

Technical Data SC300/P 3 Phase Electricity Meter

3 Phase Credit Meter – Wholecurrent – 230/415volts 100amps



**Ofgem/MID Approved For Billing
Pulsed Output Facility
Manufactured to ISO EN1436**

Weight and Dimensions

Weight

Standard

950g

With extended terminal cover

1070g

Dimensions

Width

167.9mm

Height

175.8mm

Depth

56.3mm

Terminal details

Arrangement

BS5685

Size

8.3mm

diameter

IP Rating

With Short Terminal Cover

IP51

With Extended Terminal Cover

IP54

Connections

Standard Layout and Dimensions

Case Material

Base, Top Cover and Terminal Cover

Flame retardant and UV stabilised polycarbonate

Communication Interface

Optical Interface

Type serial, bi-directional interface
Protocol IEC 62056-21

Insulation Strength

Insulation Strength 4.4kV at 50Hz for 80 seconds

Impulse Voltage Strength to IEC62053-11

Impulse Voltage 6kV

Impedance of source 500Ω

Rise/Decay time of impulse voltage

1.2μs/50μs

Protection Class II to IEC 626050-131 □ 2

Display Characteristics

Type 7 character, 7 segment LCD

Digit size 8x3.5mm

Number of Digits 6 significant numbers 2dp

Pulse Output

Optically Isolated

Volt Free Open Collector

10 pulses = 1 kWh

Pulse Width

200mSecs

Maximum Voltage

15Vdc

Output meets

IEC62053-31 Class B

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General

Power Consumption

Voltage Circuit	<3W
<15VA	
Current Circuit	<4VA

Environmental Influences

Temperature Test	IEC62053-21, IEC62053-23
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Temperature Range

Operation	-10°C to +45°C
Power Measurement Range	-25°C to +55°C
Storage	-25°C to +70°C
This complies with EN 62052-11:2003 section 6.1	

Temperature Coefficient

Range	From -10°C to +45°C
Typical mean value	±0.015% per K IEC62053-21
cosφ = 1 (from 0.1 Ib to I _{max})	±0.05% per K
cosφ = 1 (from 0.2 Ib to I _{max})	±0.07% per K

IEC 62053-23

cosφ = 1 (from 0.1 Ib to I _{max})	±0.10% per K
cosφ = 0.5 (from 0.2 Ib to I _{max})	±0.15% per K
Impermeability to IEC 60529	IP51

Shock Test

BS EN60068-2-27

Electromagnetic Compatibility

Electrostatic Discharges	to IEC 61000-4-2
Contact Discharges	8kV
Air Discharges	15kV

Electromagnetic RF Fields 80MHz to 2 GHz	to IEC 61000-4-3 at least 10V/m
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Radio Interference suppression to IEC/CISPR 22
Class B

Fast Transient Burst Test to IEC 61000-4-4

With basic current Ib:

For current and voltage circuits	4kV
For auxiliary circuits >40V	4kV

With open current circuit
for voltage and current circuits
4kV

Fast Transient Surge Test to IEC 61000-4-5

Impulse Voltage	4kV
Impedance of source	2Ω
Rise/Decay time of impulse voltage	1.2μs/50μs
Rise/Decay time of impulse voltage	8μs/50μs

General

Voltage

Nominal Voltage Un	220-240V
Voltage Range	80-
115%Un	
Voltage Withstand Continuous	415V

Frequency

Nominal Frequency	50/60Hz
Frequency Variation	+/- 2%

IEC-Specific Data

Current

Base Current	
Direct Connection Ib	5, 10, 15, 20A
Current Max	
I _{max}	80, 100, 105, 120, 125A

Measurement Accuracy

Measuring Accuracy	IEC 62053-21 Class 1 or 2 3
	IEC 62053-23 Class 2 or 3

Measurement Behaviour

Starting Current IEC	Class 1 0.4% of Ib Class 2 0.5% of Ib
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Max Measuring Range

20mA up to 100A

Approvals

Quality	Manufactured to ISO 9001:2000
Certified Life	20 years
OFGEM Approved Number	981

Operating Behaviour**

Voltage Interruptions (Power Down)	
Blocking of Inputs and outputs	Immediate
Standby Operation	for 0.15s
Data Storage after	0.15s
Switch Off after approx	0.15s

Voltage Restoration (Power Up)

Function Standby (depending on duration of failure)	<5s
Detection of energy direction and phase voltage	<5s

Power Supply Quality

The meter complies with EN63052-11 Section 7.1.1
Voltage range and 7.1.2 Voltage dips and short

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