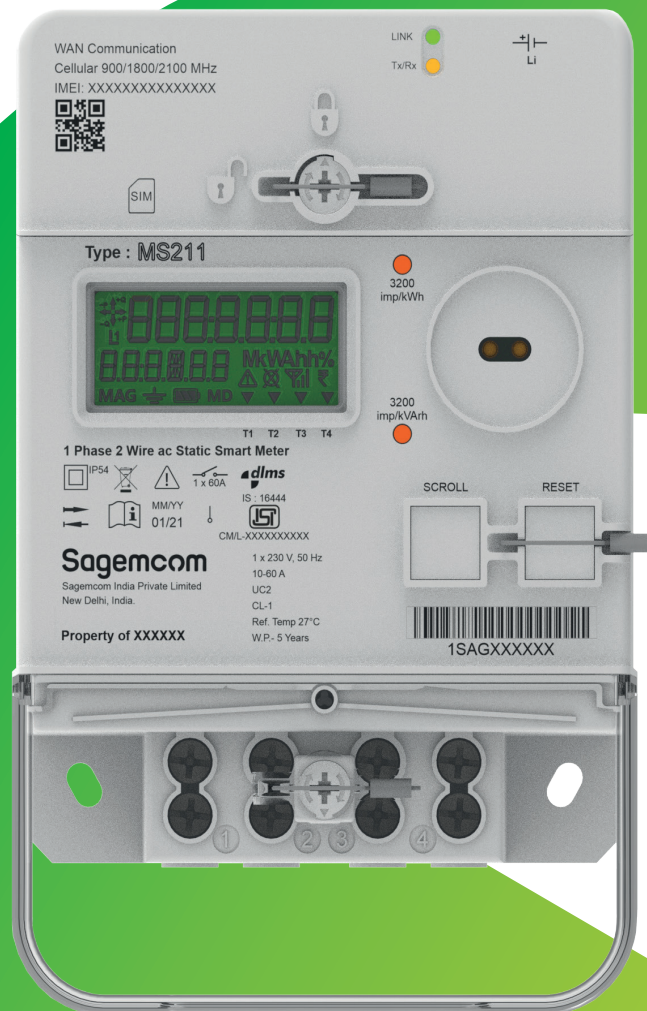


# Sagemcom

## MS211

Single Phase Smart Energy Meter  
Static Whole Current IP-2W



# MS211 Products presentation

- Latest generation of modular Smart Meters
- Smart Pre-Paid, Post-Paid & Net Metering
- Cellular communication 2G/4G (LTE)
- Last Gasp & Neutral current measurement
- DLMS Protocol as per IS 15959 Part-2

MECHANICAL CHARACTERISTICS	
<b>Sealing method:</b> Top cover and bottom cover are sealed together by ultrasonic welding. The terminal block cover is sealed by one dedicated screw and metallic ferrule.	
<b>Connection diagram</b>	IS 13779 SYMMETRICAL CONNECTION
<b>Mounting</b>	IS 13779
<b>Cable size</b>	4 - 25 mm <sup>2</sup>

SPECIFICATIONS		
Communication interfaces	<b>Maintenance interface</b>	Optical port (IEC 62056-31)
	<b>Wireless</b>	Internal antenna
	<b>Cellular Modem</b>	2G/4G-LTE Modem and available internal antenna connection
Breakers	<b>2 Internal load disconnecter in Phase &amp; Neutral (breakers)</b>	UC2 Max current disc.: I <sub>max</sub> = 60A Max switching current disc.: I <sub>max</sub> = 80A

MAIN FUNCTIONALITIES	
Time of use	Programmable Load profiles: Capture list / capture COSEM objects / capture period
	Programmable Billing profiles: Capture list / capture COSEM objects / capture period
	Tariff management via built-in programmable output relay
	Calendar/Time of Use management
Power quality	Voltage Interruptions (Power down)
	Voltage Restoration (Power Up)
	Power Supply Quality
Security, integrity and verification	DLMS Security: as per IS 15959 Part-2
	Auto diagnostic
	Calibration mode
	Data Storage strategy for integrity
Firmware and load management	Local access to the meter by DLMS authentication Password (via the optical port)
	Load Disconnection: locally and remotely Local and remote Firmware upgrade

Note: this list of functionalities is not exhaustive. Deeper features list and Security detail can be delivered on special demand under Non-Disclosure Agreement (NDA).

SPECIFICATIONS		
Basic Features	<b>Voltage</b>	230 V
	<b>Current</b>	10-60 A
	<b>Accuracy</b>	Cl 1.0
	<b>Max switching current per phase</b>	80 A
	<b>Frequency</b>	50 Hz ± 5%
	<b>Active Energy</b>	IS 16444 (Part 1)
	<b>Communication</b>	Bidirectional/w
	<b>Quadrants</b>	Q1/Q2/Q3/Q4, Import/Export Energy
	<b>Configuration</b>	Prepaid, Postpaid, Net Metering
	<b>Events Management</b>	Tamper event detection, recording and reporting
Environment	<b>Lifetime</b>	10 years
	<b>Operating temperature</b>	-25°C / + 60°C
	<b>Humidity</b>	< 95%
	<b>Protection Index</b>	IP 54
Customer Interaction	<b>Fire protection</b>	IS 11000 (Part 2/Set I)
	<b>Display</b>	<ul style="list-style-type: none"> <li>• LCD: Dot matrix 5 x 8</li> <li>• Digit Size: 7x3 mm</li> <li>• Symbols: 48 (3 lines of 16)</li> <li>• Scrolling: auto and manual</li> <li>• Backlight: option, remotely configurable</li> </ul>
	<b>LEDs</b>	<ul style="list-style-type: none"> <li>• 1 for Active Energy</li> <li>• 1 for Reactive Energy</li> </ul>
	<b>Push Buttons</b>	<ul style="list-style-type: none"> <li>• Main button for scrolling and breaker connection</li> <li>• Sealable button for maintenance</li> </ul>
	<b>Reading without power</b>	Internal battery

FRAUD DETECTION
Magnetic field Detection
Magnetic field immunity
Top Cover and Terminal block cover opening/closing detection
Input - output swap detection
Phase - Neutral swap detection
Mains power cut detection
Power factor variation detection
Neutral Disturbance

CERTIFICATION
BIS Licensed as per IS 16444 Part-1 & CEA-2016
UC2 (breaker) EN 62055-31 & IS15884
DLMS SECURITY suite 0, 1 (ready for suite 2) & IS 15959 Part-2
MID Directive 2014/52/EU and the Radio Equipment Directive (RED) 2014/53/EU
CE Declaration
DLMS CTT V3.0
LTE CAT NB2/NB1 (NB-IoT) / LTE CATM
RED
Open to special Local/country Certification

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