

Title (en)

Water cooling system with full heat recovery

Title (de)

Wasserkühlsystem mit vollständiger Wärmerückgewinnung

Title (fr)

Système de refroidissement par eau avec récupération de chaleur intégral

Publication

**EP 1614973 A2 20060111 (EN)**

Application

**EP 05014420 A 20050702**

Priority

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Abstract (en)

The present invention relates to a water cooling system with full heat recovery comprising a condenser (3), an evaporator (9), a compressor (1) and an expansion valve (8); the evaporator connects with a cooling water recycling circuit; one side of the condenser (3) is disposed in a position corresponding to a cooling air opening (3-7); the cooling air opening connects with an air pipe (16); the air pipe connects with an indoor air outlet (17) and an outdoor air inlet (18) through subsidiary pipes (16-1;16-2); the other side of the condenser is provided with an exhaust vent (3-5); and a cooling fan (3-6) is disposed between the exhaust vent and the cooling air opening. The present invention utilizes low temperature, low humidity indoor exhaust air as cooling air for the evaporative condenser. It makes use of the sensible heat (temperature difference) of indoor exhaust air as well as the latent heat (humidity difference) of indoor exhaust air, thereby attaining better condensation effects.

IPC 8 full level

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Cited by

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