

BUREAU OF INDIAN STANDARDS

Program of Work

MED 4 : Renewable Energy Sources

Scope: Formulation of standards in the field of Renewable energy sources such as solar energy, bio-gas energy, bio-mass energy etc.

Liaison: **TC-180 (P): Solar energy TC-180 SC-1 (P): Climate - Measurement and data TC-180 SC-4 (P): Systems - Thermal performance, reliability and durability TC-285 (P): Clean cookstoves and clean cooking solutions**

Published Standards

| S.No | IS No. | TITLE | Reaffirm M-Y | No. of Amds | Eqv. |
|------|--|---|---------------|-------------|------------|
| 1 | IS/ISO/TR 10217:1989 ISO/TR 10217 : 1989 <i>Reviewed In : 2022</i> | Solar energy - Water heating systems - Guide to material selection with regard to internal corrosion | October, 2022 | - | Indigenous |
| 2 | IS 12933 (Part 1):2003 <i>Reviewed In : 2019</i> | Solar flat plate collector - Specification: Part 1 requirements (Second Revision) | January, 2019 | 2 | Indigenous |
| 3 | IS 12933 (Part 1):2025 | Solar Flat Plate Collector - Specification Part 1 Requirements (Third Revision) | | - | Indigenous |
| 4 | IS 12933 (Part 2):2003 <i>Reviewed In : 2019</i> | Solar flat plate collector - Specification: Part 2 components (Second Revision) | January, 2019 | 3 | Indigenous |
| 5 | IS 12933 (Part 3):2003 <i>Reviewed In : 2024</i> | Solar flat plate collector - Specification: Part 3 measuring instruments (First Revision) | March, 2024 | 1 | Indigenous |
| 6 | IS 12933 (Part 5):2003 <i>Reviewed In : 2019</i> | Solar flat plate collector - Specification: Part 5 test methods (Second Revision) | January, 2019 | 2 | Indigenous |
| 7 | IS 12976:2023 | SOLAR WATER HEATING SYSTEMS - CODE OF PRACTICE (First Revision) | | - | Indigenous |
| 8 | IS 12986 (Part 1):1990 <i>Reviewed In : 2020</i> | Biogas plants - Glass fibre reinforced polyester resin gas holders - Specification: Part 1 with steel frame | October, 2020 | 1 | Indigenous |
| 9 | IS 13129 (Part 1):2023 | SOLAR HEATING DOMESTIC WATER HEATING SYSTEMS PART 1 PERFORMANCE RATING PROCEDURE USING INDOOR TEST METHODS | | - | Indigenous |
| 10 | IS 13129 (Part 2):2023 | SOLAR HEATING DOMESTIC WATER HEATING SYSTEMS PART 2 PROCEDURE FOR | | - | Indigenous |

| | | SYSTEM PERFORMANCE CHARACTERIZATION AND YEARLY PERFORMANCE PREDICATION | | | |
|----|--|---|---------------|---|------------|
| 11 | IS 13129 (Part 3):2024 | Solar Heating - Domestic Water Heating Systems Part 3 Procedures for System Component Characterization and Predication for Yearly Performance Using Component Performance Data (First Revision) | | - | Indigenous |
| 12 | IS 13129 (Part 4):2023 | SOLAR HEATING DOMESTIC WATER HEATING SYSTEMS PART 4 DETERMINATION OF DURABILITY AND RELIABILITY | | - | Indigenous |
| 13 | IS 13152 (Part 1):2013 Reviewed In : 2024 | Portable solid bio - Mass cookstove (Chulha) - Specification (First Revision) | March, 2024 | - | Indigenous |
| 14 | IS 13429 (Part 1):2020 | Solar Cooker - Box Type - Specification Part 1 Requirements (Second Revision) | - | - | Indigenous |
| 15 | IS 13429 (Part 2):2018 Reviewed In : 2024 | Solar cooker - Box type - Specification: Part 2 components (Second Revision) | March, 2024 | - | Indigenous |
| 16 | IS 13429 (Part 3):2018 Reviewed In : 2024 | Solar cooker - Box type - Specification: Part 3 test method (Second Revision) | March, 2024 | - | Indigenous |
| 17 | IS 16368:2015 Reviewed In : 2020 | Test procedure for thermosyphon type domestic solar hot water heating systems | October, 2020 | - | Indigenous |
| 18 | IS 16543:2024 | All-glass evacuated solar collector tubes - Specification (First revision) | | - | Indigenous |
| 19 | IS 16648 (Part 1):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification: Part 1 paraboloid dish concentrator | October, 2022 | - | Indigenous |
| 20 | IS 16648 (Part 2):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification: Part 2 scheffler concentrator | October, 2022 | - | Indigenous |
| 21 | IS 16648 (Part 3):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification: Part 3 parabolic trough concentrator | October, 2022 | - | Indigenous |
| 22 | IS 16648 (Part 4):2018 Reviewed In : 2022 | Concentrated solar thermal? - Specification: Part 4 non - Imaging concentrator | October, 2022 | - | Indigenous |
| 23 | IS 16648 (Part 5):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification: Part 5 test methods | October, 2022 | 2 | Indigenous |
| 24 | IS 18727:2024 | Manifold Type Storage Water Tank for All Glass Evacuated | | - | Indigenous |

