

CPC**COOPERATIVE PATENT CLASSIFICATION****B60H****ARRANGEMENTS OR ADAPTATIONS OF HEATING, COOLING, VENTILATING, OR OTHER AIR-TREATING DEVICES SPECIALLY FOR PASSENGER OR GOODS SPACES OF VEHICLES****NOTE**

Attention is drawn to the Note following the title of class B60

B60H 1/00

Heating, cooling or ventilating devices (heating, cooling or ventilating devices providing other air treatment, the other treatment being relevant, [B60H 3/00](#); ventilating solely by opening windows, doors, roof parts, or the like [B60J](#); heating or ventilating devices for vehicle seats [B60N 2/56](#); vehicle window or windscreen cleaners using air, e.g. defrosters, [B60S 1/54](#))

NOTE

In this group and its subgroups, as well as in patent documents, the following abbreviation is used:- HVAC Heating, Ventilating and Air Conditioning

- B60H 1/00007 . { Combined heating, ventilating, or cooling devices (**control systems or mechanisms** [B60H 1/00642](#))}
- B60H 1/00014 .. {for load cargos on load transporting vehicles}
- B60H 1/00021 .. { Air flow details of the heating, ventilating and cooling [HVAC] devices}
- B60H 1/00028 ... { Constructional lay-out of the devices in the vehicle}
- B60H 1/00035 ... {for sending an air stream of uniform temperature into the passenger compartment}
- B60H 1/00042 {the air passing only one heat exchanger}
- B60H 1/0005 {the air being firstly cooled and subsequently heated or vice-versa}
- B60H 1/00057 {the air being heated and cooled simultaneously, e.g. using parallel heat exchangers}
- B60H 1/00064 ... {for sending air streams of different temperatures into the passenger compartment}
- B60H 1/00071 {the air passing only one heat exchanger}
- B60H 1/00207 .. { characterised by the position of the HVAC devices with respect to the passenger compartment ([B60H 1/00021](#) **takes precedence**)}
- B60H 1/0025 . {the devices being independent of the vehicle}
- B60H 1/00257 .. {Non-transportable devices, disposed outside the vehicle, e.g. on a parking}
- B60H 1/00264 .. {Transportable devices}
- B60H 1/00271 . { Heating, cooling or ventilating devices specially adapted for particular vehicle parts or components and being connected to the vehicle HVAC unit}
- B60H 1/00278 .. {for the battery (**arrangement of batteries** [B60R 16/04](#))}

- B60H 1/00285 . . { for vehicle seats (vehicle seats with heating or ventilation means independent from the HVAC system of the vehicle [B60N 2/56](#))}
- B60H 1/00292 . . { for steering wheels (steering wheels with heating or ventilation means independent from the HVAC system of the vehicle [B62D 1/065](#))}
- B60H 1/00314 . {Arrangements permitting a rapid heating of the heating liquid ([B60H 1/00492](#), [B60H 1/03](#) take precedence; aiding engine start by heating of engine coolants [F02N 17/06](#))}
- B60H 1/00321 . {Heat exchangers for air-conditioning devices ([B60H 1/3227](#) takes precedence)}
- B60H 1/00328 . . {of the liquid-air type}
- B60H 1/00335 . . {of the gas-air type ([B60H 1/18](#) takes precedence)}
- B60H 1/00342 . . { of the liquid-liquid type}
- B60H 1/00357 . {Air-conditioning arrangements specially adapted for particular vehicles}
- B60H 1/00364 . . {for caravans or trailers}
- B60H 1/00371 . . {for vehicles carrying large numbers of passengers e.g. buses}
- B60H 1/00378 . . {for tractor or load vehicle cabins}
- B60H 1/00385 . . {for vehicles having an electrical drive, e.g. hybrid or fuel cell}
- B60H 1/00392 . . . { for electric vehicles having only electric drive means}
- B60H 1/004 . . . { for vehicles having a combustion engine and electric drive means, e.g. hybrid electric vehicles}
- B60H 1/00407 . . { for open or convertible vehicles}
- B60H 1/00414 . . { for military, emergency, safety or security vehicles}
- B60H 1/00421 . {Driving arrangements for parts of a vehicle air-conditioning ([B60H 1/3222](#) takes precedence; auxiliary drives per se for vehicles [B60K 25/00](#))}
- B60H 1/00428 . . {electric}
- B60H 1/00435 . . {fluid or pneumatic}
- B60H 1/00442 . . . {using a vacuum}
- B60H 1/0045 . . {mechanical power take-offs from the vehicle propulsion unit}
- B60H 1/00457 . {Ventilation unit, e.g. combined with a radiator (control systems for ventilators [B60H 1/00828](#))}
- B60H 1/00464 . . {The ventilator being of the axial type}
- B60H 1/00471 . . {The ventilator being of the radial type, i.e. with radial expulsion of the air}
- B60H 1/00478 . { Air-conditioning devices using the Peltier effect (for air-conditioning in general [F24F 5/00D](#); for refrigeration [F25B 21/02](#); electric devices exhibiting the Peltier effect [H01L 35/00](#))}
- B60H 1/00485 . {Valves for air-conditioning devices, e.g. thermostatic valves (valves per se [F16K](#); thermostatic valves per se [G05D 23/02](#))}
- B60H 1/00492 . {characterised by comprising regenerative heating or cooling means, e.g. heat accumulators}
- B60H 1/005 . . {Regenerative cooling means, e.g. cold accumulators}
- B60H 1/00507 . {Details, e.g. mounting arrangements, desaeration devices ([B60H 1/32](#) takes

