

EasyLogic power metering

A complete range of meters for essential electrical system measurement

Catalogue



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Panorama of the EasyLogic range

Digital panel meters



Family	DM1000			DM2100		DM3000		DM6000
Parameters	DM1110	DM1210	DM1310	DM2100	DM2110	DM3110	DM3210	DM6000
Amps: 1-ph & 3-ph	■				■	■		■
Volts: 1-ph & 3-ph		■		■			■	■
Frequency			■					■
Power Factor								■
THD								
Class of Accuracy**	0.5	0.5	0.2	0.3	0.5	0.5	0.5	1
RS-485 Modbus RTU				*DM2101	*DM2111			*DM6200
Form Factor in mm	96x96x44	96x96x44	96x96x44	96x48x59	96x48x59	96x96x44	96x96x44	96x96x80
Mounting	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel

Simple energy cost management

Data aggregation				■	■			■
Load profile								
Bill verification								
Cost allocation								

Basic network management

Panel instrumentation	■	■	■	■	■	■	■	■
Power metering								
Basic harmonic monitoring								
Status monitoring								
Threshold alarming								

Monitoring and verification

Test bench	■	■	■	■	■	■	■	■
Genset	■	■	■	■	■	■	■	■
PF Improvement panel				■	■			■
Labs	■	■	■	■	■	■	■	■
OEMs	■	■	■	■	■	■	■	■

Panorama of the EasyLogic range

Power and energy meters



Family	DM2300				EM1250	PM1000
Parameters	DM2300	DM2310	DM2350	DM2355	EM1250	PM1000
Amps: 1-ph & 3-ph		■	■	■		■
Volts: 1-ph & 3-ph	■		■	■		■
Frequency				■		■
Power Factor			■	■	■	■
W, VAR				■	■	■
Wh, VARh			■	■	■	■
VA, VAh					■	■
DI/DO	*DM2305	*DM2315	■	■		
THD						■
Class of Accuracy**	0.3	0.3	0.3/Energy 0.5	0.3/Energy 0.5	0.5	1
RS-485 Modbus RTU	*DM2305	*DM2315	■	■	■	*PM1200
CT Secondary I Nominal	5A	5A	5A	5A	5A (1A: EM1251)	5A or 1A
Form Factor in mm	72x72x65	72x72x65	72x72x65	72x72x65	96x96x80	96x96x80
Mounting	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel	Flush/Panel

Simple energy cost management

Data aggregation	■	■	■	■	■	■
Load profile			■	■	■	■
Bill verification			■	■	■	■
Cost allocation			■	■	■	■

Basic network management

Panel instrumentation						
Power metering				■	■	■
Basic harmonic monitoring						■
Status monitoring	■	■	■	■		
Threshold alarming	■	■	■	■		

Monitoring and verification

Test bench						
Genset						
PF Improvement panel			■	■	■	■
Labs						
OEMs	■	■	■	■	■	■

* Optional model references

** Refer data sheet for operating range

PB113034



DM1000 series digital panel meter

PB113048

DM3000 series digital panel meter front display (above),
and rear (below)

PB113044

**Basic V A F meters – main features**

- 4 digit, 15mm height, 7 segment LED display
- 1-ph & 3-ph Volt or Amps panel meters
- Accuracy of 0.5% on full scale for Volt & Ammeter, 0.2% for Hz meter
- Inbuilt selector switch in 3-ph meter model
- Single key for programming, navigation or as selector switch
- Input voltage (50Hz/ 60Hz +/-5%)
 - 80 to 480 V AC L-L direct, up to 999kV with PT
- Input current (50Hz/ 60Hz +/-5%)
 - 50mA to 6A direct, CT secondary 1A or 5A field settable
 - CT primary: 1A to 99kA field settable
- Control power
 - 90 to 277V AC (50Hz/ 60Hz +/-5%) or DC
- Form factor
 - Flush/ panel mount, 96 x 96 x 44mm
- IP Degree of protection
 - IP51 front & IP40 rear side
- Auto scaling & direct readings
- Accuracy
 - 0.5% of full scale for V & A
 - 0.2% of full scale for Hz
- Safety/ EMI-EMC tests
 - CE: As per IEC 61010-1 Ed.3
 - Emission: CISPR11, Class A
 - Fast Transient: IEC 61000-4-4*
 - Surge withstand: IEC 61000-4-5*
 - ESD: IEC 61000-4-2*
 - Isolation: 4kV for 1 minute
 - Safety: Self extinguishable V1 plastics, measurement category III, Pollution degree 2
- * as per IEC 61326-1
- Temperature
 - Operating: -10 °C to 60 °C (14 °F to 140 °F)
 - Storage: -25 °C to 70 °C (-13 °F to 158 °F)
 - Weight: 400 gms approx, Unpacked
 - 500 gms approx, Shipping
 - Panel cut out: 92 x 92 mm Flush mount
- LED indicators for phase identification in 3-ph meters

