

Symbol	Typ	Titel
F	Sektion	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F21	Untersektion	LIGHTING; HEATING
F21	Klasse	LIGHTING
F21V	Unterklasse	FUNCTIONAL FEATURES OR DETAILS OF LIGHTING DEVICES OR SYSTEMS THEREOF; STRUCTURAL COMBINATIONS OF LIGHTING DEVICES WITH OTHER ARTICLES, NOT OTHERWISE PROVIDED FOR [1, 7]
F21V 1/00	Hauptgruppe	Shades for light sources [1, 2006.01]
F21V 1/02	1-Punkt Untergruppe	. Frames [1, 2006.01]
F21V 1/04	2-Punkt Untergruppe	. . rigid (F21V 1/08 takes precedence) [1, 2006.01]
F21V 1/06	2-Punkt Untergruppe	. . foldable or collapsible [1, 2006.01]
F21V 1/08	2-Punkt Untergruppe	. . adjustable [1, 2006.01]
F21V 1/10	1-Punkt Untergruppe	. Rotating shades [1, 2006.01]
F21V 1/12	1-Punkt Untergruppe	. Composite shades [1, 2006.01]
F21V 1/14	1-Punkt Untergruppe	. Covers for frames; Frameless shades [1, 2006.01]
F21V 1/16	2-Punkt Untergruppe	. . characterised by the material [1, 2006.01]
F21V 1/18	3-Punkt Untergruppe	. . . the material being paper [1, 2006.01]
F21V 1/20	3-Punkt Untergruppe	. . . the material being glass [1, 2006.01]
F21V 1/22	3-Punkt Untergruppe	. . . the material being plastics [1, 2006.01]
F21V 1/24	3-Punkt Untergruppe	. . . the material being metal [1, 2006.01]
F21V 1/26	1-Punkt Untergruppe	. Manufacturing shades [1, 2006.01]
F21V 3/00	Hauptgruppe	Globes; Bowls; Cover glasses (with refracting properties F21V 5/00; with reflecting properties F21V 7/00; characterised by cooling arrangements F21V 29/506) [1, 2006.01, 2015.01]
F21V 3/02	1-Punkt Untergruppe	. characterised by the shape [1, 2006.01]
F21V 3/04	1-Punkt Untergruppe	. characterised by the material; characterised by surface treatments or coatings [1, 2006.01]
F21V 5/00	Hauptgruppe	Refractors for light sources (characterised by cooling arrangements F21V 29/504) [1, 2006.01, 2015.01]
F21V 5/02	1-Punkt Untergruppe	. of prismatic shape (F21V 5/04 takes precedence) [1, 2006.01]
F21V 5/04	1-Punkt Untergruppe	. of lens shape [1, 2006.01]
F21V 5/06	1-Punkt Untergruppe	. Hanging lustres for chandeliers [1, 2006.01]
F21V 5/08	1-Punkt Untergruppe	. producing an asymmetric light distribution [1, 7, 2006.01]
F21V 7/00	Hauptgruppe	Reflectors for light sources (characterised by cooling arrangements F21V 29/505) [1, 2006.01]
F21V 7/04	1-Punkt Untergruppe	. Optical design [1, 7, 2006.01]
F21V 7/05	2-Punkt Untergruppe	. . plane [1, 7, 2006.01]
F21V 7/06	2-Punkt Untergruppe	. . with parabolic curvature [1, 7, 2006.01]
F21V 7/07	2-Punkt Untergruppe	. . with hyperbolic curvature [1, 7, 2006.01]

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F21V 7/08	2-Punkt Untergruppe	. . with elliptical curvature [1, 7, 2006.01]
F21V 7/09	2-Punkt Untergruppe	. . with a combination of different curvatures [1, 7, 2006.01]
F21V 7/10	1-Punkt Untergruppe	. Construction [1, 7, 2006.01]
F21V 7/16	2-Punkt Untergruppe	. . with provision for adjusting the curvature [1, 7, 2006.01]
F21V 7/18	2-Punkt Untergruppe	. . with provision for folding or collapsing [1, 7, 2006.01]
F21V 7/22	1-Punkt Untergruppe	. characterised by the material; characterised by surface treatments or coatings [1, 2006.01]
F21V 8/00	Hauptgruppe	Use of light guides, e.g. fibre optic devices, in lighting devices or systems [4, 2006.01]
