HYPERION TECHNICAL DATASHEET EN

VERSION HISTORY

Version	Date	Revision
1.0.0	February 18, 2025	Created
1.0.1	March 25, 2026	• Formatting, Version History

FEATURES

- mioty® or LoRaWAN® wireless interface (Modbus or WMBUS upon request)
- Bidirectional meter (supply and consumption)
- MID B + D approval for billing purposes
- Environmental conditions mechanical: M2
- 1 and 5 A current transformer connection for up to 20,000/5 or 4,000/1 A, the transformer ratio can be configured multiple times via sealable buttons
- Direct connection up to 100 A
- 2 or 4-rate (configurable on the meter)
- High-current-capacity Opto Power MOSFET
- S0 pulse output, 5–60 V AC and V DC
- Graphical LCD display (38x28 mm), with backlight
- Dynamic 8-digit display with up to three decimal places

MID APPROVAL FOR BILLING PURPOSES

The Hyperion is tested and approved according to MID Module B + D (Measurement Instrument Directive, European Commission Directive 2004/22/EC).

DISPLAY OPERATION

A 38x28 mm backlit graphic LC display allows for easy reading of measurement values and settings even under difficult lighting conditions.

The desired menu language can be selected using the buttons. The clear and intuitive operation simplifies commissioning as well as daily work with the energy meters.

PARAMETERS

	Total/3 Phases	**Per Phase**	**Per Tariff**
Active energy consumption (kWh)	✓	✓	✓
Active energy supply (kWh)	✓	✓	✓
Reactive energy consumption (kvarh)	✓	✓	✓
Reactive power supply (kvarh)	✓	✓	✓
Active power (kW)	✓	✓	-
Reactive power (kvar)	✓	✓	-
Apparent power (kVA)	✓	✓	-
Current (A)	✓	✓	-
Voltage (V) L-N	-	✓	-
Voltage (V) L-L	-	✓	-

Power factor (Cos Phi)	-	✓	-
Frequency (Hz)	✓	-	-
Number of power outages	✓	-	-
Load profile storage	-	-	✓

Features

- Logbook for events relevant to metrology regulations and configuration changes
- Change in time or date
- Change to the current transformer ratio
- Change in pulse rate and pulse duration
- Change in voltage transformer ratio
- Buffered internal clock

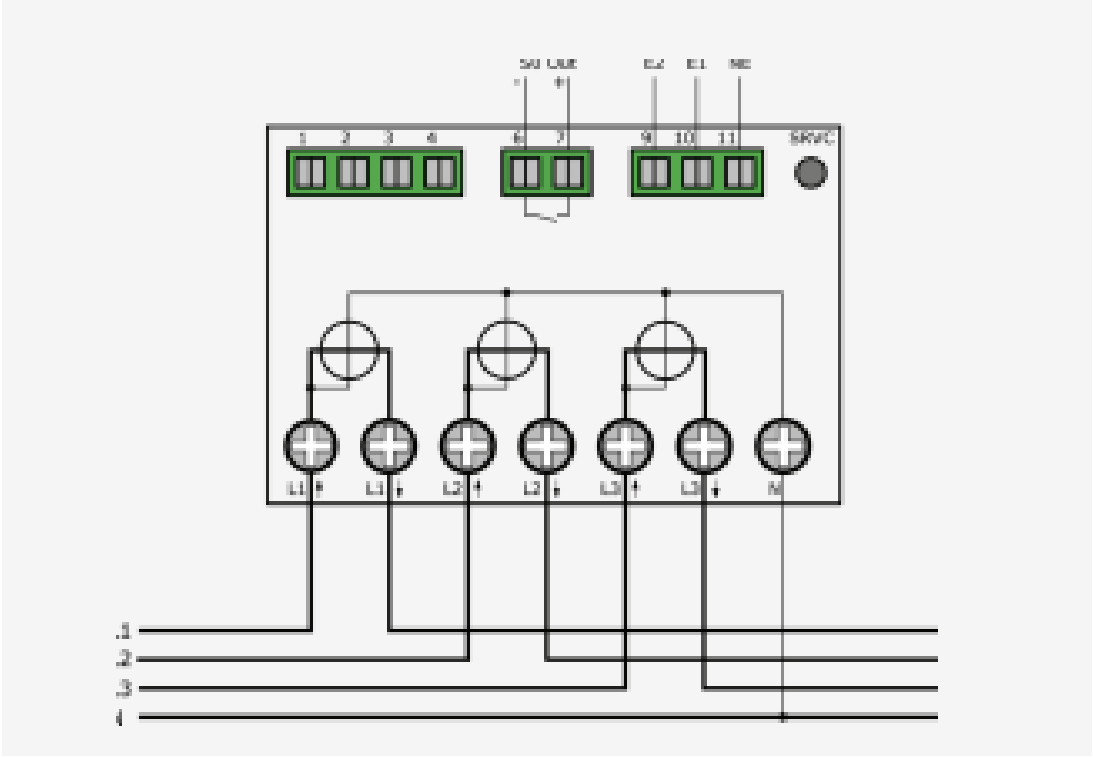
The internal clock is backed up in the event of a power failure. The load profile is saved every 15 minutes. The memory can be read via the interface or viewed on the display.

