



## eManager Pro 4G ActIO 22172 Energy

eManager Pro 4G ActIO 22172 Energy, ARM controller

Code: D303200026700


- > Memory: 512 MB | 8 GB eMMC
- > Analogue Inputs: 7
- > Módulos: 9
- > Communications: RS232/485 | Ethernet | Wi-Fi | 4G EMEA
- > N° relays: 3 (6 A)
- > Digital inputs: 2
- > Power supply: 85 ... 264 V~
- > CPU: ARM Cortex A7 800 MHz

### Description

eManager Energy is an industrial IoT controllers product range with integrated three-phase energy metering. eManager Energy centralizes power network analyzer features with datalogging and communications.

The energy module is able to measure up to one three-phase circuit or three single-phase circuits. It integrates 4 quadrant monitoring, including the main electrical parameters for single-phase and three-phase. Measurement accuracy is Class 1 Active and Class 2 Reactive; and the secondary current is 1 A.

In addition, a custom Node-RED node is available to facilitate the data collecting and displaying with a local real-time dashboard that can be accessed via their own Wi-Fi network.





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### Specifications

#### AC power supply

|                 |                 |
|-----------------|-----------------|
| Consumption     | 8,8 ... 10,5 VA |
| Frequency       | 47 ... 63 Hz    |
| Nominal voltage | 85 ... 264 V~   |

#### DC power supply

|                 |                 |
|-----------------|-----------------|
| Consumption     | 6,4 ... 6,5 W   |
| Nominal voltage | 120 ... 300 Vdc |

#### Electrical characteristics

|                 |                |
|-----------------|----------------|
| Isolation level | 3 kVac         |
| Sensor          | PT100 & PT1000 |

#### Mechanical characteristics

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Size (mm) width x height x depth | 158 x 89 x 48 (mm)                          |
| Envelope                         | Polycarbonate UL94 - Self-extinguishing V22 |
| Fastening                        | DIN rail 46277 (EN 50022)                   |

#### Environmental characteristics

|                                          |              |
|------------------------------------------|--------------|
| Protection class                         | IP 20        |
| Relative humidity (without condensation) | 5...95 %     |
| Working temperature                      | -20...+50 °C |

#### Communication Network

|                   |                      |
|-------------------|----------------------|
| Technology / Type | Ethernet 10/100 Mbps |
|-------------------|----------------------|

#### Control Unit

|                  |                       |
|------------------|-----------------------|
| Clock            | RTC                   |
| CPU              | ARM Cortex A7 800 MHz |
| PSRAM Memory     | 512 MB                |
| SPI Flash Memory | 8 GB eMMC             |

#### Standards

|                                              |                                                                 |
|----------------------------------------------|-----------------------------------------------------------------|
| Electrical safety, Maximum height (m)        | 2000                                                            |
| Electrical safety, Installation category     | CAT III 300 V                                                   |
| Electrical safety, Contamination level/class | Double-insulated electric shock protection class II (IEC 61010) |
| Standards                                    | UNE EN 61010-1, UNE-EN 61000-6-2, UNE-EN 61000-6-4              |

#### Electrical safety

|            |        |
|------------|--------|
| Insulation | 3 kVac |
|------------|--------|



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### Analogue inputs

|                     |                                  |
|---------------------|----------------------------------|
| Quantity            | 7                                |
| Nominal range       | 0...10 V / 0...20 mA o 4...20 mA |
| Nominal input range | 0...10 V / 0...20 mA o 4...20 mA |

### Digital inputs

|          |            |
|----------|------------|
| Quantity | 2          |
| Type     | 0...24 Vcc |

### Digital relay outputs

|                              |         |
|------------------------------|---------|
| Quantity                     | 2       |
| Type                         | NA      |
| Maximum current              | 6 A     |
| Maximum open contact voltage | 250 Vac |

### Radio communication

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Band              | LTE-FDD B1/B3/B7/B8/B20/B28A, WCDMA B1/B8 & GSM/EDGE B3/B8 |
| Technology / Type | 4G EMEA                                                    |

### Serial communication

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Technology / Type | RS-232 (full-duplex) / RS-485 (half-duplex)Galvanic isolation |
|-------------------|---------------------------------------------------------------|

### Wireless communication

|                   |                         |
|-------------------|-------------------------|
| Band              | 802.11 b/g/n (2.4 GHz.) |
| Technology / Type | Wi-Fi                   |

### eManager ActIO Energy

IoT programmable controllers with integrated energy metering and inputs and outputs

| CODE                         | TYPE                               | CPU                   | Memory             | Analogue Inputs | Digital inputs | N° relays | Communications                         | Power supply  |
|------------------------------|------------------------------------|-----------------------|--------------------|-----------------|----------------|-----------|----------------------------------------|---------------|
| <b>eManager ActIO Energy</b> |                                    |                       |                    |                 |                |           |                                        |               |
| D303200026700                | eManager Pro 4G ActIO 22172 Energy | ARM Cortex A7 800 MHz | 512 MB   8 GB eMMC | 7               | 2              | 3 (6 A)   | RS232/485   Ethernet   Wi-Fi   4G EMEA | 85 ... 264 V~ |