F21V 9/00	Hauptgruppe	Light filters (coloured shades F21V 1/00; characterised by cooling arrangements F21V 29/502); Selection of luminescent materials for light screens [1, 2006.01, 2015.01]
F21V 9/02	1-Punkt Untergruppe	. for simulating daylight (F21V 9/04, F21V 9/06, F21V 9/16 take precedence) [1, 2006.01]
F21V 9/04	1-Punkt Untergruppe	. for filtering out infra-red radiation (using liquid-filled chambers F21V 9/12) [1, 2006.01]
F21V 9/06	1-Punkt Untergruppe	. for filtering out ultra-violet radiation (F21V 9/16 takes precedence) [1, 2006.01]
F21V 9/08	1-Punkt Untergruppe	. for producing coloured light, e.g. monochromatic; for reducing intensity of light (F21V 9/16 takes precedence) [1, 2006.01]
F21V 9/10	2-Punkt Untergruppe	. . with provision for variation of the colour or intensity (F21V 9/12 takes precedence) [1, 2006.01]
F21V 9/12	2-Punkt Untergruppe	. . with liquid-filled chambers [1, 2006.01]
F21V 9/14	1-Punkt Untergruppe	. for producing polarised light [1, 2006.01]
F21V 9/16	1-Punkt Untergruppe	. Selection of luminescent materials for light screens [1, 2006.01]
F21V 11/00	Hauptgruppe	Screens not covered by groups F21V 1/00, F21V 3/00, F21V 7/00 or F21V 9/00 (characterised by cooling arrangements F21V 29/502) [1, 2006.01, 2015.01]
F21V 11/02	1-Punkt Untergruppe	. using parallel laminae or strips, e.g. of Venetian-blind type (F21V 11/06 takes precedence) [1, 2006.01]
F21V 11/04	2-Punkt Untergruppe	. . adjustable [1, 2006.01]
F21V 11/06	1-Punkt Untergruppe	. using crossed laminae or strips; using lattices or honeycombs [1, 2006.01]
F21V 11/08	1-Punkt Untergruppe	. using diaphragms containing one or more apertures [1, 2006.01]
F21V 11/10	2-Punkt Untergruppe	. . of iris type [1, 2006.01]
F21V 11/12	2-Punkt Untergruppe	. . of slot type [1, 2006.01]
F21V 11/14	2-Punkt Untergruppe	. . with many small apertures [1, 2006.01]
F21V 11/16	1-Punkt Untergruppe	. using sheets without apertures, e.g. fixed [1, 2006.01]
F21V 11/18	2-Punkt Untergruppe	. . movable, e.g. flaps, slides [1, 2006.01]
F21V 13/00	Hauptgruppe	Producing particular characteristics or distribution of the light emitted by means of a combination of elements specified in two or more of main groups F21V 1/00-F21V 11/00 (changing the characteristics or distribution of the light emitted by adjustment of parts F21V 14/00) [1, 7, 2006.01]
F21V 13/02	1-Punkt Untergruppe	. Combinations of only two kinds of elements [1, 2006.01]
F21V 13/04	2-Punkt Untergruppe	. . the elements being reflectors and refractors [1, 2006.01]
F21V 13/06	3-Punkt Untergruppe	. . . a reflector being rotatable [1, 2006.01]

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F21V 13/08	2-Punkt Untergruppe	. . the elements being reflectors and filters [1, 2006.01]
F21V 13/10	2-Punkt Untergruppe	. . the elements being reflectors and screens [1, 2006.01]
F21V 13/12	1-Punkt Untergruppe	. Combinations of only three kinds of elements [1, 2006.01]
F21V 13/14	2-Punkt Untergruppe	. . the elements being reflectors, refractors, and filters [1, 2006.01]
F21V 14/00	Hauptgruppe	Changing the characteristics or distribution of the light emitted by adjustment of parts (reflectors with provision for adjusting the curvature F21V 7/16; light filters with provision for variation of colour or intensity F21V 9/10; screens using adjustable parallel laminae or strips, e.g. of Venetian-blind type, F21V 11/04; screens using iris-type diaphragms F21V 11/10; screens using movable sheets without apertures, e.g. flaps or slides, F21V 11/18; adjustable mountings for lighting devices F21V 21/14) [7, 2006.01]
