

CPC COOPERATIVE PATENT CLASSIFICATION

H ELECTRICITY

(NOTE omitted)

H02 GENERATION; CONVERSION OR DISTRIBUTION OF ELECTRIC POWER

H02S GENERATION OF ELECTRIC POWER BY CONVERSION OF INFRARED RADIATION, VISIBLE LIGHT OR ULTRAVIOLET LIGHT, e.g. USING PHOTOVOLTAIC [PV] MODULES (obtaining electrical energy from radioactive sources [G21H 1/12](#); light sensitive inorganic semiconductor devices [H10F](#); light sensitive organic semiconductor devices [H10K 30/00](#); thermoelectric devices [H10N 10/00](#); pyroelectric devices [H10N 15/00](#))

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| 10/00 | PV power plants; Combinations of PV energy systems with other systems for the generation of electric power | 30/20 | • Collapsible or foldable PV modules |
| 10/10 | • including a supplementary source of electric power, e.g. hybrid diesel-PV energy systems (combinations with gas-turbine plants F02C 6/00) | 40/00 | Components or accessories in combination with PV modules, not provided for in groups H02S 10/00 - H02S 30/00 |
| 10/12 | • . Hybrid wind-PV energy systems | 40/10 | • Cleaning arrangements |
| 10/20 | • Systems characterised by their energy storage means (H02S 40/38 takes precedence) | 40/12 | • . Means for removing snow |
| 10/30 | • Thermophotovoltaic systems (photovoltaic cells specially adapted for conversion or sensing of infrared [IR] radiation H10F 10/00 ; thermoelectric devices H10N 10/00) | 40/20 | • Optical components |
| 10/40 | • Mobile PV generator systems | 40/22 | • . Light-reflecting or light-concentrating means (directly associated with the PV cell or integrated with the PV cell H10F 77/42) |
| 20/00 | Supporting structures for PV modules | 40/30 | • Electrical components |
| | NOTE | 40/32 | • . comprising DC/AC inverter means associated with the PV module itself, e.g. AC modules |
| | Supporting structures also intended for use with solar heat collectors should also be classified in groups F24S 25/00-F24S 30/00 or F24S 50/20 | 40/34 | • . comprising specially adapted electrical connection means to be structurally associated with the PV module, e.g. junction boxes |
| 20/10 | • Supporting structures directly fixed to the ground (H02S 20/30 takes precedence) | 40/345 | • . . {with cooling means associated with the electrical connection means, e.g. cooling means associated with or applied to the junction box (cooling means for PV cells H10F 77/63 , for PV modules H02S 40/42)} |
| 20/20 | • Supporting structures directly fixed to an immovable object (H02S 20/30 takes precedence) | 40/36 | • . characterised by special electrical interconnection means between two or more PV modules, e.g. electrical module-to-module connection |
| 20/21 | • . specially adapted for motorways, e.g. integrated with sound barriers | 40/38 | • . Energy storage means, e.g. batteries, structurally associated with PV modules |
| 20/22 | • . specially adapted for buildings | 40/40 | • Thermal components (H02S 10/30 takes precedence) |
| 20/23 | • . . specially adapted for roof structures | 40/42 | • . Cooling means |
| 20/24 | • . . . specially adapted for flat roofs | 40/425 | • . . {using a gaseous or a liquid coolant, e.g. air flow ventilation, water circulation} |
| 20/25 | • . . . Roof tile elements | 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 H10F 77/67) |
| 20/26 | • . . Building materials integrated with PV modules, e.g. façade elements (H02S 20/25 takes precedence) | | |
| 20/30 | • Supporting structures being movable or adjustable, e.g. for angle adjustment | 50/00 | Monitoring or testing of PV systems, e.g. load balancing or fault identification |
| 20/32 | • . specially adapted for solar tracking | 50/10 | • Testing of PV devices, e.g. of PV modules or single PV cells (testing of semiconductor devices during manufacturing (H10P 74/00)) |
| 30/00 | 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 H10F 10/00, H10F 19/00, of organic PV modules H10K 30/00) | 50/15 | • . using optical means, e.g. using electroluminescence |
| 30/10 | • Frame structures | 99/00 | Subject matter not provided for in other groups of this subclass |