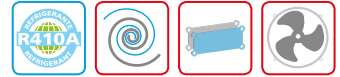


Air cooled liquid chillers units with "Free-Cooling"

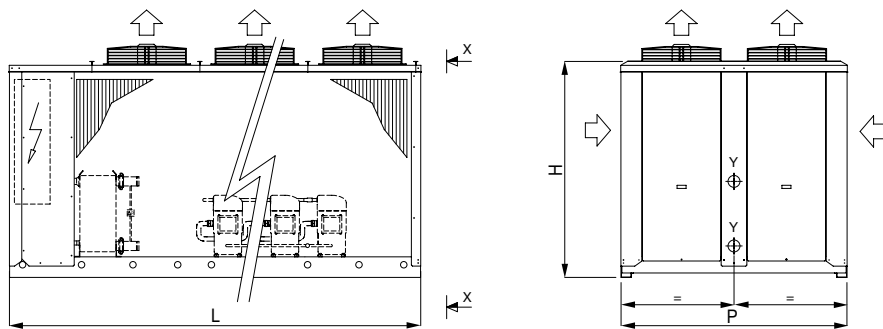


HWA-A/FC

cooling only

TECHNICAL FEATURES

- Frame. Self-supporting galvanized steel frame further protected with polyester powder painting. Easy to remove panels allow access to the inside of the unit for maintenance and other necessary operations.
- Compressors. Scroll with oil sight glass. They are fitted with internal overheat protection and crankcase heater if needed, installed on rubber shock absorbers.
- Fans. Axial fans directly coupled to a three-phase electric motor with external rotor. A safety fan guard is fitted on the air flow discharge.
- Condenser. It consists of two finned coils with copper pipes and aluminium fins.
- Evaporator. In AISI 316 stainless steel braze welded plates type with two independent circuits on the arefrigerant side and one on the water side.
- Electrical board. Includes: main switch with door safety interlock; fuses (models 06205÷12727) or magnetothermic (models 12815 ÷121085), overload protection for compressors and thermocontacts for fans; speed governor for fans, interface relays, electrical terminals for external connections.
- Microprocessor for automatic control of the unit allowing continuous display of the operational status of the unit, control set and real water temperature and, in case of partial or total block of the unit, indication of security device that intervened further to marage Free-Cooling system.
- Refrigerant circuit. Each unit includes two independent refrigerant circuits. Produced in copper tubing, all models have the following components: electronic expansion valves, filter-drier, level and humidity indicator, pressure transducer, high and low pressure switches (with fixed setting) and safety valve (models 08323 ÷121085).
- Water circuit. Includes: heat exchangers, 3-way valve, evaporator, temperature sensor, antifreeze sensor, outside air probe, water inlet probe, differential pressure switch, manual air release valves and water drain.



HWA-A/FC 06205 06232 06259 06286 08323 08360 08395 10434 10476

| | | | | | | | | | | |
|---|----|------|------|------|------|------|------|------|------|------|
| L | mm | 4000 | 4000 | 4000 | 4000 | 5000 | 5000 | 5000 | 5000 | 6200 |
| P | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| H | mm | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 |

HWA-A/FC 12528 12581 12655 12727 12815 12906 121000 121085

| | | | | | | | | | |
|---|----|------|------|------|------|------|------|-------|-------|
| L | mm | 6200 | 6200 | 7200 | 7200 | 8400 | 9600 | 10600 | 10600 |
| P | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| H | mm | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 |

