

ON-TRAIN METER READING SYSTEM MARSYST-D FOR DC POWER APPLICATIONS IS BASED ON:

KWH-MARSEN

Accuracy class with respect to energy measurements 0.5 or 1.0.
National Registry N 58638-14

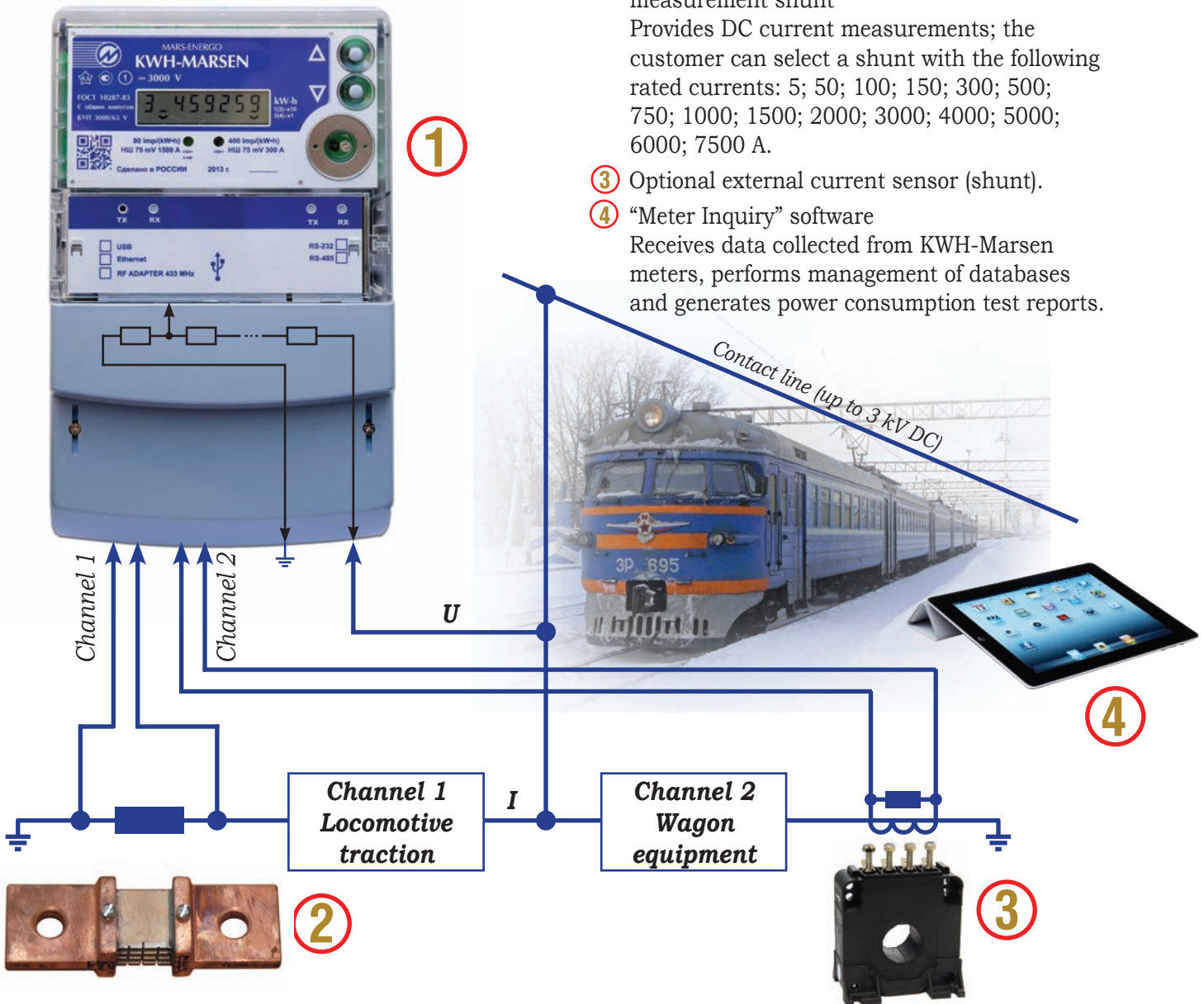
DC ENERGY METER

Sphere of application:

