

Symbol	Typ	Titel
F	Sektion	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F24	Klasse	HEATING; RANGES; VENTILATING
F24F	Unterklasse	AIR-CONDITIONING; AIR-HUMIDIFICATION; VENTILATION; USE OF AIR CURRENTS FOR SCREENING (removing dirt or fumes from areas where they are produced B08B 15/00; vertical ducts for carrying away waste gases from buildings E04F 17/02; tops for chimneys or ventilating shafts, terminals for flues F23L 17/02)
		<u>Air-conditioning</u>
F24F 1/00	Hauptgruppe	Room units, e.g. separate or self-contained units or units receiving primary air from a central station [1, 2006.01, 2011.01]
F24F 1/01	1-Punkt Untergruppe	. in which secondary air is induced by injector action of the primary air [3, 2006.01, 2011.01]
F24F 1/02	1-Punkt Untergruppe	. self-contained, i.e. with all apparatus for treatment installed in a common casing [1, 2006.01, 2011.01]
F24F 1/04	2-Punkt Untergruppe	. . Arrangements for portability [1, 2006.01, 2011.01]
F24F 1/06	1-Punkt Untergruppe	. Separate outdoor units, e.g. outdoor unit to be linked to a separate room unit comprising a compressor and a heat exchanger [2011.01]
F24F 1/08	2-Punkt Untergruppe	. . Compressors specially adapted for separate outdoor units [2011.01]
F24F 1/10	3-Punkt Untergruppe	. . . Arrangement or mounting thereof [2011.01]
F24F 1/12	3-Punkt Untergruppe	. . . Vibration or noise prevention therefor [2011.01]
F24F 1/14	2-Punkt Untergruppe	. . Heat exchangers specially adapted for separate outdoor units [2011.01]
F24F 1/16	3-Punkt Untergruppe	. . . Arrangement or mounting thereof [2011.01]
F24F 1/18	3-Punkt Untergruppe	. . . characterised by their shape [2011.01]
F24F 1/20	2-Punkt Untergruppe	. . Electric components for separate outdoor units [2011.01]
F24F 1/22	3-Punkt Untergruppe	. . . Arrangement or mounting thereof [2011.01]
F24F 1/24	3-Punkt Untergruppe	. . . Cooling of electric components [2011.01]
F24F 1/26	2-Punkt Untergruppe	. . Refrigerant piping [2011.01]
F24F 1/28	3-Punkt Untergruppe	. . . for connecting several separate outdoor units [2011.01]
F24F 1/30	3-Punkt Untergruppe	. . . for use inside the separate outdoor units [2011.01]
F24F 1/32	3-Punkt Untergruppe	. . . for connecting the separate outdoor unit to indoor units [2011.01]
F24F 1/34	3-Punkt Untergruppe	. . . Protection means therefor, e.g. covers for refrigerant pipes [2011.01]
F24F 1/36	2-Punkt Untergruppe	. . Drip trays for outdoor units [2011.01]
F24F 1/38	2-Punkt Untergruppe	. . Fan details of outdoor units, e.g. bell-mouth shaped inlets or fan mountings [2011.01]
F24F 1/40	2-Punkt Untergruppe	. . Vibration or noise prevention at outdoor units (for outdoor unit compressors F24F 1/12) [2011.01]
F24F 1/42	2-Punkt Untergruppe	. . characterised by the use of the condensate, e.g. for enhanced cooling [2011.01]
F24F 1/44	2-Punkt Untergruppe	. . characterised by the use of internal combustion engines [2011.01]
F24F 1/46	2-Punkt Untergruppe	. . Component arrangements in separate outdoor units [2011.01]
F24F 1/48	3-Punkt Untergruppe	. . . characterised by airflow, e.g. inlet or outlet airflow [2011.01]

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F24F 1/50	4-Punkt Untergruppe	 with outlet air in upward direction [2011.01]
F24F 1/52	4-Punkt Untergruppe	 Inlet and outlet arranged on the same side, e.g. for mounting in a wall opening [2011.01]
F24F 1/54	4-Punkt Untergruppe	 Inlet and outlet arranged on opposite sides [2011.01]
F24F 1/56	2-Punkt Untergruppe	. . Casing or covers of separate outdoor units, e.g. fan guards [2011.01]
F24F 1/58	3-Punkt Untergruppe	. . . Separate protective covers for outdoor units, e.g. solar guards, snow shields or camouflage [2011.01]
F24F 1/60	2-Punkt Untergruppe	. . Arrangement or mounting of the outdoor unit [2011.01]
F24F 1/62	3-Punkt Untergruppe	. . . Wall-mounted [2011.01]
F24F 1/64	3-Punkt Untergruppe	. . . Ceiling-mounted, e.g. below a balcony [2011.01]