- precedence))
- B60H 1/00514 . . {Details of air conditioning housings}
 - B60H 1/00521 . . . {Mounting or fastening of components in housings, e.g. heat exchangers, fans, electronic regulators}
 - B60H 1/00528 . . . {Connections between housing parts}
 - B60H 1/00535 . . . {Mounting or fastening of the housing to the vehicle}
 - B60H 1/00542 . . . {Modular assemblies}
 - B60H 1/0055 . . . {the housing or parts thereof being integrated in other devices, e.g. dashboard}
 - B60H 1/00557 . . {Details of ducts or cables}
 - B60H 1/00564 . . . {of air ducts}
 - B60H 1/00571 . . . {of liquid ducts, e.g. for coolant liquids or refrigerants}
 - B60H 1/00578 . . . {of bowden wires}
 - B60H 1/00585 . . {Means for monitoring, testing or servicing the air-conditioning}
 - B60H 1/00592 . . {Add-on devices, e.g. heat/cooling boxes, compartment dividers, upgrade sets}

 - B60H 1/00642 . {Control systems or circuits, control members or indication devices for heating, cooling or ventilating devices ([B60H 1/3201](#) - [B60H 1/3208](#), [B60H 1/3225](#) take precedence; dashboards [B60K 37/00](#); systems for controlling or regulating non-electric variables in general [G05D](#))}
 - B60H 1/0065 . . {Control members, e.g. levers or knobs ([B60H 1/00985](#) takes precedence)}
 - B60H 1/00657 . . . { Remote control devices}
 - B60H 1/00664 . . {Construction or arrangement of damper doors (control systems or circuits for damper doors [B60H 1/00835](#))}
 - B60H 1/00671 . . . {Damper doors moved by rotation ; Grilles}
 - B60H 1/00678 {the axis of rotation being in the door plane, e.g. butterfly doors}
 - B60H 1/00685 {the door being a rotating disc or cylinder or part thereof ([B60H 1/00678](#) takes precedence)}
 - B60H 1/00692 . . . {Damper doors moved by translation, e.g. curtain doors}
 - B60H 1/00735 . . {Control systems or circuits characterised by their input, i.e. by the detection, measurement or calculation of particular conditions, e.g. signal treatment, dynamic models}
 - B60H 1/00742 . . . {by detection of the vehicle occupants` presence; by detection of conditions relating to the body of occupants, e.g. using radiant heat detectors}
 - B60H 1/0075 . . . {the input being solar radiation}
 - B60H 1/00757 . . . {by the input of sound, e.g. by using a voice synthesizer}
 - B60H 1/00764 . . . {the input being a vehicle driving condition, e.g. speed ([B60H 1/00828](#), [B60H 1/00864](#) take precedence)}
 - B60H 1/00771 { the input being a vehicle position or surrounding, e.g. GPS-based position or tunnel}
 - B60H 1/00778 { the input being a stationary vehicle position, e.g. parking or stopping}
 - B60H 1/00785 . . . {by the detection of humidity or frost}
 - B60H 1/00792 . . . {Arrangement of detectors ([B60H 1/00742](#), [B60H 1/0075](#), [B60H 1/00785](#) take precedence)}
 - B60H 1/008 . . . { the input being air quality}
 - B60H 1/00807 . . . { the input being a specific way of measuring or calculating an air or coolant

