ASM 200 SERIES

Pre-Paid & Post-Paid Meters

Adya introduces ASM 200 series product line of Smart Energy Meters to meet the global Utility needs. In tune with the growing demand of the utility and the consumer this product line is designed to meet various markets. The emphasis has been on the quality and also to meet the current and future planning of the Metering industry.

These intelligent meters provide electric metering information, storage, processing real-time monitoring, automatic control as well as remote integration. These meters provide higher productivity, improved efficiency and reduced energy costs thus enabling modern scientific energy management. These versatile meters are reliable, easily installed and configured.

STANDARDS: IS 16444 (Part-1), IS 15884:2010 & IS 15959 Part 1 & 2

Smart Energy Meter Variants

ASM 211 Series Single Phase Meter	ASM 231 Series Three Phase Meter
ASM Basic ➢ Basic residential ➢ Varied anti-tempering features ➢ Handheld ➢ AMI upgrade	**ASM Basic** ➢ Basic residential ➢ Varied anti-tempering features ➢ Handheld ➢ AMI upgrade
ASM Medium ➢ High-end residential consumers ➢ HAN support for doing energy management import/export features For alternative energy. ➢ Management ➢ RF Mesh or cellular	**ASM Medium** ➢ High-end residential consumers ➢ HAN support for doing energy management import/export features For alternative energy. ➢ Management ➢ RF Mesh or cellular
ASM High End ➢ Low-end commercial ➢ Load management and demand response ➢ Complete Smart Metering features ➢ RF Mesh and Cellular	**ASM High End** ➢ Low-end commercial ➢ Load management and demand response ➢ Complete Smart Metering features ➢ RF Mesh and Cellular

Key Benefits

Revenue Protection

Adya Smart Meter combines pre-paid and post-paid in one single meter which avoid the utility to replace meters or change the meter when customer switches from pre-paid to post-paid services or vice-versa. The ability to disconnect the services combines with high accuracy and reliability of meter help the utility to increase the top & bottom lines revenues.

Green Energy

Adya Smart Meters enable the micro-generation concepts by involving the consumer to import and export the energy to and from grid. It also gives the energy generated facilities like solar, wind, bio-gas etc. Adya has developed the meters with import/export functionality which can be deployed with ease.

PUSH Communication

Adya Smart Meters can be configured to push the data to head-end system at periodic intervals, these time intervals can be reconfigured in the intervals of 15/30/60 minutes as required by the utility needs. These features help to reduce the network congestion by 20-30%

Smart Home

Adya Smart Meters have inbuilt solution for communication which wirelessly integrates with the Home Display Units and HAN and Also sends message to the mobile giving details of the consumption

Interoperability

The ability of the meter to work with open standards and multiple communication channels ensure a seamless integration with the head-end acquisition system. This gives utility the choice to select the communication channel independent of the meter

Peak Load Management

Curtailing the peak load management has direct effect on the generation of Dirty Power contribution to the carbon emissions. Adya smart meters enable the utility to deploy the Demand Management programs. With these important features like dynamic change of Time-of-Use (TOU) based tariff, load controls, alerts of Maximum Demand (MD) and Contracted Demand (CD) breach, it empowers the customers to participate and manage energy consumption and bills.

Application Supported

HN, HDU, Outage Management Services, Demand Response, Demand Side Management, Load Profiling, Customer Information System, Billing/Collection, Energy Audit, various analytics and reports.

