ENEL d.o.o. Beograd

DB2M 5(5)A

DIGITAL SINGLE-PHASE TRANSFORMER COUPLED WATT-HOUR METER

DB2M 5(5)A is a single-phase two-tariff class 1 digital watt-hour meter for transformer coupling on 5A. Meter is intended for semi indirect connection in domestic and industrial applications.

Current and voltage operating ranges are 5A (Base current 5A), and 230V.

Meter **DB2M 5(5)A** includes external input for tariff control.

Meter **DB2M 5(5)A** 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 5(5)A** can be equipped by:

- external inputs for control up to four tariffs;
- maximum demand indicators of 15-minute mean active power 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).

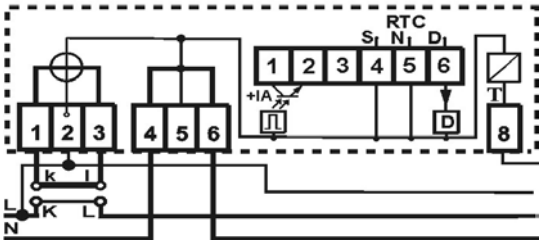
Meter **DB2M 5(5)A** can be programmed to register and record:

- 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 5(5)A** is a multiprocessor system based on digital processing of input currents and voltages obtained by A/D converters. Power of microcomputers provides application of complex algorithms for tariff, load management, data processing, tests and communications.

Device **DB2M 5(5)A** is realized in CMOS technology having reliability, low power consumption, operation in wide range of ambient temperatures, and low aging.

Connection diagram

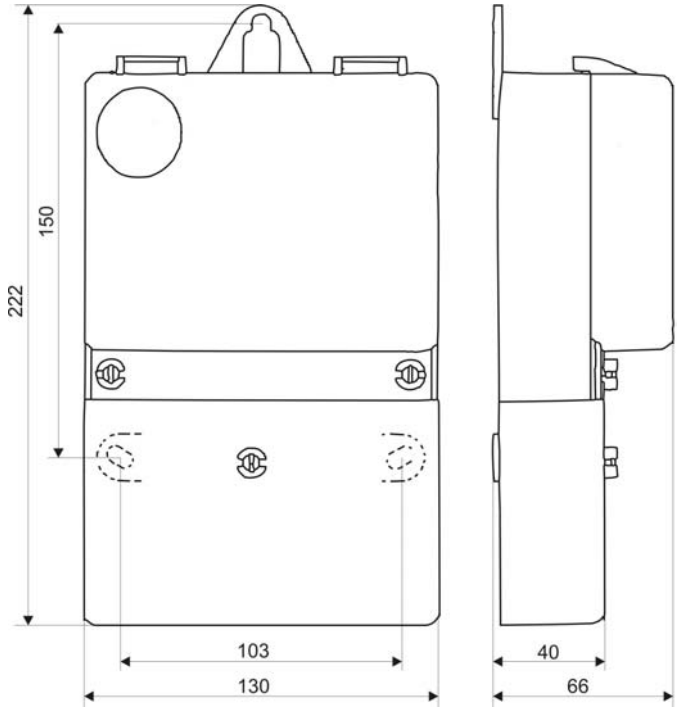


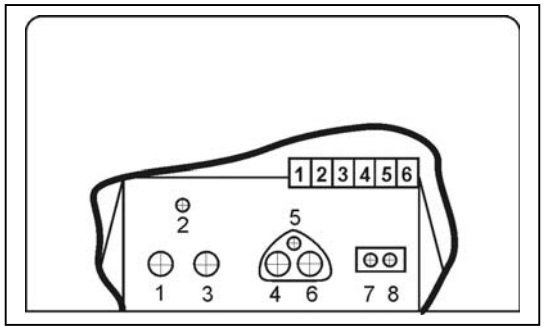
Technical characteristics

Type	DB2M
Rated voltage V_n	230V (+15%, -20%)
Rated frequency f_n	50 Hz
Base current I_B	5A
Maximum current I_M	5A, half-direct connection
Constant of meter	1000 impulses/kWh or 250 impulses/kWh
Class of accuracy	IEC 1036 class 1
Error limits:	
$0.05I_B \div I_M$ cosφ=1	±1%
$0.2I_B \div I_M$ cosφ=0.5	±1%
Starting current threshold	< 50mA
Pulse out:	optocupled, S0, IEC 62053-31 Class B, 1Wh (varh)/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, 1.2/50μs
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	±1 minute/month
Expected battery life	> 17 years
Optical infrared port	IEC 61107, Mode A

Assembling data





Ordering information

DB2M 5(5)A	**US**	**MAX**	**OC**	**4T**
model	switch clock	max. dem. indicator	optical port	four tariffs

Additional data and price list are available upon request.

"ENEL" d.o.o. Beograd, Petrovaradinska 26, 11000 Beograd
Phone: ++381 11 285 0 582, Fax: ++381 11 285 0 580
e-mail: enel@EUnet.yu, http://www.enel.co.yu