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

Products: METSEPM2120
METSEPM2110
METSEPM2220
METSEPM2210

We, the undersigned, declare that we performed conformity assessment activities, and that the obtained results demonstrate the conformity[1] 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/SD/K55/1.0
PMD/SS/K55/1.0

Legend: **PMD/*cv*/K*tt*/*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)
K*tt* : 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	Remark
5 A	-	6 A	230V/400V 240V/415V	1 to 32767	1 to 999000	--

Schneider Electric

2. FUNCTIONS PERFORMANCE CLASS

Function symbol	Function	Function performance class according to IEC 61557-12 (meters only)	Measuring range (with CT ratio = 1:1 and VT ratio = 1:1)	Other complementary characteristics
P	Total active power	1.0	1% $I_n \leq I < I_{max}$ 0.5 ind to 0.8 cap	---
Q_A	Total reactive power Arithmetic	1.0	2% $I_n \leq I < I_{max}$ sin Θ, 0.25 ind to 0.25 cap	---
Q_V	Total reactive power Vector	NA		---
S_A	Total apparent power Arithmetic	1.0	2% $I_n \leq I < I_{max}$ 0.5 ind to 0.8 cap	---
S_V	Total apparent power Vector	NA		---
E_a	Total active energy	1.0	0-9999999,9 kWh	---
E_{rA}	Total reactive energy Arithmetic	2.0	0-9999999,9 kVarh	---
E_{rV}	Total reactive energy Vector	NA		---
E_{apA}	Total apparent energy Arithmetic	1.0	0-9999999,9 kVAh	---
E_{apV}	Total apparent energy Vector	NA		---
F	Frequency	0.05	45 Hz – 65 Hz	---
I	Phase current	0.5	10% $I_n \leq I < I_{max}$	---
I_N	Neutral current (measured)	NA		---
I_{NC}	Neutral current (calculated)	NA		---
U	Voltage (L-L)	1.0	110 V – 480 V	---
PF_A	Power factor Arithmetic	0.5	0.5 ind to 0.8 cap	---
PF_V	Power factor Vector	NA		---
P_{st}	Flicker (short term)	NA		---
P_{lt}	Flicker (long term)	NA		---
U_{dip}	Voltage dips (L-L or L-N)	NA		---
U_{swl}	Voltage swells (L-L or L-N)	NA		---
U_{tr}	Transient Voltage	NA		---
U_{int}	Voltage Interruption (L-L or L-N)	NA		---
U_{nba}	Voltage Unbalance amplitude (L-N)	NA		---
U_{nb}	Voltage Unbalance phase and amplitude (L-L or L-N)	NA		---
U_h	Voltage harmonics	5	Up to rank 15	---
THDu	Voltage THD	5	0% to 20%	---
THD-Ru	Voltage THD	5	0% to 20%	---
I_h	Current harmonics	5	Up to rank 15	---
THD_i	Current THD	5	0% to 200%	---
THD-Ri	Current THD	5	0% to 200%	---

3. CLIMATIC

Characteristic	Value	Class Accuracy to IEC 61557-12	class acc. to IEC 60721-3-x
Temperature rated operating range (with specified uncertainty)	–5°C to +55°C	K55	3K8H
Temperature llimit range of operation (no hardware failures)	–5°C to +55°C		3K8H
Temperature limit range for storage / shipping	–25°C to +70°C		1K5 / 2K4
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	Class A
Electromagnetic immunity	IEC 61326-1	Table 2, industrial environment
Product safety	IEC 61010-1 IEC 61010-2-030 UL 61010-1	Protection class II (double/reinforced isolation) Overvoltage category III, PD2, <2000m Measurement category III, PD2, <2000m
Degree of Ingress Protection	IEC 60529	Front panel IP52, Meter body IP20 Enclosure category 2.

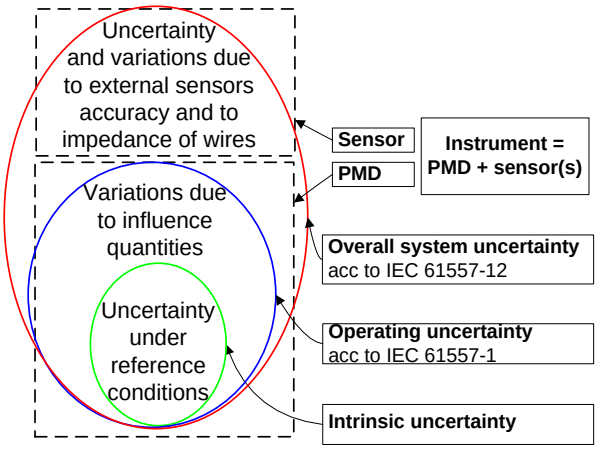
5. RECOMMANDATION FOR SYSTEM PERFORMANCE

The association of a PMD with external current and/or voltage sensors builds a complete instrument.

The system performance class depends on the sensor class and the PMD performance class

See annex C and annex D of IEC 61557-12 for evaluation of the system performance class.

It is recommended that the sensor class should be better or equal to the performance class of its associated PMD.



Mike Adams
Director - Customer Satisfaction & Quality

Date: October 18, 2021

Signature: