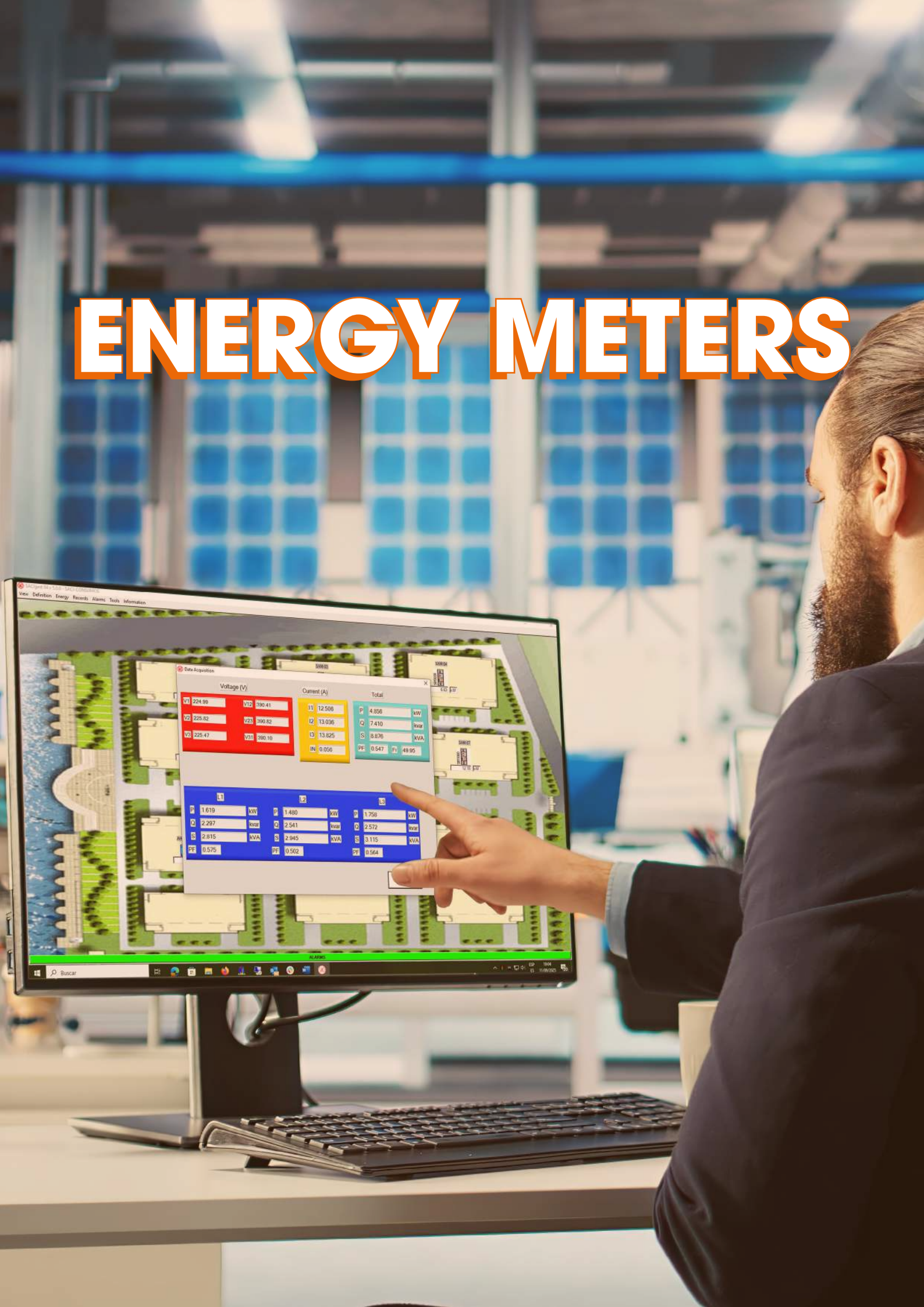
ENERGY METERS



General features

Energy meters

General technical specifications

• Unit of measurement	**Kwh**
• Enclosure material	**ABS**
• Type of mounting	**35mm DIN rail mounting**
• Terminals	**Sealable terminals**

Standards

Energy meters

- EN 62053 -21
- EN 62053-22
- EN 62053-23
- DIN 43864
- EN 61010

MID energy Meters

- EN 50470-1
- EN 50470-3
- EN 62053-23
- DIN 43864
- EN 61010

M2DWIFI-2

Single-phase - Remote monitoring - Direct measurement

General features

The **M2DWIFI-2** energy meter allows you to take measurements and control consumption through an APP available on IOS and Android.

