

# Manufacturer declaration of conformity to IEC 61557-12:2007



**Range: PM8000**

**Products: PM8240, PM8243 and PM8244**

We, the undersigned, declare that we performed a review of the available conformity assessment activity results, and that these results demonstrate the conformity of the products to the specified characteristics listed below <sup>(1)</sup>:

**PMD/SD/K70/0,2**

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Tutorial: PMD/cv/Kt/p

*PM*D: Performance Measuring and monitoring Device

*c*: Current measurement (S: with sensor, D: Direct measure)

*v*: Voltage measurement (S: with sensor, D: Direct measure)

*Kt*: Temperature Class

*p*: Active Energy Performance Class

## 1. PRODUCT CHARACTERISTICS

| $I_n$     | $I_b$ | $I_{max}$ | $U_n$ (L-N/L-L) | $U_{min}$ (L-N/L-L) | $U_{max}$ (L-N/L-L) | CT ratio | VT ratio |
|-----------|-------|-----------|-----------------|---------------------|---------------------|----------|----------|
| 1 A / 5 A | N/A   | 10 A      | 230/400V        | 57,7/100V           | 400/690V            | 1 to 1e6 | 1 to 1e6 |

## 2. FUNCTIONS PERFORMANCE CLASS

| Function symbol | Function                         | Function performance class acc. to IEC 61557-12 | Measuring range (with CT ratio = 1:1 and VT ratio = 1:1) | Other complementary characteristics  |
|-----------------|----------------------------------|---|--|--|
| P               | Total active power               | 0,2   | 0 to ± 20,7 kW   |  |
| QA              | Total reactive power arithmetic  | 1   | 0 to ± 20,7 kVAr   |  |
| SA              | Total apparent power arithmetic  | 0,2   | 0 to ± 20,7 kVA  |  |
| Ea              | Total active energy              | 0,2   | 0 to ± 107 kWh   | Compliance with accuracy requirements of IEC62053-22 Class 0,2S & ANSI C12.20 Class 0,2  |
| ErA             | Total reactive energy arithmetic | 2   | 0 to ± 107 kVArh   | Compliance with accuracy requirements of IEC 62053-23 Class 2 or IEC 62053-24 Class 0,5S |
| EapA            | Total apparent energy arithmetic | 0,2   | 0 to ± 107 kVAh  |  |
| f               | Frequency                        | 0,02  | 42 Hz – 69 Hz  |  |
| I               | Phase current                    | 0,2   | 0,1%In – 200%In A  |  |
| IN              | Neutral current (measured)       | 0,2   | 0,1%In - 200%In A  |  |
| INC             | Neutral current (calculated)     | 0,5   | 0,1%In - 200%In A  |  |
| U               | Voltage (L-N)<br>Voltage (L-L)   | 0,2   | 57,7 V – 400V<br>100 V – 690 V                           |  |
| PFA             | Power factor arithmetic          | 0,5   | 0,5 Ind to 0,8 Cap                                       |  |
| Udip            | Voltage dips                     | 0,5   | 5% to 100% Un  |  |
| Uswl            | Voltage swells                   | 0,5   | 100% to 120% Un  |  |

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|                    |                                   |     |                                       |  |
|--------------------|-----------------------------------|-----|---------------------------------------|--|
| U <sub>int</sub>   | Voltage Interruption (L-N & L-L)  | 1   | 0%U <sub>n</sub> - 5%U <sub>n</sub> V |  |
| U <sub>nb</sub>    | Voltage Unbalance amplitude (L-N) | 0,2 | 0% - 10%U <sub>n</sub> V              |  |
| U <sub>h</sub>     | Voltage harmonics                 | 1   | Up to rank 63rd                       |  |
| THD <sub>u</sub>   | Voltage THD                       | 1   | 0% to 100%                            |  |
| THD-R <sub>u</sub> | Voltage THD                       | 1   | 0% to 100%                            |  |
| I <sub>h</sub>     | Current harmonics                 | 1   | Up to rank 63rd                       |  |
| THD <sub>i</sub>   | Current THD                       | 1   | 0% to 100%                            |  |
| THD-R <sub>i</sub> | Current THD                       | 1   | 0% to 100%                            |  |

### 3. CLIMATIC

| Characteristic   | Performance      |
|--|------------------|
| Temperature rated operating range (with specified uncertainty) | -25 °C to +70 °C |
| Temperature limit range of operation (no hardware failures)    | -25 °C to +70 °C |
| Temperature limit range for storage / shipping                 | -40 °C to +85 °C |
| Humidity rated operating range (with specified uncertainty)    | 0 to 75 % RH     |
| Humidity limit range of operation for 30 days/year             | 0 to 90 % RH     |
| Humidity limit range for storage and shipping                  | 0 to 90 % RH     |

### 4. MECHANICAL, EMC AND SAFETY

| Characteristic | Ref. standard       | Performance  |
|----------------|---------------------|--|
| EMC emission   | IEC 61326-1         | Class B  |
| EMC immunity   | IEC 61326-1 Table 2 | Industrial electromagnetic environment   |
| Product safety | IEC 61010           | Overvoltage category III<br>Measurement category III<br>Pollution degree 2<br>Altitude 3000m<br>Protective class 2 |
| IP degree      | IEC 60529           | Front panel: IP54<br>Back: IP30 (excluding terminals)  |

<sup>(1)</sup> when subject to correct installation, maintenance and use conforming to their intended purpose, according to applicable regulations and standards in the country where they are installed, to the supplier's instructions and to accepted rules of the art

**Annick DEMACHY**  
Quality and Customer Satisfaction VP

**Date and signature**

30/03/15

