

# Multifunction Power Meter SENSWAY6300

SENSWAY 6300 provides power quality information which enables management of energy use, power facility operation and high efficiency device analysis. This presents an energy management supervisor the analytic criterion on both energy use and power quality, which makes it possible to establish appropriate preventive or post measures.

## Applications

- Power Energy Monitoring & Analysis
- Metering of Distributions Feed, Generators, Capacitor Banks and Motors
- Commercial, Industrial Facilities
- Medium and Low voltage system

## Features

Display	Real time data LCD display	
General	Sampling / Cycle :128	
	Frequency :50/60Hz, 45~65Hz	
	Ture RMS measurement	
	Voltage, Current, Power, Power Factor	
	Demand, Peak Demand	
Power Energy	Imported Energy, Exported Energy	IEC62053-22 Class 0.2S / IEC62053-24 Class 0.5S
	Net Power Energy	
	Total Power Energy	
Power Quality	UP to 63rd harmonic	
	Voltage / Current THD	
	Crest Factor, K Factor	
	Sag, Swell (IEC61000-2-40 Class S)	
Modules Combine	Modules installation at the back (Optional) / Max. 3 Modules (DIO Module, AIDIO Module, Ethernet Module)	
Communication	RS-485(9600 ~ 38400, MODBUS RTU Protocol)	
	Ethernet(10/100 Base-T, Full Duplex, Ethernet Switching, RSTP, MODBUS TCP Protocol)	
General	UL mark	
	CE mark	
	Power / AC 85-265V (50/60Hz), DC 100-300V	

## Specifications

Measurement Voltage Input	Measurement Range(Accuracy guaranteed)	60 ~ 400Vac
	Minimum Measurement	10Vac
	Frequency Range	45 ~ 65Hz
	Burden	0.08VA / Phase @ 400V
	Voltage Withstand	2000Vac RMS, 60Hz per minute
	Impedance	2MΩ / Phase
	Wiring	3P4W, 3P3W, 1P2W
Current Measurement Sensor Input	Rating	333mV, 50mA, 100mA, 1A, 5A
Power	AC 85 ~ 265V (50/60Hz)	
	DC 100 ~ 300V	
	SENSWAY6300 (1.5W)	
	DIO Module (0.4W)	
	AIDIO Module (0.6W)	
	Ethernet Module (2.0W)	
General	Weight	SENSWAY6300 (450g)
		DIO Module (80g)
		AIDIO Module (80g)
		Ethernet Module (90g)
	Operating Tempe	-20 ~ +70 °C
	Ethernet Module (2.0W)	-25 ~ +80 °C
	Ethernet Module (2.0W)	5 ~ 90% (No Condensation state)
Module Channel	Digital Input	Wet contact / Rating: 12 ~ 130Vdc
	Digital Output	Mechanical Relay / Rating: 5A 250Vac, 5A 30Vdc
		Output Type / Latch mode, Plus mode: Pluse width 300ms
	Analog Input	DC Current / 4 ~ 20mA

## Option Modules

Model	Channel		Specification
DIO Module	Digital Inputs	6 Channel	12 ~ 130Vdc
	Digital Outputs	2 Channel	5A 250Vac / 5A 30Vdc
AIDIO Module	Digital Inputs	4 Channel	12 ~ 130Vdc
	Digital Outputs	2 Channel	5A 250Vac / 5A 30Vdc
	Analog Inputs	2 Channel	4 ~ 20mA DC
Ethernet Module	Ethernet Communication	1 Channel	MODBUS-TCP, 10/100 Base-T, Full Duplex Ethernet Switching, RSTP Star, Daisy Chain, Ring Connecting
EOCR Module	EOCR		Over Current (110~125%) / Phase Open / Lock (Over 200%, 0.5~10sec) / Stall (Over 150%, 0.5~10sec)
	ZCT	1 Channel	200mA / 1.5mA