HWA-A/FC

06205 06232 06259 06286 08323 08360

HWA-A/FC

| | | | | | | | | |
|---|------------|------------|-------|-------|-------|-------|-------|---|
| (1) Pot. frigorifera / Cooling capacity / Puis. frigorifique | kW | 208 | 236 | 263 | 290 | 328 | 365 | Kühlleistung / Pot. frigorifica / Cap. de racire (1) |
| (1) Pot. assorbita / Power input / Puiss. absorbée | kW | 76 | 87 | 88 | 98 | 108 | 123 | Leistungsaufnahme / Pot. absorbida / Put. absorbita (1) |
| (1) Pot. calorifica / Heating capacity / Puis. calorifique | kW | -2,0 | -3,0 | -3,0 | -0,0 | -3,0 | -4,0 | Heizleistung / Pot. calorifica / Cap. de incalzire (1) |
| (1) Pot. assorbita / Power input / Puiss. absorbée | kW | 7,0 | 7,0 | 11,0 | 11,0 | 14,0 | 14,0 | Leistungsaufnahme / Pot. absorbida / Put. absorbita (1) |
| Compressori / Compressors / Compresseurs | n. | 3 + 3 | 3 + 3 | 3 + 3 | 3 + 3 | 4 + 4 | 4 + 4 | Kompressoren / Compresores / Compressoare |
| Gradini di parzializzazione / Capacity steps / Etapes de capacité | | 4 | | | | | | Leistungsstufen / Etapas de capacidad / Trepte de capacitate |
| Perdite di carico (1) | kPa | 102 | 126 | 165 | 124 | 112 | 106 | Leistungsaufnahme / Pot. absorbida / Put. absorbita (1) |
| Portata acqua / Water flow / Débit d'eau | l/s | 9,9 | 11,3 | 12,6 | 13,9 | 15,7 | 17,4 | Wasserdurchflussmenge / Caud. de agua / Debit apa |
| Portata aria / Air flow / Débit d'air | m³/s | 21,1 | 21,1 | 27,2 | 26,1 | 36,1 | 36,1 | Luftdurchflussmenge / Caudal de aire / Cap. a |
| R410A | kg | 2x16 | 2x16 | 2x22 | 2x22 | 2x30 | 2x31 | R410A |
| Alimentazione / Power supply / Alimentation | V~, Ph, Hz | 400, 3, 50 | | | | | | Versorgung / Alimentación / Alimentare |
| Corr. max funz. / Max Running current / Cour. refr. | A | 156 | 168 | 185 | 202 | 234 | 252 | Strom Kühlfunktion / Corr. max función / Intens. max. in lucru |
| Corr. max spunto / Max inrush current / Cour. cha. | A | 279 | 301 | 352 | 369 | 367 | 419 | Strom Heizfunktion / Corr.máx. arranque / Intens. max. la pornire |
| Pressione sonora / Sound pressure / Pres. sonore | | | | | | | | Schalldruckpegel / Presión acústica / Nivel de zgomot |
| DIN (3) | dB(A) | 75 | 76 | 77 | 78 | 78 | 79 | DIN (3) |
| ISO (4) | dB(A) | 66 | 67 | 68 | 69 | 69 | 70 | ISO (4) |
| A | mm | 4000 | 4000 | 4000 | 4000 | 5000 | 5000 | A |
| B | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | B |
| C | mm | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | C |
| Peso di trasporto / Transport weight / Poids de transport | kg | 2175 | 2185 | 2360 | 2435 | 2990 | 3020 | Transportgewicht / Peso de transporte / Greutate transport (5) |

