



Solar Analytics

Solar Smart Meter Certifications

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DATE: January 8th, 2019
VERSION: V1

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Certification

The Solar Analytics Solar Smart Monitor (SSM) is certified to the following standards:

Safety	AS/NZ60950.1:2011
Conducted Emissions	AS/NZS CISPR 22:2009 Class B
Radiated Spurious Emissions	AS/NZS 4268:2008 +A1:2010 C 8.2 & 9.1
Electrostatic discharge	Level III (IEC 61000-4-2)
Immunity to radiated fields	Level III (IEC 61000-4-3)
Immunity to fast transients	Level IV (IEC 61000-4-4)
Immunity to impulse waves	Level IV (IEC 61000-4-5)
Active energy	Class 1 as defined by IEC 62053-21

In applications where the Solar Analytics Solar Smart Monitor is used in bundled applications with CET Meters, the following standards apply to CET meters:

PMC220 (Single Phase direct current pattern approved meter)

Standards of Compliance

Safety Requirements		
Insulation		IEC 60255-5-2000
Dielectric test		2kV @ 1 minute
Insulation resistance		>100MΩ
Impulse voltage		10kV, 1.2/50μs
Electromagnetic Compatibility EMC 2004/108/EC (EN 61326: 2006)		
Immunity Tests		
Electrostatic discharge		IEC 61000-4-2:2001 Level IV
Radiated fields		IEC 61000-4-3:2002 (10 V/m)
Fast transients		IEC 61000-4-4:2004 Level IV
Surges		IEC 61000-4-5:2005 Level IV
Conducted disturbances		IEC 61000-4-6:2006 Level III
Magnetic Fields		IEC 61000-4-8:2009 Level IV
Oscillatory waves		IEC 61000-4-12:2006 Level III
Radio Disturb		CISPR 22: 2006 Class B
Mechanical Tests		
Vibration Test	Response	IEC 60255-21-1 Level I
	Endurance	IEC 60255-21-1 Level I
Shock Test	Response	IEC 60255-21-2 Level I
	Endurance	IEC 60255-21-2 Level I
Bump Test		IEC 60255-21-2 Level I

PMC 340 A & B (Three Phase direct current/CT pattern approved meter)

Standards of Compliance

Safety Requirements		
CE LVD 2006/95/EC		EN61010-1-1-2001
Insulation		IEC 60255-5-2000
Dielectric test		2kV @ 1 minute
Insulation resistance		>100MΩ
Impulse voltage		6kV, 1.2/50μs
Electromagnetic Compatibility CE EMC Directive 2004/108/EC (EN 61326: 2006)		
Immunity Tests		
Electrostatic discharge		IEC 61000-4-2:2001 Level IV
Radiated fields		IEC 61000-4-3:2002 (10 V/m)
Fast transients		IEC 61000-4-4:2004 Level IV
Surges		IEC 61000-4-5:2005 Level IV
Conducted disturbances		IEC 61000-4-6:2006 Level III
Magnetic Fields		IEC 61000-4-8:2009 Level IV
V dips, interruptions & variations		IEC 61000-4-11:2004 (?)
Oscillatory waves		IEC 61000-4-12:2006 Level III
Radio Disturbances		CISPR 22:2006, Level B
Emission Tests		
Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment		EN 55011: 2009 (CISPR 11)
Limits and methods of measurement of radio disturbance characteristics of information technology equipment		EN 55022: 2006+A1: 2007 (CISPR 22)
Limits for harmonic current emissions for equipment with rated current ≤16 A		EN 61000-3-2: 2006+A1: 2009
Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤16 A		EN 61000-3-3: 2006
Emission standard for residential, commercial and light-industrial environments		EN 61000-6-3: 2007
Electromagnetic Emission Tests for Measuring Relays and Protection Equipment		IEC 60255-25: 2000
Mechanical Tests		
Vibration Test	Response	IEC 62052-11: 2003 Level I
	Endurance	IEC 62052-11: 2003 Level I
Shock Test	Response	IEC 62052-11: 2003 Level I
	Endurance	IEC 62052-11: 2003 Level I
Bump Test		IEC 62052-11: 2003 Level I