		temperature}
B60H 1/00814	..	{Control systems or circuits characterised by their output, for controlling particular components of the heating, cooling or ventilating installation}
B60H 1/00821	...	{the components being ventilating, air admitting or air distributing devices}
B60H 1/00828	....	{Ventilators, e.g. speed control (1/00Y6A4 takes precedence)}
B60H 1/00835	....	{Damper doors, e.g. position control (construction or arrangement of damper doors B60H 1/00664 ; B60H 1/00864 takes precedence)}
B60H 1/00842	.....	{the system comprising a plurality of damper doors; Air distribution between several outlets}
B60H 1/00849	.....	{for selectively commanding the induction of outside or inside air (1/00Y6A3A takes precedence)}
B60H 1/00857	.....	{characterised by the means connecting the initiating means, e.g. control lever, to the damper door}
B60H 1/00864	....	{Ventilators and damper doors}
B60H 1/00871	....	{Air directing means, e.g. blades in an air outlet (construction of nozzles or air diffusers B60H 1/34)}
B60H 1/00878	...	{the components being temperature regulating devices (B60H 1/00899 takes precedence; constructions of valves B60H 1/00485)}
B60H 1/00885	....	{Controlling the flow of heating or cooling liquid, e.g. valves or pumps (B60H 1/00899 takes precedence; constructions of valves B60H 1/00485)}
B60H 1/00892	....	{Devices specially adapted for avoiding uncomfortable feeling, e.g. sudden temperature changes (B60H 1/00885 takes precedence)}
B60H 1/00899	....	{Controlling the flow of liquid in a heat pump system (controlling the properties of the refrigerant liquid, e.g. pressure or temperature, B60H 1/3204)}
B60H 1/00907	.....	{where the flow direction of the refrigerant changes and an evaporator becomes condenser}
B60H 1/00914	.....	{where the flow direction of the refrigerant does not change and there is a bypass of the condenser}
B60H 1/00921	.....	{where the flow direction of the refrigerant does not change and there is an extra subcondenser, e.g. in an air duct}
B60H 1/00964	..	{Control systems or circuits characterised by including features for automatic and non-automatic control, e.g. for changing from automatic to manual control}
B60H 1/00971	..	{Control systems or circuits characterised by including features for locking or memorising of control modes}
B60H 1/00978	..	{Control systems or circuits characterised by failure of detection or safety means; Diagnostic methods}
B60H 1/00985	..	{Control systems or circuits characterised by display or indicating devices, e.g. voice simulators (characterised by the input of sound using a voice synthesizer B60H 1/00757 ; B60H 1/00978 takes precedence)}
B60H 1/02	.	the heat being derived from the propulsion plant {(B60H 1/00492 takes precedence)}
B60H 1/025	..	{from both the cooling liquid and the exhaust gases of the propulsion plant}
B60H 1/03	..	and from a source other than the propulsion plant
B60H 1/032	...	{from the cooling liquid of the propulsion plant and from a burner}
B60H 1/034	...	{from the cooling liquid of the propulsion plant and from an electric heating device}
B60H 1/036	...	{from the plant exhaust gases and from a burner}

