



For Future Energy & Environment -

World Energy



Absorption Chiller

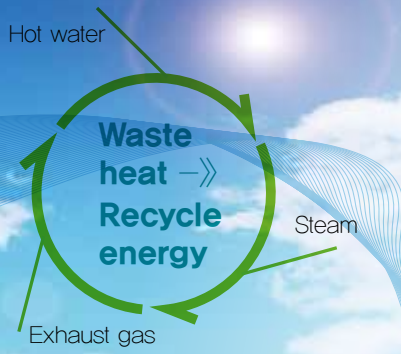
Absorption Chiller & Heater

Absorption Heat Pump



High Efficiency series





About World Energy

World Energy has developed and sold various types of heat recovery products.

The core product is the Absorption Chiller, which is driven by heat sources like hot water, gas & oil firing, steam, and exhaust gas. World Energy has a wide range of Absorption Chillers and Heat Pumps that can be adapted to the specific needs of customers worldwide.

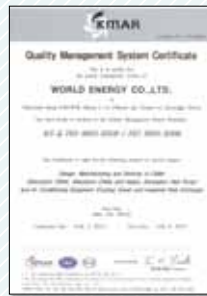
With its technology in development and manufacture of absorption machines meeting international standards, World Energy has provided products for domestic and global markets.

World Energy has offered energy efficient products to help Korean industrial area resolve energy challenges, by utilizing the exhaust heat. In cooperation with KDHC (Korean District Heating Corporation) and KARSE (Korean Association of Air Conditioning, Refrigerating and Sanitary Engineers), World Energy has contributed to Korean district cooling and heating industry for the technology development and the introduction of new certification programs.

World Energy also has supplied products to major players of fuel cell and cogeneration system industry in America, Asia, Europe and Oceania.

World Energy makes every effort to satisfy customers with improving customers' business interest by offering energy-saving and environmentally friendly products.

World Energy Certificate



- Quality Management System Certificate



- Environmental Management System Certificate



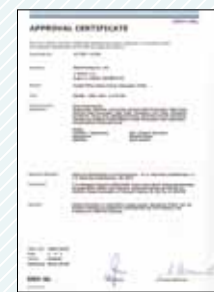
- R&D Center Certificate



- Underwriters Laboratories



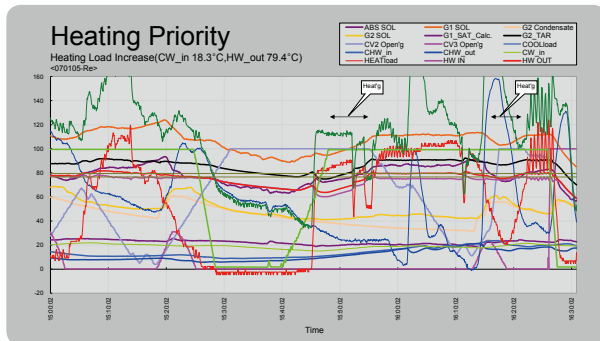
- Certificate of Designation of Excellent Product