F21V 14/02	1-Punkt Untergruppe	. by movement of light sources [7, 2006.01]
F21V 14/04	1-Punkt Untergruppe	. by movement of reflectors [7, 2006.01]
F21V 14/06	1-Punkt Untergruppe	. by movement of refractors [7, 2006.01]
F21V 14/08	1-Punkt Untergruppe	. by movement of screens [7, 2006.01]
F21V 15/00	Hauptgruppe	Protecting lighting devices from damage (protection from thermal damage F21V 29/00; gas-tight or water-tight arrangements F21V 31/00) [1, 2006.01, 2015.01]
F21V 15/01	1-Punkt Untergruppe	. Housings, e.g. material or assembling of housing parts (F21V 15/02 takes precedence) [7, 2006.01]
F21V 15/015	2-Punkt Untergruppe	. . Devices for covering joints between adjacent lighting devices; End coverings [7, 2006.01]
F21V 15/02	1-Punkt Untergruppe	. Cages [1, 2006.01]
F21V 15/04	1-Punkt Untergruppe	. Resilient mountings, e.g. shock-absorbers [1, 2006.01]
F21V 17/00	Hauptgruppe	Fastening of component parts of lighting devices, e.g. shades, globes, refractors, reflectors, filters, screens, grids or protective cages (of light sources or light holders F21V 19/00) [1, 2006.01]
F21V 17/02	1-Punkt Untergruppe	. with provision for adjustment (F21V 17/04-F21V 17/08 take precedence) [1, 7, 2006.01]
F21V 17/04	1-Punkt Untergruppe	. onto or by the light source [1, 2006.01]
F21V 17/06	1-Punkt Untergruppe	. onto or by the lamp holder [1, 2006.01]
F21V 17/08	1-Punkt Untergruppe	. onto the supporting or suspending arrangements of the lighting device, e.g. power cords, standards [7, 2006.01]
F21V 17/10	1-Punkt Untergruppe	. characterised by specific fastening means or way of fastening (F21V 17/02-F21V 17/08 take precedence) [7, 2006.01]
F21V 17/12	2-Punkt Untergruppe	. . by screwing [7, 2006.01]
F21V 17/14	2-Punkt Untergruppe	. . Bayonet-type fastening [7, 2006.01]
F21V 17/16	2-Punkt Untergruppe	. . by deformation of parts of the lighting device; Snap action mounting [7, 2006.01]
F21V 17/18	2-Punkt Untergruppe	. . Latch-type fastening, e.g. with rotary action [7, 2006.01]
F21V 17/20	2-Punkt Untergruppe	. . by toggle-action levers [7, 2006.01]
F21V 19/00	Hauptgruppe	Fastening of light sources or lamp holders (fastening electric light source solely by the coupling device H01R 33/00) [1, 2006.01]
F21V 19/02	1-Punkt Untergruppe	. with provision for adjustment, e.g. for focusing [1, 7, 2006.01]
F21V 19/04	1-Punkt Untergruppe	. with provision for changing light source, e.g. turret [1, 2006.01]

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F21V 19/06	1-Punkt Untergruppe	. Fastening incandescent mantles or other incandescent bodies to lamp parts; Suspension devices for incandescent mantles or other incandescent bodies (arrangements of mantles or other incandescent bodies on burners F21V 36/00) [1, 7, 2006.01]
F21V 21/00	Hauptgruppe	Supporting, suspending, or attaching arrangements for lighting devices (F21V 17/00, F21V 19/00 take precedence); Hand grips [1, 7, 2006.01]
F21V 21/002	1-Punkt Untergruppe	. making direct electrical contact, e.g. by piercing (F21V 21/35 takes precedence) [7, 2006.01]