Comparisons

Parameter	DM1110	DM1210	DM1310	DM3110	DM3210	Accuracy
1-ph A	■					0.5%
1-ph V		■				0.5%
1-ph Hz			■			0.2%
3-ph A				■		0.5%
3-ph V					■	0.5%
Commercial reference	METSEDM1110	METSEDM1210	METSEDM1310	METSEDM3110	METSEDM3210	

DM2100 series: 1-Ph Voltmeter & Ammeter with optional RS-485 port

Functions and characteristics

PB 113042



DM2100 series power meter.

- Accuracy
 - Volt: 25 to 50V is 1.0% & 50V to 450V is 0.5%
 - Amps: 0.05 to 5A is 1%, 5 to 6A is 0.5%
- Voltage inputs (50 or 60Hz)
 - 25 to 450V AC L-L direct, up to 35kV with PT
- Current input
 - 50mA to 6A with CT, 10A continuous
- Frequency range
 - 45-55Hz
- Control power
 - 85 to 265V AC or DC
- Power Consumption
 - <3W
- Mounting
 - Panel/ Flush mount type, 96x48x59mm depth
- Safety marking
 - ESD: IEC 61000-4-2: 1995 Level III
 - EFT burst: IEC 61000-4-4: 1995 Level III
 - Surge: IEC 61000-4-5: 1995 Level III
 - Vibration/ Shock/ Drop Test: GB15153.2-2000
 - Flammability: Class 2 as per UL94-0
- Operating temperature
 - -20 Deg Cel to +60 Deg Cel
- Storage temperature
 - -20 Deg Cel to +70 Deg Cel
- Attitude
 - 2000m
- Humidity
 - 5% to 95% non-condensing
- IP Degree of protection
 - IP40 for Front, IP20 for rear
- Display
 - LED 15mm high, 1 row, 8 segment with 3 push button switch
- Communication
 - Modbus RS-485, half duplex two wire
 - 5kV impulse

Parameter / model ref	DM2100	DM2110	DM2101	DM2111
1-ph V	■		■	
1-ph A		■		■
RS485			■	■
Commercial reference	METSEDM2100	METSEDM2110	METSEDM2101	METSEDM2111

DM6000 series

VAF PF Digital panel meters

Functions and characteristics

PB113052



EasyLogic™ DM6000 series power meter.

PB113051



EasyLogic™ DM6000 series power meter - front

PB113050



EasyLogic™ DM6000 series power meter - back

- Alpha numeric 8 segment bright LED display
- 3 rows of 4 digits each
- Load analyzer
- Tricolor analogue load bar
- Field settable VTR & CTR (both pri & sec)
- Control power of AC & DC voltage
- Password protected
- RPM measurement
- 4 keys + 1 favourite key
- Auto-scale & auto-scroll

- Accuracy
 - Volts & Amps: 0.5% of reading
 - Power Factor: 1.0% of reading
- Voltage in (50/60Hz +/-5%)
 - 80 to 480 V AC L-L direct, up to 999kV with PT
- Current In (50/60Hz +/-5%)
 - 50mA to 6A with CT input, 10A max continuous, 5mA starting current
- Control power (50/60Hz +/-5%)
 - 44 to 277V AC or DC, burden of 5VA max
- System configurable for 1-ph, 2-ph & 3-ph network (5 types)
- Panel/ Flush mount, 96 x 96 x 80 mm depth
- Safety & Markings
 - UL as per UL 508 & CE as per IEC 61010-1 Ed-3
 - ANSI self certified
 - Ghost-R & C-Tick
 - Measurement Category III, Pollution degree 2 & Double insulated
 - EMI/EMC
 - CISPR11 Class A
 - Electro Static Discharge: IEC 61000-4-2*
 - Radiated susceptibility: IEC 61000-4-3*
 - Fast Transient Burst: IEC 61000-4-4*
 - Surge withstand: IEC 61000-4-5*
 - Conducted susceptibility: IEC 61000-4-6*
 - Damped oscillatory: IEC 61000-4-12*
 - Voltage dips & Interruption: IEC 61000-4-11*
 - Impulse voltage test: IEC 60060-1
- RoHS complied
- Multi linguistic literature
 - EN, FR, ES, PT, DE, TR, RU, ZH
- Modbus RS485
- Preconfigured
 - Native device for ION/ or SPM
 - ION set up
- IP degree of protection
 - IP51 front & IP40 rear
- Environmental
 - Operating temp: -10 °C to 60 °C
 - Storage temp: -25 °C to 70 °C
 - Humidity 5 % to 95 % non-condensing
- Altitude: 2000m

