



International Electrotechnical Commission
Technical Committee 82 on
Solar Photovoltaic Energy Systems

PV Standards: What's new from TC 82?

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"this presentation contains no confidential information"

TC 82 Working Groups

WG 1: Glossary

WG 2: Modules, non-concentrating

WG 3: Systems

WG 6: Balance-of-system components

WG 7: Concentrator modules

WG 8: Solar cells

JWG 1: (TC 88/21/21A) Decentralized rural electrification

JWG 82: (TC 21) Batteries

TC 82 Standards

Standards published by TC 82 can be found on on the IEC website. This is public information and does not require a special login or password.

Go to www.iec.ch and search for "TC 82 dashboard".

The TC 82 dashboard also contains the Work Program (active projects), stability dates, membership, and other useful information

The following pages list Work Items that are presently active. Figures in **red** indicate expected completion dates, or other status of the project.

Recently Published Standards

Document	Edition	Title	Date
IEC/TS 62257-1	2.0	Recommendations for small renewable energy and hybrid systems for rural electrification - Part 1: General introduction to IEC 62257 series and rural electrification	2013-10-14
IEC 62670-1	1.0	Photovoltaic concentrators (CPV) - Performance testing - Part 1: Standard conditions	2013-09-25
IEC/TS 62548	1.0	Photovoltaic (PV) arrays - Design requirements	2013-07-26
IEC 62716	1.0	Photovoltaic (PV) modules - Ammonia corrosion testing	2013-06-27
IEC/TS 62257-9-5	2.0	Recommendations for small renewable energy and hybrid systems for rural electrification - Part 9-5: Integrated system - Selection of stand-alone lighting kits for rural electrification	2013-04-03

WG2 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 60904-1-1 Ed. 1.0	Photovoltaic devices - Part 1-1: Measurement of current-voltage characteristics of multi-junction photovoltaic devices	ANW	2015-07
IEC 60904-2 Ed. 3.0	Photovoltaic devices - Part 2: Requirements for reference solar devices	CCDV	2015-02
IEC 60904-8 Ed. 3.0	Photovoltaic devices - Part 8: Measurement of spectral responsivity of a photovoltaic (PV) device	CDIS	2014-05
IEC 60904-8-1 Ed. 1.0	Photovoltaic devices - Part 8-1: Measurement of spectral response of multi-junction photovoltaic (PV) devices	ANW	2015-07
IEC 61215 Ed. 3.0	Terrestrial photovoltaic (PV) modules - Design qualification and type approval Part 1: Requirements for testing Part 1-1: Special requirements for crystalline silicon Part 2: Test procedures	CDV	2014-12
IEC 61215 Ed. 3.0	Terrestrial photovoltaic (PV) modules - Design qualification and type approval Part 1-2: Special requirements for CdTe Part 1-3: Special requirements for a-Si and u-Si Part 1-4: Special requirements for CIGS and CIS	1CD	2015-06

WG2 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 61730 Ed. 2.0	Photovoltaic (PV) module safety qualification Part 1: Requirements for construction Part 2: Requirements for testing	2CD	2014-05
IEC 61853-2 Ed. 1.0	Photovoltaic (PV) modules performance testing and energy rating - Part 2: Spectral response, incidence angle and module operating temperature measurements	ADIS	2014-05
IEC 62759-1 Ed. 1.0	Transportation testing of photovoltaic (PV) modules - Part 1: Transportation and shipping of PV module stacks	CCDV	2015-02
IEC 62775 Ed. 1.0	Cross-linking degree test method for Ethylene-Vinyl Acetate applied in photovoltaic modules - Differential Scanning Calorimetry (DSC)	ANW	2015-03
IEC 62782 Ed. 1.0	Dynamic mechanical load testing for photovoltaic (PV) modules	ACDV	2015-04
IEC 62788-1-2 Ed. 1.0	Measurement procedures for materials used in photovoltaic modules - Part 1-2: Encapsulants - Measurement of volume resistivity of photovoltaic encapsulation and backsheet materials	1CD	2014-12

WG2 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 62788-1-3 Ed. 1.0	Measurement procedures for materials used in photovoltaic modules - Part 1-3: Encapsulants - Measurement of dielectric strength	ANW	2014-10
IEC 62788-1-4 Ed. 1.0	Measurement procedures for materials used in Photovoltaic Modules - Part 1-4: Encapsulants - Measurement of optical transmittance and calculation of the solar-weighted photon transmittance, yellowness index, and UV cut-off frequency	ANW	2014-12
IEC 62788-1-5 Ed. 1.0	Measurement procedures for materials used in photovoltaic modules - Part 1-5: Encapsulants - Measurement of change in linear dimensions of sheet encapsulation material under thermal conditions	ACDV	2016-01
IEC 62788-2 Ed. 1.0	Measurement procedures for materials used in photovoltaic modules - Part 2: Polymeric materials used for frontsheets and backsheets	ANW	2015-12
IEC 62790 Ed. 1.0	Junction boxes for photovoltaic modules - Safety requirements and tests	ADIS	2014-06
IEC 62804 Ed. 1.0	System voltage durability qualification test for crystalline silicon modules	1CD	2014-12

