1116

TEST REPORT FOR THE PATTERN AND CONSTRUCTION OF ELECTRICITY METERS

MANUFACTURER	:	*Schneider Electric*
TYPE	:	*PM8000*
MODEL	:	*METSEPM8243*
CLASS	:	*0.2s (kWh) & 2(kvarh)*
DESCRIPTION	:	*Polyphase, Active Import/Export (kWh), Reactive Import/Export (kvarh), Transformer Operated, Electricity Meter with Auxiliary Power Supply*

Tested in accordance with IEC 62053-22: 2003, Electricity metering equipment (AC) – Particular requirements Part 22: Static meters for active energy (classes 0.2s and 0.5s).

and IEC 62053-23: 2003, Electricity metering equipment (AC) – Particular requirements Part 23: Static meters for reactive energy (classes 2 & 3).

The meters tested satisfied the required specifications.

ISSUED BY:

K. Hunter
Test Engineer

CHECKED BY:

R. Jackson
Metering Manager

REPORT ISSUE DATE: 4th July 2016 ISSUE No.: 2

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INTRODUCTION

The type tests described were carried out in the SGS (Durham) measurement laboratory on behalf of:

CLIENT DETAILS: Schneider Electric
2195 Keating Cross Road
Saanichton
British Columbia
V8M 2A5
Canada

ORDER No: 138517 & 134546

APPLICATION RECEIVED DATE: 27th June 2014

DATE OF RECEIPT OF SAMPLES: 30th September 2014

DATE OF TESTS: 17th October to 3rd November 2014 & 16th March to 12th April 2016

In the cases where no or only limited tests have been conducted on the submitted samples, tests carried out during previous OFGEM approval (or by other accredited bodies) on meters of similar construction and designs have been taken to confirm that the meter satisfies the requirements of the relevant standard. See supporting documentation for reference.

Conditions under which the type tests took place:

Unless otherwise stated, the meters were examined at an ambient temperature of 23°C ± 2°C, and after the voltage circuits had been connected to reference voltage for at least 1 hour.

Unless otherwise stated, Polyphase tests were tested with a standard phase sequence of L1-L2-L3 (corresponding to the Red, Yellow & Blue phases).

The tests were conducted using equipment, traceable to National and International Standards.

INFORMATION ON THE ELECTRICITY METERS TESTED

Manufacturer	:	*Schneider Electric*
Type	:	*PM8000*
Models	:	*METSEPM8243, METSEPM8244*
Class	:	*0.2s (kWh) & 2(kvarh)*
Type of circuit	:	*3 phase 4 wire*
No. of Elements	:	*3*
Rated Current (In)	:	*1A & 5A*
Maximum Current (Im)	:	*10A*
Reference Supply Voltage (Un)	:	*3x57.7/100V- 3x270/480V*
Auxiliary Voltage (Ux)	:	*90-415V*
Rated Frequency	:	*50Hz & 60Hz*
Pulse output constant	:	*Programmable*
Manufacturers Serial No's	:	*ME-1407A020-00, ME-1602A365-01*

SUMMARY OF TEST RESULTS

IEC 62052-11: 2003 General Requirements:

IEC 62052-11 Clause	Test	Performed	Result
5.2.2.1	Spring hammer	No	-
5.2.2.2	Shock	No	-
5.2.2.3	Vibration	No	-
5.8	Resistance to heat and fire	No	-
5.9	Penetration of dust and water	No	-
6.3.1	Dry heat	No	-
6.3.2	Cold	No	-
6.3.3	Damp heat cyclic	No	-
6.3.4	Solar radiation	N/A	N/A
7.1.2	Voltage dips and short interruptions	No	-
7.2	Influence of heating	No	-
7.3.2	Impulse voltage	No	-
7.5.2	Electrostatic discharge immunity	No	-
7.5.3	Radiated immunity	No	-
7.5.4	Fast transient bursts immunity	No	-
7.5.5	Conducted immunity	No	-
7.5.6	Surge immunity	No	-
7.5.7	Damped oscillatory waves immunity	No	-
7.5.8	Radio interference suppression	No	-

IEC 62053-22: 2003 Particular Requirements:

IEC 62053-22 Clause	Test	Performed	Result
7.1	Power consumption	No	-
7.2	Influence of short–time over-currents	No	-
7.3	Influence of self-heating	No	-
7.3.3	AC voltage	No	-
8.1	Current variation	Yes	Complied
8.2	Variation of error due to voltage variation	Yes	Complied
8.2	Variation of error due to frequency variation	Yes	Complied
8.2	Reverse Phase Sequence	Yes	Complied
8.2	Voltage Unbalance	Yes	Complied
8.2	Operation of accessories	N/A	N/A
8.2	Auxiliary voltage variation	Yes	Complied
8.2	Variation of error due to temperature variation	No	-
8.2	Variation of error due to harmonics	Yes	Complied
8.2	Sub-harmonics in the AC circuit	Yes	Complied
8.2	Continuous magnetic induction of external origin	No	-
8.2	Magnetic induction of external origin (0.5mT)	No	-
8.3	Starting and no-load condition	Yes	Complied
8.4	Meter constant	Yes	Complied

SUMMARY OF TEST RESULTS (cont.)

IEC 62053-23: 2003 Particular Requirements:

IEC 62053-23 Clause	Test	Performed	Result
7.1	Power consumption	No	-
7.2	Influence of short–time overcurrents	No	-
7.3	Influence of self-heating	No	-
7.4	AC voltage	No	-
8.1	Current variation	Yes	Complied
8.2	Variation of error due to voltage variation	Yes	Complied
8.2	Variation of error due to frequency variation	Yes	Complied
8.2	Operation of accessories	No	-
8.2	Variation of error due to temperature variation	No	-
8.2	DC Component in the current circuit	No	-
8.2	Continuous magnetic induction of external origin	Yes	Complied
8.2	Magnetic induction of external origin (0.5mT)	Yes	Complied
8.3	Starting and no-load condition	Yes	Complied
8.4	Meter constant	Yes	Complied