Return on Investment

Adya Smart Meters are designed to cater to the current market needs of AMR and AMI (with upgrade options). The meter architecture supports the roadmap of the utility for the next 10 years. The meters provide quick and secure ROI to the utilities

Key Features

Features	ASM211	ASM231
Standards & Compliance DLMS/COSEM	Y	Y
AMI/AMR Support	Y	Y
Connection/Disconnection Complete automated pre-payment with no human intervening	Y	Y
Pre-Payment Complete automated pre-payment with no human intervention	Y	Y
RTC All events and logs recorded with Time Stamp	Y	Y
Tampers Magnetic, Neutral, Phase reversal, Front Cover Open, Independent sealing of the meter body & terminal cover, Total reversal register	Y	Y
Communication Support Zigbee Mesh LP Mesh, GPRS/GSM, PLC, Wi-Fi, WiMAX, Fiber Optic	Y	Y
Periodic Data Configurable for every 5,15,30,45 or 60 minutes	Y	Y
4 quadrant metering	Y	Y
Tariff 8 Zones, 4 seasons and Special days	Y	Y
Remote Reconfiguration Remote reconfiguration of internal properties like zones, seasons etc.	Y	Y
Alerts Outages, Meter Tapers, Communications, Voltage fluctuations, Maximum Demand (MD), Overloading etc.	Y	Y
Power Quality Factor	Y	Y
HAN/HDU Support	Y	Y
Security AES GCM 128 bit encryption, DLMS Security Suite '0'	Y	Y

Technical Specifications

| Description	ASM211	ASM231
Electrical		
Adya Smart Meter	1-phase, 2 wire (ASM-126)	3-phase, 4 wire (ASM-347)
Voltage (volts)/operating frequency	1X240V (-40% to +20%) 50Hz, +/- 5%	3X240/415V (-40% to +20%) 50Hz, +/- 5%
Basic Current/ Maximum	5/30, 10/60 Amps	10/60, 20/100 Amps
Starting Current	0.2% Ib	0.2% Ib
Accuracy Class	Class 1.0(Active)	Class 1.0 (Active) Class 2.0 (Reactive)
Measuring Scope	Active/Apparent Energy Power Quality Measurement	Active/Apparent Energy Power Quality Measurement
Power Consumption per phase	Voltage circuit –Below 5W , 15VA Current Circuit-Below .5VA,11VA	Voltage circuit –Below 5W , 15VA Current Circuit-Below 11 VA, 18.4VA
Compliance	In Compliance with IS16444 Part-1 IS 15884:2010, IS 15959 Part 1 & 2 DLMS/COSEM	In Compliance with IS16444 Part-1 IS 15884:2010, IS 15959 Part 1 & 2 DLMS/COSEM
Mechanical		
Dimensions (L x B x H)	256 x 140 x 83 mm(approx.)	256 x 155 x 84 mm(approx.)
Enclosure	Engineering Plastic Polycarbonate	Engineering Plastic Polycarbonate
Sealing Provision	7 7	
Environmental		
Temperature	-25 degree C to +60 degree C	-25 degree C to +60 degree C
RTC/Calendar	(Operating) -40 degree C to +70 degree C (Storage and transport) <_+/-0.5 s/d a 23 degree C	(Operating) -40 degree C to +70 degree C (Storage and transport) <_+/-0.5 s/d a 23 degree C
Feature		
Communication	Optical Interfaces- IEC 62056-21	Optical Interfaces- IEC 62056-21
	Electrical Interfaces- TTL/RS232 GSM GPRS/RF Mesh/PLC	Electrical Interfaces- TTL/RS232 GSM GPRS/RF Mesh/PLC
Load Control	Connect/ Disconnect	Connect/Disconnect
Maximum Demand	Supported (15,30 Minutes)	Supported (15,30 Minutes)
Tariffs	Up to 8 tariff zones supported	Up to 8 tariff zones supported
Tampers & Events	Supported as per IS 16444 part-1	Supported as per IS 16444 part-1

