



**Bluestar Electrical Meter Research Institute**, founded in June 1994, has been focusing on design and manufacturing innovative Energy Meters and OEM modules, as well as advanced AMR system including high technology RTU and J2EE-based and Web-enabled highly automated energy information collection and analysis system.

- Three Phase Energy Meter IEC 62053-21/22
- Single Phase Meter IEC 62053-21
- Wireless GSM Energy Data Concentrator (EDAT)
- Handheld Meter Reader
- AMR Software System



**Bluestar** has a strong energy meter research and development team of Electrical, Mechanical and Computer Engineers. We also have a state-of-the-art manufacturing facility. Quality assurance is built into every stage of design, production and testing procedure by means of advanced iTest management system and sophisticated EMC test equipments.

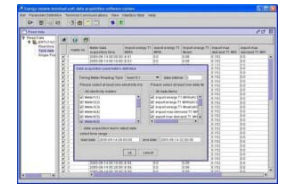
## Digital Energy Meters

*Quality, Performance and Innovation*

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In the last a few years, Bluestar has grown to be the largest three phase Multifunction Energy Meters OEM supplier in China; Annually about 50% three phase multifunction meters are equipped with Bluestar Meter modules.



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## A1000 Polyphase Electronic Multifunction Electricity Meter

### Features:

- Accuracy: 0.2S, 0.5S, IEC60687
- Polyphase, Electronic
- Pulse Outputs
- Coincident Demand Measures
- Time of Use, Multi-Tariff
- Load Profile Recording
- Phase failure and voltage loss recording
- Energy Metering: Active, Reactive 4-Quadrant, Apparent
- Communication: RS-485, Optical Port as per IEC 62056-21
- Specifications: All popular Voltage, Current, Frequency, and OEM
- Per Phase Instantaneous Instrumentation (amps, volts, and frequency)
- Data storage in non-volatile memory
- Fully AMR (Automated meter Reading) compatible
- Easy readable data indication on LCD display



### Specification:

Voltage	Current ( A )	Accuracy
3 x 110/190 V	1(6), 5(60), 10(120)	0.2S, 0.5S, 1.0
3 x 380 V	1(6), 5(60), 10(120)	0.2S, 0.5S, 1.0
3 x 57.7/100 V	1(6), 5(60), 10(120)	0.2S, 0.5S, 1.0
3 x 220/380 V	1(6), 5(60), 10(120)	0.2S, 0.5S, 1.0

## B1000 Polyphase Electronic Multifunction Electricity Meter

### Features:

- Standard: IEC62053-21
- Polyphase, Electronic
- Energy Metering: kWh, kvarh, kVAh
- Coincident Demand Measures
- Time of Use, Multi-Tariff
- Phase failure and voltage loss recording
- Pulse Outputs
- Communication: RS-485, Optical Port as per IEC 62056-21
- Specifications: All popular Voltage, Current, Frequency, and OEM
- Load Profile Recording
- Data storage in non-volatile memory
- Fully AMR (Automated meter Reading) compatible
- Internal real-time clock and calendar with battery backup
- Easy readable data indication on LCD display with OBIS code



### Specification:

Voltage	Current ( A )	Accuracy
3 x 110/190 V	1(6), 5(60), 10(120)	Class 0.5S, 1
3 x 380 V	1(6), 5(60), 10(120)	Class 0.5S, 1
3 x 57.7/100 V	1(6), 5(60), 10(120)	Class 0.5S, 1
3 x 220/380 V	1(6), 5(60), 10(120)	Class 0.5S, 1

## C1000 Electronic Multifunction Electricity Meter

### Features:

- Accuracy: 1.0S, IEC62053-21
- Single phase, Electronic
- Pulse Outputs
- Time of Use, Multi-Tariff
- Coincident Demand Measures
- Power outage recording
- Instantaneous Instrumentation (amps, volts)
- Energy Metering: Active import and export energy
- Communication: RS-485, Optical Port as per IEC 62056-21
- Specifications: All popular Voltage, Current, Frequency, and OEM
- Data storage in non-volatile memory
- Fully AMR (Automated meter Reading) compatible
- Internal real-time clock and calendar with battery backup
- Easy readable data indication on LCD display



### Specification:

Voltage	Current (A)	Start Current	Accuracy
110 V	5(60), 10(120)	10 mA	Class 1
220 V, 230V, 240V	5(60), 10(120)	20 mA	Class 1

## EDAT-BS06 Data Concentrator

### Features:

- Highly reliable software and hardware design; Stable performance
- GPRS, Ethernet or PSTN
- Multi-protocol supported to communicate with different electricity meters
- IEC60870-5-102 protocol supported to talk to master station
- Huge flash disk storage space from 4M up to 2G bytes
- Configuration and DBF database files saved in DOS file system
- GPS Clock Synchronization, internal high precision calendar clock
- Multiple users with different authorization levels
- Timing tasks management for flexible objects



### Specification:

Rated voltage:	85-265 Volts AC, 47-63 Hz,
Power consumption:	3-5 W
Communication with remote central station:	
PSTN:	56K Modem
GPRS:	GSM networks, 900/1800 MHz
Integration period:	configuration 1-65536 minutes
Meters connected:	<= 128
Working temperature:	-20 - +55

## PR-500 Handheld Unit



### Features:

- Portable Energy Meter Data Reader
- Timing turn-off and backlight auto-off
- Battery-low warning function
- Boot-up password to ensure data security
- Real-time clock display
- Supports various types of alarm clock functions
- Supports user custom application development in C/C++
- Friendly user-machine interface, convenient for user operating
- TureFFS technology to manage files on FLASH for high capacity, easy & secure
- data storage. Files can be uploaded, downloaded & deleted conveniently

### Specification:

CPU:	Powerful embedded 32-Bit ARM7 microcomputer @ 24 MHz
Operating System:	Real-time embedded OS VxWorks 5.5
ROM:	2M bytes code memory
RAM:	512K bytes for code running
FLASH:	16M bytes for file storage
Display:	160×160 graphical LCD screen with backlight
Clock:	Date and Time, Error < 2 seconds / day at room temperature
Keypad:	21 keys supports numeric, alphabetic and arithmetic operators
Communication:	RS-232 (max 57600 bps) RS-485, IR port (1200bps) & Optical
Size:	166 mm (L) × 79 mm (W) × 26 mm (H)
Net Weight:	210 g without battery
Battery:	2 AA size batteries
Power consumption:	Standby: < 65 mA, Shutdown < 200 Ua
Water-proof:	IP54
Work temperature:	-20°C to 70°C

## Bluestar TMRS-BS02

### Features:

- Flexible data acquisition modes
- Various communications ports supported
- Distributed DBMS, telemeter reading software system
- Statistical analysis, reports and graphs generation
- ERTUR data collecting, processing, storage and communication
- J2EE and Oracle based, excellent platform portability, Windows and UNIX
- Internet supported: user can inquire energy data anywhere online with internet browser



## Bluestar ERTU-BS02

### Features:

- Electricity meters energy data acquisition, processing, storage, and communication
- Multi-protocol supported to communicate with different electricity meters
- IEC60870-5-102 protocol supported to talk to master station
- 11 communications ports: Ethernet, 2 RS-232, Parallel, 3 internal modems, 4 RS-485
- Huge flash disk storage space from 4M up to 2G bytes
- Configuration and DBF database files saved in DOS file system
- Timing tasks management for flexible objects
- GPS Clock Synchronization, internal high precision calendar clock
- Multiple users with different authorization levels
- Hardware self-diagnosis function
- Remote online software upgrade