- GL Certificate



Research & Development



▲ Simultaneous Absorption Chiller & Heater



▲ 1st Generation Single Effect Double Lift Hot Water Driven Absorption Chiller



▲ Heat Exchanger Customized to Fuel Cell



▲ Maritime Absorption Chiller

▲ High COP Single Effect 2-Lift Hot Water Driven Absorption Chiller







Company History


- **2004** Established World Energy Limited Co., Ltd.
Developed Standard COP Absorption Chillers (DW, S, SW, HWAR-L Series)
- **2005** Developed Single Effect 2-Lift Hot Water Driven Absorption Chiller (2AB) with Korea District Heating Corporation
- **2007** UL Listed (Low Temperature Hot Water Driven Absorption Chiller (HWAR-L Series)
- **2008** Developed Heating Cycle for 2AB with Korea District Heating Corporation
Developed Explosion Proof Type Absorption Chiller
Established Certification Criteria of Hot Water Driven Absorption Chiller for District Heating Network with Korea District Heating Corporation
- **2009** Developed Vacuum Distillation Recycling System with Ministry of Environment Republic Korea
Developed Low Temperature Hot Water (70°C) Driven Absorption Chiller (2AA) for Industrial Area
Developed Heat Exchanger for UTC Power's Fuel Cell Cycle Upgrade of 2AB Series
- **2010** Developing Heat Exchanger (Evaporating Condenser) for MVR (Mechanical Vapor Re-compressor)
Developed High COP Absorption Chillers DWH, SWH, HWAR-LH
- **2011** Developed High COP Single Effect Absorption Chiller (COP 0.8) and Enclosure Type Absorption Chiller
- **2012** Developed Maritime Absorption chiller with Small & Medium Business Administration and Acquired GL Certificate.