Comparisons

Parameters / Model	DM6000	DM6200
V A F – per ph & Avg	■	■
PF – per ph & Avg	■	■
% Load, % V & I Unbal, Ph Angle	■	■
Modbus RS485		■
Commercial reference	METSEDM6000	METSEDM6200

* as per IEC61326-1

DM2300 series

3-ph Voltmeter & Ammeter with RS-485 & Digital IO's 3-ph Power & Energy meters with RS-485 & Digital IO's Functions and characteristics

PE113043



DM2300 series power meter

- Accuracy
 - 3-ph Volt: 25 to 450V 0.3%
 - 3-ph Amps: 0.2 to 0.5A is 1.0%, 0.5A to 1A is 0.5%, 1A to 6A is 0.3%
 - 3-ph Power Factor: 0.5%
 - 3-ph Active Energy: 0.5%
 - 3-ph Reactive Energy: 2%
- Voltage inputs (50+/-5Hz)
 - 25 to 450V AC L-L direct, up to 35kV with PT
- Current input
 - 50mA to 6A with CT, 10A continuous
- Frequency range
 - 45-55Hz
- Control power
 - 85 to 265V AC or DC 5W
- Digital Inputs
 - 2 DI's, Opto coupler, Isolation 2.5kV
 - Internal 24V DC, records 16SOE non volatile, optically isolated 2-way inputs
 - Collection resolution <2ms
- Digital Outputs
 - 1 DO, normally open
 - Form A relay, 5A/30V DC or 5A/ 250V AC
- Communication
 - Modbus RS-485, half duplex two wire
 - 5kV impulse
- Mounting
 - Panel/ Flush mount type, 72 x 72 x 65mm depth
- Safety marking
 - ESD: IEC61000-4-2 1995 L III
 - FTB: IEC61000-4-4 1995 L III
 - Surge test: IEC61000-4-4 1995 L III
 - Vibration/ Shock/ Drop test: GB15153.2-2000
 - Flammability class V-2 as per UL94-0
- Operating temperature
 - -20° C to +60 °C
- Storage temperature
 - -20° C to +70 °C
- Attitude
 - 2000m
- Humidity
 - 5% to 95% non condensing
- Display
 - 3 line 9mm height, 8 segment 4 digit LED display, multi parameter measurement
- IP Degree of protection
 - IP40 for Front, IP20 for rear

Parameter / model ref	DM2300	DM2310	DM2305	DM2315	DM2350	DM2355
3-ph V	■		■		■	■
3-ph A		■		■	■	■
3-ph PF					■	■
3-ph Hz						■
3-ph Active Power						■
3-ph Reactive Power						■
3-ph Active Energy					■	■
3-ph Reactive Energy					■	■
Total Active Energy					■	■
Total Reactive Energy					■	■
RS485			■	■		■
2 DI / 1 DO			■	■	■	■
Commercial reference	METSEDM2300	METSEDM2310	METSEDM2305	METSEDM2315	METSEDM2350	METSEDM2355

EM1000 series

LCD Power & Energy meters

Functions and characteristics



EM1250 power meter.



EM1000/1200 – front.



EM1000/1200 – back.

- 2 quadrant Power & Energy, Class 0.5 accuracy
- 1 row back-lit 128 x 32 graphical LCD display
- Resolution of 4 digits for RMS & 10+3 for Energy
- 3 parameters with name & value
- Line indicators
- Pulse LED for calibration or load indicator
- Total & Partial energy display
- Factory set 5A or optional 1A CT sec
- Current & Old registers for Integrated parameters
- Panel/ flush mount, 96*96*80mm depth
- Accuracy
 - PF, W, VA: 0.5%
 - VAR: 1.0%
- Energy
 - Wh: Class 0.5 as per IEC 62053-22
 - VARh: Class 1.0 as per IEC 62053-23
- Voltage Inputs (50/60Hz, +/-5%)
 - 80 to 480 V AC L-L direct, up to 999kV with PT
- Current In (50/60Hz +/-5%)
 - EM1250: 250mA to 6A with CT, starting current 5mA, Max 10A continuous
 - EM1251: 150mA to 1.2A with CT, starting current 1mA, Max 2A continuous
- Control power (50/60Hz +/-5%)
 - 44 TO 277V AC or DC, burden of 4VA max
- System configurable for 1-ph, 2-ph & 3-ph network (5 types)
- Safety & Markings
 - UL as per UL 508 & CE as per IEC 61010-1 Ed-3
 - ANSI self certified
 - Measurement Category III, Pollution degree 2 & Double insulated
 - EMI/EMC
 - CISPR22 Class A
 - Electro Static Discharge: IEC 61000-4-2*
 - Radiated susceptibility: IEC 61000-4-3*
 - Fast Transient Burst: IEC 61000-4-4*
 - Surge withstand: IEC 61000-4-5*
 - Conducted susceptibility: IEC 61000-4-6*
 - Voltage dips & Interruption: IEC 61000-4-11*
 - Impulse voltage test: IEC 60060-1
- Tech literature
 - English
- Modbus RS485
- Preconfigured
 - ION, SPM/ PME PMS Software
 - ION set up
- IP degree of protection
 - IP51 front & IP40 rear
- Environmental
 - Operating temp: -10 °C to 60 °C
 - Storage temp: -25 °C to 70 °C
 - Humidity 5 % to 95 % non-condensing
- Altitude: 2000m

