

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 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](#) {Deviding 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 1/00207	..	{ 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 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 2001/003	..	{Component temperature regulation using an air flow }
B60H 2001/00307	..	{Component temperature regulation using a liquid flow }
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 19/10)}
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 2001/0035	..	{movable in and out of the air stream }
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 5/0042 ; 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 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 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 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 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 ([B60H 1/00864](#) 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 (B60H 1/00842 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 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 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 2001/00992	..	{Calculations modifying a user set value }
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 2001/146	...	{from a viscous fluid heater }
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 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 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](#);
[B60H 1/248](#) 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 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 1/34	.	Nozzles; { Air-diffusers } (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 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 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 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 3/0071 . {Electrically conditioning the air, e.g. by ionizing}
- B60H 3/0078 . . {comprising electric purifying means}
- B60H 3/0085 . {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 2003/026 . . {the devices being located in the passenger compartment }
- B60H 2003/028 . . {the devices comprising regeneration means }
- 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 2003/065 . . . {Details for holding filter elements in position }
- B60H 3/0658 . . { 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 }