

F24 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, see the relevant subclasses of classes B60 to B64; combustion apparatus in general F23; drying F26B; ovens in general F27; electric heating elements or arrangements H05B)

F24D 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)

Note

In this subclass, the following expression is used with the meaning indicated:

- “central heating system” means a system in which heat is generated or stored at central sources and is distributed by means of a transfer fluid to the spaces or areas to be heated. [5]

Subclass index

CENTRAL HEATING SYSTEMS

With heat-transfer fluid: steam; hot water; hot air or exhaust gas; other fluid 1/00; 3/00; 5/00; 7/00
 Combinations 9/00
 District heating systems 10/00
 By heat storage 11/00

Other systems 12/00

OTHER DOMESTIC- OR SPACE-HEATING SYSTEMS

Electric; Other 13/00; 15/00
 DOMESTIC HOT-WATER SUPPLY 17/00
 DETAILS 19/00

Central heating systems

1/00 Steam central heating systems (F24D 10/00, F24D 11/00 take precedence)

- 1/02 . operating with live steam
- 1/04 . operating with exhaust steam
- 1/06 . operating with superheated steam
- 1/08 . Feed-line arrangements, e.g. providing for one-pipe system

3/00 Hot-water central heating systems (F24D 10/00, F24D 11/00 take precedence)

- 3/02 . with forced circulation, e.g. by pumps
- 3/04 . with the water under high pressure
- 3/06 . . Arrangements or devices for maintaining high pressure
- 3/08 . in combination with systems for domestic hot-water supply
- 3/10 . Feed-line arrangements, e.g. providing for heat-accumulator tanks, expansion tanks
- 3/12 . 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]

- 3/14 . . incorporated in a ceiling, wall or floor [4]

- 3/16 . . mounted on, or adjacent to, a ceiling, wall or floor [4]

- 3/18 . using heat pumps [5]

5/00 Hot-air central heating systems (F24D 10/00, F24D 11/00 take precedence; air conditioning F24F);
Exhaust-gas central heating systems

- 5/02 . operating with discharge of hot air into the space or area to be heated
- 5/04 . . with return of the air to the air heater
- 5/06 . operating without discharge of hot air into the space or area to be heated
- 5/08 . . with hot air led through radiators
- 5/10 . . with hot air led through heat-exchange ducts in the walls, floor, or ceiling
- 5/12 . using heat pumps [5]

7/00 Central heating systems employing heat-transfer fluids not covered by groups F24D 1/00 to F24D 5/00, e.g. oil, salt, gas (F24D 10/00, F24D 11/00 take precedence)

9/00 Central heating systems employing combinations of heat-transfer fluids covered by two or more of groups F24D 1/00 to F24D 7/00 (F24D 10/00, F24D 11/00 take precedence)

- 9/02 . Hot water and steam systems

10/00 District heating systems [5]

11/00 Central heating systems using heat accumulated in storage masses (self-contained storage heating units F24D 15/02; storage masses, see the relevant subclasses)

- 11/02 . using heat pumps

F24D

12/00	Other central heating systems	17/00	Domestic hot-water supply systems (combined with domestic- or space-heating systems F24D 1/00 to F24D 15/00)
12/02	. having more than one heat source (F24D 3/18, F24D 5/12, F24D 11/02 take precedence) [5]	17/02	. using heat pumps [5]
<u>Other domestic- or space-heating systems</u>			
13/00	Electric heating systems (electric water or air heaters F24H)	19/00	Details (of water or air heaters F24H 9/00; of heat-exchange or heat-transfer apparatus, of general application F28F) [3]
13/02	. solely using resistance heating, e.g. underfloor heating	19/02	. Arrangement of mountings or supports for radiators [3]
13/04	. using electric heating of heat-transfer fluid in separate units of the system	19/04	. . in skirtings [3]
15/00	Other domestic- or space-heating systems	19/06	. Casings, cover lids or ornamental panels, for radiators [3]
15/02	. consisting of self-contained heating units, e.g. storage heaters [3]	19/08	. Arrangements for drainage, venting or aerating (valves for drainage F16K, e.g. F16K 21/00, for venting or aerating F16K 24/00) [3]
15/04	. using heat pumps [5]	19/10	. Arrangement or mounting of control or safety devices (control valves F16K; only the heater being controlled F24H 9/20) [3]