Development of High COP (1.3 based on HHV) Direct Fired Absorption Chiller
- **2013** Developed 2-Effect 2-Lift Absorption Heat Pump For Heat Recovery From Sewage with Ministry of Environment Republic Korea
- **2016** Developed Cooling Module for Fuel Cells

Line up World Energy Absorption Chiller

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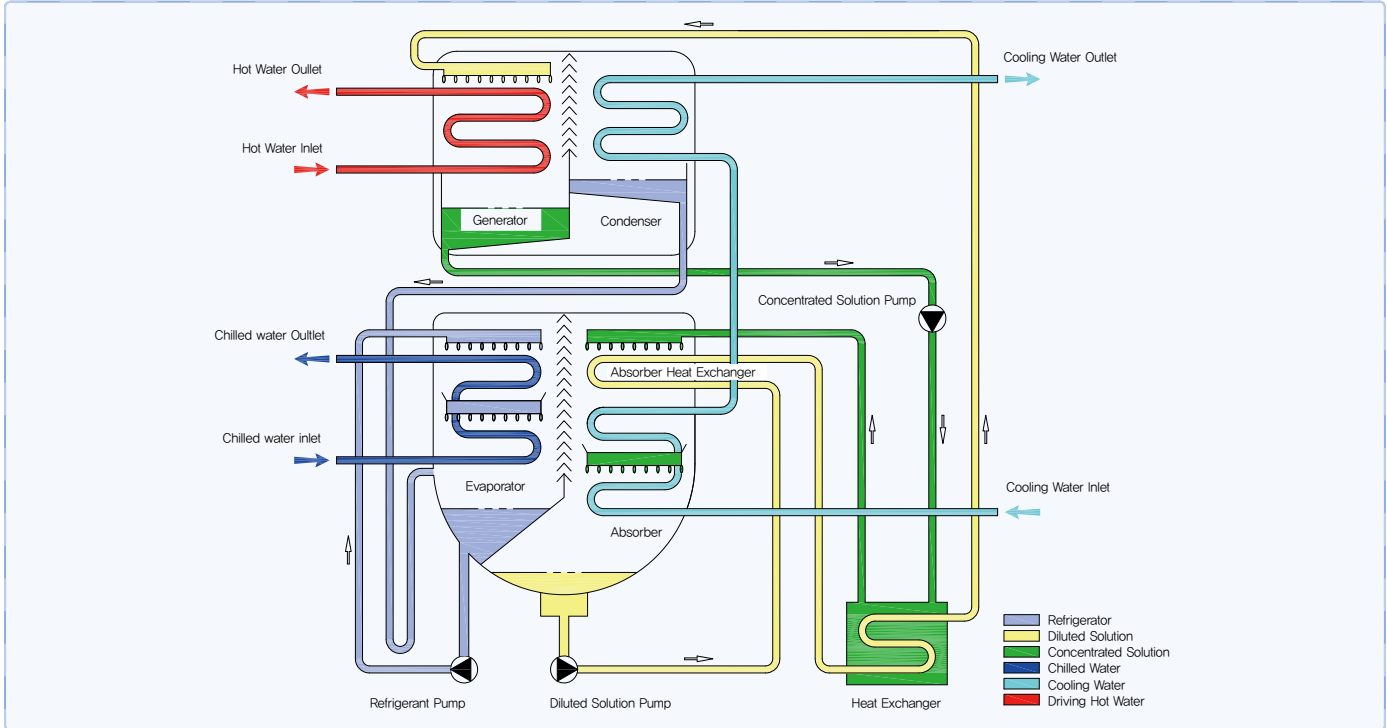
| Heat source | Model No. | Type | Mode | Capacity | | | | | | COP | Page |
|-------------|--|---|--------------------|--|--------|---------|---------|-----------|-----------|------|------|
| | | | | usRT | 20~50 | 60~80 | 100~150 | 560~1500 | 1600~2000 | | |
| | | | | kW | 70~175 | 210~281 | 351~527 | 1969~5274 | 5626~7033 | | |
| Hot water |  HWAR-L *** HH | Single effect  | Cooling |  | | | | | | 0.83 | p.6 |
| |  HWAR-L *** H | Single effect High efficiency | Cooling |  | | | | | | 0.8 | p.8 |
| |  2ABH *** | Single effect Double lift  | Cooling |  | | | | | | 0.71 | p.12 |
| |  2AB *** | Single effect Double lift | Cooling |  | | | | | | 0.64 | p.14 |
| |  2AA *** | Waste heat recovery Single effect | Cooling |  | | | | | | 0.41 | p.18 |
| GAS OIL |  DW *** HH | Double effect Direct fired type  | Cooling Heating |  | | | | | | 1.32 | p.22 |
| |  DW *** H | Double effect Direct fired type  | Cooling Heating |  | | | | | | 1.22 | p.24 |
| |  DW *** | Double effect Direct fired type | Cooling Heating |  | | | | | | 1.00 | p.26 |
| |  HPD *** | Heat pump | Heating | 576Mcal/h~4030Mcal/h | | | | | | 1.65 | p.50 |

