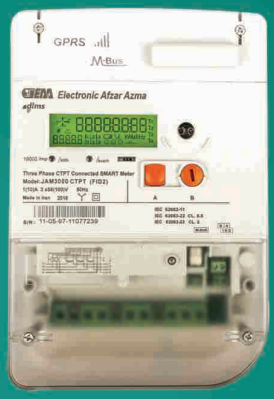
Electronic Afzar Azma

THREE PHASE SMART METER

JAM3000 CTPT Series

Class 0.2S / Class 0.5S



- Ability to add different communication modules like GPRS, G3 & PRIME PLC
- Includes different log files with various event types; Records 1,000 events
- Flexible event / Alarm management / Fraud detection
- Remote / Local manual Connection & Disconnection
- Ability to communicate with wired or wireless submeters
- Power quality process & Load profile management
- Message / Access authentication & Encryption
- Remote tariff programming
- Remote firmware update
- Support push mechanism
- RS485 communication ports / Second RS485 port (Optional)
- Auxiliary Power Supply (Optional)
- IHD interface

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Meter Type	Static, Three Phase, Active and Reactive Energy, Four quadrant	
Approvals	IEC 62052-11, IEC 62053-21, IEC 62052-21 IEC 62054-21, IEC 62053-22, IEC 62053-24	
Mechanical Compliance	DIN standard	
Connection Type	Three phase four wire / Three wire	
Reference Voltage / Frequency	3 x 230 /400 V, 3 x 57.7 /100 V, 3 x 63.5 /110 V, 3 x 230 /400 V 45 ~ 65 Hz (50 Hz / 60 Hz)	
Operating Voltage Range	48 ~ 420 Vac	
Over Voltage Operation	The meter has been designed to withstand a voltage of 500 V for 10 days	
Class Index	Active Class 0.2S/ Reactive Class 1	Active Class 0.5S/ Reactive Class 2
Basic Current	1 A	
Maximum Current	10 A	
Class Accuracy Current Range	Extended from 1 mA up to 12 A	
Starting Current	≤ 1 mA	
Energy resolution	Measuring Active / Reactive energy, MWh / MVarh with resolution 0.01 Wh / Varh	
Suitable to use for power grid meter	Installation in power substation 20 kV up to 500 kV	
Short Time Over Current	200 A for 0.5 Sec.	
Meter Constant	16,000 imp/kWh, kVarh	
Insulation Class	Double Insulation	
Optical Port	Application layer: COSEM-DLMS	
Battery	Internal long life lithium battery + super cap for supporting RTC and R.W.P With ability to add external battery easily	
Display	Long life 8-digit LCD (from zero to nine) 9mm x 4.5mm LCD with OBIS code 5 digit 6mm x 3mm	
None-Volatile Memory	20 years of data retention	
Read Without Power (RWP)	Shows meter data on LCD without power	
Supported x DLMS Services	Block_Transfer_with_Get, Block_Transfer_With_Set, St, Selective Access, Multiple_References, Data Notification, Action, General Protection	
Communication Module	Fully modular and future proof design Communication module is totally separated from metrology part	
Up Link Communication	Could be GPRS, G3 and PRIME PLC	
Sub Meters Communication	Could be wired or wireless MBUS	
PLC Protocol Stack	Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.12.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.8.1	
Operating Temperature Range	-30˚C to +65˚C	
Limit Temperature Range of Operation	-40˚C to +70˚C	
Storage Temperature	-40˚C to +85˚C	
Relative Humidity	Up to 95% for 30 days per year	
Mean Temperature Coefficient	≤ 0.02 % @ PF= 1 or PF =0.5 ind over -40˚C to +75˚C	
Degree of protection	IP54	
Authentication / Encryption	LLS, HLS (GMAC, SHA1, MD5) / (AES 128 GCM)	
Latching Relay	For demand control and remote or manual connection / disconnection of load	
Supported AMI use cases	Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e-meters)	Clock synchronization Remote firmware update Alarms and events management Fraud detection Load profile management Power outages, sags & swells process
Power Consumption	Voltage Circuit: 0.82 VA / 0.47 W	Current Circuit: 0.0046 VA
Dimension & Weight	237 / 258 (Short / Long Cover) x 177 x 85 mm (H x L x W)	1.3 Kg