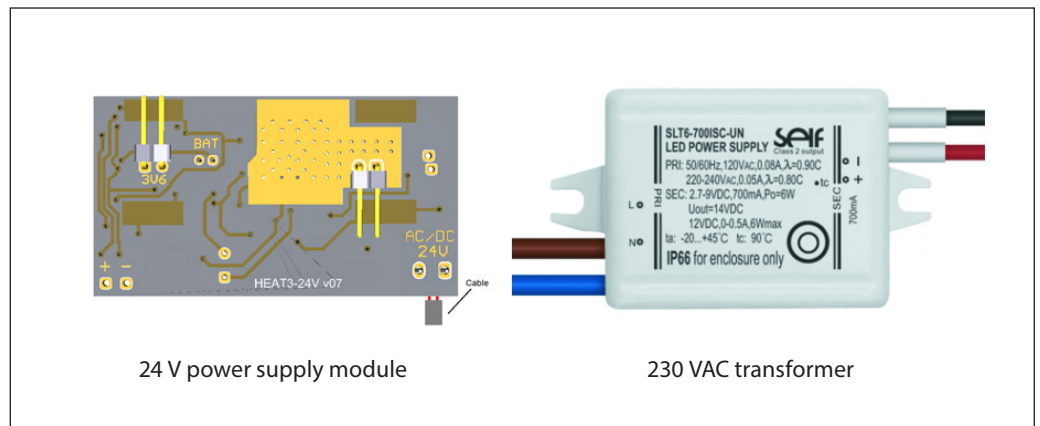


## Installation guide

# 24 V power supply module and 230 V transformer for Energy Meter SonoMeter 40



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1. Description

The “24 V power supply module” is meant for the energy meter powering from an external power supply (12...42 VDC or 12...36 VAC) or with the 230 VAC transformer. The 24 V power supply module is mounted inside the meter.

If the external power supply voltage is connected to the 24 V power supply module, the internal backup battery is not used. If the external power supply is turned off, the meter is powered from the internal backup battery.

2. Technical specification of “230 VAC transformer”

Output	DC voltage	12 V
	Rated current	0.7 A
	Rated power	6 W
Input	Voltage range	120...240 VAC
	Frequency range	50/60 Hz
	AC current	0.044 A
Protection	Short circuit	Hiccup mode, recovers automatically after fault condition is removed
	Overload	
Environment	Working temperature	-20...+45 °C
Other	IP class	IP66, fully isolated plastic case

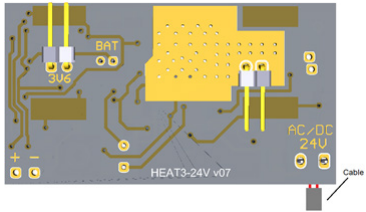
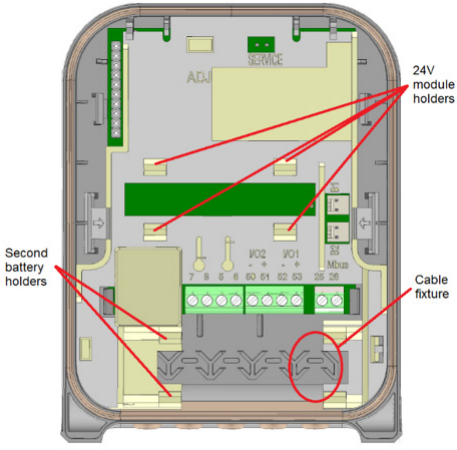
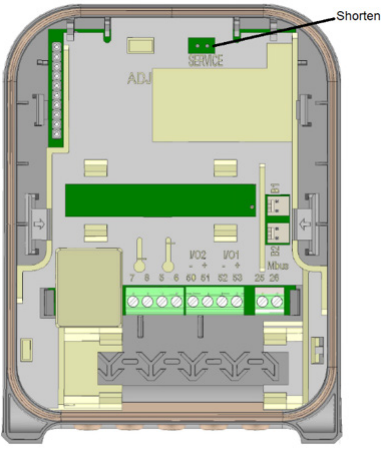
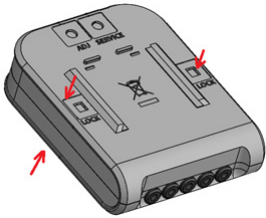
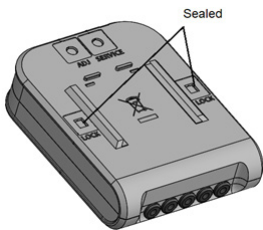
3. Safety requirements



- The transformer is powered from life-dangerous 230 V voltage. Maintain only when voltage is switched off. Installation can be done only by qualified personnel.
- Module and transformer can only be used for energy meter power supply, in accordance with the user manual. The energy meter must be intact and fully complete.
- Lithium battery is prohibited to charge, short circuit or kept above the 80 °C temperature.