World Energy Absorption Chiller Line up

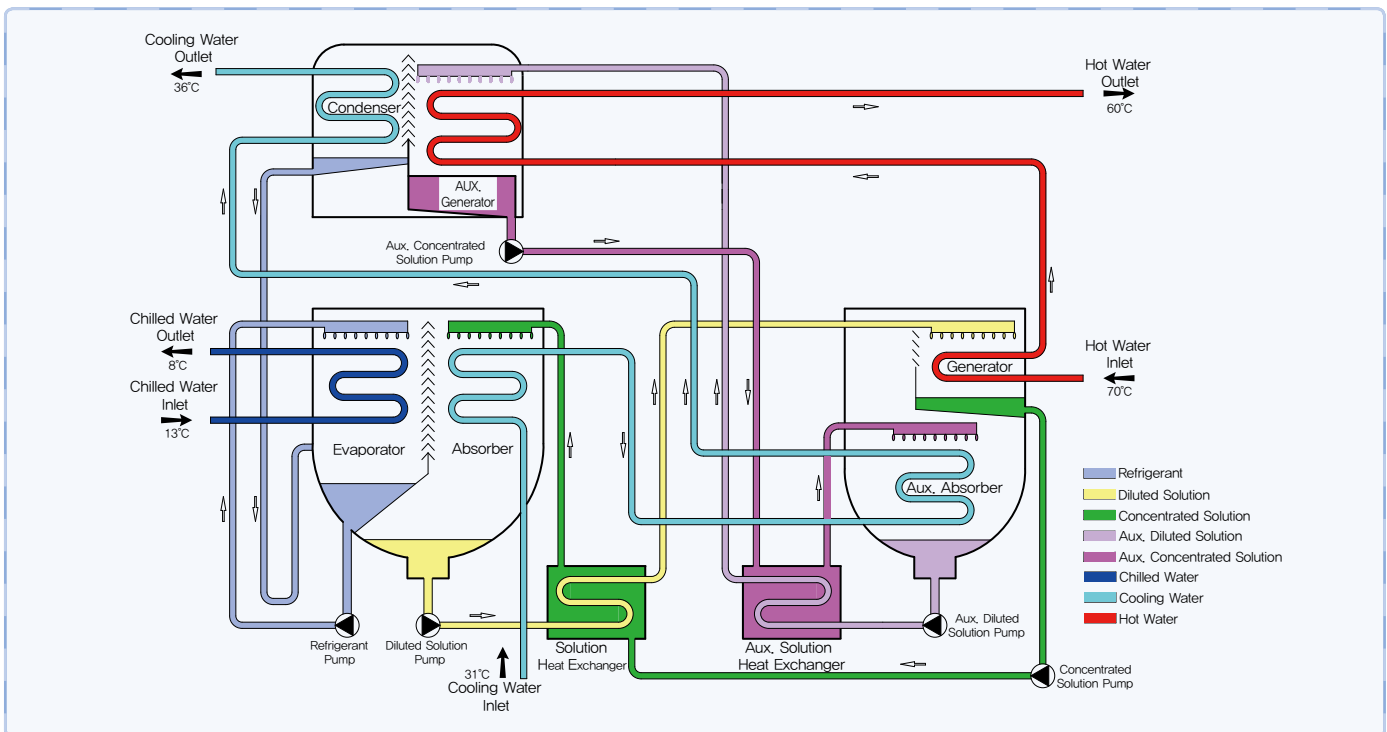
| Heat source | Model No. | Type | Mode | Capacity | | | | | | COP | Page |
|-------------------------|---|---|--------------------|----------|--------|---------|----------------------|-----------|------------|------|------|
| | | | | usRT | 20~50 | 60~80 | 100~150 | 560~1500 | 1600~2000 | | |
| | | | | kW | 70~175 | 210~281 | 351~527 | 1969~5274 | 5626~7033 | | |
| Steam | SWHH ***  | Double effect Super High Efficiency | Cooling | | | | 100RT | | 2000RT | 1.48 | p.30 |
| | SWH ***  | Double effect | Cooling | | | | 100RT | | 1600RT | 1.36 | p.32 |
| | S *** HH  | Single effect Super High Efficiency | Cooling | | | | 50RT | | 2000RT | 0.81 | p.34 |
| | SWM ***  | Double effect Marine chiller | Cooling | | | | 50RT | | 1100RT | 1.21 | p.36 |
| | HPS *** | Heat pump | Heating | | | | 576Mcal/h~4030Mcal/h | | | 1.8 | p.50 |
| Exhaust gas | CHP *** H  | Double effect High Efficiency | Cooling Heating | | | | 50RT | | 1500RT | 1.36 | p.40 |
| | CHP ***  | Double effect | Cooling Heating | | | | 50RT | | 1500RT | 1.2 | p.42 |
| Hot water & Exhaust gas | CHPL *** H  | Hybrid chiller | Cooling | | | | 374RT ~1248RT | | 1.1 ~ 1.23 | p.46 | |