| | | | | | |
|----|---|---|---------------|---|----------------------------------|
| | | Tubes Solar Collector Systems - Specification | | | |
| 25 | IS 9478:2023 | Design, Construction, Installation and Operation of Biogas (Biomethane) Plant i ₆ ½ Code of Practice | | - | Indigenous |
| 26 | IS/ISO 9488:2022 ISO 9488: 2022 ISO 9488: 2022 | Solar Energy - Vocabulary (First Revision) | | - | Identical under single numbering |
| 27 | IS/ISO 9847:1992 ISO 9847 Reviewed In : 2022 ISO 9847 : 1992 | Solar energy - Calibration of field pyranometers by comparison to a reference pyranometer | October, 2022 | - | Identical under single numbering |

Standards under Development

| Projects Approved | | |
|-------------------|---------|-------|
| SI. No. | Doc No. | Title |
| No Records Found | | |

| Preliminary Draft Standards | | |
|-----------------------------|---------|-------|
| SI. No. | Doc No. | Title |
| No Records Found | | |

| Drafts Standards in WC Stage | | |
|------------------------------|---------|-------|
| SI. No. | Doc No. | Title |
| No Records Found | | |

| Draft Standards Completed WC Stage | | |
|------------------------------------|---------------|---|
| SI. No. | Doc No. | Title |
| 1 | MED 4 (28244) | Direct insertion type storage water tank for all glass evacuated tubes solar collector - Specification Amendment No - 1 |

| Finalized Draft Indian Standard | | |
|---------------------------------|---------|-------|
| SI. No. | Doc No. | Title |
| No Records Found | | |

| Finalized Draft Indian Standards under Print | | |
|--|--|---|
| SI. No. | Doc No. | Title |
| 1 | MED 4 (27551) Revision of: IS 12933:2003 | Solar Flat Plate Collector - Specification Part 2 Components Third Revision |
| 2 | MED 4 (27552) Revision of: IS 12933:2003 | Solar Flat Plate Collector - Specification Part 5 Test Methods Third Revision |
| 3 | MED 4 (28245) | All glass evacuated tubes solar water heating system Amendment No - 3 |

| |
|--|
| Total Published Standards:24 Total Standards Under development:4 |
|--|

Aspect Wise Report

Product : 11

Code of Practices : 8

Methods of Test : 4
Terminology : 1
Dimensions : 0
System Standard : 0
Safety Standard : 0
Others : 0
Service Specification : 0
Process Specification : 0
Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

| SI. No. | IS No. & Year | Title |
|---------|---|--|
| 1 | IS 12933 (Part 4):1990 | Solar flat plate collector Part 4 Performance requirements and accepted criteria |
| 2 | IS 12934:1990 9488 Reviewed In : 2010 | Solar energy - Thermal applications - Vocabulary |
| 3 | IS 13429 (Part 1):2000 Reviewed In : 2010 IEC TS 62351-100-3:2020 | Solar Cooker - Box Type - Part 1 Requirements |

Annexure-II :List of Indian Product Standards

| SI. No. | IS No. & Year | Title |
|---------|--|--|
| 1 | IS 12933 (Part 1):2025 | Solar Flat Plate Collector - Specification Part 1 Requirements Third Revision |
| 2 | IS 12933 (Part 2):2003 Reviewed In : 2019 | Solar flat plate collector - Specification Part 2 components Second Revision |
| 3 | IS 12933 (Part 3):2003 Reviewed In : 2024 | Solar flat plate collector - Specification Part 3 measuring instruments First Revision |
| 4 | IS 12986 (Part 1):1990 Reviewed In : 2020 | Biogas plants - Glass fibre reinforced polyester resin gas holders - Specification Part 1 with steel frame |
| 5 | IS 13152 (Part 1):2013 Reviewed In : 2024 | Portable solid bio - Mass cookstove Chulha - Specification First Revision |
| 6 | IS 16543:2024 | All-glass evacuated solar collector tubes - Specification First revision |
| 7 | IS 16648 (Part 1):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification Part 1 paraboloid dish concentrator |
| 8 | IS 16648 (Part 2):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification Part 2 scheffler concentrator |
| 9 | IS 16648 (Part 3):2017 Reviewed In : 2022 | Concentrated solar thermal - Specification Part 3 parabolic trough concentrator |
| 10 | IS 16648 (Part 4):2018 Reviewed In : 2022 | Concentrated solar thermal - Specification Part 4 non - Imaging concentrator |
| 11 | IS 18727:2024 | Manifold Type Storage Water Tank for All Glass Evacuated Tubes Solar Collector Systems - Specification |