

Symbol	Typ	Titel
<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>F24F</b>	<b>Unterklasse</b>	<b>AIR-CONDITIONING; AIR-HUMIDIFICATION; VENTILATION; USE OF AIR CURRENTS FOR SCREENING (devices for ventilating greenhouses A01G; animal husbandry A01K, e.g. controlling humidity in incubators A01K 41/04; disinfecting or sterilising of air A61L; devices for reconditioning breathing air in sealed rooms or for ventilating gasproof shelters A62B; filtering, washing or drying of gases B01D; mixing gases with vapours or liquids in general B01F 3/00; spraying B05B, B05D; removing dirt or fumes from areas where they are produced B08B 15/00; ventilation, air-conditioning, or cooling, specially adapted for vehicles, <u>see</u> the relevant vehicle places, e.g. B60H, B61D 27/00; production of ozone C01B 13/10; chimneys or flues E04F 17/02, E04H 12/28, F23J 11/00, F23L 17/02; air ducts or conduits E04F 17/04, F16L; ventilation in doors or windows E06B 7/02; fans, blowers F04; noise-absorbing in pipes or pipe systems F16L; tops for chimneys or ventilating shafts F23L; cooling F25; details of heat-exchange or heat-transfer apparatus, of general application F28F; apparatus for generating ions to be introduced into non-enclosed gases, e.g. the atmosphere, H01T 23/00)</b> <b><u>Air-conditioning</u></b>
<b>F24F 1/00</b>	<b>Hauptgruppe</b>	<b>Room units, e.g. receiving primary air from a central station</b>
F24F 1/01	1-Punkt Untergruppe	. in which secondary air is induced by injector action of the primary air (F24F 1/02 takes precedence) [3]
F24F 1/02	1-Punkt Untergruppe	. self-contained, i.e. with all apparatus for treatment installed in a common casing
F24F 1/04	2-Punkt Untergruppe	. . Arrangements for portability
<b>F24F 3/00</b>	<b>Hauptgruppe</b>	<b>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; construction of heat-exchangers F28)</b>
F24F 3/02	1-Punkt Untergruppe	. characterised by the pressure or velocity of the primary air (F24F 3/044 takes precedence) [3]
F24F 3/04	2-Punkt Untergruppe	. . operating with high pressure or high velocity
F24F 3/044	1-Punkt Untergruppe	. Systems in which all treatment is given in the central station, i.e. all-air systems [3]
F24F 3/048	2-Punkt Untergruppe	. . with temperature control at constant rate of air-flow (F24F 3/056 takes precedence) [3]
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]
F24F 3/056	2-Punkt Untergruppe	. . the air at least partially flowing over lighting fixtures, the heat of which is dissipated or used [3]
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 (F24F 3/02 takes precedence)
F24F 3/08	2-Punkt Untergruppe	. . with separate supply and return lines for hot and cold heat-exchange fluids
F24F 3/10	2-Punkt Untergruppe	. . with separate supply lines and common return line for hot and cold heat-exchange fluids

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F24F 3/12	1-Punkt Untergruppe	. characterised by the treatment of the air otherwise than by heating and cooling (F24F 3/02, F24F 3/06 take precedence; apparatus for the individual treatment, <u>see</u> the appropriate subclasses for the treatments)
F24F 3/14	2-Punkt Untergruppe	. . by humidification; by dehumidification
F24F 3/147	3-Punkt Untergruppe	. . . with both heat and humidity transfer between supplied and exhausted air [3]
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]
F24F 3/16	2-Punkt Untergruppe	. . by purification, e.g. by filtering; by sterilisation; by ozonisation
<b>F24F 5/00</b>	<b>Hauptgruppe</b>	<b>Air-conditioning systems or apparatus not covered by group F24F 1/00 or F24F 3/00</b>
<b>F24F 6/00</b>	<b>Hauptgruppe</b>	<b>Air-humidification [3]</b>
F24F 6/02	1-Punkt Untergruppe	. by evaporation of water in the air [3]
F24F 6/04	2-Punkt Untergruppe	. . using stationary unheated wet elements [3]
F24F 6/06	2-Punkt Untergruppe	. . using moving unheated wet elements [3]
F24F 6/08	2-Punkt Untergruppe	. . using heated wet elements [3]
F24F 6/10	3-Punkt Untergruppe	. . . heated electrically [3]
F24F 6/12	1-Punkt Untergruppe	. by forming water dispersions in the air [3]
F24F 6/14	2-Punkt Untergruppe	. . using nozzles (nozzles <u>per se</u> , spraying in general B05B) [3]
F24F 6/16	2-Punkt Untergruppe	. . using rotating elements [3]
F24F 6/18	1-Punkt Untergruppe	. by injection of steam into the air [3]
<b>F24F 7/00</b>	<b>Hauptgruppe</b>	<b>Ventilation</b>
F24F 7/007	1-Punkt Untergruppe	. with forced flow (using ducting systems F24F 7/06) [3]
F24F 7/013	2-Punkt Untergruppe	. . using wall or window fans, displacing air through the wall or window [3]
F24F 7/02	1-Punkt Untergruppe	. Roof ventilation (F24F 7/007 takes precedence; ventilation of roof coverings E04D) [3, 6]
F24F 7/04	1-Punkt Untergruppe	. with ducting systems
F24F 7/06	2-Punkt Untergruppe	. . with forced air circulation, e.g. by fan
F24F 7/08	3-Punkt Untergruppe	. . . with separate ducts for supplied and exhausted air [3]
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]
<b>F24F 9/00</b>	<b>Hauptgruppe</b>	<b>Use of air currents for screening, e.g. air curtain (air curtains for vehicles B60J 9/04)</b> <b><u>Common features or details</u></b>
<b>F24F 11/00</b>	<b>Hauptgruppe</b>	<b>Control or safety systems or apparatus (control valves <u>per se</u>F16K) [3]</b>
F24F 11/02	1-Punkt Untergruppe	. Arrangement or mounting of control or safety devices
F24F 11/04	2-Punkt Untergruppe	. . solely for controlling the rate of air-flow (F24F 11/08 takes precedence)
F24F 11/047	3-Punkt Untergruppe	. . . to constant value [3]
F24F 11/053	3-Punkt Untergruppe	. . . by means responsive to temperature [3]