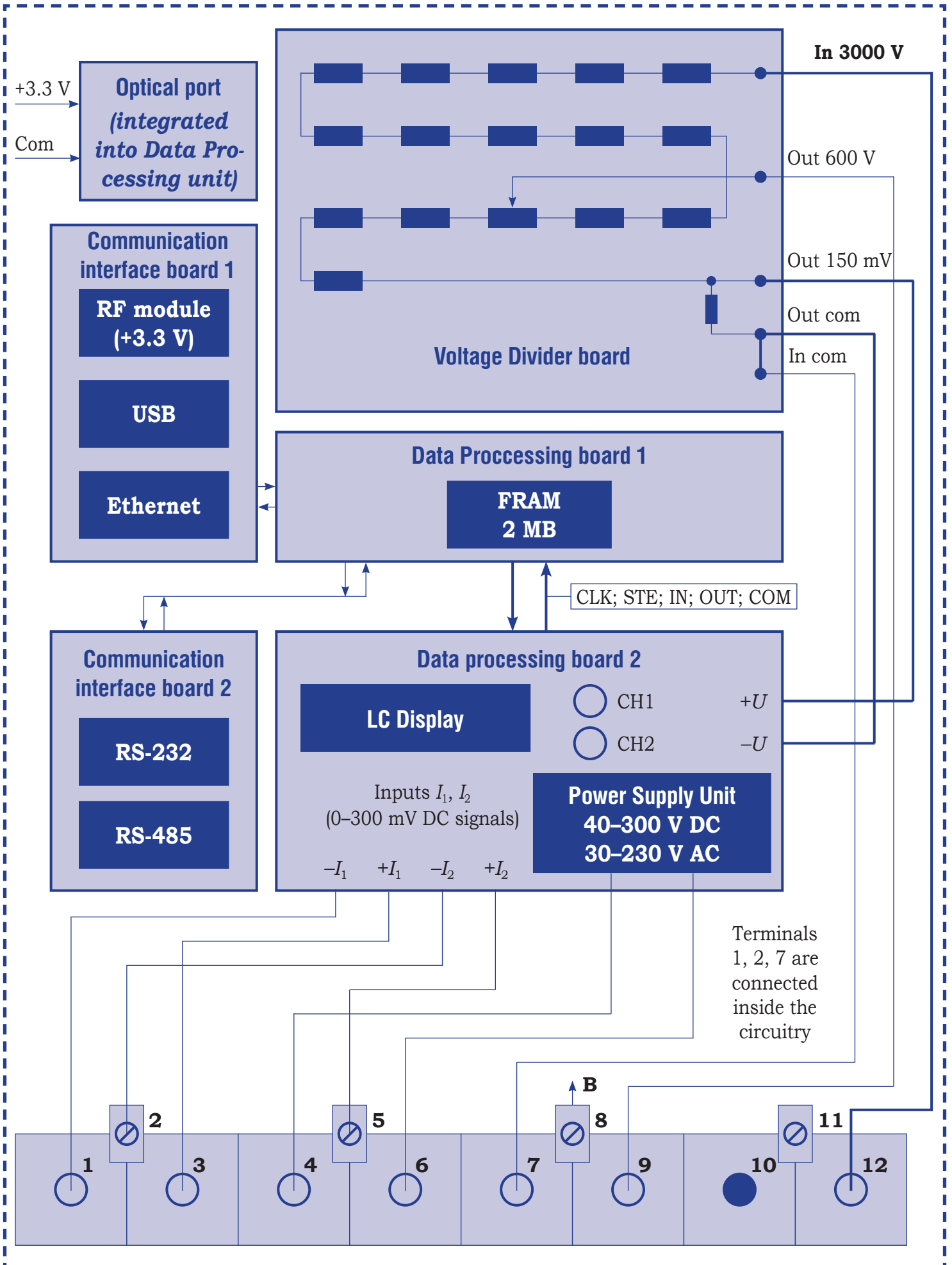
DC energy metering in on-train railway systems: designed for use in on-board traction and other transport DC power systems.

