

Sfere820A



- IEC 61000-4-30 CL.A
- Memory 2GB
- Real-time measuring
- Power quality monitoring
- Energy metering (0.2S)
- EN50160 Report
- Event log and waveform record
- ITIC/SEMI F47 curves

FUNCTION

Networks	TN, TT, IT networks
Communication	Modbus-RTU Modbus-TCP
Real-time measuring	U, I, P, Q, S, PF, F Demand, Max., Min.
Energy metering	kWh, kvarh, 8 Tariffs Four-quadrant kvarh
Data Log	Demand record Max./Min.value record Off-limit record SOE record ITIC/SEMI F47 curve EN50160 report

Power Quality

Voltage deviation
Frequency deviation
Sequence components, unbalance
Harmonic
Inter-harmonic
Voltage flicker
Rapid voltage change
Voltage swell, dip, interruption
Crest factor
K-factor
Transient capture(80μs)

APPLICATIONS



Data
Acquisition



Energy
Metering



Remote Power
Monitoring

**TECHNICAL SPECIFICATION**

Accuracy	V/A	0.1%
	P/Q/S/PF	0.2%
	F	±0,01Hz
	±kWh	Class 0.2S
	±kvarh	Class 0.5S
Voltage measurement input	Measurement range	10 - 276 VAC (L-N) 17 - 480 VAC (L-L)
	Overload	Continuous: 1.2Vn, Instantaneous: 2Vn/1min
	Starting value	10V
	Frequency	45Hz...65 Hz
Current measurement input	Rated value	3x.../1A or .../5A
	Overload	Continuous: 2In, Instantaneous: 20In/0.5s
	Starting value	10mA
Auxiliary supply	Working range	AC/DC 80~270V, 50/60Hz
	Consumption	≤10VA
Communication port		RS485, Modbus-RTU, 2-wire, up to 115.2k bps
Energy pulse output		1 channel, photocoupler isolation
Digital input		4 DI, Dry contact, built-in DC 24V
Relay output		4 RO, Contact capacity: AC 250V/5A or DC30V/5A
Environmental Characteristics	Operating temperature	-25°C - 70°C
	Relative humidity	5%...95%RH, without condensation
	Altitude	≤2000m
	Protection degree	Face case: IP54, rear case: IP20
Time synchronization		IRIG-B
		Modbus-RTU
		NTP(Optional)
Optional Modules	FM2	4 digital inputs
	FM3	2 relay outputs
	FM11	RS485 port, Modbus-RTU protocol
	FM24	Ethernet port, Modbus-TCP, Webserver