

Declaration of Conformity to IEC/EN 61557-12 edition 2.0



Products: METSEPM2130 METSEPM2230

We, the undersigned, declare that we performed conformity assessment activities, and that the obtained results demonstrate the conformity¹ of the products declared herein to the specified characteristics listed below:

¹ 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.

PMD-II/SD/K55/0,5 PMD-II/SS/K55/0,5

Legend: PMD/cv/Kt/p

PMD: Performance Measuring and monitoring Device

c : Current measurement (S: with sensor, indirect insertion, D: Direct insertion)

v : Voltage measurement (S: with sensor, indirect insertion, D: Direct insertion)

Kt: Temperature Class

p : Active Energy Performance Class

INTRODUCTION

The IEC/EN 61557-12 standard provides basis by which measurement products can be specified, described and evaluated. The standard specifications cover:

- product performances within a specified temperature range
- product robustness regarding EMC, climatic and mechanical influences
- product safety

1. PRODUCT CHARACTERISTICS

I_n	I_b	I_{max}	U_n (L-N/L-L)	CT ratio	VT ratio
5 A	5 A	6 A	230V/400V, 240V/415V	1 to 32767	1 to 999000

2. FUNCTIONS PERFORMANCE CLASS

Function symbol	Function	Function performance class according to IEC 61557-12	Measuring range (with CT ratio = 1:1 and VT ratio = 1:1)	Other complementary characteristics
P	Total active power	0,5	$1\% I_n \leq I < I_{max}$ 0,5 Ind to 0,8 Cap	Compliance with accuracy requirements of IEC 62053-22:2003 class 0,5S
QA	Total reactive power Arithmetic	1	$2\% I_n \leq I < I_{max}$ Sin Θ , 0,25 Ind to 0,25 Cap	Compliance with accuracy requirements of IEC 62053-24:2014 class 1
QV	Total reactive power Vector	NA		
SA	Total apparent power Arithmetic	0,5	$2\% I_n \leq I < I_{max}$ 0,5 Ind to 0,8 Cap	
SV	Total apparent power Vector	NA		

Ea	Total active energy	0,5	0-9999999,9 kW _h	
ErA	Total reactive energy Arithmetic	1	0-9999999,9 kVar _h	
ErV	Total reactive energy Vector	NA		
EapA	Total apparent energy Arithmetic	0,5	0-9999999,9 kVA _h	
EapV	Total apparent energy Vector	NA		
f	Frequency	0,05	45 Hz – 65 Hz	
I	Phase current	0,5	10% I _n ≤ I < I _{max}	
IN	Neutral current (measured)	NA		
INc	Neutral current (calculated)	NA		
U	Voltage (L-L) Voltage (L-N)	0,5	20 % U _n to 120 % U _n	
PFA	Power factor Arithmetic	0,5	0,5 Ind to 0,8 Cap	
PFV	Power factor Vector	NA		
Pst	Flicker (short term)	NA		
Plt	Flicker (long term)	NA		
Udip	Voltage dips (L-L or L-N)	NA		
Uswl	Voltage swells (L-L or L-N)	NA		
Utr	Transient Voltage	NA		
Uint	Voltage Interruption (L-L or L-N)	NA		
Unba	Voltage Unbalance amplitude (L-N)	NA		
Unb	Voltage Unbalance phase and amplitude (L-L or L-N)	NA		
Uh	Voltage harmonics	5	Up to rank 15	
THDu	Voltage THD	5	0% to 20%	
THD-Ru	Voltage THD	5	0% to 20%	
Ih	Current harmonics	5	Up to rank 15	
THDi	Current THD	5	0% to 200%	
THD-Ri	Current THD	5	0% to 200%	
Msv	Mains signalling voltage	NA		

3. CLIMATIC

Characteristic	Value	class acc. to IEC 61557-12	class acc. to IEC 60721-3-x
Temperature rated operating range (with specified uncertainty)	-5 °C to +55 °C	K55	3K23
Temperature limit range of operation (no hardware failures)	-5 °C to +55 °C		3K23
Temperature limit range for storage / shipping	-25 °C to +70 °C		3K24
Humidity rated operating range (with specified uncertainty)	5 to 95 % RH	Standard conditions	---
Humidity limit range of operation for 30 days/year			---
Humidity limit range for storage and shipping			---
Altitude	0 to 2000 m		---

4. MECHANICAL, EMC AND SAFETY

Characteristic	Reference standard	Level
Electromagnetic emissions	IEC 61326-1: edition 2 / CISPR11	Class A
Electromagnetic immunity	IEC 61326-1: edition 2	Table 2, uncontrolled industrial environment
Product safety	IEC 61010-1 edition 3 IEC 61010-2-30:2017 UL 61010-1 edition 3	Protection class II (double/reinforced isolation) Overvoltage category III, PD2, <2000m Measurement category III, PD2, <2000m
Degree of Ingress Protection	IEC60529 edition 2.2	Front panel IP52, Meter body IP20 Enclosure category 2.

Mike Adams
CS&Q Director

Date: March 17, 2020

Signature:

