No
product feature halogen-free	Yes
product feature sealable	Yes
product feature silicon-free	Yes
product extension installable supplementary devices	Yes
Product function	
product function	
● communication function	Yes
● other measurement function	Yes
Communication	
guideline via radio-controlled system	2014/53/EU
protocol is supported	Wireless protocol
Fault limits	
standards for error limits	based on IEC61557-12, IEC62053-22, IEC62053-23
reference condition for metering accuracy	according IEC61557-12, IEC62053-22 and IEC62053-23
relative symmetrical measurement uncertainty [%]	
● for measured variable current	0.5 %
● for measured variable voltage	0.5 %
● for measured variable electrical energy	1 %
● for measured variable reactive power	1 %
● for measured variable apparent power	1 %
● for measured variable active power	1 %
Measuring inputs	
measurable supply voltage between (PE)N and L at AC	
● minimum	95 V
● maximum	255 V
measuring category for voltage measurement	CATIII according IEC 61010-2-030

measuring procedure for current measurement	TRMS
measuring procedure for voltage measurement	TRMS
Connections	
connectable conductor cross-section solid	
● minimum	0.75 mm²
● maximum	16 mm²
connectable conductor cross-section stranded	
● minimum	0.75 mm²
● maximum	16 mm²
connectable conductor cross-section finely stranded with core end processing	
● minimum	0.75 mm²
● maximum	10 mm²
tightening torque [lbf·in] with screw-type terminals	
● minimum	10.6 lbf·in
● maximum	17.7 lbf·in
tightening torque with screw-type terminals	
● minimum	1.2 N·m
● maximum	2 N·m
position of power supply cord	Any
Mechanical Design	
height	90 mm
width	18 mm
depth	76 mm
installation depth	70 mm
number of modular width units	1
fastening method	DIN rail
mounting position	any
Net Weight	137 g
Environmental conditions	
standard	IEC/EN60898-1, GB/T10963.1
standard for shocks	IEC 61373
standard for environmental sinusoidal oscillation check	IEC 60068-2-6
vibration resistance according to IEC 60068-2-6	Yes
ambient temperature during operation	
● minimum	-25 °C
● maximum	60 °C
ambient temperature during operation	-25...45°C: max. 85%rF. 45...60°C: max. 43%rF
ambient temperature during storage	
● minimum	-40 °C
● maximum	75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	28
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	11.7 kg
global warming potential [CO2 eq] during manufacturing	0.916 kg
global warming potential [CO2 eq] during operation	10.8 kg
global warming potential [CO2 eq] after end of life	-0.102 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
Approvals Certificates	
General Product Approval	

Confirmation

General Product Ap-	Radio Equipment	Test Certificates	other

proval	Type Approval Certificate				
KEMA	Miscellaneous	Miscellaneous	产品合格 QC PASS	Miscellaneous	Confirmation

Railway		Environment			
Special Test Certificate	Confirmation	EPD	EPD	Siemens EcoTech	Environmental Confirmations

Environment
Environmental Confirmations

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/lowvoltage/catalogs
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SL6025-6MC
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/5SL6025-6MC
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SL6025-6MC
CAx-Online-Generator
https://www.siemens.com/cax
Tender specifications
https://www.siemens.com/specifications
Characteristic curves
https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod__no>