

# DB2M

## DIGITAL SINGLE-PHASE WATT-HOUR METER

**DB2M** is a single-phase two-tariff class 1 or 2 digital watt-hour meter. Meter is intended for two-wire direct connection in domestic and industrial applications.

Current and voltage operating ranges are 40A, 60A, 80A or 100A (Base current 10A or 5A), and 230V.

Meter **DB2M** has pulse output, and LED diodes for pulse out and tariff indication.

Measured values of active energy, maximum of power, active tariff, power, voltage and current, time and date are shown on LCD indicator, cyclically.

Meter **DB2M** can be equipped by:

- external inputs for control up to four tariffs;
- maximum demand indicators of 15-minute mean active power and generator 900s/9s;
- switch clock for tariff control which is programmable by Psion (software PSIRTC) or by PC (software RTCTIME);
- optical infrared port, which provides meter reading and programming by Psion (software PsiDB2) or by PC (software DB2IEC).

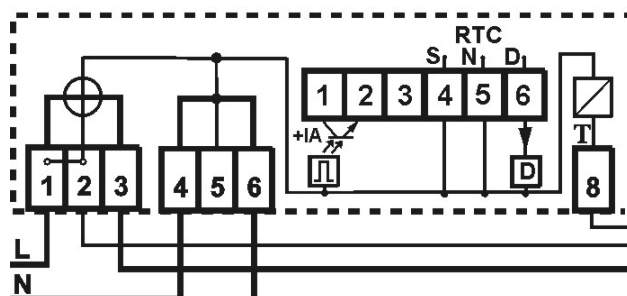
Meter **DB2M** can be programmed to register and record:

- values of active energy counters and maximum demand indicators on the first day of month at 00.00h, for 16 months. Data could be accessible through display and optical port;
- values of active energy counters and maximum demand indicators at up to 40 arbitrary points with resolution of 1h. Data are accessible trough optical port.

Watt-hour meter **DB2M** is a multiprocessor system based on digital processing of input current and voltage obtained by A/D converters. Power of microcomputers provides application of complex algorithms for tariff, load management, data processing, tests and communications.

Device **DB2M** is realized in VLSI CMOS technology having reliability, low power consumption, operation in wide range of ambient temperatures, and low aging.

**Connection diagram**



## Technical characteristics

Type	DB2M
Rated voltage $V_n$	230V (+15%, -20%)
Rated frequency $f_n$	50 Hz
Base current $I_B$	10A or 5A
Maximum current $I_M$	100A, direct connection
Constants of meter	1000 impulses/kWh or 250 impulses/kWh
Class of accuracy active	IEC 1036 class 1 or 2
Starting current threshold	< 50mA
Pulse out:	optocoupled, S0, IEC 62053-31, Class B, 1Wh/pulse
voltage (max)	15V
current (max)	15mA
duration	30ms
Optical infrared port	IEC 61107, Mode A

Power consumption:	
voltage circuit at $V_n$	< 1W (9VA)
current circuit	< 0.5VA
AC voltage withstand	4kV, 50Hz, 1 minute
Impulse voltage withstand	6kV, 1.2/50 $\mu$ s
Operating temperature range	-20°C, +60°C
Ambient relative humidity	<90%
Case dimensions	237x130x66 mm
Hole for wire	6.5 mm diameter
Weight	0.5 kg

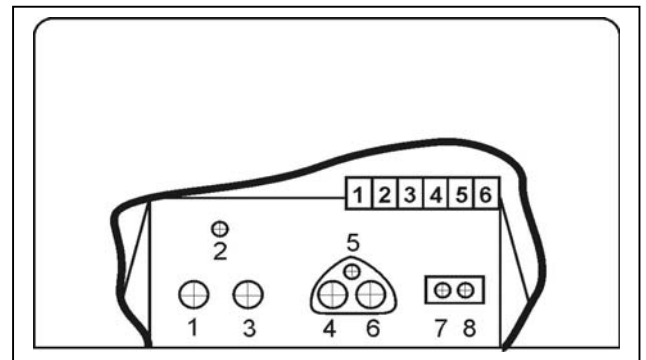
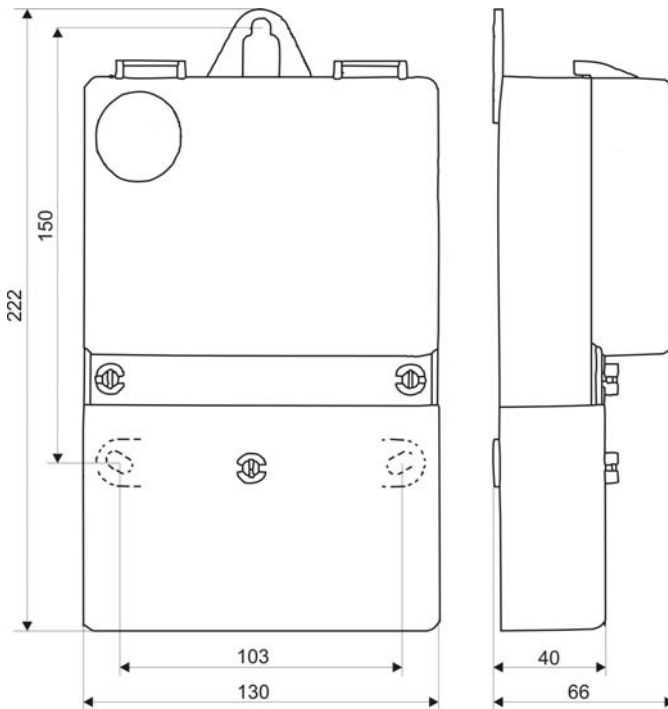
### Function of maximum demand indicator of class 1

Class of accuracy	IEC 211 class 1
Measurement period for mean power measurement	15 minute
Reset time	9s

### Function of switch clock

Real time clock stability	$\pm$ 1 minute/month
Expected battery life	> 17 years
Optical infrared port	IEC 61107, Mode A

## Assembling data



## Ordering information

**DB2M US 60A 2 MAX OC 4T**  
 model switch max. class max. dem. optical four  
 clock current indicator port tariffs

Additional data and price list are available upon request.

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