

# CVMk2

## Three-phase power analyzer, assembly on panel or DIN rail



### Description

Three-phase power analyzer (balanced and unbalanced networks), assembly on panels or DIN rails, with a graphical display, with 4-quadrant measurement.

Other features include:

- Class 0.2 or 0.5 power and energy
- Measurement of power quality events (guaranteeing the power supply of the unit by means of a UPS system, battery, etc.)
- Current measurement .../5 or .../1 A
- Measurement of the neutral current with a transformer
- Rating of consumed and generated energy (up to 9 tariffs)
- RS-485 Modbus/RTU communication
- Possibility of expansion (up to 3 modules)
- Backlit VGA graphic screen
- Instantly shows electrical parameters, maximum and minimum values with date and time
- Consumed and generated energy meter up to 100 GW·h
- Universal power supply as standard
- With ITF technology: galvanic insulation protection

### Applications

- Control application for general distribution switchboards and low-, medium- and high-voltage connection points
- Alarm station, featuring voltage-free digital inputs
- Submetering station: impulse meter for other services (gas, water, steam etc.) via the digital inputs
- Measurement transducer: possibility of associating instantaneous parameters with one of the available analogue outputs (0 to 20 mA / 4 to 20 mA)
- Unit for recording the instantaneous, maximum and minimum parameters, with date and time, via the memory expansion card
- Power quality analyzer: Harmonic decomposition, up to the 50th order harmonic, asymmetries, flicker, unbalances, overvoltages, gaps, interruptions, etc.

### Technical features

<b>Power circuit</b>	Rated voltage	85...265 Vac /90...300 Vdc
	AC power supply frequency	50...60 Hz
	AC power supply consumption	30 VA
	DC power supply consumption	< 25 W
<b>Measurement circuit</b>	Rated voltage	300/500 VP-N / VP-P 500 / 866 VP-N / VP-P
	Frequency	45...65 Hz
	Measurement margin	5%...120% of the $U_n$ for $U_n = 300$ Vac (P-N) 5%...120% of the $U_n$ for $U_n = 500$ Vac (P-N)
	Maximum measurement voltage	360 Vac
	Admissible overvoltage	750 Vac
	Maximum power consumption	< 0.6 VA (limited current)
	Nominal current	.../5 A or .../1 A
	Measurement margin	1%...120% of $I_n$ for $I_n = 5$ A
<b>Current measurement circuit</b>	Primary current measured	Programmable < 30,000 A
	Admissible overload	6 A permanent, 100 A t < 1 s
	Consumption	< 0.45 VA
	Power and energy	0.2 or 0.5
<b>Accuracy class</b>		100 GW·h
<b>Maximum meter value</b>		
<b>Build features</b>	Measurement module	<b>DIN 46277 rail (EN 50022)</b>
	Screen or screen + measurement module	Assembly on panels (96x96, 144x144mm) or holes with a diameter of 103 mm
	Dimensions	144 x 144 x 116 mm
<b>Environmental conditions</b>	Operating temperature	-10 °C...+50 °C
	Humidity (without condensation)	5%...95% (without condensation)
	Maximum altitude	2,000 m
<b>Safety</b>	Designed for CAT III 300 / 520 Vac installations, in accordance with <b>EN 61010</b> . Double-insulated electric shock protection, class II	
<b>Standards</b>	<b>IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-11, IEC 61000-4-4, IEC 61000-4-5</b>	

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### References

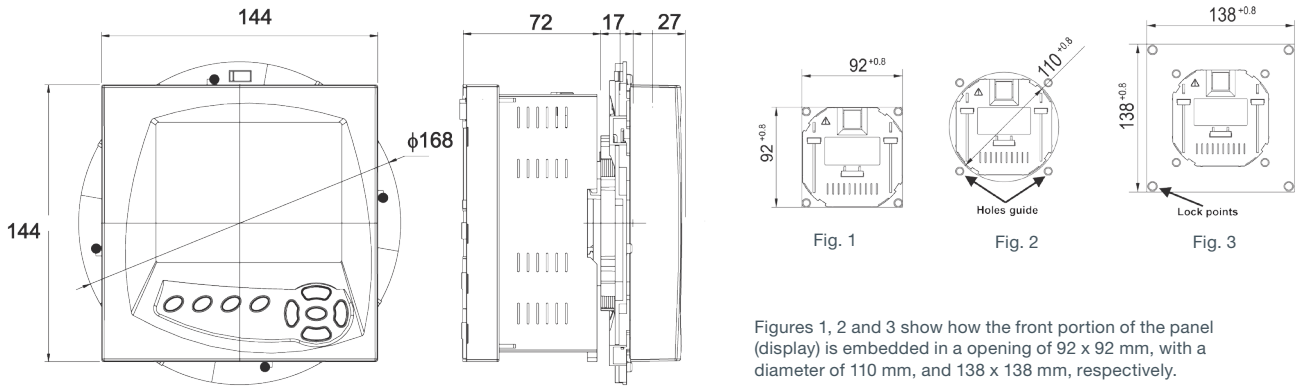
Compact units (measurement module + display)

Type	Code	Quadrants	Class	Communications
CVMk2-ITF-405	M54400	4	0,5	RS-485 Modbus/RTU
CVMk2-ITF-402	M54402	4	0,2	RS-485 Modbus/RTU

Measurement units (measurement module)

Type	Code	Quadrants	Class	Communications
M-CVMk2-ITF-405	M54410	4	0,5	RS-485 Modbus/RTU
M-CVMk2-ITF-402	M54412	4	0,2	RS-485 Modbus/RTU

### Dimensions



### Connections

Connection of 4 current transformers (5 wires)

Connection of 4 current transformers and 2 voltage transformers

Connection of 3 current transformers (3 wires)

