

MICROSTAR

C2000

*Direct Connected**Single-Phase Smart Electricity Meter*

Class 1.0, Class 0.5

Certified by **dlms**
COSEM
Compliant



FEATURES

- Bidirectional measurement and registration
- Accurate measurement of kWh & kvarh
- Maximum demand registration of kW & kvar
- Instrumentation of voltage, current, power & power factor
- Time of Use (TOU) control with 4 tariffs and flexible programming
- Event logs of more than 1000 power quality or tampering events with configurable 8 data channels record at the event time
- High quality 8-digit LCD display with large characters
- Internal real-time clock (RTC) with backup battery
- Supports DLMS, MODBUS or IEC 62056-21 communication protocols
- Encapsulation type meter casing design for reliability and security
- Configurable load profile with recording of 176 days at 30' interval & 8 energy items
- Local or remote firmware upgrade

OPTIONS

- AMR ready with hot-pluggable GPRS/3G/4G, Wi-Fi, or Ethernet module
- Local communication options: Optical port, RS485, RS232, RF, BLE
- Dual source measurement and registration
- Active energy display on LCD without power supply
- Replaceable backup battery for meter reading without power
- STS certified prepayment feature with up-to 100A internal contactor
- Remote, scheduled, or event triggered load control
- Energy dispenser with configurable daily consumption limit
- Dual element measurement for neutral removal or bypass detection
- LCD backlight

APPLICATION

- Direct connected (Whole Current)
- Residential or commercial billing
- Credit or prepayment meters
- 1-phase 2-wire or 1-phase 3-wire

BENEFITS

- Compact design with superior strength and anti-tampering features
- Bidirectional active and reactive energy measurement and registration
- TOU control and multi-tariff support
- Configurable LCD display items
- Configurable load profile recording
- Anti-tampering features & event log
- AMR ready with hot-pluggable communication modules
- Supports DLMS protocol (Certified)
- Patented IP54 whole case design with multiple sealing provisions
- Large contact area between wire and terminal to reduce resistance
- Sealable wiring cover to protect wiring and isolate signal terminals

ELECTRICAL

Connection Type	Direct connected (Whole current)
Measurement Modes	1-phase 2-wire or 1-phase 3-wire
Accuracy Class	Class 1.0, Class 0.5
Rated Voltage	110 V, 220 V, 230 V, or 240 V
Rated Current	5 (60) A, 5 (100) A, 10 (100) A
Starting Current	< 0.4% I _n
Rated Frequency	50 or 60 Hz
Power Consumption	
Voltage Circuit	< 1.6W, < 2.5VA per Phase
Current Circuit	< 0.1VA

MECHANICAL

Dimensions	198 mm x 139 mm x 83.5mm
Weight	0.95 kg (approximately)
Insulation	Protective Class II
Ingress Protection	IP54
Case / Terminal Cover	High Quality Polycarbonate
Terminal Block	Flame-Retardant Polycarbonate + Glass Fiber

ENVIRONMENT

Working Temp.	-25°C to +70°C
Storage Temp.	-40°C to +85°C
Humidity	0 - 95% non condensing
Fast Transient Burst	4kV
Static Discharge	8kV Contact / 15kV Air Discharge
Impulse Voltage	6kV, 1.2/50µs pulse
AC Voltage	4kV, 50Hz

REAL-TIME CLOCK

Accuracy	< 0.5 seconds / 24 hours
Backup Battery	Lithium Battery (20 years life)
Backup Time	≥ 15 years without power
Clock Synchronization	Local or remote via AMR

DISPLAY

LCD Display	2 line, 8-digit LCD display
Display Mode	Automatic, Push Button, High Precision & Low Precision
Display Item	100 configurable display items
Display at Power Off (Optional)	Import active energy or total active energy

COMMUNICATION OPTIONS

Local Communication	Optical, RS232, RS485, RF (433/868/915MHz), BLE
Remote Communication	GPRS, 3G, 4G, Wi-Fi, Ethernet
Communication Protocol	DLMS/COSEM, MODBUS, IEC62056-21

INPUT & OUTPUT

Test Pulse Output	400 - 4000 imp/kWh
LED Pulse Output	400 - 4000 imp/kWh

MEASUREMENT & INSTRUMENT

Energy	Import/export kWh, kvarh; Bi-directional or Absolute or Net metering
Maximum Demand	Import/export kW, kvar
Automatic Billing Data	Date & Time Programmable
Recording / MD Reset	
Instantaneous Values	Current, Voltage, Power, Average Demand, Power factor & Frequency

LOAD PROFILE

Load Profile	1 configurable load profile as default
Channels	16 configurable channels
Available Data	All energy, demand, & instrumentation data (see above for details)
Integration Period	1 to 60 minutes configurable
Memory Space	176 days with 30' interval & 8 energy items
Data Retention	25 Years

EVENT REGISTRATION

Event Log	Trigger conditions are configurable, more than 1000
Trigger Events	Voltage loss, voltage over, voltage under, current loss, current over, low power factor, current reverse, overload, terminal cover open, meter top cover open, power on & power off
Data Record at Event	8 configurable channels
Program Record	Last 64 program records

TIME OF USE (TOU) CONTROL

Number of Tariffs	4 tariffs
Daily Profiles	4 daily profiles, 10 tariff slots
Week Tables/Seasons	4 week tables, 4 seasons
Holidays	Up to 100 special days

PREPAYMENT & LOAD CONTROL (OPTIONAL)

Prepayment Feature	STS certified via token
User-Friendly Prepayment Modes	Friendly hours/days, emergency credit and vital necessity power
Load Control	Scheduled / on-demand or event triggered load control
Internal Contactor	100A internal contactor