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F24F 11/06	2-Punkt Untergruppe	. . solely for controlling the supply of heating or cooling fluids for secondary treatment (F24F 11/08 takes precedence)
F24F 11/08	2-Punkt Untergruppe	. . for controlling the primary treatment of air
<b>F24F 12/00</b>	<b>Hauptgruppe</b>	<b>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; heat-exchange in general F28) [4]</b>
<b>F24F 13/00</b>	<b>Hauptgruppe</b>	<b>Details common to, or for air-conditioning, air-humidification, ventilation or use of air currents for screening</b>
F24F 13/02	1-Punkt Untergruppe	. Ducting arrangements
F24F 13/04	2-Punkt Untergruppe	. . Air-mixing units (F24F 13/06 takes precedence; mixing gases in general B01F 3/02)
F24F 13/06	2-Punkt Untergruppe	. . Outlets for directing or distributing air into rooms or spaces, e.g. ceiling air diffuser
F24F 13/062	3-Punkt Untergruppe	. . . having one or more bowls or cones diverging in the flow direction (F24F 13/072 takes precedence) [3]
F24F 13/065	3-Punkt Untergruppe	. . . formed as cylindrical or spherical bodies which are rotatable (F24F 13/072 takes precedence) [3]
F24F 13/068	3-Punkt Untergruppe	. . . formed as perforated walls, ceilings or floors (F24F 13/078 takes precedence) [3]
F24F 13/072	3-Punkt Untergruppe	. . . of elongated shape, e.g. between ceiling panels [3]
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]
F24F 13/078	3-Punkt Untergruppe	. . . combined with lighting fixtures (air-treatment systems with air-flow over lighting fixtures F24F 3/056) [3]
F24F 13/08	1-Punkt Untergruppe	. Air-flow control members, e.g. louvres, grilles, flaps, guide plates (F24F 7/013, F24F 13/06 take precedence; roof ventilation F24F 7/02) [3]
F24F 13/10	2-Punkt Untergruppe	. . movable, e.g. damper (F24F 13/18 takes precedence; valves in general F16K)
F24F 13/12	3-Punkt Untergruppe	. . . built-up of sliding members
F24F 13/14	3-Punkt Untergruppe	. . . built-up of tilting members, e.g. louver
F24F 13/15	4-Punkt Untergruppe	. . . . with parallel simultaneously tiltable lamellae [3]
F24F 13/16	3-Punkt Untergruppe	. . . built-up of parallelly-movable plates
F24F 13/18	2-Punkt Untergruppe	. . specially adapted for insertion in flat panels, e.g. in door or window-pane
F24F 13/20	1-Punkt Untergruppe	. Casings or covers [5]
F24F 13/22	1-Punkt Untergruppe	. Means for preventing condensation or evacuating condensate [5]
F24F 13/24	1-Punkt Untergruppe	. Means for preventing or suppressing noise [5]
F24F 13/26	1-Punkt Untergruppe	. Arrangements for air-circulation by means of induction, e.g. by fluid coupling or thermal effect [6]
F24F 13/28	1-Punkt Untergruppe	. Arrangement or mounting of filters [6]
F24F 13/30	1-Punkt Untergruppe	. Arrangement or mounting of heat-exchangers [6]
F24F 13/32	1-Punkt Untergruppe	. Supports for air-conditioning, air-humidification or ventilation units [6]