



### Principle

The Measurer-Actuator AMxx has a **variable number of inputs and outputs** depending on the configuration and the type of terminal (Infra, Distri, Terminals).

Its current and voltage inputs enable to complete **numerous measures and calculations**: active power, 10' power average, max power, consumption, voltage detection, etc.

It can also integrate particular functions such as **earth missing detection, neutral missing detection**, short circuit detection or overload detection.

It gets interfaced through a **RS485 port** to a KEOPS ICMxx and transmits in real time all information.

**Several outputs** are able to control external cut-off systems : contactor coil or control device of a motorized circuit breaker.

### General features of the models

<b>Network :</b>	Single-phase or three phase balanced or unbalanced 400Vac
<b>Inputs/Measures:</b>	True 3 RMS current measures. 63A I max on integrated intensity transformers (I>63A) or 3 inputs for external intensity transformers 5A. Measure from 1 to 3 voltages inputs 230Vac, 50Hz, tolerance: -20%/+ 15% 4 to 10 voltages detection inputs, 250 Vac max
<b>Integrated functions :</b>	Overload detection for each phase Detection of short circuits (under certain conditions) Neutral test function Earth test function Calculation of active power in kW, precision $\leq 2\%$ and apparent power in kW (subject to 3 voltages measure) Calculation of the power factor ( $\cos\phi$ ) (subject to 3 voltages measure) Calculation of active and reactive energies in kW/h (subject to 3 voltages measure)
<b>Auxiliary input :</b>	Pulse input for external energy meter (Possible interface of an RS485 meter directly from KEOPS ICM component)
<b>Communication port :</b>	RS485
<b>Output/Control :</b>	Max 5 outputs, 1A/250 Vac on solid state relays (to control low intensity contactors), or >1A on electromechanical relays (to control motorized circuit breaker or high intensity contactor)
<b>Power supply:</b>	230Vac
<b>Connections :</b>	Plug in units with spring contacts or screw clamp contacts
<b>Installation :</b>	on DIN rail
<b>Size :</b>	120x110x45mm
<b>Weight :</b>	+/-320g

### Technical and commercial features

Feature	Option	Type 1	Type2	Type 3
Electrical Network	Single-phase 230Vac	-	o	-
	Three phase balanced or unbalanced 400Vac	-	✓	✓
Number of voltage test points	(4-10)	4-10	4-10	4-10
Neutral test function		o	o	o
Earth test function		o	o	o
Pulse meter input		o	o	o
RS485 communication port to ICM		✓	✓	✓
Power supply	230V via ICM	-	✓	✓
	5V via ICM	✓	-	-
Outputs type	Solid state relays 1A	-	✓	o
	Electromechanical relays 500VA	✓	-	✓
Number of outputs	(1-5)	2max	5max	5 max
Measure of power supply voltage		-	✓	-
Measure of 3 voltages		-	-	✓
Measure of 3 currents		-	✓	✓
Overload detection by phase		-	✓	✓
Short circuit detection (with limits)		-	✓	✓
Harmonics measure ranks 1-7		-	-	o
Connector type	Plug component	o	✓	o
	On board	✓	o	✓
Connector method	Screw connection	✓	o	✓
	Spring-cage connection	o	✓	o

- ✓ **Integrated**
- o **Option or variant**
- **Not available**