F24F 1/66	3-Punkt Untergruppe	. . . under the floor level [2011.01]
F24F 1/68	3-Punkt Untergruppe	. . . Arrangement of multiple separate outdoor units [2011.01]
F24F 3/00	Hauptgruppe	Air-conditioning systems in which conditioned primary air is supplied from one or more central stations to distributing units in the rooms or spaces where it may receive secondary treatment; Apparatus specially designed for such systems (room units F24F 1/00) [1, 2006.01]
F24F 3/02	1-Punkt Untergruppe	. characterised by the pressure or velocity of the primary air [1, 3, 2006.01]
F24F 3/04	2-Punkt Untergruppe	. . operating with high pressure or high velocity [1, 2006.01]
F24F 3/044	1-Punkt Untergruppe	. Systems in which all treatment is given in the central station, i.e. all-air systems [3, 2006.01]
F24F 3/048	2-Punkt Untergruppe	. . with temperature control at constant rate of air-flow [3, 2006.01]
F24F 3/052	3-Punkt Untergruppe	. . . Multiple duct systems, e.g. systems in which hot and cold air are supplied by separate circuits from the central station to mixing chambers in the spaces to be conditioned [3, 2006.01]
F24F 3/056	2-Punkt Untergruppe	. . the air at least partially flowing over lighting fixtures, the heat of which is dissipated or used (outlets for directing or distributing air into rooms or spaces combined with lighting fixtures F24F 13/078) [3, 2006.01]
F24F 3/06	1-Punkt Untergruppe	. characterised by the arrangements for the supply of heat-exchange fluid for the subsequent treatment of primary air in the room units [1, 2006.01]
F24F 3/08	2-Punkt Untergruppe	. . with separate supply and return lines for hot and cold heat-exchange fluids [1, 2006.01]
F24F 3/10	2-Punkt Untergruppe	. . with separate supply lines and common return line for hot and cold heat-exchange fluids [1, 2006.01]
F24F 3/12	1-Punkt Untergruppe	. characterised by the treatment of the air otherwise than by heating and cooling [1, 2006.01]
F24F 3/14	2-Punkt Untergruppe	. . by humidification; by dehumidification [1, 2006.01]
F24F 3/147	3-Punkt Untergruppe	. . . with both heat and humidity transfer between supplied and exhausted air [3, 2006.01]
F24F 3/153	3-Punkt Untergruppe	. . . with subsequent heating, i.e. with the air, given the required humidity in the central station, passing a heating element to achieve the required temperature [3, 2006.01]
F24F 3/16	2-Punkt Untergruppe	. . by purification, e.g. by filtering; by sterilisation; by ozonisation [1, 2006.01]
F24F 5/00	Hauptgruppe	Air-conditioning systems or apparatus not covered by group F24F 1/00 or F24F 3/00 [1, 2006.01]
F24F 6/00	Hauptgruppe	Air-humidification [3, 2006.01]
F24F 6/02	1-Punkt Untergruppe	. by evaporation of water in the air [3, 2006.01]
F24F 6/04	2-Punkt Untergruppe	. . using stationary unheated wet elements [3, 2006.01]
F24F 6/06	2-Punkt Untergruppe	. . using moving unheated wet elements [3, 2006.01]

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F24F 6/08	2-Punkt Untergruppe	. . using heated wet elements [3, 2006.01]
F24F 6/10	3-Punkt Untergruppe	. . . heated electrically [3, 2006.01]
F24F 6/12	1-Punkt Untergruppe	. by forming water dispersions in the air [3, 2006.01]
F24F 6/14	2-Punkt Untergruppe	. . using nozzles [3, 2006.01]
F24F 6/16	2-Punkt Untergruppe	. . using rotating elements [3, 2006.01]
F24F 6/18	1-Punkt Untergruppe	. by injection of steam into the air [3, 2006.01]
F24F 7/00	Hauptgruppe	Ventilation [1, 2006.01]
F24F 7/007	1-Punkt Untergruppe	. with forced flow (using ducting systems F24F 7/06) [3, 2006.01]
F24F 7/013	2-Punkt Untergruppe	. . using wall or window fans, displacing air through the wall or window [3, 2006.01]
F24F 7/02	1-Punkt Untergruppe	. Roof ventilation (ventilation of roof coverings E04D) [1, 3, 6, 2006.01]
F24F 7/04	1-Punkt Untergruppe	. with ducting systems [1, 2006.01]
F24F 7/06	2-Punkt Untergruppe	. . with forced air circulation, e.g. by fan [1, 2006.01]
