

# THREE PHASE MULTI TARIFF ELECTRICITY METER

## JAM300 Series

- Measurement of Voltage, Current, Power Factor for each and all phases
- Fraud detection log / Power quality log / Power failure log
- CT connected meter with accuracy class 0.2S-0.5S
- Comprehensive and flexible tariff structure
- Active/Reactive and Import/Export energy measurement
- Load profile (12 channels)
- Approval: IEC 62052-11, IEC 62052-21, IEC 62053-21, IEC 62053-22, IEC 62053-23, IEC 62054-21, IEC 62056-61 IEC 62059-11, IEC 62059-21, IEC 62059-41 EN 50470-1, EN 50470-3



# THREE PHASE MULTI TARIFF METER

## JAM300 Series



Meter Type	Static / Three Phase / Active and Reactive Energy / Four quadrant	
Mechanical Compliance	DIN Standard	
Connection Type	Three phase 4 wire (Direct)	Three phase 4 wire (CT)
Reference Voltage/Frequency	3 x 230 / 400 V - 50 ~ 60 Hz	
Operating Voltage Range	150 ~ 320V per phase	
Over Voltage Operation	Designed to withstand a voltage of 520 V for an indefinite period	
Power Consumption	Voltage circuit: $\leq 1 \text{ VA} \leq 0.7 \text{ Watt @ 230 V}$ per phase	
Class Index	Active Class 1 - Reactive Class 2 (Direct) Active Class 0.5S, Active Class 0.2S (optional) - Reactive Class 2 (CT)	
Basic Current	5 A (Direct)	1 A (CT)
Maximum Current	120 A (Direct)	6 A (CT)
Class Accuracy Current Range	Extended from 50mA up to 125 A (Direct)	Extended from 1mA up to 8 A (CT)
Starting Current	$\leq 10 \text{ mA}$ (Direct)	$\leq 1 \text{ mA}$ (CT)
Short Time Over Current	7 KA for 5 Cycle	
Meter Constant	2,000 imp/kWh (Direct)	1 6000 imp / kWh (CT)
Degree of Protection	IP54	Insulation Class: Double insulation
Communications	Optical Port: IEC 62056-21 Read/Write Mode C	Electrical Port: RS 485 (Option)
Battery	For R.W.P internal long life lithium battery to support RTC and supercap Ability to add external battery easily	
Display	Long life 8 digit LCD (from zero to nine) & special annunciators Large digit (10mm x 5mm) viewing angle $\pm 60^\circ$	
None-Volatile Memory	Retention time more than 40 years	
Real Time Clock Accuracy	$\leq \pm 2 \text{ ppm}$ or $\leq 2.5 \text{ Sec/day @ } 25^\circ\text{C}$	
Registers	Up to 4 tariff rates (T1 - T4) and total active energy (antifraud), Total Export Energy A- Four quadrant reactive energy R1, R2, R3, R4, and R+, R- Voltage / Current of each phase and average voltage of three phases	
Historical Registers	24 sets of historical data for billing registers (for 2 years) 24 sets of historical data for active & reactive maximum demand 16 sets of historical data for configuration of meter with operator code	
Tariff Structure	4 tariff rates / 8 days for week / 30 exception days / 6 weeks per season / 6 seasons per year	
Event Recording	Number of maximum demand reset with time stamp Number of terminal cover reset with time stamp	
Maximum Demand	Maximum demand intervals and subintervals are adjustable (sliding mode)	
Load Profile	12 channels (A1, A2, A3, R1, R2, R3, V1, V2, V3, I1, I2, I3)	
Energy Registration	Measuring absolute value of energy independent of its direction	
Terminal Cover Removal	The meter detects terminal cover and main cover removal and records it	
Main Cover Opening	For opening the main cover, some part of the case requires breakage	
Temperature Range	Operation: $-30^\circ\text{C}$ to $+65^\circ\text{C}$ / Limit: $-40^\circ\text{C}$ to $+70^\circ\text{C}$ / Storage: $-40^\circ\text{C}$ to $+85^\circ\text{C}$	
Relative Humidity	100% Non-Condensed	
Mean Temperature Coefficient	$\leq 0.01 \%$ @ PF=1 or PF=0.5 ind over $-40^\circ\text{C}$ to $+75^\circ\text{C}$	
Terminal Material	Brass and Copper (Cage Terminal)	
Terminal Block Material	Reinforced polycarbonate, Non-flammable, Recyclable	
Terminal Cover and Case Material	Polycarbonate	
Weight & Dimension	1100 g (263 x 170 x 73) mm (H x L x W)	
Wiring Capacity for (100 A)	Main cable must be a min. of $25 \text{ mm}^2$ & max. of $35 \text{ mm}^2$ (Direct)	
Insulation Test	$> 4 \text{ kV}$ , 1 min, 50 Hz	
Impulse Withstand Test	$> 6 \text{ kV}$ 1.2/50 $\mu\text{sec}$ 500 $\Omega$ source	
Fast Transient Burst (EFT)	In comply with IEC 61000-4-4 ( $\pm 6 \text{ kV}$ on line & null)	
Electrostatic Discharge Test (ESD)	In comply with IEC 61000-4-2 ( $\pm 15 \text{ kV}$ air)	
Surge Immunity Test	In comply with IEC 61000-4-5 ( $\pm 6.6 \text{ kV}$ 1.2/50 $\mu\text{sec}$ 2 $\Omega$ source)	
Immunity to Electromagnetic RF Fields	In comply with IEC 61000-4-3 (30 V/m)	