MULTI-FUNCTION POWER METERS

DM2436AB

FEATURES
- Precision True-RMS measurement even for distorted waves
- High immunity to external noise
- RS485 standard communication interface output
- PT and Ct scaling
- Memory for all setup and energy data
- Relay output (∑V or ∑A or ∑W)
- Auto calibration from computer
- Maximum and Minimum function
- Power supply is AC 90V ~ 260V, 50/60Hz
- 110 X 110mm case

The DM2436AB is a micro-processor based power meter with a 16 bits CPU (Centre process unit) and equipped with full-digitized measuring, including, calibrating and output functions.

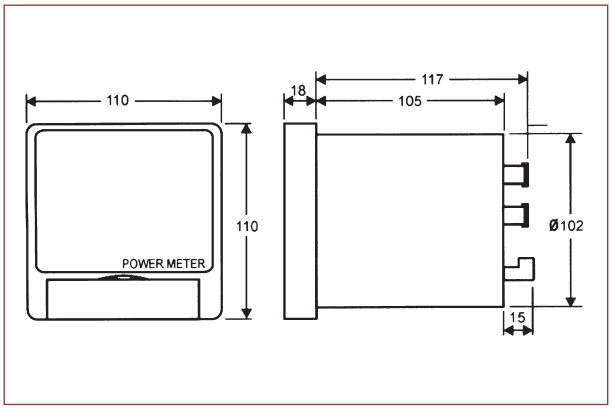
DM2436AB not only takes the place of several static converters and measuring instruments (V, A, W, VAR, PF, WH, VARH, Hz) by single unit, but also have some special function such as Maximum measuring, Minimum measuring and comparator output. In communication, we use the most convenient and the easiest RS232 or RS485 as our standard output port, besides, we adopt Modbus® Protocol, one of the most popular protocol in the world, as our standard protocol.

Ordering Informations

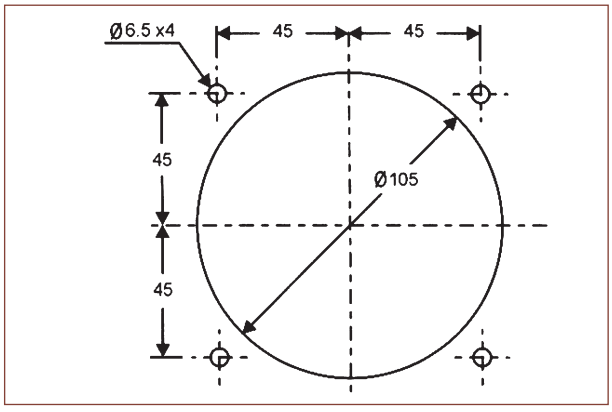
DM2436AB - ☐ ☐ ☐

No	Input	No	Output	No	Aux. Power
A	600V/346V, 5A	A	RS-485	A	AC90 ~ 260V, 50/60 Hz
Y	Option	Y	RS-232	Y	Option (DC24V, 48V, 110V)

Dimensions



Panel Cut-Out



Specifications

Display:	4 digits (9999), 0.4" LED high (V, A, W, VAR, PF, Hz) 5 digits (99999), 0.4" LED high (WH, VarH)	Power factor range	± 0.5 ~ ± 1
		Frequency range	45 ~ 65Hz
		CT, PT scaling gactors	1 ~ 9999
		Setting for REF	0.800 ~ 1.200
Accuracy:	(at 23 ± 5°C sine wave)	Operating temp.	0 ~ 60°C
Voltage	± 0.1% of reading ± 0.15% of range	Storage temp.	-10 ~ 70°C
Current	± 0.1% of reading ± 0.15% of range	Temp. coefficient	≦ 100PPM/°C (≦ 60PPM/°C, 25°C ± 10°C)
Watt	± 0.2% of reading ± 0.3% of range		
Var	± 0.2% of reading ± 0.3% of range	Max. relative humidity	95%
Power factor	± 0.5% of reading	Dielectric strength	AC 2KV/1min. (input / output / power) AC 2.8KV/1min. (input / output / power / case)
PF polarity	"+" lagging, "-" leading		
Watt hour	± 0.25% of reading ± 1 Count		
Var hour:	± 0.4% of reading ± 1 Count	Surge test	4 KV/1.2 X 50μS, IEC 255-4
Hz	± 0.2% of reading	Dimensions	110 (W) X 110(H) X 135 (D) mm
Max. input over capability	Amp. 10A continuous 50A for 5 sec Volt. 750V continuous	Mounting	Panel mounting
		Protocol	MODBUS, RTU
		Baud rate	9600
Conversion rate:	1/sec.	Address range	1 ~ FF (Hex)
Input burden	Volt. input ≦ 0.2 VA/phase	Watt-hour data back-up time	1000 Hours
	Amp.input ≦ 0.2 VA/phase	Aux. power	AC90 ~ 260V, 50/60Hz DC24V, 48V, 110V ± 20% (option)
Over input indication	"OL"		
Line voltage range	35V ~ 600V	Power consumption	AC6VA, DC5W)
Phase voltage range	20V ~ 346V	Weight (about)	700g
Current range	50mA ~ 5A		

Measuring & Indication

Items \ Indicating	L1 (R)	L2 (S)	L3 (T)	Line Voltage	Total
V_{TRMS}	V_1 (L1~5)	V_2 (L2~5)	V_3 (L3~5)	V_{12}, V_{23}, V_{13}	V (∑)
A_{TRMS}	A_1	A_2	A_3		A (∑)
W	W (CH1)	W (CH2)	W (CH3)		W (∑)
VAR	VAR (CH1)	VAR (CH2)	VAR (CH3)		VAR (∑)
PF	PF (CH1)	PF (CH2)	PF (CH3)		PF (∑)
WH	WH (CH1)	WH (CH2)	WH (CH3)		WH (∑)
VARH	VARH (CH1)	VARH (CH2)	VARH (CH3)		VARH (∑)
Hz	Hz (CH1)	Hz (CH2)	Hz (CH3)		Hz

V_1, V_2, V_3 : Phase voltage
V_{12}, V_{23}, V_{13} : Line voltage

Equation:

$V(\sum)=(V_{12} + V_{23} + V_{13})/3$

$A(\sum)=(A1 + A2 + A3)/3$

$W(\sum)=W_{(CH1)} + W_{(CH2)} + W_{(CH3)}$

$PF(\sum)=W(\sum)/[V_1A_1 + V_2A_2 + V_3A_3]$

$VAR(\sum)= \sqrt{(V_1A_1)^2 - W_{(CH1)}^2} + \sqrt{(V_2A_2)^2 - W_{(CH2)}^2} + \sqrt{(V_3A_3)^2 - W_{(CH3)}^2}$