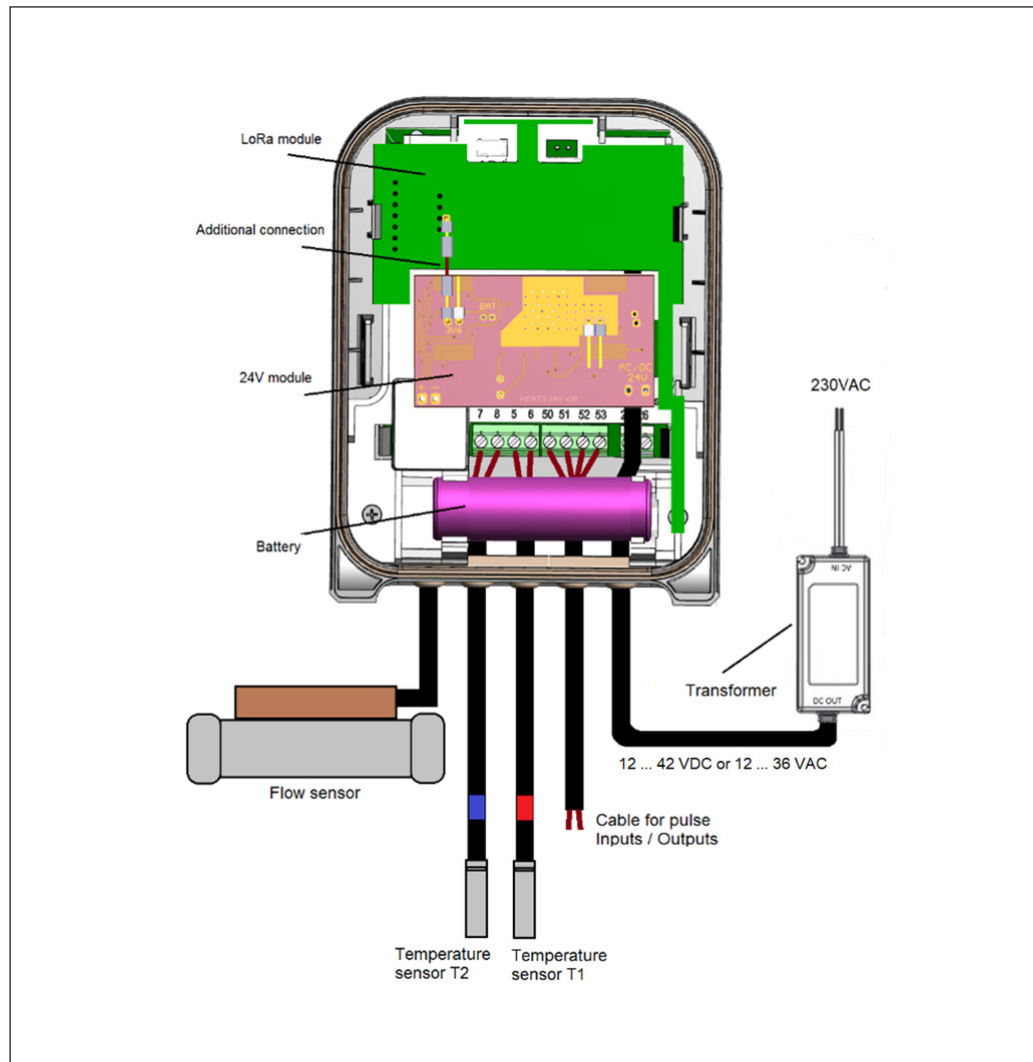
4. 24 V power supply module installation

	<ul style="list-style-type: none"><li>• Carefully break back lid protective partitions marked “LOCK” with a flat screwdriver or any similar tool</li></ul>
	<ul style="list-style-type: none"><li>• In the opened cavity, use a flat screwdriver to tilt the latch to the outside and open the box</li></ul>
	<ul style="list-style-type: none"><li>• Break the rubber seal with a sharp tool in the cable free hole and push the power cable through it</li></ul>

	<ul style="list-style-type: none"> <li>• Connect cable wires to the power supply module "24V" connector. (12...42 VDC or 12 ... 36 VAC).</li> </ul>
	<ul style="list-style-type: none"> <li>• Remove battery from holders on protective plate</li> <li>• Plug-in module connector to the meter's "B1" connector</li> <li>• Plug-in a battery connector to the module "B2" connector</li> <li>• Insert an external power supply module on battery holders</li> <li>• The power supply cable is locked in place by finger-pinching it into the fixture</li> <li>• Attach battery to a second battery holders</li> </ul>
	<ul style="list-style-type: none"> <li>• Make a short-circuit on "Service" pins to activate Service mode for configuration</li> <li>• Open "E3_Configurator.exe"</li> <li>• Read meter via optical interface (or wired M-Bus if active) – 2400bps, Even parity, 8 Bits, 1 Stop bits</li> <li>• Disable all active communication credits by entering "65535" on necessary fields.</li> <li>• Click "Write configuration" button to send configuration to the meter</li> <li>• Click "OFF Service mode" button to exit from Service mode</li> </ul>
	<ul style="list-style-type: none"> <li>• The back lid is closed by squeezing it until it locks into place</li> </ul>
	<ul style="list-style-type: none"> <li>• The "LOCK" holes must be sealed with the supplier's seals (waterproof seals)</li> </ul>

**Note:** If an energy meter is equipped with a LoRa communication module, an additional connection cable must be connected between the LoRa module and the 24 V power supply module jumpers for powering up the LoRa communication module.

## 5. Wiring diagram

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