B60H 1/038	...	{from the cooling liquid of the propulsion plant and from a viscous fluid heater}
B60H 1/04	..	from cooling liquid of the plant {(B60H 1/025, B60H 1/03 take precedence)}
B60H 1/06	...	directly from main radiator
B60H 1/08	...	from other radiator than main radiator
B60H 1/10	....	the other radiator being situated in a duct capable of being connected to atmosphere outside vehicle
B60H 1/12	.....	using an air blower
B60H 1/14	..	otherwise than from cooling liquid of the plant {e.g. heat from the grease oil, the brakes, the transmission unit (B60H 1/03 takes precedence)}
B60H 1/143	...	{ the heat being derived from cooling an electric component, e.g. electric motors, electric circuits, fuel cells or batteries}
B60H 1/16	...	the air being heated by direct contact with the plant, e.g. air-cooled motor
B60H 1/18	...	the air being heated from the plant exhaust gases {(B60H 1/025 takes precedence; exhaust or silencing apparatus associated with devices profiting by exhaust energy F01N 5/00)}
B60H 1/20	....	using an intermediate heat-transferring medium
B60H 1/22	.	the heat being derived otherwise than from the propulsion plant {(B60H 1/0025, B60H 1/00492 and B60H 1/03 take precedence)}
B60H 1/2203	..	{ the heat being derived from burners (burners in general F23C, F23D, F24H 9/18)}
B60H 1/2206	...	{ controlling the operation of burners (control of burners in general F23N 5/00)}
B60H 1/2209	...	{ arrangements of burners for heating an intermediate liquid (B60H 1/032 takes precedence)}
B60H 1/2212	...	{ arrangements of burners for heating air}
B60H 1/2215	..	{ the heat being derived from electric heaters (in general H05B; for electric traction vehicles B60L 1/02)}
B60H 1/2218	...	{ controlling the operation of electric heaters}
B60H 1/2221	...	{ arrangements of electric heaters for heating an intermediate liquid (B60H 1/034 takes precedence)}
B60H 1/2225	...	{ arrangements of electric heaters for heating air}
B60H 1/24	.	Devices purely for ventilating or where the heating or cooling is irrelevant (nozzles, air-diffusers B60H 1/34)
B60H 1/241	..	{ characterised by the location of ventilation devices in the vehicle}
B60H 1/242	...	{ located in the front area}
B60H 1/243	...	{ located in the lateral area (e.g. doors, pillars)}
B60H 1/244	...	{ located in the rear area}
B60H 1/245	...	{ located in the roof}
B60H 1/246	...	{ located in the interior of the vehicle or in or below the floor}
B60H 1/247	..	{ Disposition of several air-diffusers in a vehicle for ventilation-air circulation in a vehicle cabin}
B60H 1/248	..	{Air-extractors, air-evacuation from the vehicle interior}
B60H 1/249	...	{using one-way valves}
B60H 1/26	..	Ventilating openings in vehicle exterior; Ducts for conveying ventilating air
B60H 1/262	...	{Openings in or on the vehicle roof}

- B60H 1/265 . . . {Openings in window or door past or pillars (door pasts per se [B62D 25/14](#); **B62D 1/24D takes precedence**)}
- B60H 1/267 . . . {Openings in or near to vehicle windows (pivoting side windows [B60J 1/14](#); wind deflectors associated with windows for ventilating [B60J 1/20](#))}
- B60H 1/28 . . . the openings being situated directly in front of vehicle front window
- B60H 1/30 . . . Air scoops