Components of the system:

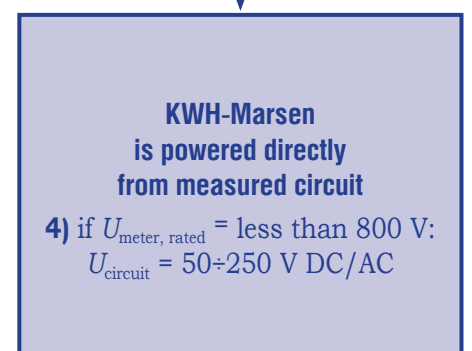
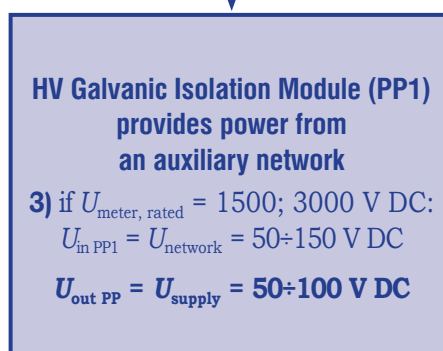
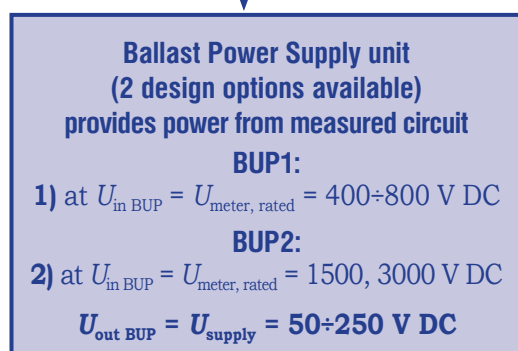
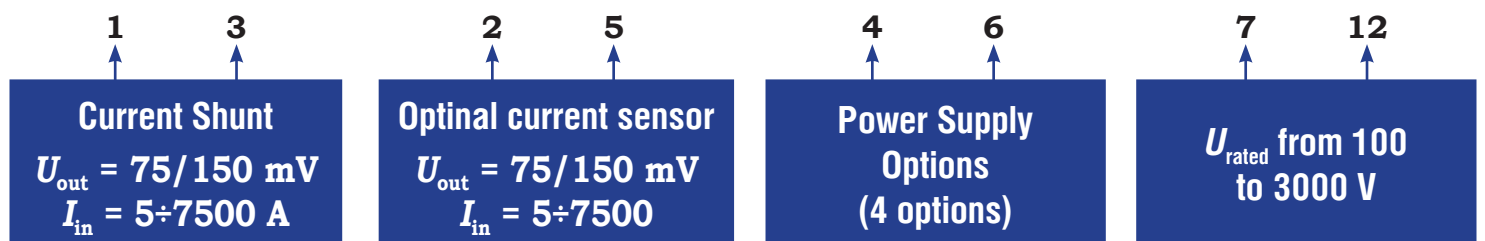
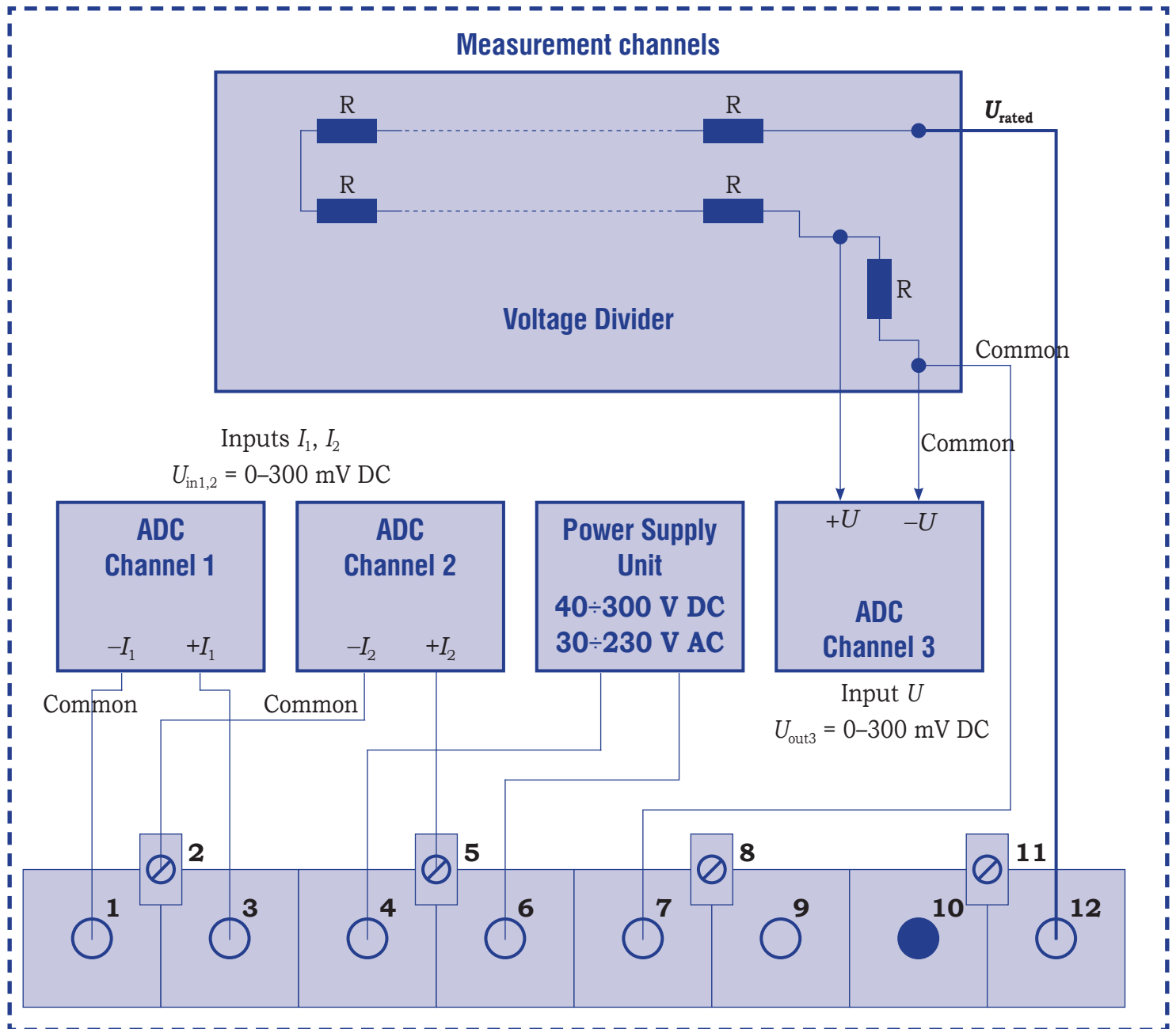
- ① Meter KWH-Marsen
Depending on the internal voltage divider, the meter provides DC voltage measurements at rated voltages 100; 400; 600; 800; 1500; 3000 V.
- ② External high-precision current measurement shunt
Provides DC current measurements; the customer can select a shunt with the following rated currents: 5; 50; 100; 150; 300; 500; 750; 1000; 1500; 2000; 3000; 4000; 5000; 6000; 7500 A.
- ③ Optional external current sensor (shunt).
- ④ "Meter Inquiry" software
Receives data collected from KWH-Marsen meters, performs management of databases and generates power consumption test reports.