WG2 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 62805-1 Ed. 1.0	Test method for total haze and spectral distribution of haze of transparent conductive coated glass for solar cells	ANW	2014-12
IEC 62805-2 Ed. 1.0	Test method for transmittance and reflectance of transparent conductive coated glass for solar cells	ANW	2014-12
IEC 62852 Ed. 1.0	Connectors for DC-application in photovoltaic systems - Safety requirements and tests	ADIS	2014-06
IEC 62892-1 Ed. 1.0	Comparative testing of PV modules to differentiate performance in multiple climates and applications - Part 1: Overall test sequence and method of communication	ANW	2015-12
IEC/TS 62915 Ed. 1.0	Photovoltaic (PV) Modules - Retesting for type approval, design and safety qualification	ANW	2014-12
IEC/TS 62916 Ed. 1.0	Bypass diode electrostatic discharge susceptibility testing	ANW	2015-02
PNW 82-791 Ed. 1.0	Non-uniform snow load testing for photovoltaic (PV) modules	PNW	2015-12
PNW/TS 82-800 Ed. 1.0	Guideline for Increased Confidence in PV Module Design Qualification and Type Approval	PNW	2015-10

WG3/6 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 61829 Ed. 2.0	Crystalline silicon photovoltaic (PV) array - On-site measurement of I-V characteristics	CCDV	2014-09
IEC 62109-3 Ed. 1.0	Safety of power converters for use in photovoltaic power systems - Part 3: Particular requirements for PV modules with integrated electronics	ANW	2014-12
IEC 62109-4 Ed. 1.0	Safety of power converters for use in photovoltaic power systems - Part 4: Particular requirements for combiner box	PWI	TBD
IEC 62116 Ed. 2.0	Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures	BPUB	2014-03
IEC 62446 Ed. 2.0	Grid connected PV systems - Minimum requirements for system documentation, commissioning tests and inspection	CCDV	2015-04
IEC/TS 62738 Ed. 1.0	Design guidelines and recommendations for utility scale photovoltaic power plants	ANW	2015-12

WG3/6 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC/TS 62748 Ed. 1.0	PV systems on buildings	ANW	TBD
IEC 62891 Ed. 1.0	Indoor testing, characterization and evaluation of the efficiency of photovoltaic grid-connected inverters	ANW	2015-12
IEC 62894 Ed. 1.0	Data sheet and name plate for photovoltaic inverters	CCDV	2014-12
IEC/TS 62910 Ed. 1.0	Test procedure of Low Voltage Ride-Through (LVRT) measurement for utility-interconnected photovoltaic inverter	1CD	2016-12
PNW 82-797 Ed. 1.0	Future IEC 6xxxxx: EMC requirements and test methods for grid connected power converters applying to photovoltaic power generating systems	PNW	2015-09

WG7 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 62670-2 Ed. 1.0	Concentrator photovoltaic (CPV) performance testing - Part 2: Energy measurement	CCDV	2015-03
IEC 62688 Ed. 1.0	Concentrator photovoltaic (CPV) module and assembly safety qualification	ACDV	2015-09
IEC 62787 Ed. 1.0	Concentrator photovoltaic (CPV) solar cells and cell-on-carrier (COC) assemblies - Reliability qualification	ANW	2015-02
IEC 62817 Ed. 1.0	Solar trackers for photovoltaic systems - Design qualification	ADIS	2014-05
IEC/TS 62108-9 Ed. 1.0	Concentrator Photovoltaic (CPV) modules and assemblies - Design qualification and type approval - Part 9: Retest guidelines	CDTS	2014-10
IEC/TS 62789 Ed. 1.0	Specification of concentrator cell description	APUB	2014-07
PNW 82-802 Ed. 1.0	Thermal cycling test for CPV modules to differentiate increased thermal fatigue durability	PNW	2015-10

WG8 Projects

Project Reference	Title	Stage	Forecast Publication Date
IEC 60904-11 Ed. 1.0	Photovoltaic devices - Part 11: Measurement of initial light-induced degradation of crystalline silicon solar cells	ANW	2015-09