- B60H 1/32 . Cooling devices ({[B60H 1/00478](#), [B60H 1/005](#) take precedence;} vehicles adapted to transport refrigerated goods [B60P 3/20](#))
- B60H 1/3201 . . {using absorption or adsorption (in general [F25B 15/00](#), [F25B 17/00](#))}
- B60H 1/3202 . . {using evaporation, i.e. not including a compressor, e.g. involving fuel or water evaporation ([B60H 1/3235](#) takes precedence; in general [F25B 19/00](#), [F25D 7/00](#))}
- B60H 1/3204 . . {using compression ([B60H 1/3233](#) takes precedence; in general [F25B](#), [F25D](#))}
- B60H 1/3205 . . . {Control means therefor}
- B60H 1/3207 {for minimizing the humidity of the air}
- B60H 1/3208 {Vehicle drive related control of the compressor drive means, e.g. for fuel saving purposes}
- B60H 1/321 {for preventing the freezing of a heat exchanger}
- B60H 1/3211 {for increasing the efficiency of a vehicle refrigeration cycle}
- B60H 1/3213 {for increasing the efficiency in a vehicle heat pump}
- B60H 1/3214 {for improving the lubrication of a refrigerant compressor in a vehicle}
- B60H 1/3216 {for improving a change in operation duty of a compressor in a vehicle}
- B60H 1/3217 {for high pressure, inflammable or poisonous refrigerants causing danger in case of accidents}
- B60H 1/3219 {for improving the response time of a vehicle refrigeration cycle}
- B60H 1/322 {for improving the stop or idling operation of the engine}
- B60H 1/3222 . . . {characterised by the compressor driving arrangements, e.g. clutches, transmissions or multiple drives ([B60H 1/3208](#), [B60H 1/3226](#) take precedence)}
- B60H 1/3223 . . . {characterised by the arrangement or type of the compressor ([B60H 1/3222](#) takes precedence)}
- B60H 1/3225 . . . {characterised by safety arrangements, e.g. compressor anti-seizure means or by signalling devices}
- B60H 1/3226 . . . {Self-contained devices, i.e. including own drive motor}
- B60H 1/3227 . . . {characterised by the arrangement or the type of heat exchanger, e.g. condenser, evaporator (condensed liquid drainage means [B60H 1/3233](#))}
- B60H 1/3229 . . . {characterised by constructional features, e.g. housings, mountings, conversion systems ([B60H 1/3227](#), [B60H 1/3233](#) take precedence)}
- B60H 1/323 . . . {characterised by comprising auxiliary or multiple systems, e.g. plurality of evaporators, or by involving auxiliary cooling devices}
- B60H 1/3232 . . . {particularly adapted for load transporting vehicles ([B60H 1/3226](#) takes precedence)}
- B60H 1/3233 . . {characterised by condensed liquid drainage means}
- B60H 1/3235 . . {using sublimation, e.g. dry ice cooling or melting ice}

- B60H 1/34 . Nozzles; Air-diffusers [N: (dispositions of air diffusers in a vehicle [B60H 1/247](#))
- B60H 1/3407 . . {providing an air stream in a fixed direction, e.g. using a grid or porous panel}

- B60H 1/3414 .. {with means for adjusting the air stream direction ([B60H 1/345](#) takes precedence)}
- B60H 1/3421 ... {using only pivoting shutters}
- B60H 1/3428 ... {using a set of pivoting shutters and a pivoting frame}
- B60H 1/3435 ... {using only a pivoting frame}
- B60H 1/3442 {the frame being spherical}
- B60H 1/345 .. {with means for adjusting divergence, convergence or oscillation of air stream}
- B60H 1/3457 .. { Outlets providing a vortex, i.e. a spirally wound air flow}

B60H 3/00**Other air-treating devices**

- B60H 3/0007 . {Adding substances other than water to the air, e.g. perfume, oxygen}
- B60H 3/0014 .. { characterised by the location of the substance adding device}
- B60H 3/0021 ... { in the air-conditioning housing}
- B60H 3/0028 ... { on or near an air outlet}
- B60H 3/0035 .. { characterised by the control methods for adding the substance}

- B60H 3/0071 . {Electrically conditioning the air, e.g. by ionizing}
- B60H 3/0078 .. {comprising electric purifying means}

- B60H 3/0085 . [N: Smell or pollution preventing arrangements ([B60H 3/0007](#), [B60H 3/0071](#), [B60H 3/02](#), [B60H 3/06](#) take precedence)
- B60H 3/0092 .. { in the interior of the HVAC unit, e.g. by spraying substances inside the unit}

- B60H 3/02 . Moistening; { Devices influencing humidity levels, i.e. humidity control ([B60H 1/3202](#), [B60H 1/3207](#) take precedence)}
- B60H 3/022 .. { for only humidifying the air}
- B60H 3/024 .. { for only dehumidifying the air}