Quality

The quality policy of Adya is to ensure customer satisfaction by providing customers with products that fully conform to international standards. The company complies with customers' quality requirements by the application of uniform and consistent design, manufacture, and components utilized and supply of products at all stages. A key aim of the quality Management System is to prevent non-conformities by identifying and eliminating the condition and circumstances that could cause products not to be in accordance with specified requirements.
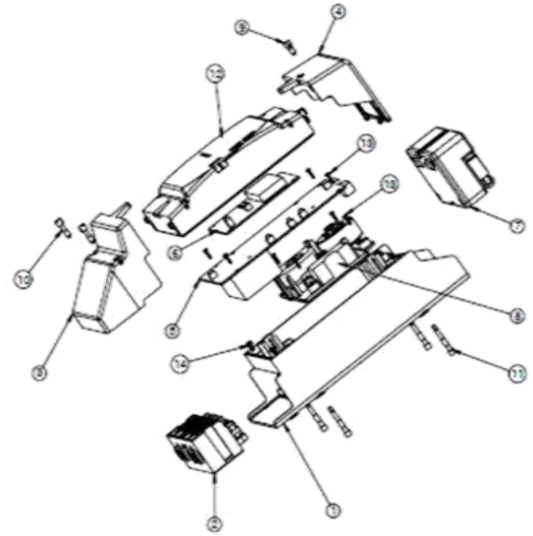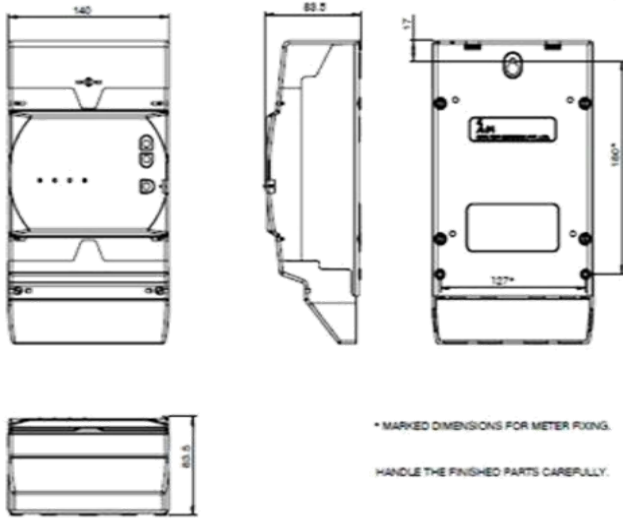
Single Phase Meter Dimensions

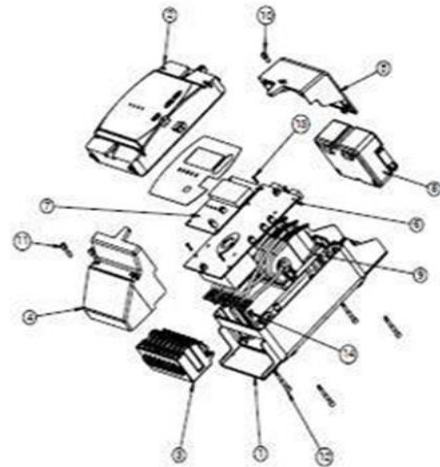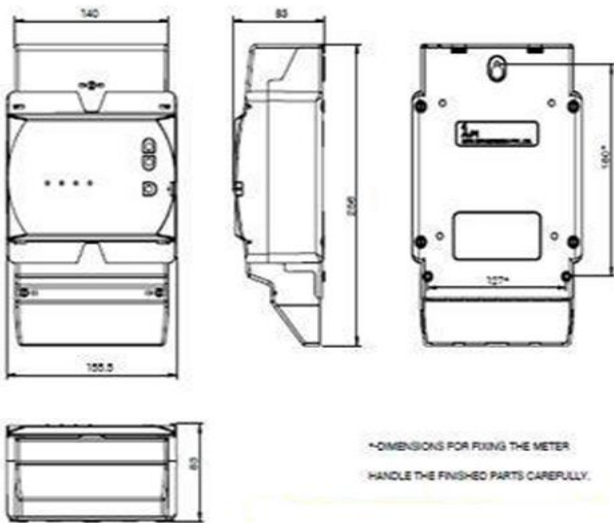Three Phase Meter Dimensions