Thanks to its WIFI connection, the electrical panel can be activated or deactivated via the built-in relay, avoiding unwanted consumption.

It has a remote cut-off capacity of up to 80 amps.

- **Rated voltage (Un):** 165-265 V AC
- **Rated current:** 5 (60) A
- **Auxiliary voltage:** Self-powered
- Programmable power limiter
- **Dimensions:** 2 modules (36mm)
- **Communication:** WIFI 802.11 b/g/n RS485
- **Protocols:** Modbus RTU MQTT

General features	Model
Single-phase	M2DWIFI-2

Measuring parameters	Accuracy	Unit
Energy	Class 1	kWh
Voltage	0,5%	V
Current	0,5%	A
Active power (P)		kW
Power factor (Cos ϕ)		PF

Web and App

- APP monitoring
- Control of electrical consumption
- WIFI power cut
- 80A remote cut-off capacity
- Suitable for integration into third party platforms
- Setting consumption limits
- Alert programming
- Cloud storage
- Small size
- Manual or programmed activation of the device

Download on the App Store

Available on the Google Play

M2DWIFI-TCP

Single-phase - Remote monitoring - Direct measurement

General features

The M2DWIFI-TCP single-phase energy meter features WiFi, Ethernet, and RS485 communication for remote data reading and configuration.

It includes an internal 80 A power relay for local and remote load connection and disconnection.

- **Nominal voltage (Un):** 165–265 V AC
- **Nominal current:** 5 (60) A
- **Auxiliary supply:** Self-powered
- **Programmable power limiter**
- Medida corriente (1 directa/ 1 indirecta)
- Dimensions: 54 × 100 mm
- Communications:
  WiFi 802.11 b/g/n
  RS485 (Modbus RTU)
  Ethernet (TCP-Modbus / MQTT)

General features	Model
Single-phase	M2DWIFI-TCP

Measuring parameters	Accuracy	Unit
Active energy	Class 2	kWh
Reactive energy	Class 1	Kvarh
Voltage	0,5%	V
Current	0,5%	A
Active power (P)	0,5%	kW
Reactive power (Q)	0,5%	kvar
Power factor (cos φ)	0,5%	-
Current and voltage THD	0,5%	%
Harmonics (V, I) 1–31	1%	%
Maximum demand	-	-
Maximum and minimum values	-	-

Web and App

- Monitoring via the app
- Electrical consumption control
- Remote supply disconnection via WiFi
- Compact size
- Cloud storage
- Alert configuration
- Setting consumption limits
- Manual or scheduled device activation
- Suitable for integration with third party platforms
- Remote disconnection capability up to 80 A

TCIDWIFI-TCP

Three-phase - Remote monitoring - Direct measurement

General features

The TCIDWIFI-TCP three-phase energy meter features WiFi, Ethernet, and RS485 communication for remote data reading and configuration.

It includes three internal switches for remote power disconnection up to 100 A, one per phase. It also allows the load to be connected and disconnected both locally and remotely.

- **Nominal voltage (Un):** 3 × 165–265 V AC
- **Nominal current:** 10 (100) A
- **Auxiliary supply:** Self-powered
- **Programmable power limiter**
- **3 switches for remote disconnection**
- Dimensions: 126 × 100 mm
- Communications:
  WIFI 802.11 b/g/n
  RS485 (Modbus RTU)
  Ethernet (TCP-Modbus / MQTT)

General features	Model
Three-phase	TCIDWIFI-TCP

Measuring parameters	Accuracy	Unit
Active energy	Class 2	kWh
Reactive energy	Class 1	Kvarh
Voltage	0,5%	V
Current	0,5%	A
Active power (P)	0,5%	kW
Reactive power (Q)	0,5%	kvar
Power factor (cos φ)	0,5%	-
Current and voltage THD	0,5%	%
Harmonics (V, I) 1–31	1%	%
Maximum demand	-	-
Maximum and minimum values	-	-

Web and App

- Monitoring via the app
- Electrical consumption control
- Remote supply disconnection via WiFi
- Cloud storage
- Alert configuration
- Setting consumption limits
- Manual or scheduled device activation
- Suitable for integration with third party platforms
- Remote disconnection capability up to 100 A

TCIL2

Three-phase - Electronic - Indirect measurement

General features

The **TCIL2** unit acts as an energy meter and measures the parameters of a three-phase or single-phase low-voltage network. It has RS485 communication and the capacity to connect 32 devices on the same circuit or 128 via a gateway. **Up to 6 hourly tariffs can be configured.**

Control can be done via PC or network from the device. Also available with Ethernet port.