- B60H 3/06 . Filtering {([B60H 3/0078](#) takes precedence)}
- B60H 3/0608 .. {Filter arrangements in the air stream}
- B60H 3/0616 ... {with provisions for replacing the filter element}
- B60H 3/0625 ... {with provisions for by-passing the filter element}
- B60H 3/0633 ... {with provisions for regenerating or cleaning the filter element}
- B60H 3/0641 ... {near ventilating openings in the vehicle exterior}
- B60H 3/0658 .. { Filter elements specially adapted for their arrangement in vehicles ([B60H 3/0608](#) takes precedence)}

B60H 2001/00

Heating, cooling or ventilating devices (heating, cooling or ventilating devices providing other air treatment, the other treatment being relevant, [B60H 3/00](#); ventilating solely by opening windows, doors, roof parts, or the like [B60J](#); heating or ventilating devices for vehicle seats [B60N 2/56](#); vehicle window or windscreen cleaners using air, e.g. defrosters, [B60S 1/54](#))

NOTE

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- B60H 2001/00007 . { Combined heating, ventilating, or cooling devices (control systems or mechanisms [B60H 1/00642](#))}
- B60H 2001/00021 .. { Air flow details of the heating, ventilating and cooling [HVAC] devices]
- [B60H 2001/00078](#) ... Assembling, manufacturing or layout details
- [B60H 2001/00085](#) of air intake
- [B60H 2001/00092](#) of air deflecting or air directing means inside the device
- [B60H 2001/00099](#) comprising additional ventilating means
- [B60H 2001/00107](#) characterised by the relative position of the heat exchangers, e.g. arrangements leading to a curved airflow
- [B60H 2001/00114](#) ... Heating or cooling details
- [B60H 2001/00121](#) More than one heat exchanger in parallel
- [B60H 2001/00128](#) Electric heaters
- [B60H 2001/00135](#) Dividing walls for separate air flows
- [B60H 2001/00142](#) first heating and then cooling
- [B60H 2001/0015](#) ... Temperature regulation
- [B60H 2001/00157](#) without by-pass
- [B60H 2001/00164](#) with more than one by-pass
- [B60H 2001/00171](#) Valves on heaters for modulated liquid flow
- [B60H 2001/00178](#) comprising an air passage from the HVAC box to the exterior of the cabin
- [B60H 2001/00185](#) ... Distribution of conditioned air
- [B60H 2001/00192](#) to left and right part of passenger compartment
- [B60H 2001/002](#) to front and rear part of passenger compartment
- B60H 2001/00207 .. { characterised by the position of the HVAC devices with respect to the passenger compartment ([B60H 1/00021](#) takes precedence)}
- [B60H 2001/00214](#) ... Devices in front of the passenger compartment
- [B60H 2001/00221](#) ... Devices in the floor or side wall area of the passenger compartment
- [B60H 2001/00228](#) ... Devices in the interior of the passenger compartment
- [B60H 2001/00235](#) ... Devices in the roof area of the passenger compartment
- [B60H 2001/00242](#) ... Devices in the rear area of the passenger compartment
- B60H 2001/00271 . { Heating, cooling or ventilating devices specially adapted for particular vehicle parts or components and being connected to the vehicle HVAC unit}
- [B60H 2001/003](#) .. Component temperature regulation using an air flow
- [B60H 2001/00307](#) .. Component temperature regulation using a liquid flow
- B60H 2001/00321 . {Heat exchangers for air-conditioning devices ([B60H 1/3227](#) takes precedence)}
- [B60H 2001/0035](#) .. movable in and out of the air stream
- B60H 2001/00507 . {Details, e.g. mounting arrangements, desaeration devices ([B60H 1/32](#) takes

- precedence)}
- B60H 2001/006 .. Noise reduction
 - B60H 2001/00607 .. Recycling
 - B60H 2001/00614 .. Cooling of electronic units in air stream
 - B60H 2001/00621 .. Fastening lids on air-conditioning housings
 - B60H 2001/00628 .. Adaption for left or right hand drive
 - B60H 2001/00635 .. Air-tight sealing devices

