

| Symbol           | Typ                 | Titel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>F</b>         | <b>Sektion</b>      | <b>SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>F24</b>       | <b>Klasse</b>       | <b>HEATING; RANGES; VENTILATING (protecting plants by heating in gardens, orchards, or forests A01G 13/06; baking ovens and apparatus A21B; cooking devices other than ranges A47J; forging B21J, B21K; specially adapted for vehicles, <u>see</u> the relevant subclasses of classes B60-B64; combustion apparatus in general F23; drying F26B; ovens in general F27; electric heating elements or arrangements H05B)</b>                                                                                                                                              |
| <b>F24J</b>      | <b>Unterklasse</b>  | <b>PRODUCTION OR USE OF HEAT NOT OTHERWISE PROVIDED FOR (materials therefor C09K 5/00; engines or other mechanisms for producing mechanical power from heat, <u>see</u> the relevant classes, e.g. F03G for using natural heat)</b>                                                                                                                                                                                                                                                                                                                                     |
| <b>F24J 1/00</b> | <b>Hauptgruppe</b>  | <b>Apparatus or devices using heat produced by exothermal chemical reactions other than by combustion (for cooking-vessels A47J 36/28; self-heating compresses A61F 7/03; materials for the production of heat or cold undergoing non-reversible chemical reactions, other than by combustion, when used C09K 5/18)</b>                                                                                                                                                                                                                                                 |
| <b>F24J 2/00</b> | <b>Hauptgruppe</b>  | <b>Use of solar heat, e.g. solar heat collectors (distillation or evaporation of water using solar energy C02F 1/14; roof covering aspects of energy collecting devices E04D 13/18; devices for producing mechanical power from solar energy F03G 6/00; semi-conductor devices specially adapted for converting solar energy into electrical energy H01L 25/00, H01L 31/00; semiconductor devices including arrays of solar cells using heat energy H01L 31/058; generators in which light radiation is directly converted into electrical energy H02N 6/00) [4, 5]</b> |
| F24J 2/02        | 1-Punkt Untergruppe | . Solar heat collectors with support for article heated, e.g. stoves, ranges, crucibles, furnaces or ovens using solar heat [4]                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| F24J 2/04        | 1-Punkt Untergruppe | . Solar heat collectors having working fluid conveyed through collector [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| F24J 2/05        | 2-Punkt Untergruppe | . . surrounded by a transparent enclosure, e.g. evacuated solar collectors [6]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| F24J 2/06        | 2-Punkt Untergruppe | . . having concentrating elements (optical elements or systems <u>per se</u> G02B) [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| F24J 2/07        | 3-Punkt Untergruppe | . . . Receivers working at high temperature, e.g. for solar power plants [6]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| F24J 2/08        | 3-Punkt Untergruppe | . . . having lenses as concentrating elements [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| F24J 2/10        | 3-Punkt Untergruppe | . . . having reflectors as concentrating elements [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| F24J 2/12        | 4-Punkt Untergruppe | . . . . parabolic [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| F24J 2/13        | 4-Punkt Untergruppe | . . . . hemispherical [6]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| F24J 2/14        | 4-Punkt Untergruppe | . . . . semi-cylindrical or cylindro-parabolic [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| F24J 2/15        | 4-Punkt Untergruppe | . . . . conical [6]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| F24J 2/16        | 4-Punkt Untergruppe | . . . . having flat plates [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| F24J 2/18        | 4-Punkt Untergruppe | . . . . spaced, opposed interacting reflecting surfaces [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| F24J 2/20        | 2-Punkt Untergruppe | . . the working fluid being conveyed between plates [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| F24J 2/22        | 3-Punkt Untergruppe | . . . having extended surfaces, e.g. protrusions, corrugations (F24J 2/28 takes precedence) [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| F24J 2/23        | 2-Punkt Untergruppe | . . the working fluid trickling freely over collector elements [6]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| F24J 2/24        | 2-Punkt Untergruppe | . . the working fluid being conveyed through tubular heat absorbing conduits [4]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| F24J 2/26        | 3-Punkt Untergruppe | . . . having extended surfaces, e.g. protrusions (F24J 2/28 takes precedence) [4]                                                                                                                                                                                                 |
| F24J 2/28        | 2-Punkt Untergruppe | . . having permeable mass, foraminous or porous materials [4]                                                                                                                                                                                                                     |
| F24J 2/30        | 2-Punkt Untergruppe | . . with means to exchange heat between plural fluids [4]                                                                                                                                                                                                                         |
| F24J 2/32        | 2-Punkt Untergruppe | . . having evaporator and condenser section, e.g. heat pipe [4]                                                                                                                                                                                                                   |
| F24J 2/34        | 2-Punkt Untergruppe | . . having heat storage mass [4]                                                                                                                                                                                                                                                  |
| F24J 2/36        | 1-Punkt Untergruppe | . Rollable or foldable collector units [4]                                                                                                                                                                                                                                        |
| F24J 2/38        | 1-Punkt Untergruppe | . employing tracking means (F24J 2/02, F24J 2/06 take precedence; rotary supports or mountings therefor F24J 2/54; direction-finders for determining the direction from which electromagnetic waves are being received G01S 3/78; control of position or direction G05D 3/00) [4] |
| F24J 2/40        | 1-Punkt Untergruppe | . Control arrangements [4]                                                                                                                                                                                                                                                        |
| F24J 2/42        | 1-Punkt Untergruppe | . Solar heat systems not otherwise provided for [4]                                                                                                                                                                                                                               |
| F24J 2/44        | 2-Punkt Untergruppe | . . having thermosiphonic circulation [4]                                                                                                                                                                                                                                         |
| F24J 2/46        | 1-Punkt Untergruppe | . Component parts, details or accessories of solar heat collectors [4]                                                                                                                                                                                                            |
| F24J 2/48        | 2-Punkt Untergruppe | . . characterised by the absorber material [4]                                                                                                                                                                                                                                    |
| F24J 2/50        | 2-Punkt Untergruppe | . . Transparent coverings [4]                                                                                                                                                                                                                                                     |
| F24J 2/51        | 2-Punkt Untergruppe | . . Thermal insulation (F24J 2/50 takes precedence) [6]                                                                                                                                                                                                                           |
| F24J 2/52        | 2-Punkt Untergruppe | . . Arrangement of mountings or supports [4]                                                                                                                                                                                                                                      |
| F24J 2/54        | 3-Punkt Untergruppe | . . . specially adapted for rotary movement [6]                                                                                                                                                                                                                                   |
| <b>F24J 3/00</b> | <b>Hauptgruppe</b>  | <b>Other production or use of heat, not derived from combustion (use of solar heat F24J 2/00)</b>                                                                                                                                                                                 |
| F24J 3/06        | 1-Punkt Untergruppe | . using natural heat [4]                                                                                                                                                                                                                                                          |
| F24J 3/08        | 2-Punkt Untergruppe | . . using geothermal heat (devices for producing mechanical power from geothermal energy F03G 4/00) [4, 5]                                                                                                                                                                        |