

## SECTION H — ELECTRICITY

## H02 GENERATION, CONVERSION, OR DISTRIBUTION OF ELECTRIC POWER

**H02S** *Generation of electric power by conversion of infra-red radiation, visible light or ultraviolet light, e.g. using photovoltaic [PV] modules (solar heat collectors F24J 2/00; obtaining electrical energy from radioactive sources G21H 1/12; light sensitive inorganic semiconductor devices H01L 31/00; thermoelectric devices H01L 35/00; pyroelectric devices H01L 37/00; light sensitive organic semiconductor devices H01L 51/42) [2014.01]*

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| 10/00 | <b>PV power plants; Combinations of PV energy systems with other systems for the generation of electric power [2014.01]</b>  | 30/10 | • Frame structures [2014.01]   |
| 10/10 | • including a supplementary source of electric power, e.g. hybrid diesel-PV energy systems (combinations with gas-turbine plants F02C 6/00) [2014.01]  | 30/20 | • Collapsible or foldable PV modules [2014.01]   |
| 10/12 | • • Hybrid wind-PV energy systems [2014.01]  | 40/00 | <b>Components or accessories in combination with PV modules, not provided for in groups H02S 10/00-H02S 30/00 [2014.01]</b>  |
| 10/20 | • Systems characterised by their energy storage means (H02S 40/38 takes precedence) [2014.01]  | 40/10 | • Cleaning arrangements [2014.01]  |
| 10/30 | • Thermophotovoltaic systems (photovoltaic cells specially adapted for conversion or sensing of infra-red [IR] radiation H01L 31/00; thermoelectric devices H01L 35/00) [2014.01]  | 40/12 | • • Means for removing snow [2014.01]  |
| 10/40 | • Mobile PV generator systems [2014.01]  | 40/20 | • Optical components [2014.01]   |
| 20/00 | <b>Supporting structures for PV modules [2014.01]</b><br><br><u>Note(s) [2014.01]</u><br>Supporting structures also intended for use with solar heat collectors should also be classified in groups F24J 2/38 or F24J 2/52.                                      | 40/22 | • • Light-reflecting or light-concentrating means (directly associated with the PV cell or integrated with the PV cell H01L 31/054) [2014.01]  |
| 20/10 | • Supporting structures directly fixed to the ground (H02S 20/30 takes precedence) [2014.01]   | 40/30 | • Electrical components [2014.01]  |
| 20/20 | • Supporting structures directly fixed to an immovable object (H02S 20/30 takes precedence) [2014.01]  | 40/32 | • • comprising DC/AC inverter means associated with the PV module itself, e.g. AC modules [2014.01]  |
| 20/21 | • • specially adapted for motorways, e.g. integrated with sound barriers [2014.01]   | 40/34 | • • comprising specially adapted electrical connection means to be structurally associated with the PV module, e.g. junction boxes [2014.01]   |
| 20/22 | • • specially adapted for buildings [2014.01]  | 40/36 | • • characterised by special electrical interconnection means between two or more PV modules, e.g. electrical module-to-module connection [2014.01]  |
| 20/23 | • • • specially adapted for roof structures (roof covering aspects of energy collecting devices E04D 13/18) [2014.01]  | 40/38 | • • Energy storage means, e.g. batteries, structurally associated with PV modules [2014.01]  |
| 20/24 | • • • • specially adapted for flat roofs [2014.01]   | 40/40 | • Thermal components (H02S 10/30 takes precedence) [2014.01]   |
| 20/25 | • • • • Roof tile elements [2014.01]   | 40/42 | • • Cooling means (cooling means directly associated or integrated with the PV cell H01L 31/052) [2014.01]   |
| 20/26 | • • • Building materials integrated with PV modules, e.g. façade elements (H02S 20/25 takes precedence) [2014.01]  | 40/44 | • • Means to utilise heat energy, e.g. hybrid systems producing warm water and electricity at the same time (directly associated with the PV cell or integrated with the PV cell H01L 31/0525) [2014.01] |
| 20/30 | • Supporting structures being movable or adjustable, e.g. for angle adjustment [2014.01]   | 50/00 | <b>Monitoring or testing of PV systems, e.g. load balancing or fault identification [2014.01]</b>  |
| 20/32 | • • specially adapted for solar tracking [2014.01]   | 50/10 | • Testing of PV devices, e.g. of PV modules or single PV cells (testing of semiconductor devices during manufacturing H01L 21/66) [2014.01]  |
| 30/00 | <b>Structural details of PV modules other than those related to light conversion (semiconductor device aspects of modules of electrolytic light sensitive devices H01G 9/20, of inorganic PV modules H01L 31/00, of organic PV modules H01L 51/42) [2014.01]</b> | 50/15 | • • using optical means, e.g. using electroluminescence [2014.01]  |
|       |  | 99/00 | <b>Subject matter not provided for in other groups of this subclass [2014.01]</b>  |