 - B60H 2001/00642 . {Control systems or circuits, control members or indication devices for heating, cooling or ventilating devices ([B60H 1/3201](#) - [B60H 1/3208](#), [B60H 1/3225](#) take precedence; dashboards [B60K 37/00](#); systems for controlling or regulating non-electric variables in general [G05D](#))}
 - B60H 2001/00664 .. {Construction or arrangement of damper doors (control systems or circuits for damper doors [B60H 1/00835](#))}
 - B60H 2001/007 ... Manufacturing or assembling
 - B60H 2001/00707 ... Details of pivots of damper doors
 - B60H 2001/00714 ... Details of seals of damper doors
 - B60H 2001/00721 ... Air deflecting or air directing means
 - B60H 2001/00728 ... Film doors
 - B60H 2001/00814 .. {Control systems or circuits characterised by their output, for controlling particular components of the heating, cooling or ventilating installation}
 - B60H 2001/00878 ... {the components being temperature regulating devices ([B60H 1/00899](#) takes precedence; constructions of valves [B60H 1/00485](#))}
 - B60H 2001/00928 comprising a secondary circuit
 - B60H 2001/00935 comprising four way valves for controlling the fluid direction
 - B60H 2001/00942 comprising a plurality of heat exchangers, e.g. for multi zone heating or cooling
 - B60H 2001/00949 comprising additional heating/cooling sources, e.g. second evaporator
 - B60H 2001/00957 comprising locations with heat exchange within the refrigerant circuit itself, e.g. cross-, counter-, or parallel heat exchange
 - B60H 2001/00992 .. Calculations modifying a user set value

 - B60H 2001/02 . the heat being derived from the propulsion plant {([B60H 1/00492](#) takes precedence)}
 - B60H 2001/14 .. otherwise than from cooling liquid of the plant {e.g. heat from the grease oil, the brakes, the transmission unit ([B60H 1/03](#) takes precedence)}
 - B60H 2001/146 ... from a viscous fluid heater

 - B60H 2001/22 . the heat being derived otherwise than from the propulsion plant {([B60H 1/0025](#), [B60H 1/00492](#) and [B60H 1/03](#) take precedence)}
 - B60H 2001/2228 .. controlling the operation of heaters
 - B60H 2001/2231 ... for proper or safe operation of the heater
 - B60H 2001/2234 ... when vehicle is parked, preheating
 - B60H 2001/2237 ... supplementary heating, e.g. during stop and go of a vehicle
 - B60H 2001/224 ... automatic operation, e.g. control circuits or methods
 - B60H 2001/2243 ... manual operation, e.g. remote control or timer

- B60H 2001/2246 . . . obtaining information from a variable, e.g. by means of a sensor
- B60H 2001/225 . . . related to an operational state of another HVAC device
- B60H 2001/2253 . . . related to an operational state of the vehicle or a vehicle component
- B60H 2001/2256 . . . related to the operation of the heater itself, e.g. flame detection or overheating
- B60H 2001/2259 . . . output of a control signal
- B60H 2001/2262 . . . related to the period of on/off time of the heater
- B60H 2001/2265 . . . related to the quantity of heat produced by the heater
- B60H 2001/2268 . . . Constructional features
- B60H 2001/2271 . . . Heat exchangers, burners, ignition devices
- B60H 2001/2275 . . . Thermoelectric converters for generating electrical energy
- B60H 2001/2278 . . . Connectors, water supply, housing, mounting brackets
- B60H 2001/2281 . . . Air supply, exhaust systems
- B60H 2001/2284 . . . Fuel supply
- B60H 2001/2287 . . . Integration into a vehicle HVAC system or vehicle dashboard
([B60H 2001/00128](#) takes precedence)
- B60H 2001/229 . . . Integration into an air outlet
- B60H 2001/2293 . . . Integration into other parts of a vehicle
- B60H 2001/2296 . . . integration into fluid/air heat exchangers

