METSEPM2120
EasyLogic PM2120, Power & Energy meter, up to 15th H, LED, RS485, class 1

Main
Range EasyLogic
Product name EasyLogic PM2100
Device short name PM2120
Product or component type Power meter

Complementary
Device application Power monitoring
Sub billing
Power quality analysis Up to the 15th harmonic
Total harmonic distortion
Type of measurement Apparent power (min/max, total)
Active and reactive power (min/max, total)
Current (min/max, avg)
Voltage (min/max, avg)
Frequency (min/max, avg)
Total current harmonic distortion THD (I) (per phase)
Total voltage harmonic distortion THD (U) (per phase)
Power factor (min/max, avg)
Apparent energy (total)
Active and reactive energy (total)

Metering type Reactive power Q, Q1, Q2, Q3
Demand power P, Q, S
Active power P, P1, P2, P3
Unbalance current
Active, reactive, apparent energy (signed, four quadrant)
Peak demand currents
Voltage U, U21, U32, U13, V, V1, V2, V3
Apparent power S, S1, S2, S3
Calculated neutral current
Current I, I1, I2, I3
Peak demand power PM, QM, SM

Accuracy class Class 1 (active energy according to IEC 62053-21)
Class 1 (reactive energy according to IEC 62053-24)
Class 5 (harmonic distorsion (I THD & U THD)
### Measurement accuracy

+/- 0.05 % frequency  
+/- 1 % reactive energy  
+/- 0.5 % current  
+/- 0.5 % voltage  
+/- 0.01 power factor  
+/- 1 % active power  
+/- 1 % apparent power  
+/- 1 % active energy

### Measurement current

5...6000 mA

### Measurement voltage

<table>
<thead>
<tr>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35...480 V AC 50/60 Hz between phases</td>
<td>20...277 V AC 50/60 Hz between phase and neutral</td>
</tr>
<tr>
<td>480...999000 V AC 50/60 Hz with external VT</td>
<td></td>
</tr>
</tbody>
</table>

### Frequency measurement range

45...65 Hz

### [Us] rated supply voltage

44...277 V AC +/- 10 % (45...65 Hz)  
44...277 V DC +/- 10 %

### Network frequency

50 Hz  
60 Hz

### Ride-through time

100 ms 120 V AC typical  
400 ms 230 V AC typical  
50 ms 125 V DC typical

### [In] rated current

5 A  
1 A

### Power consumption in VA

<= 6 VA at 277 V AC

### Power consumption in W

<= 3.3 W power lines (AC)  
<= 2 W at 277 V power lines (DC)

### Input impedance

Current (impedance <= 0.3 mOhm)  
Voltage (impedance > 5 MOhm)

### Tamperproof of settings

Protected by access code

### Display type

7 segments LED

### Display colour

Red

### Messages display capacity

3 fields of 4 characters

### Display digits

12 digit(s) - 14.2 mm in height

### Demand intervals

Configurable from 1 to 60 min

### Information displayed

Voltage  
Current  
Frequency  
Energy consumption  
Harmonic distortion  
Demand current past value  
Demand current present value  
Demand power past value  
Demand power present value  
Power factor  
Active power  
Apparent power  
Reactive power  
Unbalanced in %

### Control type

3 x button

### Local signalling

Green LED : module operation and integrated communication  
Red LED : output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh)

### Number of inputs

0

### Number of outputs

0

### Communication port protocol

Modbus RTU 2 wires, : 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps, even/odd or none, insulation: 2500 V

### Communication port support

Screw terminal block : RS485

### Data recording

Time stamping  
Min/max for 8 parameters

### Function available

Real time clock

### Sampling rate

64 samples/cycle

### Cybersecurity

Enable/disable communication ports

### Communication service

Remote monitoring

### Product certifications

CE conforming to IEC 61010-1  
CULus conforming to UL 61010-1
<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting mode</td>
<td>Clip-on</td>
</tr>
<tr>
<td>Mounting position</td>
<td>Vertical</td>
</tr>
<tr>
<td>Mounting support</td>
<td>Framework</td>
</tr>
<tr>
<td>Provided equipment</td>
<td>Installation guide 1</td>
</tr>
<tr>
<td>Measurement category</td>
<td>Category III up to 480 V, Category II up to 480...600 V</td>
</tr>
<tr>
<td>Electrical insulation class</td>
<td>Class II, Double insulation</td>
</tr>
<tr>
<td>Flame retardance</td>
<td>V-0 conforming to UL 94</td>
</tr>
<tr>
<td>Connections - terminals</td>
<td>Current transformer : bottom screw connection x 6, Voltage inputs : top screw connection x 4</td>
</tr>
<tr>
<td>Material</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Width</td>
<td>96 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>76.09 mm total, 61.64 mm embedded</td>
</tr>
<tr>
<td>Height</td>
<td>96 mm</td>
</tr>
<tr>
<td>Product weight</td>
<td>300 g</td>
</tr>
<tr>
<td>Compatibility code</td>
<td>PM2120</td>
</tr>
</tbody>
</table>

**Environment**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service life</td>
<td>7 yr</td>
</tr>
<tr>
<td>IP degree of protection</td>
<td>IP30 (body) conforming to IEC 60529, IP54 (front) conforming to IEC 60529</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>5...95 % 50 °C</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>2</td>
</tr>
<tr>
<td>Ambient air temperature for operation</td>
<td>-10...60 °C</td>
</tr>
<tr>
<td>Ambient air temperature for storage</td>
<td>-25...70 °C</td>
</tr>
<tr>
<td>Operating altitude</td>
<td>&lt;= 2000 m</td>
</tr>
<tr>
<td>Electromagnetic compatibility</td>
<td>Electrostatic discharge conforming to IEC 61000-4-2, Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3, Surge immunity test conforming to IEC 61000-4-5, Conducted RF disturbances conforming to IEC 61000-4-6, Magnetic field at power frequency conforming to IEC 61000-4-8, Electrical fast transient/burst immunity test conforming to IEC 61000-4-4, Emission tests conforming to FCC part 15 class A, Voltage dips and interruptions immunity test conforming to IEC 61000-4-11</td>
</tr>
<tr>
<td>Overvoltage category</td>
<td>III</td>
</tr>
</tbody>
</table>

**Offer Sustainability**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable offer status</td>
<td>Green Premium product</td>
</tr>
<tr>
<td>RoHS (date code: YYWW)</td>
<td>Compliant - since 1601 - Schneider Electric declaration of conformity, Schneider Electric declaration of conformity</td>
</tr>
<tr>
<td>REACh</td>
<td>Reference not containing SVHC above the threshold, Reference not containing SVHC above the threshold</td>
</tr>
<tr>
<td>Product environmental profile</td>
<td>Available, Product Environmental Profile</td>
</tr>
<tr>
<td>Product end of life instructions</td>
<td>Available</td>
</tr>
</tbody>
</table>