HWA-A/FC

08395 10434 10476 12528 12581 12655

HWA-A/FC

| | | | | | | | | |
|---|------------|------------|-------|-------|-------|-------|-------|---|
| (1) Pot. frigorifera / Cooling capacity / Puis. frigorifique | kW | 401 | 441 | 486 | 536 | 590 | 665 | Kühlleistung / Pot. frigorífica / Cap. de racire (1) |
| (1) Pot. assorbita / Power input / Puiss. absorbée | kW | 132 | 147 | 163 | 179 | 199 | 230 | Leistungsaufnahme / Pot. absorbida / Put. absorbida (1) |
| (1) Pot. calorifica / Heating capacity / Puis. calorifique | kW | -1,0 | -2,0 | -1,0 | -2,0 | -3,0 | -3,0 | Heizleistung / Pot. calorífica / Cap. de incalzire (1) |
| (1) Pot. assorbita / Power input / Puiss. absorbée | kW | 14,0 | 14,0 | 18,0 | 18,0 | 18,0 | 18,0 | Leistungsaufnahme / Pot. absorbida / Put. absorbida (1) |
| Compressori / Compressors / Compresseurs | n. | 4 + 4 | 5 + 5 | 5 + 5 | 6 + 6 | 6 + 6 | 6 + 6 | Kompressoren / Compresores / Compresoare |
| Gradini di parzializzazione / Capacity steps / Etapes de capacité | | 4 | 6 | 6 | 8 | 8 | 8 | Leistungsstufen / Etapas de capacidad / Trepte de capacitate |
| Perdite di carico (1) | kPa | 115 | 100 | 120 | 121 | 132 | 148 | Leistungsaufnahme / Pot. absorbida / Put. absorbida (1) |
| Portata acqua / Water flow / Débit d'eau | l/s | 19,2 | 21,1 | 23,1 | 25,6 | 28,2 | 31,8 | Wasserdurchflussmenge / Caud. de agua / Debit apa |
| Portata aria / Air flow / Débit d'air | m³/s | 32,8 | 32,8 | 42,2 | 42,2 | 42,2 | 45,6 | Luftdurchflussmenge / Caudal de aire / Cap. a |
| R410A | kg | 2x38 | 2x40 | 2x50 | 2x52 | 2x52 | 2x58 | R410A |
| Alimentazione / Power supply / Alimentation | V~, Ph, Hz | 400, 3, 50 | | | | | | Versorgung / Alimentación / Alimentare |
| Corr. max funz. / Max Running current / Cour. refr. | A | 270 | 286 | 337 | 371 | 397 | 466 | Strom Kühlfunktion / Corr. max función / Intens. max. in lucru |
| Corr. max spunto / Max inrush current / Cour. cha. | A | 437 | 418 | 504 | 538 | 564 | 640 | Strom Heizfunktion / Corr.máx. arranque / Intens. max. la pornire |
| Pressione sonora / Sound pressure / Pres. sonore | | | | | | | | Schalldruckpegel / Presión acústica / Nivel de zgomot |
| DIN (3) | dB(A) | 80 | 80 | 80 | 80 | 80 | 83 | DIN (3) |
| ISO (4) | dB(A) | 70 | 70 | 71 | 71 | 71 | 74 | ISO (4) |
| A | mm | 5000 | 5000 | 6200 | 6200 | 6200 | 7200 | A |
| B | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | B |
| C | mm | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 | C |
| Peso di trasporto / Transport weight / Poids de transport | kg | 3220 | 3510 | 3920 | 4180 | 4220 | 5060 | Transportgewicht / Peso de transporte / Greutate transport (5) |