## Communications

Type	Port	
RS-485	1 Port	MODBUS RUT Protocol 9,600 ~ 38,400bps
Ethernet	2 Port	MODBUS RUT Protocol 10/100 Base-T(Full Duplex) / Ethernet Switching, RSTD Star, Dasy Chain, Ring Connecting

## Standard compliance

Accuracy	IEC62053-22 Class 0.2S (Static meters for active energy)
	IEC62053-24 Class 0.5S (Static meters for active energy at fundamental frequency)
Power Quality	Power Quality measurement methods (voltage Sag / Swell)
Safety	EMC
	IEC61000-4-2 (Electrostatic Discharge Immunity)
	IEC61000-4-3 (Radiated, radio-frequency, Electromagnetic field Immunity)
	IEC61000-4-4 (Electrical Fast Transient / Burst Immunity)
	IEC61000-4-5 (Surge immunity test)
	IEC61000-4-6 (Immunity to conducted disturbances, Induced by radio-frequency fields)
Certification	IEC, CE, UL

## Function List

Metering	Metering	Phase Voltage	V2, V2, V3, VInavg / MAX: 400V
		Line Voltage	V12, V23, V31, VInavg / MAX: 690V
		Current	I1, I2, I3, Iavg
		Power	P1, P2, P3, Psum
		Reactive Power	Q1, Q2, Q3, Qsum
		Apparent Power	S1, S2, S3, PF
		Power Factor	PF1, PF2, PF3, PF
		Frequency	F
		Load Features	Load Features
	Energy & Demand	Active Energy	Ep_imp, Ep_exp, Ep_total, Ep_net
		Reactive Energy	Ep_imp, Ep_exp, Ep_total, Ep_net
		Apparent Power	Ep_imp, Ep_exp, Ep_total, Ep_net
		Demand	Dmd_P(1,2,3) / Dmd_Q(1,2,3) / Dmd_S(1,2,3) / Dmd_I(1,2,3)
	Monitoring	Waveform Capture	Voltage and Current Waveform
Power Quality		Voltage Unbalance Factor	U_unbl
		Current Unbalance Factor	I_unbl
		Voltage THD	THD_V1, THD_V2, THD_V3
		Current THD	THD_I1, THD_I2, THD_I3
		Individual Harmonics	Harmonics 2nd to 63rd
		Voltage Crest Factor	U_crest
		Current Crest Factor	I_crest
		Voltage K Factor	U_kfact
Current K Factor		I_kfact	
Statistics	Max with Time stamp, Min with Time stamp		
Others	Power Quality Event Logging	Sag / Dip, Swell, Interruption: Voltage	
	Data Logging	Data Logging with Time Stamp : V1, V2, V3, I1, I2, I3, Psum, Qsum, Ssum, PF, Ep_imp, Ep_exp, Eq_imp, Eq_exp, Es_imp, Es_exp, Dmd_P, Dmd_Q, Dmd_S, THD_V1, THD_V2, THD_V3, V_unbl, I_unbl	
	Onboard Memory size	Memory: 8MB	
	Communication	RS485 Port, Half Duplex, Galvanic Isolated: Modbus-RTU Protocol	
	Time	Real Time Clock: Year, Month, Date, Hour, Minute, Second	

