



ZAP π 3AM+

π ~pi range

PROFILING

ENERGY DEMAND LOGGING MULTI-TARIFF METER

Quick feature guide:

- Billing meter for active (Wh) and reactive (VArh) energy demand (VA)
- 3 Phase , CT or high load current direct connect meter configuration
- Class-1 accuracy / Class 0.5
- Flexible multi-tariff (TOU) billing meter with auto registration
- Profile logging of total energy and average energy demand
- Remote automated meter reading ready
- Large, multi function, backlight, LC-Display with IEC 62056-61 OBIS code
- Replaces need for instrumentation meters with scrolling display
- Certified compliance with standards: IEC 62053-21, IEC62053-23
- Manufactured under ISO 9001:2000 quality standards
- Engineering software included / available for download at no charge

Wh

VArh

VA

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See specifications for configuration options

Various accessories are available for use with this product

CONFIGURATION OPTIONS

| | |
|--------------------|-------------------------------------|
| ZAPPI3AM240V5A4w | 3 phase, 4-wire, 240V, 5A, CT |
| ZAPPI3AM240V100A4w | 3 phase, 4-wire, 240V, 100A, inline |
| ZAPPI3AM240V160A4w | 3 phase, 4-wire, 240V, 160A, inline |

ELECTRICAL RATING

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|---|--------------------------|
| Standards | IEC62053-21, IEC62053-23 |
| ZAPPI3AM240V Voltage Range (P-N / P-P) | 57.7/100 – 230 /400 V |
| Frequency Range | 40 – 60 Hz |
| Burden voltage circuit <1W, current circuit <0.05VA | |
| Operating temperatures | -30 °C to + 70 °C |
| Storage temperatures | -45 °C to + 85 °C |
| Accuracy Class 1 | |
| Protection Class 2 | |
| Supports CT connections | |
| Multipule meter can be installed (4 ZAPPI per set of CTs) | |

DISPLAY

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| Instrumentation values (see section) auto & keystroke scrolled |
| Large 8-digit with backlight with icons for import, export, comms etc. |
| IEC 62056-61 OBIS code display with digit height 11.9mm |
| Life in excess of 15 years |

COMMUNICATIONS

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| Standard IEC 62056-21 flag port |
| Serial RS485 port |

INPUTS & OUTPUTS

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| 4 pulse outputs: Active import (kWh) export energy, Reactive import (kVAh) export energy |
| Two energy verification outputs: Active (Wh) & Reactive (VAh) |
| 1 Hz pulse output |
| Pulse output verification to IEC62053-31 standard |
| RS485 or RS232 |
| LED outputs for active & reactive energy IEC62053-31 |
| Push buttons for display and protected programming |

SECURITY (PHYSICAL & DATA)

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| User access tracking: date & time and count |
| Programming protection: sealed push button and password |
| Factory sealed case. Sealable terminal cover by owner |
| For power down a super capacitor, battery & backup battery ensures backup & continued RTC operation |
| Reverse current warning & neutral loose or disconnect warning |

EVENT LOGGING

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| Operational Events | Last maximum demand reset & programming time |
| Hardware Events | Status for Battery Voltage, Memory, Meter Errors |
| Tamper or supply failure | Terminal cover open, per phase failure, power fail, power restore |
| Quality of supply | Voltage over & under record (user selectable thresholds) |

BILLING METERING

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| Active energy (kWh) | Import & Export |
| Reactive energy (kVarh) | Import & Export |
| Maximum demand modes | Block and Sliding / Rolling mode |
| Demand cycles | 5, 10, 15, 30 or 60 minutes |
| Rolling interval | 1, 2, 3 or 5 minutes |
| Registration | Button set, or auto RTC |
| Automated registering & history | Last 15 periods of energy & maximum demand for 4 tariffs |
| Time of use (TOU) | Flexible control of the billing quantities for TOU |

INSTRUMENTATION METERING

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| LCD | Voltage, Current & power factor per phase |
| LCD | Active (kW), Reactive (kVAh), Apparent (kVA) |

TIME OF USE (TOU) CONTROL

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| Switching by internal real time clock |
| 4 seasons, configurable |
| 10 daily time sections each selecting 4 tariffs |
| Public holidays & weekend days included |

PROFILE LOGGING

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| 2 data logging channels can log Average Active Power of demand cycle & Active Import Energy in 10, 20, 30 or 60 minute intervals |
| Non volatile flash memory |
| Capacity: 20 min logging will record 165 days |

ACCESSORIES

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| Optical Coupler for flag port with magnetic base (USB) | |
| PR510 programmer and reader used with software | |
| EDAT+g for GSM/GPRS AMR at multi meter (128) installations | |
| EDAT+e for Internet AMR at multi meter (128) installations | |
| Meter Programming Software | Meter reading & configuration software –download for free |

CASE AND DIMENSIONS

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|--|------------------------------------|
| Material | Reinforced Clear Polycarbonate |
| Dimensions | 263 x 175 x 83 mm |
| Weight | <1.5 kg , depends on configuration |
| Ingress rating | IP60 |
| Markings are in accordance with IEC1036 | |
| Property ownership marking (optional) Meter serial number & connection diagrams part of case markings | |