- B60H 2001/32 . . . Cooling devices ([B60H 1/00478](#), [B60H 1/005](#) take precedence;} vehicles adapted to transport refrigerated goods [B60P 3/20](#))
- B60H 2001/3236 . . . information from a variable is obtained
- B60H 2001/3238 . . . related to the operation of the compressor
- B60H 2001/3239 . . . related to flow
- B60H 2001/3241 of air
- B60H 2001/3242 of a refrigerant
- B60H 2001/3244 . . . related to humidity
- B60H 2001/3245 of air
- B60H 2001/3247 of a refrigerant
- B60H 2001/3248 . . . related to pressure
- B60H 2001/325 of the refrigerant at a compressing unit
- B60H 2001/3251 of the refrigerant at a condensing unit
- B60H 2001/3252 of the refrigerant at an evaporating unit
- B60H 2001/3254 of the refrigerant at an expansion unit
- B60H 2001/3255 . . . related to temperature
- B60H 2001/3257 of the refrigerant at a compressing unit
- B60H 2001/3258 of the air at a condensing unit
- B60H 2001/326 of the refrigerant at a condensing unit
- B60H 2001/3261 of the air at an evaporating unit
- B60H 2001/3263 of the refrigerant at an evaporating unit
- B60H 2001/3264 of the refrigerant at an expansion unit
- B60H 2001/3266 . . . related to the operation of the vehicle
- B60H 2001/3267 . . . related to the operation of an expansion valve

B60H 2001/3269	..	output of a control signal
B60H 2001/327	...	related to a compressing unit
B60H 2001/3272	....	to control the revolving speed of a compressor
B60H 2001/3273	....	related to the operation of the vehicle , e.g. the compressor driving torque
B60H 2001/3275	....	to control the volume of a compressor
B60H 2001/3276	...	related to a condensing unit
B60H 2001/3277	....	to control the air flow
B60H 2001/3279	....	to control the refrigerant flow
B60H 2001/328	...	related to an evaporating unit
B60H 2001/3282	....	to control the air flow
B60H 2001/3283	....	to control the refrigerant flow
B60H 2001/3285	...	related to an expansion unit
B60H 2001/3286	..	Constructional features
B60H 2001/3288	...	Additional heat source
B60H 2001/3289	...	Additional cooling source
B60H 2001/3291	...	Locations with heat exchange within the refrigerant circuit itself
B60H 2001/3292	...	Compressor drive is electric only
B60H 2001/3294	...	Compressor drive is hybrid
B60H 2001/3295	...	Compressing means other than compressor
B60H 2001/3297	...	Expansion means other than expansion valve
B60H 2001/3298	...	Ejector-type refrigerant circuits

B60H 2001/34	.	Nozzles; Air-diffusers [N: (dispositions of air diffusers in a vehicle B60H 1/247)
B60H 2001/3464	..	Details of hinges
B60H 2001/3471	..	Details of actuators
B60H 2001/3478	...	acting on additional damper doors
B60H 2001/3485	..	Air temperature regulation
B60H 2001/3492	..	Manufacturing; Assembling

B60H 2003/00 Other air-treating devices

B60H 2003/0007	.	{ Adding substances other than water to the air, e.g. perfume, oxygen }
B60H 2003/0042	..	with ventilating means for adding the substances
B60H 2003/005	..	with heating means for adding the substances
B60H 2003/0057	..	Servicing means therefor, e.g. for renewal of substances
B60H 2003/0064	..	adding more than one substance
B60H 2003/02	.	Moistening; { Devices influencing humidity levels, i.e. humidity control (B60H 1/3202, B60H 1/3207 take precedence) }
B60H 2003/026	..	the devices being located in the passenger compartment
B60H 2003/028	..	the devices comprising regeneration means
B60H 2003/06	.	Filtering {(B60H 3/0078 takes precedence)}

- B60H 2003/0608 . . {Filter arrangements in the air stream}
- B60H 2003/065 . . . Details for holding filter elements in position
- B60H 2003/0658 . . { Filter elements specially adapted for their arrangement in vehicles ([B60H 3/0608](#) takes precedence)}
- B60H 2003/0666 . . . the filter element having non-rectangular shape
- B60H 2003/0675 . . Photocatalytic filters
- B60H 2003/0683 . . the quality of the filter or the air being checked
- B60H 2003/0691 . . Adsorption filters, e.g. activated carbon