F21V 21/005	1-Punkt Untergruppe	. for several lighting devices in an end-to-end arrangement, i.e. light tracks [7, 2006.01]
F21V 21/008	1-Punkt Untergruppe	. Suspending from a cable or suspension line [7, 2006.01]
F21V 21/02	1-Punkt Untergruppe	. Wall, ceiling, or floor bases; Fixing pendants or arms to the bases (F21V 21/08 takes precedence; bases for movable standing lamps F21V 21/06) [1, 2006.01]
F21V 21/03	2-Punkt Untergruppe	. . Ceiling bases, e.g. ceiling roses (F21V 21/04 takes precedence) [7, 2006.01]
F21V 21/04	2-Punkt Untergruppe	. . Recessed bases [1, 2006.01]
F21V 21/06	1-Punkt Untergruppe	. Bases for movable standing lamps; Fixing standards to the bases (F21V 21/08 takes precedence) [1, 2006.01]
F21V 21/08	1-Punkt Untergruppe	. Devices for easy attachment to a desired place [1, 2006.01]
F21V 21/084	2-Punkt Untergruppe	. . Head fittings [7, 2006.01]
F21V 21/088	2-Punkt Untergruppe	. . Clips; Clamps [7, 2006.01]
F21V 21/092	2-Punkt Untergruppe	. . Suction devices [7, 2006.01]
F21V 21/096	2-Punkt Untergruppe	. . Magnetic devices [7, 2006.01]
F21V 21/10	1-Punkt Untergruppe	. Pendants, arms or standards; Fixing lighting devices to pendants, arms or standards (adjustable mounting F21V 21/14) [1, 2006.01]
F21V 21/104	2-Punkt Untergruppe	. . Pendants [7, 2006.01]
F21V 21/108	2-Punkt Untergruppe	. . Arms [7, 2006.01]
F21V 21/112	2-Punkt Untergruppe	. . Fixing lighting devices to pendants (F21V 21/002 takes precedence) [7, 2006.01]
F21V 21/116	2-Punkt Untergruppe	. . Fixing lighting devices to arms or standards (F21V 21/002 takes precedence) [7, 2006.01]
F21V 21/12	2-Punkt Untergruppe	. . capable of being elongated or shortened by the insertion or removal of intermediate pieces [1, 2006.01]
F21V 21/13	1-Punkt Untergruppe	. Spring-loaded poles fixed at both ends [7, 2006.01]
F21V 21/14	1-Punkt Untergruppe	. Adjustable mountings [1, 2006.01]
F21V 21/15	2-Punkt Untergruppe	. . specially adapted for power operation, e.g. by remote control [7, 2006.01]
F21V 21/16	2-Punkt Untergruppe	. . using wires or cords [1, 2006.01]
F21V 21/18	3-Punkt Untergruppe	. . . operated by springs [1, 2006.01]
F21V 21/20	3-Punkt Untergruppe	. . . operated by weights [1, 2006.01]
F21V 21/22	2-Punkt Untergruppe	. . telescopic [1, 2006.01]
F21V 21/24	2-Punkt Untergruppe	. . Lazy-tongs [1, 2006.01]
F21V 21/26	2-Punkt Untergruppe	. . Pivoted arms [1, 2006.01]

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F21V 21/28	3-Punkt Untergruppe	. . . adjustable in more than one plane [1, 2006.01]
F21V 21/29	4-Punkt Untergruppe	 employing universal joints [1, 2006.01]
F21V 21/30	2-Punkt Untergruppe	. . Pivoted housings or frames [1, 2006.01]
F21V 21/32	2-Punkt Untergruppe	. . Flexible tubes [1, 2006.01]
F21V 21/34	1-Punkt Untergruppe	. Supporting elements displaceable along a guiding element [1, 2006.01]
F21V 21/35	2-Punkt Untergruppe	. . with direct electrical contact between the supporting element and electric conductors running along the guiding element [7, 2006.01]
F21V 21/36	1-Punkt Untergruppe	. Hoisting or lowering devices, e.g. for maintenance [1, 2006.01]
F21V 21/38	2-Punkt Untergruppe	. . with a cable [1, 2006.01]
F21V 21/40	1-Punkt Untergruppe	. Hand grips [7, 2006.01]