- **Rated voltage (Un):** 3x230/ 400 V AC
- **IB intendity (Imax):** 1,5 (6) A
- **Indirect measurement:** x/5A or x/1A
- **Visualisation:** 8 digits
- **Impulse output:** 2
- **Auxiliary voltage:** Self-powered
- **Communication:** RS485 port and Ethernet Modbus RTU or BACNET
- **Dimensions:** 76 x 90mm
- Resettable active eneryg meter
- Bidirectional energy meter
- LED's indicators for verification

Model	TCIL2	TCIL2 TCP	TCIL2T	TCIL2T TCP	TCIL2T LP	TCIL2T LP TCP
Memorised parameters	-		17 variables in 15 min periods		Load curve in 5 min. periods	
Memory	-		3 years		1 year	
Tariffs	6	6	6	6	6	6
Ethernet port	-	Modbus Bacnet	-	Modbus Bacnet	-	Modbus Bacnet

Measuring parameters	Unit	Accuracy
3 voltage (line-line and line-neutral)	V	0,2 %
3 voltage phase-neutral	A	0,2 %
Total and partial active, reactive and apparent power	kW, kvar, kVA	0,5 %
Power factor (Cos ϕ)	PF	0,5 %
Frequency	Hz	0,01 %
Imported and exported active energy (EP+/EP-)	kWh	0,5s
Imported and exported reactive energy (EQ+/EQ-)	kvar	2 %
Reactive energy (Q1, Q2, Q3, Q4)	kWh	2 %
Maximum demand I, P, Q and S	A, kW, kvar, kVA	-
THD Current and voltage	A, V	-
RMS voltage and current harmonics (1 - 32)	A, V	-

TCIL1

Three-phase - Electronic - Indirect measurement

General features

The **TCIL1** three-phase unbalanced 3 or 4 wire energy meter. It has Class 1 accuracy (EN 62053) and is indirect measurement (x/5A) programmable.

It incorporates a power consumption LED indicator and 3 current check LEDs, as well as an 8 digit electronic display.

- **Rated voltage (Un):** 3x230/ 400 V AC
- **IB intensity (Imax):** 1,5 (6) A
- **Indirect measurement:** x/5A
- **Auxiliary voltage:** self-powered
- **Dimensions:** 76 x 90mm
- **Visualisation:** 8 digits
- **Impulse output:** 1
- Active energy measurement

General features	Model
Meter with active energy measurement	TCIL1

TCIDL3-MID

Three-phase - Electronic - Direct measurement

General features

The **TCIDL3-MID** counter is also an analyser, measuring the various parameters of a three-phase system. The measured values can be displayed or transmitted via the communication ports.

It has RS485 communication with Modbus protocol. It measures positive and negative active energy and reactive energy in 4 quadrants and has time discrimination for 4 tariff periods.

- **Rated voltage (Un):** 3x230/ 400 V AC
- **Rated current:** 0,25 - 5 (100)A
- **Frequency:** 50 Hz and 60 Hz
- **Comunication:** IR/RS485
- MID certificate
- **Dimensions:** 4 modules, 70x90mm
- **Visualisations:** 8 digits
- Measurement of active and reactive energy
- **Auxiliary voltage:** Self-powered

General features	TCIDL3-MID	TCIDL3i-MID
Active energy measurement (EP+/EP–)	•	•
Reactive energy	Quadrants 4	
Tariffs	4	4
Digital inputs	-	1
Impulse outputs	2	1

Measuring parameters	Accuracy	Unit
Voltage (Line - Line and Line - neutral)	0,5%	V
Current	0,5%	A
Import and export active energy	Class B	kWh
Import and export reactive energy	2%	kvarh
Active/reactive energy resettable	0,5%	kWh - kvarh
Active/reactive max. power demand	–	kW - kvar
Active, reactive and apparent power	0,5%	kW - kvar - KVA
Frequency	0,01 Hz	Hz
Power factor	0,5%	-

TCIDL2-MID

Three-phase - Electronic - Direct measurement

General features

MID certified three-phase direct connection meter.