Block diagram of KWH-Marsen DC energy meter (rated at 3 kV)



Connecting external current sensors (shunts) and power supply sources to KWH-Marsen



Scope of supply and accessories



RF adapter
433 MHz



Display panel



"Meter Inquiry"
software

Records basic electric energy parameters (current, power, energy, contact line voltage etc.) in the form of profiles with averaging interval selectable from 1 s to 30 min.

When all input and output parameters are recorded, logging capacity is: at least 1 day (at 1 s averaging interval) at least 3 years (at 30 min averaging interval)

Wired and wireless interfaces



USB
Ethernet
RF module
433 MHz



RS 232
RS 485



GSM-modem

Power supply options



Power Supply
Units of 2 types
(BUP1 and BUP2)



HV Halvanic
Isolation
Module (PP1)



2-channel KWH-Marsen with
internal Voltage Divider 3 kV
Overall dimensions
(height × width × depth):
277 × 170 × 83 mm, or less
Weight: 1.5 kg, or less.

Metering Channel 1 (main): energy consumption and regeneration



External current shunt

Metering Channel 2 (optional): energy consumption and regeneration



Current sensor with power supply unit BP-1



ESME

Kalda tn. 9, Narva, Estonia, 20103

Tel.: +372 568 099 99

E-mail: mail@esme.ee

www.esme.ee