econ energy meter

General overview

Product	Description	Item no.
	**PM180 - Direct measuring 1-phase energy meter** o Measurement of all variables relevant for checking a power grid: energies, V, I, PF, F, P, Q o Measurement of alternating current L-N 230V AC via direct connection up to 80A o Top-hat rail mounting and sealable terminal cover o Tariff 1 and 2 o Accuracy: Energy efficiency class B / Active power class 1 o Every model is MID certified	
	PM180 S0-pulse MID	**EC250866**
	PM180 Modbus MID	**EC251071**
	**PM35 - Indirectly measuring 3-phase energy meter** o Measurement of all variables relevant for checking a power grid: energies, V, I, PF, F, P, Q o Measurement of 3-phase systems with a voltage of L-N 230V AC / L-L 400V AC o Measurement of currents via 1 or 5 A current transformers o Top-hat rail mounting and sealable terminal cover o Tariff 1 and 2 o Accuracy: Energy efficiency class B / Active power class 1 o Every model is MID certified	
	PM35 S0-pulse MID	**EC250815**
	PM35 Modbus MID	**EC250816**
	PM35 M-Bus MID	**EC250817**
	**PM380 - Direct measuring 3-phase energy meter** o Measurement of all variables relevant for checking a power grid: energies, V, I, PF, F, P, Q o Measurement of 3-phase systems with a voltage of L-N 230V AC / L-L 400V AC o Measurement of currents via direct connection up to 80A o Top-hat rail mounting and sealable terminal cover o Tariff 1 and 2 o Accuracy: Energy efficiency class B / Active power class 1 o Every model is MID certified	
	PM380 S0-pulse MID	**EC250818**
	PM380 Modbus MID	**EC250819**
	PM380 M-Bus MID	**EC250820**
	PM380 Modbus TCP-IP MID	**EC251383**

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Technical details

General information									
Types	PM180 S0-pulse MID	PM180 Modbus MID	PM35 S0-pulse MID	PM35 Modbus MID	PM35 M-Bus MID	PM380 S0-pulse MID	PM380 Modbus MID	PM380 M-Bus MID	PM380 TCP-IP MID
Interface	2 x S0	Modbus RTU	2 x S0	Modbus RTU	M-Bus	2 x S0	Modbus RTU	M-Bus	Modbus TCP-IP
Pulse value	adjustable	-	adjustable	-	-	adjustable	-	-	-
Item no.	EC250866	EC251071	EC250815	EC250816	EC250817	EC250818	EC250819	EC250820	EC251383
Technical specifications									
Connection	80A	80A	1A or 5A	1A or 5A	1A or 5A	80A	80A	80A	80A
Dimensions of the basic unit (WxHxD mm)	36x90x70	36x90x70	72x90x70	72x90x70	72x90x70	72x90x70	72x90x70	72x90x70	72x90x70
Subunits	2	2	4	4	4	4	4	4	4
Working temperature (°C)	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55
Storage temperature (°C)	-25...+70	-25...+70	-25...+70	-25...+70	-25...+70	-25...+70	-25...+70	-25...+70	-25...+70
Protection type (front/terminals)	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20	IP51(*)/ IP20
Max. connectable conductor (mm²)	Voltage: 33	Voltage: 33	Voltage: 4	Voltage: 4	Voltage: 4	Voltage: 33	Voltage: 33	Voltage: 33	Voltage: 33
Supply voltage	from measured voltage	from measured voltage	from measured voltage	from measured voltage	from measured voltage	from measured voltage	from measured voltage	from measured voltage	from measured voltage
Voltage range (VAC)	92...276	92...276	92...276/ 160...480	92...276/ 160...480	92...276/ 160...480	92...276/ 160...480	92...276/ 160...480	92...276/ 160...480	92...276/ 160...480
Current range (A)	0,25...80	0,25...80	0,01...6	0,01...6	0,01...6	0,25...80	0,25...80	0,25...80	0,25...80
Frequency, fundamental vibration (Hz)	45...65	45...65	45...65	45...65	45...65	45...65	45...65	45...65	45...65
Measurement	1-phased	1-phased	3-phased	3-phased	3-phased	3-phased	3-phased	3-phased	3-phased
Measurement accuracy active energy	Class B	Class B	Class B	Class B	Class B	Class B	Class B	Class B	Class B
Tariffs	2	2	2	2	2	2	2	2	2

* When installed (front section)

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Additional modules

Product	Description	Item no.
	**LAN-TCP/IP communication module** LAN-TCP/IP communication module for expanding single-phase and three-phase econ energy meters. For side mounting to transfer measurement data via a TCP/IP network to a remote system such as the econ4 energy management software. o LEDs for connection activity, status of Side-IrDA interface, and error conditions o Transmission of energy, power, V, I, PF, F o Dimensions W x H x D: 18 (1U) x 90 × 70 mm o Top-hat rail mounting Standard rail 35 mm in accordance with EN 60715	**EC251222**
	**Communication module LoRaWAN** LoRaWAN communication module for expanding single-phase and three-phase econ energy meters. For side mounting to transfer measurement data via a TCP/IP network to a remote system such as the econ4 energy management software. o Transfer of active and reactive energy consumed/supplied for 2 tariffs o Data rate: 250...5470 bits/sec o Frequency band: 863...870 MHz o Dimensions W x H x D: 18 (1U) x 90 × 70 mm o Top-hat rail mounting Standard rail 35 mm in accordance with EN 60715 (Antenna not included)	**EC251238**
	**LoRa - wMBus antenna** o 2.5 m - 3 m cable length o SMA connector o Magnetic antenna	**EC251264**

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