It measures active energy in a three-phase low-voltage direct connection network.

It also measures frequency, voltages and currents per phase, active power per phase and total power via the RS485 communication port. On request, these parameters can also be shown on the display.

- **Rated voltage (Un):** 3x230/ 400 V AC
- **Auxiliary voltage:** Self-powered
- **Rated current:** 0,25 - 5(80)A
- **Communication:** RS485
- **Frequency:** 50 Hz
- **Dimensions:** 76 x 105 mm
- **Visualisations:** 8 digits
- **Pulse output**

Measuring parameters	Accuracy	Unit
Active energy measurement (EP+)	Class B	kWh
Active energy with zeroing (RS485)	Class B	kWh
Active energy exported	Class B	kWh
Total active power	0,5	kW
Active power per phase	0,5	kW
Voltage (line-to-line and line-to-neutral)	0,5	V
Current	0,5	A
Frequency	0,5	Hz

TCIDL1

Three-phase - Electronic - Direct measure

General features

The **TCIDL1** energy meter is an unbalance three-phase meter with 3 or 4 wires. it is direct measurement up to 80 A. It has a power consumption LED indicator and three current check LED's. It also has an 8 digit electronic counter. The pulse output is SO (DIN 43864). It has a size of 4 modules on DIN rail.

- **Nominal voltage (Un): 3 × 230 / 400 V AC**
- **Auxiliary supply: Self-powered**
- **Nominal current: 10 (80) A**
- **Frequency: 50 – 60 Hz**
- **Dimensions: 76 × 100 mm**
- **Display: 8 digits**
- **Pulse output**

General features	Model
Energy meter with active energy measurement (EP+)	TCIDL1

M1DL_-MID

Single-phase - Electronic - Direct measuremet

General features

The **M1DL_-MID** single-phase direct meters are also analysers, measuring the parameters of a single-phase low voltage network. In addition, they are MID-certified for active energy, not bidirectional.

The measurement values can be displayed on the built-in display.

M1DL1-MID M1DL3-MID

General features	M1DL1-MID	M1DL3-MID	M1DL3T-MID
Direct rated current	0,25-5 (50) A	0,25-5 (100) A	0,25-5 (100) A
Rated voltage	230 V		
Auxiliary voltage	Self-powered		
Frequency	50 Hz	50 / 60 Hz	
Dimensions	18 x 116mm	18 x 90mm	18 x 90mm
Active energy measurement (EP+)	•	•	•
Impulse output	1	1	1
Tariffs	-	-	4
RS 485 communication	-	•	•

M1DL1 - M2DL1

Single-phase - Electronic - Direct measurement

General features

The single-phase **M1DL1** and **M2DL1** energy meters have class 1 accuracy (EN 62053) and incorporate an internal shunt.

They have an LED power consumption indicator.

M1DL1 M2DL1

General features	M1DL1	M2DL1
Rated voltage (Un)	230 V AC	
Auxiliary voltage	Self-powered	
Rated direct current	5 (50) A	5 (80) A
Visualisation	7 digits	6 digits
Active energy measurement (EP+)	1 (total)	2 (total & partial)
Dimensions	17,5mm	35mm

M1DM1 - M2DM1

Single-phase - Electromechanic - Direct measurement

General features

The **M1DM1** and **M2DM1** single-phase electromechanical energy meters have class 1 accuracy (EN 62053) and incorporate an internal shunt.

They have a mechanical power consumption indicator.

M1DM1 M2DM1

General features	M1DM1	M2DM1
Rated voltage (Un)	230 V AC	
Auxiliary voltage	Self-powered	
Rated direct current	5 (50) A	5 (80) A
Visualisation (electromechanic)	6 digits	6 digits
Active energy measurement (EP+)	1 (total)	1 (total)
Dimensions	17,5mm	35mm

RT485

RS 485 repeaters

General features

The **RT485** repeater is a communications equipment that allows the extension of a RS485 Modbus, in order to increase the communication distance or the maximum recommended number of terminals.

The communication is bidirectional and incorporates LED indicators to visualise the operation of the signals. DIN rail mounting.