Single Effect Hot Water Driven Absorption Chiller

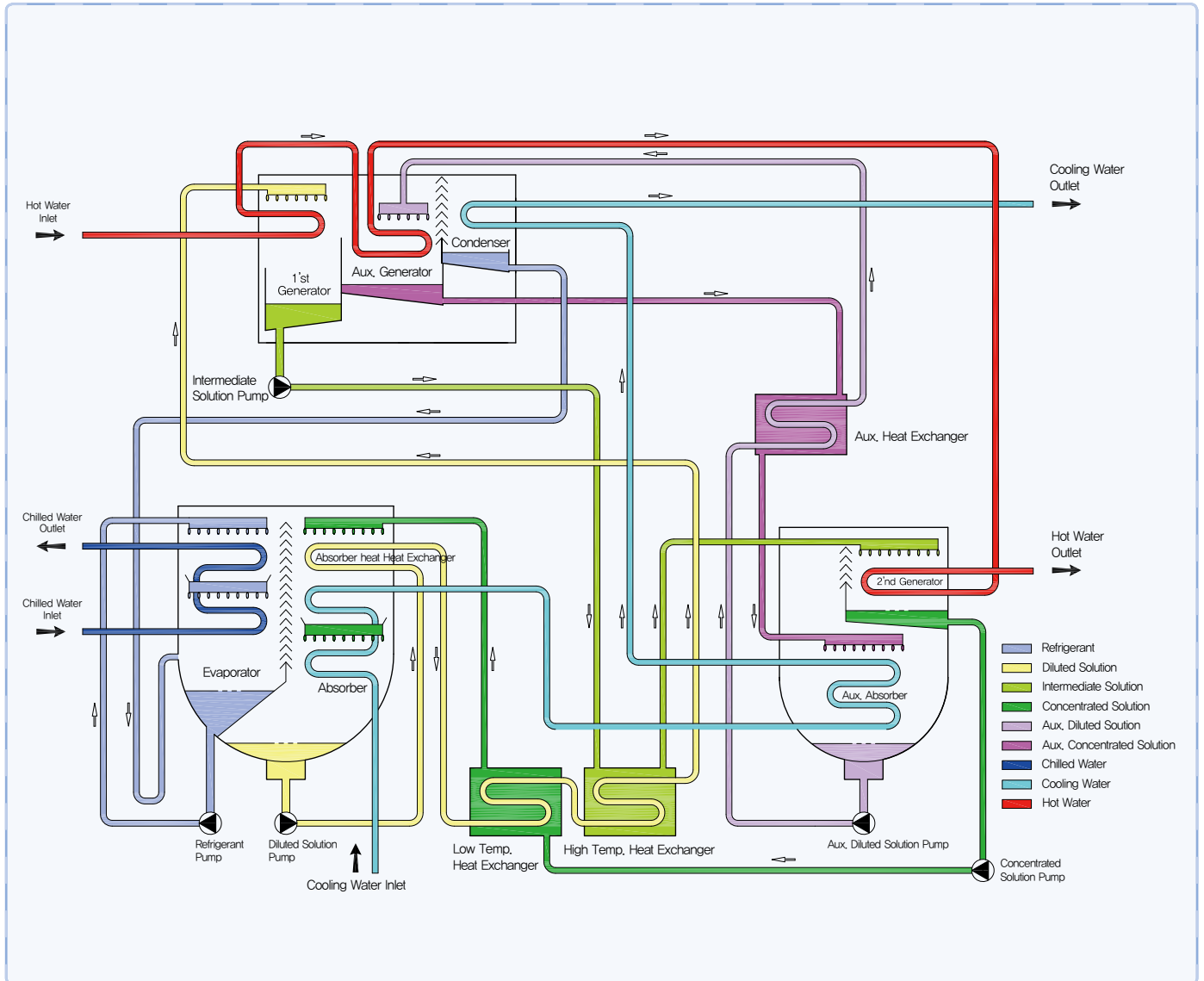
HWAR-LHH Series



2AA series



2ABH series



2-Lift Hot water driven absorption chiller has a main cycle and an aux. cycle. The chilled water is cooled down twice by refrigerant from double tray in the evaporator and the vaporized refrigerant is absorbed into concentrated solution which is coming from 2nd generator. The quantity of Vapor that can be absorbed in the absorber is increased by double tray system. The concentrated solution becomes diluted solution and the heat is absorbed into cooling water. The diluted solution in absorber flows to 1st generator through low temp. heat exchanger and high temp. heat exchanger, and 95°C hot water heats up the diluted solution and refrigerant is vaporized. Absorbent solution becomes intermediate solution in 1st generator and it flows to 2nd generator through high temp. heat exchanger.

The intermediated solution in 2nd generator is heated by hot water and refrigerant is vaporized in 2nd generator. The vapor is absorbed into absorbent solution in aux. absorber to become aux. diluted solution. The aux. diluted solution is delivered to aux. generator through aux. heat exchanger, and the solution is heated by hot water coming from 1st generator and becomes aux. concentrated solution. The aux. concentrated solution is delivered to aux. absorber through aux. heat exchanger. The refrigerant vapors which are generated in the 1st generator and aux. generator are condensed in condenser and then flow into evaporator, and the heat in condenser is absorbed by cooling water.