F21V 23/00	Hauptgruppe	Arrangement of electric circuit elements in or on lighting devices (protecting lighting devices from thermal damage F21V 29/00) [1, 2006.01, 2015.01]
F21V 23/02	1-Punkt Untergruppe	. the elements being transformers or impedances [1, 2006.01]
F21V 23/04	1-Punkt Untergruppe	. the elements being switches (safety devices F21V 25/00) [1, 2006.01]
F21V 23/06	1-Punkt Untergruppe	. the elements being coupling devices [1, 2006.01]
F21V 25/00	Hauptgruppe	Safety devices structurally associated with lighting devices (gas-tight or water-tight arrangements F21V 31/00) [1, 2006.01]
F21V 25/02	1-Punkt Untergruppe	. coming into action when lighting device is disturbed, dismantled, or broken [1, 2006.01]
F21V 25/04	2-Punkt Untergruppe	. . breaking the electric circuit [1, 2006.01]
F21V 25/06	2-Punkt Untergruppe	. . feeding a quenching fluid to the light source [1, 2006.01]
F21V 25/08	2-Punkt Untergruppe	. . cutting the incandescent filament [1, 2006.01]
F21V 25/10	1-Punkt Untergruppe	. coming into action when lighting device is over-loaded, e.g. thermal switch [1, 2006.01]
F21V 25/12	1-Punkt Untergruppe	. Flameproof or explosion-proof arrangements [1, 2006.01]
F21V 27/00	Hauptgruppe	Cable-stowing arrangements structurally associated with lighting devices, e.g. reels [1, 2006.01]
F21V 27/02	1-Punkt Untergruppe	. Cable inlets [7, 2006.01]
F21V 29/00	Hauptgruppe	Protecting lighting devices from thermal damage; Cooling or heating arrangements specially adapted for lighting devices or systems (lighting fixtures combined with outlets for air-treatment systems F24F 13/078) [1, 7, 2006.01, 2015.01]
F21V 29/10	1-Punkt Untergruppe	. Arrangement of heat-generating components to reduce thermal damage, e.g. by distancing heat-generating components from other components to be protected [2015.01]
F21V 29/15	1-Punkt Untergruppe	. Thermal insulation [2015.01]
F21V 29/50	1-Punkt Untergruppe	. Cooling arrangements (air-treatment systems dissipating or using the heat of lighting fixtures F24F 3/056) [2015.01]
F21V 29/502	2-Punkt Untergruppe	. . characterised by the adaptation for cooling of specific components [2015.01]
F21V 29/503	3-Punkt Untergruppe	. . . of light sources (cooling arrangements structurally associated with gas-discharge or vapour-discharge lamps H01J 61/52; cooling arrangements structurally associated with electric incandescent lamps H01K 1/58; cooling arrangements structurally associated with light-emitting diodes H01L 33/64) [2015.01]
F21V 29/504	3-Punkt Untergruppe	. . . of refractors [2015.01]

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F21V 29/505	3-Punkt Untergruppe	. . . of reflectors [2015.01]
F21V 29/506	3-Punkt Untergruppe	. . . of globes, bowls or cover glasses [2015.01]
F21V 29/507	3-Punkt Untergruppe	. . . of means for protecting lighting devices from damage, e.g. housings [2015.01]
F21V 29/508	3-Punkt Untergruppe	. . . of electrical circuits [2015.01]
F21V 29/51	2-Punkt Untergruppe	. . using condensation or evaporation of a fluid, e.g. heat pipes [2015.01]
F21V 29/52	3-Punkt Untergruppe	. . . electrically powered, e.g. refrigeration systems [2015.01]
F21V 29/54	2-Punkt Untergruppe	. . using thermoelectric means, e.g. Peltier elements [2015.01]
F21V 29/56	2-Punkt Untergruppe	. . using liquid coolants (F21V 29/51 takes precedence) [2015.01]