- **Auxiliary voltage:** 110, 230 or 400 V AC
  24 or 48V DC
  110 or 220V DC
- **2 or 4 wire connection (insulated)**
- **Dimensions:** 6 modules, 105x90mm
- **No. of RS 485 serial outputs:** 1

General features	Model
RS485 communication repeaters	RT 485

TTI - TTIM Totalizer terminals

Microprocessor and serial output

General features

TTI: Totalizer basic module with microprocessor and serial output.

TTIM: Totalizer module with microprocessor and serial output, with 128kb memory, LCD display and integrated keypad.

The TTI and TTIM totalizer modules are programmable, they can count closed contact time in seconds, time or pulses.

- **Auxiliary voltage:** 100, 110, 230 or 400 V AC
- **Communication:** RS485 port
  Modbus
- **Dimensions:** 9 modules, 155x90mm
- Programmable counter reading
- Independent counter reset

General features	TTI	TTIM
Independent impulse meter	8 input	8 input
Max. no. of devices per line	32	32
No. of outputs	1	1
Load curve per meter		90 days
LCD display and 128 kb circular memory		•

IFR - IFRA

RS 232 / RS 485 Converters

General features

IFR devices convert the levels of the RS232 standard to the corresponding levels of the RS485 standard. DIN rail mounting.

They allow the connection of a PC equipped with RS232 to an RS485 bus.

General features	IFR1	IFRA3	IFRA	IFR4
Dimensions (mm)	52x90	52x90	105x90	155x90
No. of RS 232 serial outputs	1	1	1	1
No. of RS 485 serial outputs	1	1	1	4
Auxiliary voltage 110 or 220 V AC				
2 wire connection	•			
2 or 4 wire connection (insulated)		•	•	•
Auxiliary voltage 24, 48, 110 or 220V DC				
2 or 4 wire connection (insulated)			•	•

ETHERGATE 2

Ethernet conversor

General features

The **etherGATE** converter is a communication gateway for the conversion of the physical medium (RS 485) to Ethernet and/or Wi-Fi .

- **Rated voltage:** 110 - 264 V AC
  120 - 300 V DC
- **Frequency:** 50-60Hz
- **Dimensions:** 2 modules, 35x90mm
- **Protection degree:** IP30

RS-485 interface		Ethernet interface		Wi-Fi communications	
Field bus	RS-485	Connector	RJ45	Band	2.4 GHz
Speed	4800 - 9600 - 19200 - 38400 - 57600 - 115200 bps	Type	Ethernet 10BaseT - 100BaseTX autodetectable	Standards	IEEE 802.11 b / g , IEEE 802.11 n
Data bits	8	Protocol	TCP - UDP - Modbus TCP - HTTP (Web server) - REST	Max. output power	IEEE 802.11 b : 20 dBm IEEE 802.11 n : 14 dBm
Stop bits	1 - 2	Network connection mode	DHCP ON/OFF		
Parity	Without - even-odd				

ETHERGATE 3

Ethernet conversor

General features

The ETHERGATE 3 converter is a gateway for connecting an RS-485 network to an Ethernet network.

- **Rated voltage:** 100 - 240 V AC
  9 - 50 V DC
- **Dimensions:** 27,5 x 92,30 mm
- **Burden:** ~ 100 mA
- **Power:** < 400 mW
- **Processor/ Frequency:** Cortex-M3/96MHz
- **Flash / SDRAM:** 2 MB /128 KB
- **Operating system :** FreeRTOS

RS-485 port		Ethernet port	
Number of ports	1	Number of ports	1
Speed	600 bps ~ 460.800 bps	Interface standard	10/100 Base-T Auto-Negotiation
Data bit	5, 6, 7, 8	Transformer	Integrated
Stop bits	1, 2	Network protocol	IP, TCP, UDP, DHCP, DNS, ARP, AutoIP, ICMP, Telnet, NTP, Modbus TCP, HTTP Server/ Client
Parity	no - even - odd	Security protocol	AES 128Bit / DES3
Flow control	No flow control Software Xon/ Xoff flow control		

Management software

The **SACIGEST** program is a system that allows the SACI terminals installed in an electrical network to be managed in a simple and graphic way. The installation is grouped by sections, each with a different display, in which the corresponding terminals are inserted. The system incorporates the creation of virtual terminals from real terminals.