ORDERING INFORMATION

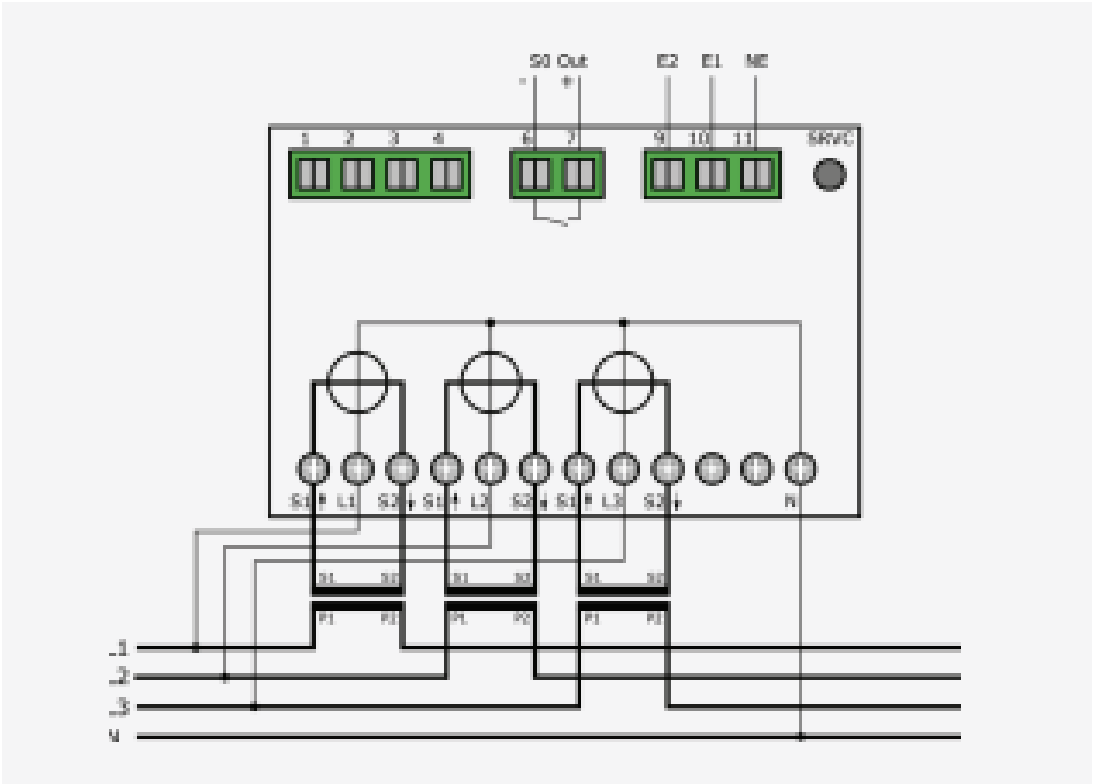
Model	Type	Part No.
Hyperion Energy Meter with direct measurement up to 100A	LoRaWAN, internal antenna	S-HYPE-LOEU-D-INT
Hyperion Energy Meter with direct measurement up to 100A	LoRaWAN, external antenna	S-HYPE-LOEU-D-EXT
Hyperion Energy Meter with direct measurement up to 100A	Mioty, internal antenna	S-HYPE-MIOTY-D-INT
Hyperion Energy Meter with direct measurement up to 100A	mioty, external antenna	S-HYPE-MIOTY-D-EXT
Hyperion Energy Meter with current transformer connection	LoRaWAN, internal antenna	S-HYPE-LOEU-W-INT
Hyperion Energy Meter with current transformer connection	LoRaWAN, external antenna	S-HYPE-LOEU-W-EXT

