

Symbol	Typ	Titel
F	Sektion	SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
F24	Klasse	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)
F24D	Unterklasse	DOMESTIC- OR SPACE-HEATING SYSTEMS, e.g. CENTRAL HEATING SYSTEMS; DOMESTIC HOT-WATER SUPPLY SYSTEMS; ELEMENTS OR COMPONENTS THEREFOR (preventing corrosion C23F; water supply in general E03; using steam or condensate extracted or exhausted from steam engine plants for heating purposes F01K 17/02; steam traps F16T; domestic stoves or ranges F24B, F24C; water or air heaters having heat generating means F24H; combined heating and refrigeration systems F25B; heat exchange apparatus or elements F28; removing furring F28G) <u>Central heating systems</u>
F24D 1/00	Hauptgruppe	Steam central heating systems (F24D 10/00, F24D 11/00 take precedence)
F24D 1/02	1-Punkt Untergruppe	. operating with live steam
F24D 1/04	1-Punkt Untergruppe	. operating with exhaust steam
F24D 1/06	1-Punkt Untergruppe	. operating with superheated steam
F24D 1/08	1-Punkt Untergruppe	. Feed-line arrangements, e.g. providing for one-pipe system
F24D 3/00	Hauptgruppe	Hot-water central heating systems (F24D 10/00, F24D 11/00 take precedence)
F24D 3/02	1-Punkt Untergruppe	. with forced circulation, e.g. by pumps
F24D 3/04	1-Punkt Untergruppe	. with the water under high pressure
F24D 3/06	2-Punkt Untergruppe	. . Arrangements or devices for maintaining high pressure
F24D 3/08	1-Punkt Untergruppe	. in combination with systems for domestic hot-water supply
F24D 3/10	1-Punkt Untergruppe	. Feed-line arrangements, e.g. providing for heat-accumulator tanks, expansion tanks
F24D 3/12	1-Punkt Untergruppe	. Tube and panel arrangements for ceiling, wall, or underfloor heating (electric underfloor heating F24D 13/02 ; special adaptations of floors for incorporating ducts, e.g. for heating or ventilating, E04B 5/48; building elements of block or other shape for the construction of parts of buildings characterised by special adaptations, e.g. serving for locating conduits, E04C 1/39; building elements of relatively thin form for the construction of parts of buildings with special adaptations for auxiliary purposes, e.g. serving for locating conduits, E04C 2/52) [4]
F24D 3/14	2-Punkt Untergruppe	. . incorporated in a ceiling, wall or floor [4]
F24D 3/16	2-Punkt Untergruppe	. . mounted on, or adjacent to, a ceiling, wall or floor [4]
F24D 3/18	1-Punkt Untergruppe	. using heat pumps [5]
F24D 5/00	Hauptgruppe	Hot-air central heating systems (F24D 10/00, F24D 11/00 take precedence; air conditioning F24F); Exhaust-gas central heating systems
F24D 5/02	1-Punkt Untergruppe	. operating with discharge of hot air into the space or area to be heated
F24D 5/04	2-Punkt Untergruppe	. . with return of the air to the air heater
F24D 5/06	1-Punkt Untergruppe	. operating without discharge of hot air into the space or area to be heated

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F24D 5/08	2-Punkt Untergruppe	. . with hot air led through radiators
F24D 5/10	2-Punkt Untergruppe	. . with hot air led through heat-exchange ducts in the walls, floor, or ceiling
F24D 5/12	1-Punkt Untergruppe	. using heat pumps [5]
F24D 7/00	Hauptgruppe	Central heating systems employing heat-transfer fluids not covered by groups F24D 1/00-F24D 5/00, e.g. oil, salt, gas (F24D 10/00, F24D 11/00 take precedence)
F24D 9/00	Hauptgruppe	Central heating systems employing combinations of heat-transfer fluids covered by two or more of groups F24D 1/00-F24D 7/00 (F24D 10/00, F24D 11/00 take precedence)
F24D 9/02	1-Punkt Untergruppe	. Hot water and steam systems
F24D 10/00	Hauptgruppe	District heating systems [5]
F24D 11/00	Hauptgruppe	Central heating systems using heat accumulated in storage masses (self-contained storage heating units F24D 15/02; storage masses, <u>see</u> the relevant subclasses)
F24D 11/02	1-Punkt Untergruppe	. using heat pumps
F24D 12/00	Hauptgruppe	Other central heating systems
F24D 12/02	1-Punkt Untergruppe	. having more than one heat source (F24D 3/18, F24D 5/12, F24D 11/02 take precedence) [5]
		<u>Other domestic- or space-heating systems</u>
F24D 13/00	Hauptgruppe	Electric heating systems (electric water or air heaters F24H)
F24D 13/02	1-Punkt Untergruppe	. solely using resistance heating, e.g. underfloor heating
F24D 13/04	1-Punkt Untergruppe	. using electric heating of heat-transfer fluid in separate units of the system
F24D 15/00	Hauptgruppe	Other domestic- or space-heating systems
F24D 15/02	1-Punkt Untergruppe	. consisting of self-contained heating units, e.g. storage heaters [3]
F24D 15/04	1-Punkt Untergruppe	. using heat pumps [5]
F24D 17/00	Hauptgruppe	Domestic hot-water supply systems (combined with domestic- or space-heating systems F24D 1/00-F24D 15/00)
F24D 17/02	1-Punkt Untergruppe	. using heat pumps [5]
F24D 19/00	Hauptgruppe	Details (of water or air heaters F24H 9/00; of heat-exchange or heat-transfer apparatus, of general application F28F) [3]
F24D 19/02	1-Punkt Untergruppe	. Arrangement of mountings or supports for radiators [3]
F24D 19/04	2-Punkt Untergruppe	. . in skirtings [3]
F24D 19/06	1-Punkt Untergruppe	. Casings, cover lids or ornamental panels, for radiators [3]
F24D 19/08	1-Punkt Untergruppe	. Arrangements for drainage, venting or aerating (valves for drainage F16K, e.g. F16K 21/00, for venting or aerating F16K 24/00) [3]
F24D 19/10	1-Punkt Untergruppe	. Arrangement or mounting of control or safety devices (control valves F16K; only the heater being controlled F24H 9/20) [3]