The network analyzers it handles are: SAM3000, SAM3001, AHM1, AHM3, ASM3-PV, MAR144, AR3DC, AR4DCT, TMC-C, CP3000, CP4000, likewise, it can handle the energy meters TCIL2 and TCIDL3-MID through the TTI terminals. The software is capable of handling up to four communication ports, as well as the use of MODEM to communicate with the different terminals installed in the network, and can opt for the client-server mode of operation via an Ethernet network.

The system is available in different versions depending on your applications:

- **SACIGEST 01**: Version including terminal monitoring and configuration options.
- **SACIGEST 02**: Version that adds the ENERGIES option to SACIGEST01. The energy consumptions of the installation can be displayed by means of terminals or sections, as well as their graphic representation. Up to six types of tariffs can be configured, as well as the sampling interval.
- **SACIGEST 03**: SACIGEST03 has been added to the version of SACIGEST02 with a version of historical currents, voltages and powers, with the possibility of setting the sampling interval.
- **SACIGEST 04**: The SACIGEST04 version adds the option of alarms. Different alarms can be defined in the system for each terminal, allowing action to be taken on the digital outputs of the same or any other terminal. Pending alarms and alarms already registered are displayed.

Within each SACIGEST version, there are different sub-versions: Normal, Server and Client.

TTIGEST software can handle TCIDL1-MID and M1DL3-MID and TTI totalizer terminals.

- **SOFTWARE TTIGEST**: Programs dedicated to optimizing and controlling water, gas, electricity, etc. consumption. Aimed at managing meter consumption and issuing the corresponding invoices.

The TTIM totalizers allow load curves to be generated and the data can be examined numerically or graphically, printed and exported.

The version incorporates the history of all the meters, the uncontrolled consumption and the assigned and unassigned controlled consumption. It manages the control with PREPAYMENT, allowing to control the balance of each meter and to make collective or individual contributions.

General features	Model
Network analyzers / Programmable converters	
Monitoring (ConFiguretion, grouping and visualisation)	SACIGEST 01
Energy + SACIGEST 01	SACIGEST 02
Historical + SACIGEST 02	SACIGEST 03
Alarms + SACIGEST 03	SACIGEST 04
Energy meters	
Monitoritoring (ConFiguretion, grouping, visualisation and invoicing)	TTIGEST

Network anayzers and programmable converters versions (SACIGEST)

- Standard version
- Reduced version (6 units)
- Server version. Up to 10 additional pcs
- Reduced server version (6u). Up to 10 additional pcs

Energy meters version (TTIGEST)

- Standar version. Specific for billing, only allowed to analise in header.

ENERGY METERS

			M2DWIFI-2	M2DIWIFI-TCP	TCIDWIFI-TCP	
						
GENERAL FEATURES						
Rated voltage			165-265 V AC	165-265 V AC	3x 165-265 V AC	
Rated current			5 (60) A	5 (60) A	10 (100) A	
Dimensions			2 DIN	54x100mm	126x100mm	
Protection degree IP			IP 51	IP 51	IP 51	
MID certified						
COMMUNICATIONS						
RS485 (Modbus)			•	•	•	
Ethernet TCP/IP - BacNet TCP/IP				•	•	
Wi-Fi			•	•	•	
Memory						
OTHER FEATURES						
Counter reset						
Contacts output						
ELECTRICAL QUANTITIES	**Unidad**					
Electrical parameters			13	82	97	
Phase voltage	V, kV	L1, L2, L3			•	
Phase voltage	V, kV	Max/Min		•	•	
Phase voltage	V, kV	Total	•	•	•	
Line voltage	V, kV	L1, L2, L3			•	
Line voltage	V, kV	Max/Min		•	•	
Current	A, kA	L1, L2, L3			•	
Current	A, kA	Max/Min		•	•	
Current	A, kA	Max. Demand		•	•	
Current	A, kA	Total	•	•	•	
Active power (P)	kW, MW, GW	L1, L2, L3			•	
Active power (P)	kW, MW, GW	Total	•	•	•	
Active power (P)	kW, MW, GW	Max/Min		•	•	
Active power (P)	kW, MW, GW	Max. Demand		•	•	
Reactive power (Q)	kvar, Mvar, Gvar	L1, L2, L3			•	
Reactive power (Q)	kvar, Mvar, Gvar	Total	•	•	•	
Reactive power (Q)	kvar, Mvar, Gvar	Max/Min		•	•	
Reactive power (Q)	kvar, Mvar, Gvar	Max. Demand		•	•	
Apparent power (S)	kVA	L1, L2, L3			•	
Apparent power (S)	kVA	Total	•	•	•	
Apparent power (S)	kVA	Max/Min		•	•	
Apparent power (S)	kVA	Max. Demand		•	•	
Power factor (Cos)	PF	L1, L2, L3			•	
Power factor (Cos)	PF	Total	•	•	•	
Power factor (Cos)	PF	Max/Min		•	•	
Frequency	Hz	Total	•	•	•	
Import active energy (EP+)	kWh, MWh, GWh	Total	•	•	•	
Import active energy (EP+)	kWh, MWh, GWh	Parcial		•	•	
Export active energy (EP-)	kWh, MWh, Gwh	Total	•	•	•	
Export active energy (EP-)	kWh, MWh, GWh	Parcial		•	•	
Export reactive energy (EQ+)	kvarh, Mvarh,Gvarh	Total		•	•	
Export reactive energy (EQ-)	kvarh, Mvarh,Gvarh	Total		•	•	
Export reactive energy (EQ-)	kWh, MWh, GWh	Parcial		•	•	
Energy load curve	kWh, MWh, GWh	Curve				
Reactive energy (4 quadrants)	kvarh, Mvarh,Gvarh	Q1, Q2, Q3, Q4		•	•	
Tariffs			4	4	4	
THD voltage and current	V, A	L1, L2, L3		•	•	
RMS-U and RMS-I harmonics	%	L1, L2, L3		•	•	
Remote cut-off swich	-	ON / OFF	•	•	•	
Programmable power limiter	-	-	•	•	•	

