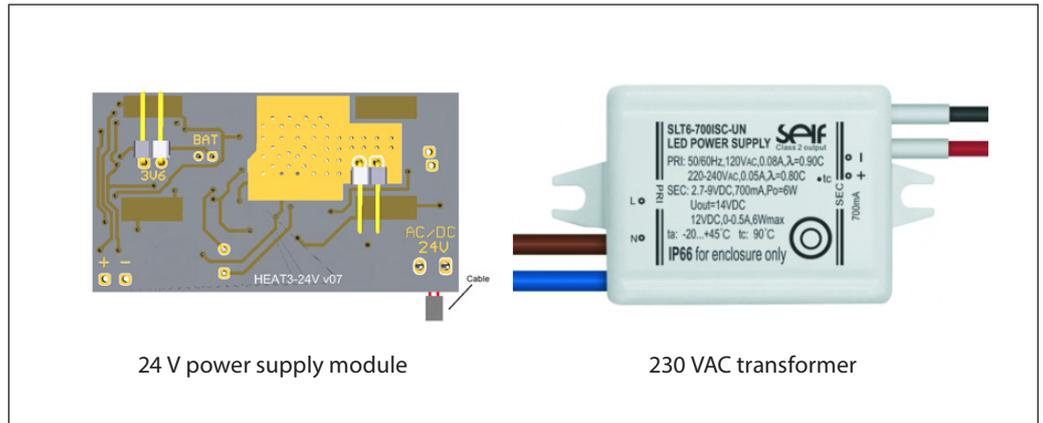


Installation guide

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



24 V power supply module

230 VAC transformer

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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	is removed
Environment	Working temperature	-20...+45 °C
Other	IP class	IP66, fully isolated plastic case

**3. Safety requirements**



230V

- 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.

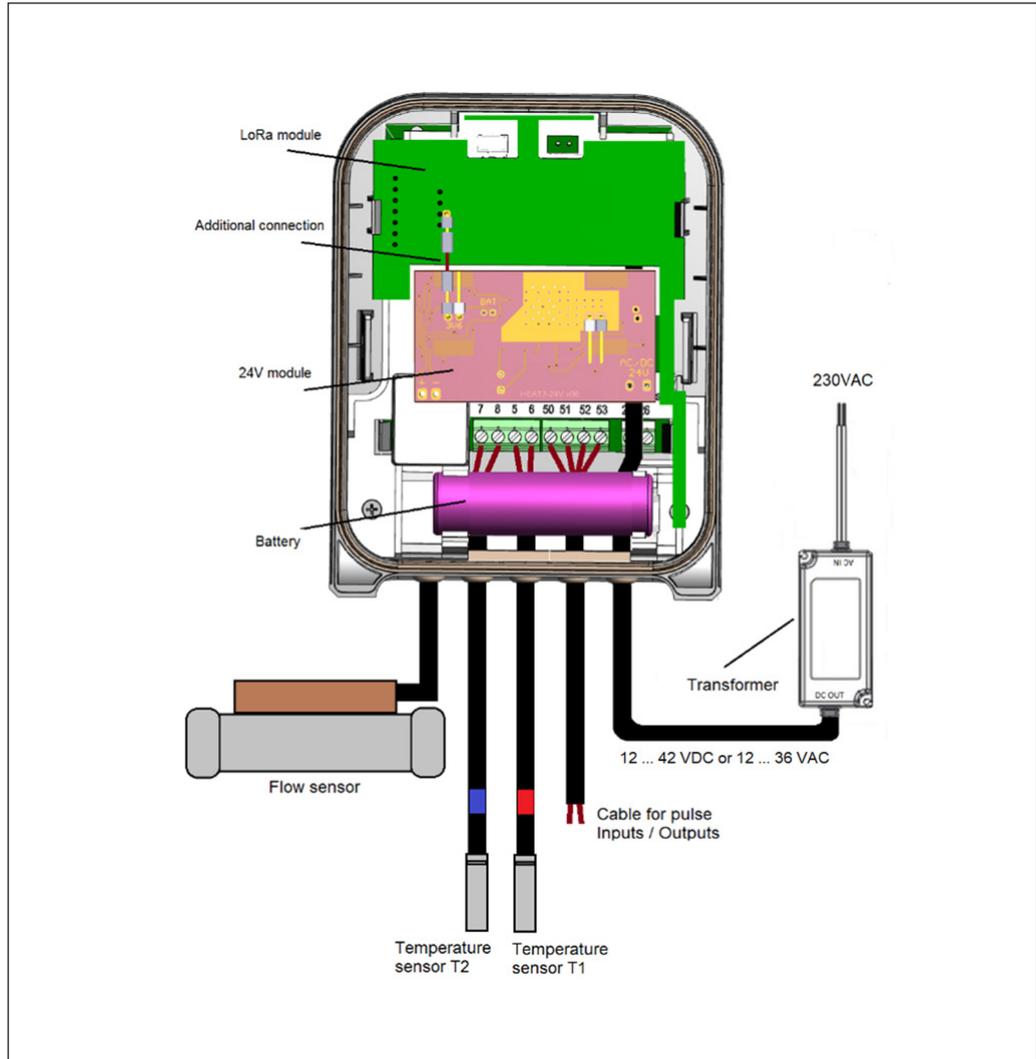
**4. 24 V power supply module installation**

	<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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