Subject to technical changes; version 1.2, February 2026

Harvy2

Self-powered LoRaWAN IoT sensor with four inputs for versatile monitoring in electrical supply networks (Item no. 3063 / Item no. 3064)

Harvy2 accessories:
Current transformers

Application

The Harvy2 LoRaWAN sensor features:

- convenient metering of **three-phase RMS currents** from: electrical mains, sub-distribution boards, and/or directly from the machines
- four inputs for deZem current transformers and other sensor options (see page 2)
- convenient plug-in system
- when using the optional deZem voltage transformer on, at least, one Harvy2 input, it also ascertains the following parameters for each phase of the three-phase current:
  - **active power**
  - **power factor**
  - **reactive power**
  - **apparent power**
  - **mains voltage**
  - **mains frequency**
- simple metering of up to four galvanically isolated 4-20 mA analogue signals from any source, if required widely distributed in factory halls, building complexes or outdoor areas*

Unlike conventional IoT sensors, Harvy2 **does not require a battery** or external power supply. The highly innovative electronic (patent pending) feeds the sensor from the metering signal without falsifying it metrologically.

Advantages

Energy monitoring easier than ever:

- compatible with deZem current transformers up to 500 A (larger currents upon request)
- four independent inputs for clamp-on current transformers and (upon request) many other signals
- very easy set-up; compact wireless installation; convenient magnetic fixture for metal surfaces
- no external power supply or battery required (energy harvesting)
- compatible with the deZem IoT platform and any other platform
- intelligent event filter integrated - for metering series (inrush currents, etc.) accurate to the second at a defined maximum rate*
- Additionally available as total values: total current, total active load, and total active energy
- metering intervals, data rates, event filter criteria*, conversion factors, etc. configurable via USB-C
- data visualisation via USB-C
- firmware updates via USB-C
- maintenance-free

Available in two versions:

- Harvy2 with internal antenna (Item no. 3063)
- Harvy2 with external antenna connector (Item no. 3064)

Download the JS decoder for free:

Download

Technical Data

Power supply
Self-powered or via voltage transformer / USB-C

Max. Input currents
250 mA AC per input
250 mA DC per input*
Observe galvanic isolation!

Connections
4x JST connector, suitable for deZem clamp-on current transformers and voltage transformers
SMA connector for external LoRaWAN antenna (only for item no. 3064)

IoT wireless protocols
LoRaWAN v1.0.4, Class A Device, EU863-870, AU915-928, AS923, KR920-923, IN865-86, RU864-870, US902-928
CE certified for EU

Dimensions
HxWxD: 22x69x49 mm
Weight: 45 g
Mounting: freely suspended or fixed by magnet or cable tie

Operating conditions*
Temperature: -20–60 °C
Humidity: 30–60 %
Protection type: IP 20

Transport conditions*
Temperature: -20–60 °C
Humidity: 20–70 %

Software (included, incl. updates)
Harvy2 firmware, JS decoder as well as web application for configuration

deZem
sense | check | act

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ACCESSORIES

Clamp-on current transformers

Selecting the suitable clamp-on current transformer depends mainly on the diameter of the supply wire to be measured (including insulation). The best measuring accuracy of the Harvy2 is achieved when the measuring range is well utilised.

Please note that the Harvy2 requires a minimum primary current via one of the four inputs according to the following table in order to send data regularly, if no voltage transformer or USB-C connection is attached. With larger primary currents, more data will be acquired and sent; in particular, relevant events in the course of measured values will then also be detected and transmitted immediately.*

deZem clamp-on current transformer

Select the deZem current transformer according to the expected max. primary current and the transformer's window as suitable for the wire:

Type of current transformer	Item No.	Max. primary current [A]	Min. primary current [A]	Nominal secondary current [mA]	Current ratio	Window [mm]	Max. wire cross-sect. [mm²]
		Harvy2	Clamp-on current transformer				
T80/40	2034	80	0.8*	40	2000	10.0	25
T80/26.6	2056	80	1*	26.7	3000	10.0	25
T150/40	2057	150	1*	40	3750	16.0	50
T300/250	2032	300	0.9*	250	1200	24.0	150
T300/40	2054	300	1.6*	40	7500	24.0	150
T500/250	2033	500	0.8*	250	2000	36.0	300
T500/40	2055	500	2.8*	40	12500	36.0	300

External LoRaWAN antenna

External LoRaWAN antenna (for Harvy2 with ext. antenna connector)

A LoRaWAN antenna is required to operate the Harvy2 with an external antenna connection (Item no. 3064). deZem offers an antenna for this purpose featuring a practical magnetic base, an SMA connector, and a 3 m connection cable (Item no. 5041)

Voltage transformer (DIN rail)

Voltage transformer (optional)

A voltage transformer is required if the active power, power factor, reactive power, apparent power, mains voltage and mains frequency are to be ascertained in addition to the effective currents. When using a voltage transformer, the Harvy2 is constantly supplied with energy without being dependent on the minimum primary current. deZem offers voltage transformers with Europlugs (item no. 8118) or for mounting on DIN rails (item no. 8119).

Voltage transformer (Europlug)

Magnets (optional)

For a quick mounting of the sensor, e.g. on the inside of distribution box doors, suitable magnets are available (item no. 5040).

Adapter for 4-20 mA signals (optional)

Adapter cable for the connection of galvanically isolated 4-20 mA analogue signals (item no. 8067).

*) The information marked with an asterisk is currently under testing, might still be subject to changes or is not yet available for the current version of the integrated software ("firmware"). Further functions are being added continuously. Firmware updates will be made available for free and may be installed on the sensor via USB-C. Please contact us if you have any questions in this regard.

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