HWA-A/FC

12727 12815 12906 121000 121085

HWA-A/FC

| | | | | | | | | |
|---|------------|------------|-------|-------|-------|-------|---|--|
| (1) Pot. frigorifera / Cooling capacity / Puis. frigorifique | kW | 738 | 827 | 920 | 1014 | 1102 | Kühlleistung / Pot. frigorífica / Cap. de racire (1) | |
| (1) Pot. assorbita / Power input / Puiss. absorbée | kW | 266 | 305 | 340 | 368 | 412 | Leistungsaufnahme / Pot. absorbida / Put. absorbida (1) | |
| (1) Pot. calorifica / Heating capacity / Puis. calorifique | kW | -4,0 | -3,0 | 0,0 | 0,0 | 0,0 | Heizleistung / Pot. calorífica / Cap. de incalzire (1) | |
| (1) Pot. assorbita / Power input / Puiss. absorbée | kW | 21,0 | 25,0 | 28,0 | 32,0 | 32,0 | Leistungsaufnahme / Pot. absorbida / Put. absorbida (1) | |
| Compressori / Compressors / Compresseurs | n. | 6 + 6 | 6 + 6 | 6 + 6 | 6 + 6 | 6 + 6 | Kompressoren / Compresores / Compresoare | |
| Gradini di parzializzazione / Capacity steps / Etapes de capacité | | 8 | 8 | 8 | 8 | 8 | Leistungsstufen / Etapas de capacidad / Trepte de capacitate | |
| Perdite di carico (1) | kPa | 152 | 172 | 151 | 162 | 173 | Leistungsaufnahme / Pot. absorbida / Put. absorbida (1) | |
| Portata acqua / Water flow / Débit d'eau | l/s | 35,3 | 39,5 | 44,0 | 48,4 | 52,7 | Wasserdurchflussmenge / Caud. de agua / Debit apa | |
| Portata aria / Air flow / Débit d'air | m³/s | 50,6 | 61,7 | 67,8 | 76,1 | 76,1 | Luftdurchflussmenge / Caudal de aire / Cap. a | |
| R410A | kg | 2x62 | 2x63 | 2x65 | 2x70 | 2x70 | R410A | |
| Alimentazione / Power supply / Alimentation | V~, Ph, Hz | 400, 3, 50 | | | | | | Versorgung / Alimentación / Alimentare |
| Corr. max funz. / Max Running current / Cour. refr. | A | 530 | 607 | 683 | 733 | 776 | Strom Kühlfunktion / Corr. max función / Intens. max. in lucru | |
| Corr. max spunto / Max inrush current / Cour. cha. | A | 705 | 815 | 891 | 994 | 1037 | Strom Heizfunktion / Corr.máx. arranque / Intens. max. la pornire | |
| Pressione sonora / Sound pressure / Pres. sonore | | | | | | | Schalldruckpegel / Presión acústica / Nivel de zgomot | |
| DIN (3) | dB(A) | 85 | 85 | 85 | 85 | 86 | DIN (3) | |
| ISO (4) | dB(A) | 75 | 75 | 75 | 75 | 76 | ISO (4) | |
| A | mm | 7200 | 8400 | 9600 | 10600 | 10600 | A | |
| B | mm | 2200 | 2200 | 2200 | 2200 | 2200 | B | |
| C | mm | 2360 | 2360 | 2360 | 2360 | 2360 | C | |
| Peso di trasporto / Transport weight / Poids de transport | kg | 5240 | 5830 | 6880 | 7410 | 7530 | Transportgewicht / Peso de transporte / Greutate transport (5) | |

(1) Acqua refrigerata (con glicole etilenico al 30%) da 15 a 10°C, temperatura aria esterna 35°C.
 (2) Temperatura aria esterna alla quale si raggiunge una resa frigorifera corrispondente a quella indicata al punto (1).
 (3) Livello di pressione sonora rilevato in campo libero ad 1m dall'unità e 1,5m dal suolo. Secondo DIN 45635.
 (4) Livello medio di pressione sonora in campo libero a 1m dall'unità, come definito dalla ISO 3744.

(1) Cooled water (with glycol 30%) from 15 to 10°C, ambient air temperature 35°C.
 (2) Ambient air temperature to reach the cooling capacity indicated in the first point (1).
 (3) Sound pressure level measured in free field conditions at 1m from the unit and at 1,5m from the ground. According to DIN 45635.
 (4) Average sound pressure level measured in free field conditions at 1m, as defined by ISO 3744.

ACCESSORI MONTATI IN FABBRICA

- IM** Interruttori magnetotermici
- SL** Silenziamento unità
- CC** Controllo condensazione fino a -20°C
- BT** Dispositivo per funzionamento con bassa temperatura dell'acqua
- PS** Singola pompa di circolazione
- PD** Doppia pompa di circolazione
- IS** Interfaccia seriale RS 485

ACCESSORI FORNITI SEPARATAMENTE

- MN** Manometri alta
- CR** Pannello comandi remoto
- RP** Reti protezione batterie
- AG** Antivibranti in gomma

PERSONALIZZAZIONI

- GL** Imballo in gabbia di legno per trasporti speciali

FITTED ACCESSORIES

- IM** Protection module
- SL** Unit silencing
- CC** Condensing control to -20°C
- BT** Low water temperature device
- PS** Single circulating Pump
- PD** Double circulating Pump
- IS** Serial interface RS 485

LOOSE ACCESSORIES

- MN** High and low pressure gauges
- CR** Remote display
- RP** Metallic guards for condenser
- AG** Rubber shock absorbers

CUSTOMIZATIONS

- GL** Packing in wooden crate for special transport

INDUSTRIAL HYDRONIC