Hyperion Energy Meter with current transformer connection	Mioty, internal antenna	S-HYPE-MIOTY-W-INT
Hyperion Energy Meter with current transformer connection	mioty, external antenna	S-HYPE-MIOTY-W-EXT

CONNECTION DIAGRAM 3/100



WIRING DIAGRAM 3/5



PRODUCT INFORMATION

Feature	Details
Active energy	Class B (1%) according to EN50470-3 Direct-connection meter Class B (1%) according to EN50470-3 Transformer meter
Reactive energy	Class 2 (2%) according to EN62053
Operating voltage	L-L: 400 VAC ± 20% L-N: 230 VAC ± 20%
Maximum current	Direct-reading meters: 100 A Transformer-based meters: 6A
Inrush current	Direct-reading meters: 20 mA at power factor 1 Transformer-based meters: 1 mA at power factor 1
Mains frequency	Nominal frequency: 50 Hz, 60 Hz on request Limit frequencies: 40–65 Hz
Self-consumption	Voltage path 0.8 VA / 0.8 W per phase Current path of transformer meter: 0.075 VA per phase
Current and voltage connection	Direct-reading meters: 1.5–35 mm², torque: 2 Nm, max. 3 Nm Transformer meters: 1–6 mm², torque: 0.8 Nm, max. 1 Nm
Tariff switching	2 or 4 tariffs (configurable on the meter), tariff switching: 230 VAC
Current transformer ratios	On the Hyperion 3/5, the current transformer ratio can be configured multiple times. Current transformer /5 A 5/5 A to 20,000/5 A in 5 A increments Current transformer /1 A 1/1 A to 4,000/1 A in 1 A increments
Display (LCD)	Dynamic 8-digit display with up to three decimal places Graphical LC display with backlight (WxH) 38x28 mm
S0 pulse output	Standard EN62053-31 Output: Potential-free Pulse rate per kWh/kVarh: 1, 10, 100, 1,000, or 10,000 pulses Pulse width: 2 ms, 10 ms, 30 ms, 40 ms, or 120 ms Pulse rate and length adjustable on the meter
Optional data interfaces	LoRa or Mioty (optional SMA connector for external antenna)
Optical (IR) D0 interface	EN 62056-21
Data retention	Retained in EEPROM without power, minimum 10 years Optional: IOTA Tangle (blockchain technology)
Clock	Buffered clock (up to 18 days) Time synchronization via interfaces possible
Mounting / Installation	Position-independent On a 35 mm DIN rail or with front mounting frame Weight approx. 350 g

Housing	Housing material: Polycarbonate, halogen-free, recyclable Housing protection class IP51, terminal protection class IP20 Protection class II Dimensions (LxWxD) 90x91x72 mm 5 modules wide
Approvals	CE and MID B + D Suitable for energy management according to ISO 50001
Environmental conditions	Mechanical: M2 Electromagnetic: E2 Operating temperature: -25 °C to +70 °C Storage temperature: -30 °C to +70 °C Relative humidity: Annual average 75%, short-term 90%, non-condensing
Safety Note	Electricity meters may only be installed by a qualified electrician. Current transformers must not be operated with the cover open, as high voltages may occur. These can result in personal injury and/or property damage.
Device Selection	To ensure the simplest possible maintenance or replacement (e.g., calibration) of the Hyperion energy meter, the following applies to applications where simple and cost-effective shutdown of the system is not possible.

GENERAL DESCRIPTION

Feature	Value	Unit
Dimensions (L × W × D)	90 × 91 × 72	mm
Width in modules	5	TE
Weight	Approx. 350	g
Housing material	Polycarbonate, halogenfree, recyclable	–
Terminal protection class	IP20	–
Enclosure protection class	IP51	–
Electrical protection class	II	–
Operating temperature	−25 to +70	°C
Storage temperature	−30 to +70	°C
Relative humidity	Avg. 75%, shortterm 90% (noncondensing)	%

Mechanical environment	M2	–
Electromagnetic environment	E2	–
Display type	Graphic LC with backlight	–
Display size	38 × 28	mm
Display resolution	8 digits, up to 3 decimal places	–
Approvals	CE, MID B + D, PTBA 20.1, PTBA 50.7	–
Energy management compliance	ISO 50001	–
Mounting type	DIN rail (35 mm) or front mounting frame	–
Mounting orientation	Positionindependent	–