

CIRWATT-B505

Standard three-phase meter with indirect connection



Description

CIRCUTOR's **CIRWATT-B505** is a standard three phase indirect meter. It is the result of all the technological development which is experiencing the current market. These changes have created new needs and requirements both in terms of more flexible rates, new communication system and price optimization.

Applications

CIRWATT-B505 is a 4 quadrants meter suitable for heavy or medium industry applications, offering a high security degree and precise resolution on the measured energy readings. Providing to the market a robust and competitive meter with different communication ports and expansion cards, fully complying with the European Directive MID (**EN 50470**) and **IEC 62053-22** for Active Energy (Class 0,5S) and **IEC 62053-23** for Reactive Energy (Class 1 or Class 2).

Technical features

Power supply	Nominal voltage	3 x 230 (400) V 3 x 127 (230) V 3 x 63,5 (110) V
	Tolerance	80 % ... 115 % U_n
	Consumption	< 2 W; < 10 V-A
	Frequency	50 / 60 Hz
Voltage measurement	Connection	Asymmetrical
	Reference voltage	3 x 230 (400) V 3 x 127 (230) V 3 x 63,5 (110) V *
	Frequency	50 / 60 Hz
	Voltage consumption of the circuit	< 2 W; 10 V-A
Current measurement	Nominal reference current I_{ref} (I_{max})	1 (2) A / 1 (6) A / 2,5 (10) A / 5 (10) A *
	Start-up current I_{st}	< 0,04 x I_{tr}
	Minimum current I_{min}	< 0,2 x I_{tr}
	Current consumption of the circuit	< 0,1 V-A
Accuracy class	Accuracy measured in active energy	EN 50470 (Class C) IEC 62053-22 (Class 0,5S)
	Accuracy measured in reactive energy	IEC 62053-23 (Class 1 or 2)
Memory	Data	Non-volatile memory
	Setup and events	Serial flash
Battery	Type	Lithium
	Working Life	> 20 years @ 30 °C
Clock	Type	Gregorian calendar
	Source	Temperature compensated oscillator
	Accuracy (EN 61038)	< 0,5 s / day at 23 °C
Environmental influence	Operating temperature range	-40 ... +70 °C
	Storage temperature range	-40 ... +85 °C
	Temperature coefficient	< 15 ppm/K
	Humidity	95 % max.
Insulation	Insulating voltage	4 kV @ 50 Hz during 1 min
	Impulse voltage 1.2/50µs - IEC 62052-11	8 kV
	Index of protection (IEC 62052-11)	II
Display	Type	LCD
	Number of data digits	up to 8
	Size of data digits	8 mm
	Display data reading when there is no voltage	Yes
Optical communications interface	Type	Serial, bi-directional
	Hardware	IEC 62056-21
	Protocol	REE, based on IEC 870-5-102
Tampering detector	Detection	Opening the terminal cover
	Type	Micro-switch
	Function	Detects intruders when there is no voltage

* Request for other configurations

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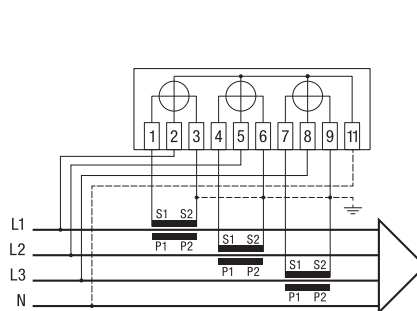
Construction features	Connection	Asymmetrical	
	External dimensions	DIN 43857	
	Enclosing features	DIN 43859	
	IP Degree (IEC 60529)	IP 51	
Rate programming	Number of days	12	
	Types of days	10	
	Contracts	3	
	Number of Tariffs	9	
	Discrimination	1 hour	
	Holidays/festivities	30	
	Special days	12	
Load curve	Number of load curves	2	
	Integration time	Programmable: 1 ... 253 min	
	Recording depth	4000	
Events	Number of events	200	
Billing closures	Number of locks	12, per contract	
	Type	Disabled / Programmable date and hour	
Other features	Communications *	RS-232 / RS-232 RS-485 / RS-485 RS-232 / RS-485	RS-232 / Ethernet R-485 / Ethernet
	Expansion cards *	Without inputs / outputs 4 relay outputs (Tariff indicator) 2 relay outputs / 4 impulse inputs 4 impulse inputs Earth leakage measurement 2 relay outputs / 2 impulse outputs / 2 impulse inputs	

* Request for other configurations

References

Type	Code	Measurement range V	Comms. COM1	Comms. COM2
405-VT5A-70B10	QBK00	3x57/100 V ... 3x230/400 V	RS-232	RS-232
405-VT5A-90B10	QBK10	3x57/100 V ... 3x230/400 V	RS-232	RS-485
405-VT5A-A0B10	QBK20	3x57/100 V ... 3x230/400 V	RS-232	Ethernet
405-VT5A-C0B10	QBK30	3x57/100 V ... 3x230/400 V	RS-485	Ethernet

Connections



Dimensions

