

# Product datasheet

Specifications



## PowerLogic SC160 CT-LPVT/VT, MV switchgear controller unit

EMS59210

### Main

**range of product** PowerLogic T300

**Device short name** SC160

### Complementary

**product or component type** MV switchgear protection and monitoring

**Device application**  
MV fault detection  
MV switchgear protection  
Remote control  
Remote monitoring

**protection or fault passage indication function**  
ANSI 50/51 : phase overcurrent  
ANSI 50N/51N : earth fault overcurrent  
ANSI 67 : directional phase overcurrent  
ANSI 67N : directional earth fault  
ANSI 47 : negative sequence overvoltage  
ANSI 27 : undervoltage  
ANSI 59 : overvoltage  
ANSI 59N : neutral voltage displacement  
ANSI 37 : phase undercurrent  
Phase unbalance  
Current unbalance  
Cold load pick-up  
Inrush surge protection

**power measurement**  
Apparent power  
Voltage  
Active and reactive power  
Active and reactive energy  
Power factor  
Current  
Frequency  
Apparent energy  
Total current harmonic distortion THD (I)  
Total voltage harmonic distortion THD (U)

**power quality analysis**  
Voltage unbalance  
Individual harmonics  
Voltage sag and swell detection  
Harmonic distortion  
Voltage magnitude  
Current unbalance

**measurement accuracy**  
Current: class 0.5  
Voltage (LPVT, VT): class 0.5  
Energy: class 1 conforming to IEC 61557-12

**Data recording**  
Sag and swell logs  
Harmonics logs  
Min/max of instantaneous values  
Demand values  
Event logs  
Sequence of event recording  
Counter  
Current value before fault

**Memory capacity** 4 MB

<b>Synchronisation time between inputs</b>	1 ms
<b>Control type</b>	Local operator front panel (HMI)
<b>web services</b>	Assistance in commissioning and operating the installation Security/authority verification Alarm Event log Operating/Status report Reports and diagrams
<b>[Us] rated supply voltage</b>	12...48 V DC +/- 20 %
<b>Power consumption in VA</b>	2 VA
<b>Communication port protocol</b>	IEC 60870-5-104
<b>Communication port support</b>	ETHERNET 2 RJ45
<b>Number of inputs</b>	8 digital conforming to IEC 61131-2 type 3
<b>measurement current</b>	5 A 1 A
<b>Input current limits</b>	1...5 A in fault current detection configuration 1 A in protection configuration
<b>Analogue input type</b>	Current 0.01...35 A (impedance 0.001 Ohm)4 x
<b>Measurement voltage</b>	: 0...30 V VPIS V3 AC : 0...10 V LPVT AC at 50/60 Hz : 47...240 V VTs AC at 50/60 Hz
<b>Number of outputs</b>	2 digital (relay) switch:
<b>Maximum switching voltage</b>	440 V AC
<b>rated motor mechanism voltage</b>	12...127 V DC motor: 90...220 V AC motor:
<b>Continuous output current</b>	8 A
<b>Breaking capacity</b>	2000 VA
<b>Irms rated making capacity</b>	15 A during 4 s

## Environment

<b>Fixing mode</b>	Clip-in (DIN rail)
<b>Type of installation</b>	Indoor Outdoor in cabinet
<b>Electromagnetic compatibility</b>	Electrical fast transient/burst immunity test - test level: level 4 criteria A conforming to IEC 61000-4-4 Conducted RF disturbances - test level: level 3 criteria A conforming to IEC 61000-4-6 Conducted disturbance emission - test level: level 4 criteria A conforming to IEC 61000-4-16 100 kHz damped oscillating wave - test level: level 3 criteria A conforming to IEC 61000-4-12 Radiated radio-frequency electromagnetic field immunity test - test level: level 4 criteria A conforming to IEC 61000-4-3 Immunity to voltage dips criteria A conforming to IEC 61000-4-29 Electrostatic discharge - test level: level 4 criteria B conforming to IEC 61000-4-2 Surge immunity test - test level: level 3 criteria A conforming to IEC 61000-4-5 Magnetic field at power frequency - test level: level 5 criteria B conforming to IEC 61000-4-8 Conducted and radiated emissions class A conforming to EN 55022
<b>IP degree of protection</b>	IP2X body: conforming to IEC 60529 IP4X front: conforming to IEC 60529
<b>IK degree of protection</b>	IK07 conforming to IEC 62262
<b>Relative humidity</b>	5...95 % conforming to IEC 60068-2-30

<b>Mechanical robustness</b>	Vibrations 10...2000 Hz 1 gn 10 cycles conforming to IEC 60068-2-6 Bumps 10 gn 16 ms 1000 bumps non energized conforming to IEC 60068-2-29 Shocks 10 gn 11 ms 3 pulses in operation conforming to IEC 60068-2-27
<b>ambient air temperature for storage</b>	-40...85 °C
<b>ambient air temperature for operation</b>	-40...70 °C
<b>Operating altitude</b>	2000 m
<b>Product certifications</b>	CE
<b>Standards</b>	IEC 60255-27 IEC 61557-12 IEC 62586-1 IEC 61000-4-30:class S IEC 61850
<b>Height</b>	140 mm
<b>Width</b>	45 mm
<b>Depth</b>	140 mm
<b>net weight</b>	0.515 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	8.0 cm
<b>Package 1 Width</b>	19.0 cm
<b>Package 1 Length</b>	20.0 cm
<b>Package 1 Weight</b>	668.0 g

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

 **Rohs Exemption Information** Yes

## Certifications & Standards

<b>Reach Regulation</b>	<a href="#">REACH Declaration</a>
<b>Eu Rohs Directive</b>	Compliant with Exemptions
<b>China Rohs Regulation</b>	<a href="#">China RoHS declaration</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Weee</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>