Comparisons

Parameters / Model	EM1250	EM1251
PF – per ph & Avg	■	■
Power – W, VAR, VA – per ph & Total	■	■
Energy – Wh, VARh, VAh (I, E & Net)	■	■
On & Run Hrs & Int	■	■
Modbus RS485	■	■
Current Inputs of 5A	■	
Current Inputs of 1A		■
Commercial reference	METCOEM1250	METCOEM1251

* as per IEC61326-1



EasyLogic™ PM1200 power meter.



EasyLogic™ PM1200 power meter - front



EasyLogic™ PM1200 power meter - back

- Alpha numeric 8 segment bright LED display
- 3 rows of 4 digits each
- Load analyzer
- Tricolor analogue load bar
- 4 quadrant measurement
- Field settable VTR & CTR (both pri & sec)
- Control power of AC & DC voltage
- Password protected
- RPM measurement
- Current & Old registers for Integrated parameters
- 4 keys + 1 favourite key
- Auto-scale & auto-scroll
- Display 4 digits for RMS & 8 digits for INTG values
- Accuracy
 - Volts & Amps: 0.5% of reading
 - Power: 1.0% of reading
- Energy
 - Active energy: Class 1 as per IEC 62052-11 and IEC 62053-21
 - Reactive energy: Class 2 as per IEC 62053-23
- Voltage In (50/60Hz, +/-5%)
 - 80 to 480 V AC L-L direct, up to 999kV with PT
- Current In (50/60Hz +/-5%)
 - 50mA to 6A with CT input, 10A max continuous, 5mA starting current
- Control power (50/60Hz +/-5%)
 - 44 to 277V AC or DC, burden of 5 VA max
- System configurable for 1-ph, 2-ph & 3-ph network (5 types)
- Panel/ Flush mount, 96 x 96 x 80 mm depth
- Safety & Markings
 - UL as per UL 508 & CE as per IEC 61010-1 Ed-3
 - ANSI self certified
 - Ghost-R & C-Tick
 - Measurement Category III, Pollution degree 2 & Double insulated
 - EMI/EMC
 - CISPR11 Class A
 - Electro Static Discharge: IEC 61000-4-2*
 - Radiated susceptibility: IEC 61000-4-3*
 - Fast Transient Burst: IEC 61000-4-4*
 - Surge withstand: IEC 61000-4-5*
 - Conducted susceptibility: IEC 61000-4-6*
 - Damped oscillatory: IEC 61000-4-12*
 - Voltage dips & Interruption: IEC 61000-4-11*
 - Impulse voltage test: IEC 60060-1
- Multi-linguistic literature
 - EN, FR, ES, PT, DE, TR, RU, ZH
- Modbus RS485
- Preconfigured
 - ION, SPM/ PME PMS Software
 - ION set up
 - EGX gateway and server
- IP degree of protection
 - IP51 front & IP40 rear
- Environmental
 - Operating temp: -10 °C to 60 °C
 - Storage temp: -25 °C to 70 °C
 - Humidity 5 % to 95 % non-condensing
- Altitude: 2000m

Comparisons

Parameters / Model	PM1000	PM1200
V A F – per ph & Avg	■	■
PF – per ph & Avg	■	■
% Load, % V & I Unbal, Ph Angle	■	■
Power – W, VAR, VA – per ph & Total	■	■
Energy – Wh, VARh, VAh (I, E & Net)	■	■
On & Run Hrs & Int	■	■
THD: V&I - per ph	■	■
Demand – W, VA, A	■	■
Modbus RS485		■
Commercial reference	METSEPM1000	METSEPM1200

* as per IEC61326

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