

**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 conditionned 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 ( <a href="#">B60H 1/00021</a> 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 ( <a href="#">arrangement of batteries B60R 16/04</a> )}
B60H 1/00285	. . {for vehicle seats (vehicle seats with heating or ventilation means independent from the HVAC system of the vehicle <a href="#">B60N 2/56</a> )}
B60H 1/00292	. . {for steering wheels (steering wheels with heating or ventilation means independent from the HVAC system of the vehicle <a href="#">B62D 1/065</a> )}
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 ( <a href="#">B60H 1/00492</a> , <a href="#">B60H 1/03</a> take precedence; aiding engine start by heating of engine coolants <a href="#">F02N 19/10</a> )}
B60H 1/00321	. {Heat exchangers for air-conditioning devices ( <a href="#">B60H 1/3227</a> takes precedence)}
B60H 1/00328	. . {of the liquid-air type}
B60H 1/00335	. . {of the gas-air type ( <a href="#">B60H 1/18</a> 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 ( <a href="#">B60H 1/3222</a> takes precedence; auxiliary drives per se for vehicles <a href="#">B60K 25/00</a> )}
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 ( <a href="#">control systems for ventilators B60H 1/00828</a> )}
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 ( <a href="#">for air-conditioning in general F24F 5/0042</a> ; <a href="#">for refrigeration F25B 21/02</a> ; electric devices exhibiting the Peltier effect <a href="#">H01L 35/00</a> )}
B60H 1/00485	. {Valves for air-conditioning devices, e.g. thermostatic valves ( <a href="#">valves per se F16K</a> ; <a href="#">thermostatic valves per se G05D 23/02</a> )}
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 ( <a href="#">B60H 1/32</a> 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 ( <a href="#">B60H 1/00842</a> 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 ( <a href="#">construction of nozzles or air diffusers B60H 1/34</a> )}
B60H 1/00878	. . . . .	{the components being temperature regulating devices ( <a href="#">B60H 1/00899</a> takes precedence; <a href="#">constructions of valves B60H 1/00485</a> )}
B60H 1/00885	. . . . .	{Controlling the flow of heating or cooling liquid, e.g. valves or pumps ( <a href="#">B60H 1/00899</a> takes precedence; <a href="#">constructions of valves B60H 1/00485</a> )}
B60H 1/00892	. . . . .	{Devices specially adapted for avoiding uncomfortable feeling, e.g. sudden temperature changes ( <a href="#">B60H 1/00885</a> takes precedence)}
B60H 1/00899	. . . . .	{Controlling the flow of liquid in a heat pump system ( <a href="#">controlling the properties of the refrigerant liquid, e.g. pressure or temperature, B60H 1/3204</a> )}
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 ( <a href="#">characterised by the input of sound using a voice synthesizer B60H 1/00757</a> ; <a href="#">B60H 1/00978</a> takes precedence)}
B60H 2001/00992	. . . . .	{Calculations modifying a user set value}
B60H 1/02	. . . . .	the heat being derived from the propulsion plant {( <a href="#">B60H 1/00492</a> 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 ( <a href="#">B60H 1/3208</a> , <a href="#">B60H 1/3226</a> take precedence)}
B60H 1/3223	. . .	{characterised by the arrangement or type of the compressor ( <a href="#">B60H 1/3222</a> 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 ( <a href="#">condensed liquid drainage means B60H 1/3233</a> )}
B60H 1/3229	. . .	{characterised by constructional features, e.g. housings, mountings, conversion systems ( <a href="#">B60H 1/3227</a> , <a href="#">B60H 1/3233</a> 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 ( <a href="#">B60H 1/3226</a> 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 <a href="#">B60H 1/247</a> )
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 ( <a href="#">B60H 1/345</a> 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}