F21V 29/57	3-Punkt Untergruppe	. . . characterised by control arrangements [2015.01]
F21V 29/58	3-Punkt Untergruppe	. . . characterised by the coolants [2015.01]
F21V 29/60	2-Punkt Untergruppe	. . characterised by the use of a forced flow of gas, e.g. air [2015.01]
F21V 29/61	3-Punkt Untergruppe	. . . characterised by control arrangements [2015.01]
F21V 29/63	3-Punkt Untergruppe	. . . using electrically-powered vibrating means; using ionic wind [2015.01]
F21V 29/65	3-Punkt Untergruppe	. . . the gas flowing in a closed circuit [2015.01]
F21V 29/67	3-Punkt Untergruppe	. . . characterised by the arrangement of fans [2015.01]
F21V 29/70	2-Punkt Untergruppe	. . characterised by passive heat-dissipating elements, e.g. heat-sinks [2015.01]
F21V 29/71	3-Punkt Untergruppe	. . . using a combination of separate elements interconnected by heat-conducting means, e.g. with heat pipes or thermally conductive bars between separate heat-sink elements [2015.01]
F21V 29/73	3-Punkt Untergruppe	. . . the elements being adjustable with respect to each other, e.g. hinged [2015.01]
F21V 29/74	3-Punkt Untergruppe	. . . with fins or blades [2015.01]
F21V 29/75	4-Punkt Untergruppe	 with fins or blades having different shapes, thicknesses or spacing [2015.01]
F21V 29/76	4-Punkt Untergruppe	 with essentially identical parallel planar fins or blades, e.g. with comb-like cross-section [2015.01]
F21V 29/77	4-Punkt Untergruppe	 with essentially identical diverging planar fins or blades, e.g. with fan-like or star-like cross-section [2015.01]
F21V 29/78	4-Punkt Untergruppe	 with helically or spirally arranged fins or blades [2015.01]
F21V 29/80	3-Punkt Untergruppe	. . . with pins or wires [2015.01]
F21V 29/81	4-Punkt Untergruppe	 with pins or wires having different shapes, lengths or spacing [2015.01]
F21V 29/83	3-Punkt Untergruppe	. . . the elements having apertures, ducts or channels, e.g. heat radiation holes [2015.01]
F21V 29/85	1-Punkt Untergruppe	. characterised by the material (liquid coolants F21V 29/56) [2015.01]
F21V 29/87	2-Punkt Untergruppe	. . Organic material, e.g. filled polymer composites; Thermo-conductive additives or coatings therefor [2015.01]
F21V 29/89	2-Punkt Untergruppe	. . Metals [2015.01]
F21V 29/90	1-Punkt Untergruppe	. Heating arrangements [2015.01]
F21V 31/00	Hauptgruppe	Gas-tight or water-tight arrangements [1, 2006.01]

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F21V 31/03	1-Punkt Untergruppe	. with provision for venting [7, 2006.01]
F21V 31/04	1-Punkt Untergruppe	. Provision of filling media [1, 2006.01]
F21V 33/00	Hauptgruppe	Structural combinations of lighting devices with other articles, not otherwise provided for [1, 7, 2006.01]
F21V 35/00	Hauptgruppe	Candle holders [1, 2006.01]
F21V 36/00	Hauptgruppe	Arrangements of mantles or other incandescent bodies on burners [1, 2006.01]
F21V 36/02	1-Punkt Untergruppe	. in ceiling lamps [1, 2006.01]
F21V 37/00	Hauptgruppe	Details of lighting devices employing combustion as light source, not otherwise provided for [1, 7, 2006.01]
F21V 37/02	1-Punkt Untergruppe	. Special adaptation for protection against draughts [7, 2006.01]
F21V 99/00	Hauptgruppe	Subject matter not provided for in other groups of this subclass [2006.01]