## Accuracy

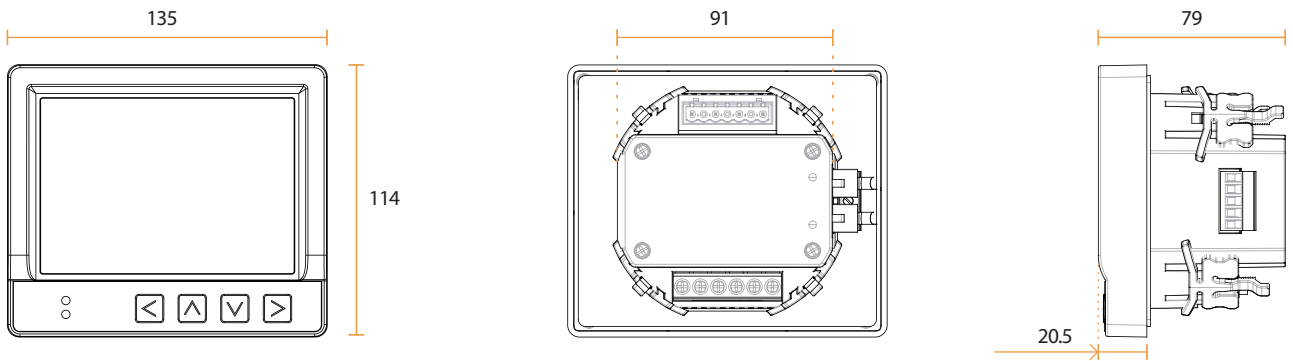
Parameter		Display Range	Accuracy
Voltage	Phase	0.0 ~ 9.999V, kV	±0.2%
	Line	0.0 ~ 9.999V, kV	±0.2%
Current	Phase	0.0 ~ 9.999A, kA	±0.2%
Power	Apparent	0.0 ~ 9.999kVA, MVA	Based on the Active / Reactive
	Active	0.0 ~ 9.999kW, MW	IEC 62053-22 Class 0.2S
	Reactive	0.0 ~ 9.999kvar, Mvar	IEC 62053-24 Class 0.5S
Energy	Apparent	0.0 ~ 99,999,999.9kVAh	Based on the Active / Reactive
	Active	0.0 ~ 99,999,999.9kWh	IEC 62053-22 Class 0.2S
	Reactive	0.0 ~ 99,999,999.9kvarh	IEC 62053-24 Class 0.5S
Demand	Current	0.0 ~ 999.9A, kA	±0.2%
	Active	0.0 ~ 999.9kW, MW	IEC 62053-22 Class 0.2S
	Reactive	0.0 ~ 999.9kvar, Mvar	IEC 62053-24 Class 0.5S
Frequency		45 ~ 65Hz	±0.2%
Power Factor		-100% ~ +100%	±0.2%
Phase		0.0 ~ 359.9°	±0.2°
THD	Voltage	0.0 ~ 999.9%	±1.0%
	Current	0.0 ~ 999.9%	±1.0%
Harmonic		Communication data	63rd
Creat Factor		0.0 ~ 9,999%	±1.0%
K Factor		Communication data	±1.0%
Analog Input		0.0 ~ 20.00mA	±0.5%

## Ordering Information

Items	Model	Description
Digital Power Quality Meter	SENSWAY6300	Voltage, Current, Power Measurement
		Sag / Swell / Interruption
		Harmonic (Max. 63rd)
		Crest Factor, K Factor
Module	DIO Module	Digital Input 6 channel, Digital Output 2 channel,
	AIDIO Module	IDigital Input 6 channel, Digital Output 2 channel, Analog Input 2 channel
	Ethernet Module	Ethernet Communication 1 Channel
	EOCR Module	Over Current, Phase Open, Lock, Stall ZCT 1 Channel
Warranty	2 Years	