F24F 7/08	3-Punkt Untergruppe	. . . with separate ducts for supplied and exhausted air [3, 2006.01]
F24F 7/10	3-Punkt Untergruppe	. . . with air supply, or exhaust, through perforated wall, floor or ceiling (outlet members for directing or distributing air F24F 13/06) [3, 2006.01]
F24F 9/00	Hauptgruppe	Use of air currents for screening, e.g. air curtain [1, 2006.01]
		<u>Common features or details</u>
F24F 11/00	Hauptgruppe	Control or safety systems or apparatus [1, 3, 2006.01]
F24F 11/02	1-Punkt Untergruppe	. Arrangement or mounting of control or safety devices [1, 2006.01]
F24F 11/04	2-Punkt Untergruppe	. . solely for controlling the rate of air-flow [1, 2006.01]
F24F 11/047	3-Punkt Untergruppe	. . . to constant value [3, 2006.01]
F24F 11/053	3-Punkt Untergruppe	. . . by means responsive to temperature [3, 2006.01]
F24F 11/06	2-Punkt Untergruppe	. . solely for controlling the supply of heating or cooling fluids for secondary treatment (F24F 11/08 takes precedence) [1, 2006.01]
F24F 11/08	2-Punkt Untergruppe	. . for controlling the primary treatment of air [1, 2006.01]
F24F 12/00	Hauptgruppe	Use of energy recovery systems in air conditioning, ventilation or screening (with both heat and humidity transfer between supplied and exhausted air F24F 3/147) [4, 2006.01]
F24F 13/00	Hauptgruppe	Details common to, or for air-conditioning, air-humidification, ventilation or use of air currents for screening [1, 2006.01]
F24F 13/02	1-Punkt Untergruppe	. Ducting arrangements [1, 2006.01]
F24F 13/04	2-Punkt Untergruppe	. . Air-mixing units (F24F 13/06 takes precedence) [1, 2006.01]
F24F 13/06	2-Punkt Untergruppe	. . Outlets for directing or distributing air into rooms or spaces, e.g. ceiling air diffuser [1, 2006.01]
F24F 13/062	3-Punkt Untergruppe	. . . having one or more bowls or cones diverging in the flow direction [3, 2006.01]
F24F 13/065	3-Punkt Untergruppe	. . . formed as cylindrical or spherical bodies which are rotatable [3, 2006.01]
F24F 13/068	3-Punkt Untergruppe	. . . formed as perforated walls, ceilings or floors (F24F 13/078 takes precedence) [3, 2006.01]
F24F 13/072	3-Punkt Untergruppe	. . . of elongated shape, e.g. between ceiling panels [3, 2006.01]

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F24F 13/075	3-Punkt Untergruppe	. . . having parallel rods or lamellae directing the outflow, e.g. the rods or lamellae being individually adjustable (F24F 13/072 takes precedence) [3, 2006.01]
F24F 13/078	3-Punkt Untergruppe	. . . combined with lighting fixtures [3, 2006.01]
F24F 13/08	1-Punkt Untergruppe	. Air-flow control members, e.g. louvres, grilles, flaps or guide plates (F24F 7/013, F24F 13/06 take precedence) [1, 3, 2006.01]
F24F 13/10	2-Punkt Untergruppe	. . movable, e.g. dampers [1, 2006.01]
F24F 13/12	3-Punkt Untergruppe	. . . built-up of sliding members [1, 2006.01]
F24F 13/14	3-Punkt Untergruppe	. . . built-up of tilting members, e.g. louver [1, 2006.01]
F24F 13/15	4-Punkt Untergruppe	 with parallel simultaneously tiltable lamellae [3, 2006.01]
F24F 13/16	3-Punkt Untergruppe	. . . built-up of parallelly-movable plates [1, 2006.01]
F24F 13/18	2-Punkt Untergruppe	. . specially adapted for insertion in flat panels, e.g. in door or window-pane [1, 2006.01]
F24F 13/20	1-Punkt Untergruppe	. Casings or covers [5, 2006.01]
F24F 13/22	1-Punkt Untergruppe	. Means for preventing condensation or evacuating condensate [5, 2006.01]
F24F 13/24	1-Punkt Untergruppe	. Means for preventing or suppressing noise [5, 2006.01]
F24F 13/26	1-Punkt Untergruppe	. Arrangements for air-circulation by means of induction, e.g. by fluid coupling or thermal effect [6, 2006.01]
F24F 13/28	1-Punkt Untergruppe	. Arrangement or mounting of filters [6, 2006.01]
F24F 13/30	1-Punkt Untergruppe	. Arrangement or mounting of heat-exchangers [6, 2006.01]
F24F 13/32	1-Punkt Untergruppe	. Supports for air-conditioning, air-humidification or ventilation units [6, 2006.01]