ENERGY METERS

	TCIDL1	TCIDL3-MID	TCIDL2-MID	TCIL1	TCIL2 / TCIL2T
					
	3 x 230/ 400 V AC	3 x 230/ 400 V AC	3 x 230/ 400 V AC	3 x 230/ 400 V AC	3 x 230/ 400 V AC
	10 (80) A	0,25 - 5 (100) A	0,25-5(80) A	X/5 A	X/5 A - X/1 A
	76x100mm	4 DIN	76x105mm	76x100mm	76x100mm
	IP51	IP51	IP51	IP51	IP51
		•	•		
		RS485	•		•
					(Optional)
					• (TCIL2T)
		Partial reset	Partial	Total reset	Total and partial reset
	1	2	1	1	2
	1	75	12	1	60
		•	•		•
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					(Optional) LP version
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		4			6
					•
					1-31

ENERGY METERS

			M1DL3 - MID M1DL3T - MID	M1DL1 - MID	
					
GENERAL FEATURES					
Rated voltage			230 V AC	230 V AC	
Rated current			0,25-5(100) A	0,25-5(50) A	
Dimensions			1 DIN	1 DIN	
Protection degree IP			IP51	IP51	
MID certified			0120/SGS05731	0120/SGS0575	
COMMUNICATIONS					
RS485 (Modbus)			•		
OTHER FEATURES					
Counter reset			Partial		
Contact output				1 (optocoupler)	
ELECTRICAL MAGNITUDES	**Unidad**				
Electrical parameters			11	6	
Voltage	V, kV	Total	•	•	
Current	A, kA	Total	•	•	
Active power (P)	kW, MW, GW	Total	•	•	
Reactive power (Q)	kvar, Mvar, Gvar	Total	•		
Apparent power (S)	kVA	Total	•		
Power factor (Cos)	PF	Total	•	•	
Frequency	Hz	Total	•	•	
Imported active energy (EP+)	kWh, MWh, GWh	Total	•	•	
Exported active energy (EP-)	kWh, MWh, Gwh	Total	•		
Imported reactive energy (EQ+)	kvarh, Mvarh,Gvarh	Total	•		
Exported reactive energy (EQ-)	kvarh, Mvarh,Gvarh	Total	•		
Tariffs			4 (M1DL3T-MID)		

ENERGY METERS

	M1DL1	M2DL1	M1DM1	M2DM1
				
	230 V AC	230 V AC	230 V AC	230 V AC
	5 (50) A	5 (80) A	5 (50) A	5 (80) A
	1 DIN	2 DIN	1 DIN	2 DIN
		Partial		
	1	1	1	1
	1	1	1	1
	•	•	•	•