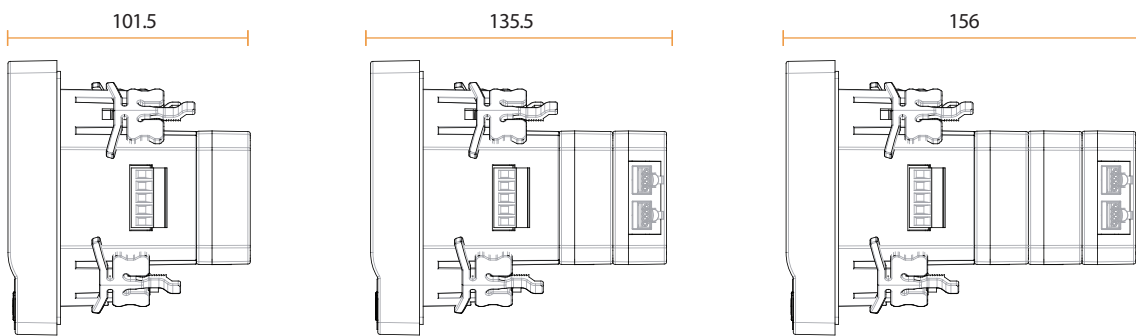
Dimensions

(Unit: mm)

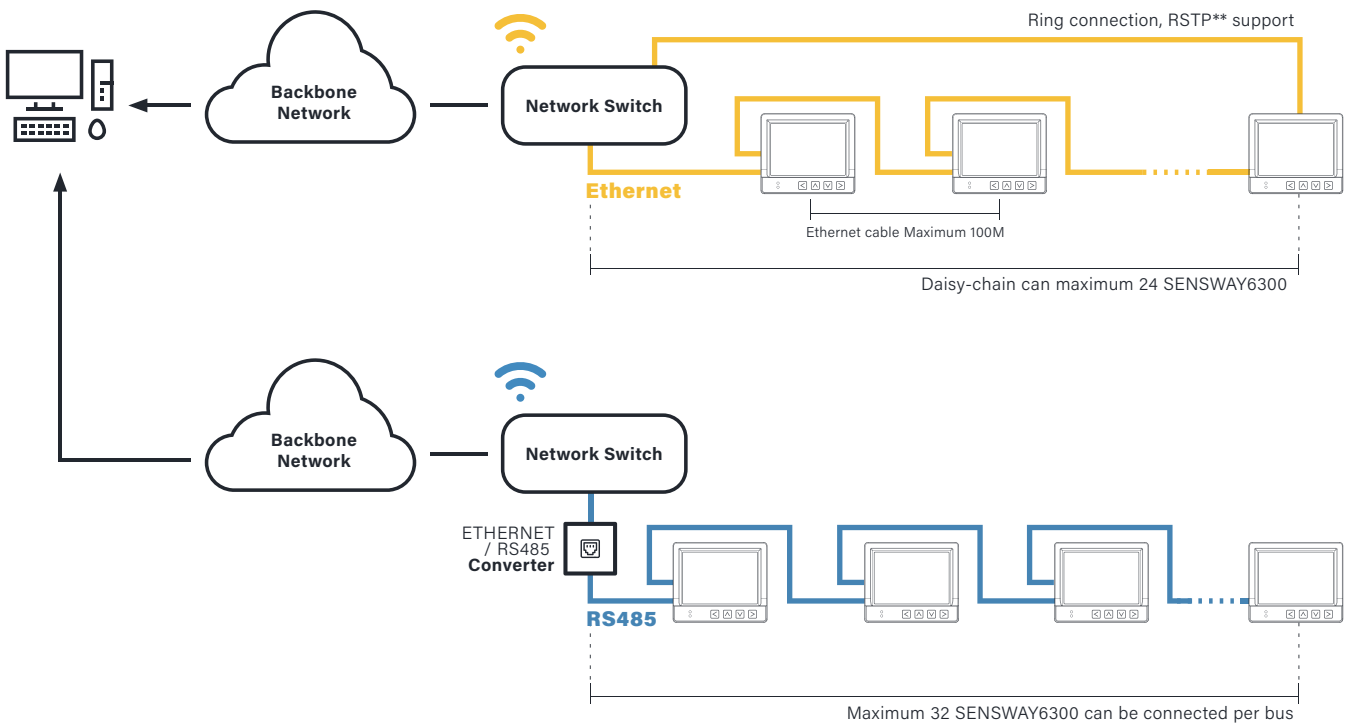


Add-on Module

(Unit: mm)



Communication Diagram



**Installation**