Single Effect Hot Water Driven Absorption Chiller



Performance Data

| Model | | Unit | L30HH | L40HH | L50HH | L60HH | L75HH | L90HH | L110HH | L135HH | L155HH | L180HH | L210HH | L240HH | L270HH | L300HH | | | | |
|----------------------------|--------------------------|-------------------|-------------------|-------|-------|-------|----------|-------|--------|--------|----------|--------|--------|----------|--------|----------|-------|--|-------|--|
| Cooling Capacity | | kW | 105 | 141 | 176 | 211 | 264 | 316 | 387 | 475 | 545 | 633 | 738 | 844 | 949 | 1,055 | | | | |
| | | usRT | 30 | 40 | 50 | 60 | 75 | 90 | 110 | 135 | 155 | 180 | 210 | 240 | 270 | 300 | | | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 18.1 | 24.2 | 30.2 | 36.3 | 45.4 | 54.4 | 66.5 | 81.6 | 93.7 | 109 | 127 | 145 | 163 | 181 | | | | |
| | Pressure Drop | mH ₂ O | 4.6 | 5.2 | 6.1 | 6.8 | 6.7 | 6.9 | 4.6 | 4.9 | 4.5 | 4.5 | 9.9 | 9.7 | 10.2 | 10.2 | | | | |
| | Connection | mm | 65 | | | | 80 | | | 100 | | | 125 | | | 150 | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 36.6 | 48.8 | 61.0 | 73.2 | 91.5 | 110 | 134 | 165 | 189 | 220 | 256 | 293 | 330 | 366 | | | | |
| | Pressure Drop | mH ₂ O | 3.7 | 4.1 | 6.0 | 6.6 | 6.2 | 6.5 | 8.1 | 8.9 | 8.8 | 8.7 | 7.1 | 6.8 | 6.9 | 7.0 | | | | |
| | Connection | mm | 100 | | | | 125 | | | 150 | | | 200 | | | | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 80 | | | | | | | | | | | | | | | | | |
| | Flow rate | | ton/h | 7.3 | 9.7 | 12.2 | 14.6 | 18.3 | 21.9 | 26.8 | 32.9 | 37.7 | 43.8 | 51.1 | 58.5 | 65.7 | 73.1 | | | |
| | | | m ³ /h | 7.6 | 10.1 | 12.7 | 15.2 | 19.0 | 22.8 | 27.8 | 34.2 | 39.2 | 45.6 | 53.2 | 60.7 | 68.3 | 75.9 | | | |
| | Pressure Drop | Shell | mH ₂ O | 1.1 | 2.4 | 4.2 | 4.9 | 4.1 | 4.6 | 5.0 | 5.4 | 3.6 | 4.1 | 3.9 | 4.1 | 3.9 | 4.0 | | | |
| | | Control Valve | mH ₂ O | 4.0 | 2.8 | 4.4 | 2.4 | 3.7 | 2.2 | 3.2 | 1.9 | 2.5 | 3.4 | 4.6 | 2.4 | 3.0 | 3.7 | | | |
| | Connection | mm | 50 | | | | 65 | | | 80 | | | 100 | | | | | | | |
| Control Valve | mm | 40 | | | 50 | | | 65 | | | 80 | | | 100 | | | | | | |
| Electric | Power source | - | 3PH 400V, 50Hz | | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 1.4(5.2) | | | | 1.5(5.4) | | | | 1.8(6.0) | | | 1.9(6.0) | | 1.9(7.5) | | | | |
| | Ref. Pump | kW(A) | 0.2(1.2) | | | | 0.2(1.2) | | | | 0.3(1.4) | | | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.2 | | | | 2.3 | | | | 2.7 | | | 2.8 | | | | | | |
| | Total Ampere @400V | A | 8.3 | | | | 8.5 | | | | 9.3 | | | 10.8 | | | | | | |
| Size | Length (L) | mm | 2,110 | | | 2,610 | | | 2,658 | | | 3,678 | | | 3,728 | | 4,748 | | 4,854 | |
| | Width (W) | mm | 1,112 | | | | | | | | | | | | | | | | | |
| | Height (H) | mm | 2,210 | | | | 2,473 | | | | 2,705 | | | | 2,781 | | | | | |
| Weight | Rigging | ton | 2.1 | 2.2 | 2.6 | 2.7 | 3.6 | 3.7 | 4.6 | 4.8 | 5.5 | 5.8 | 6.8 | 7.1 | 8.8 | 9.2 | | | | |
| | Operation | ton | 2.3 | 2.5 | 2.9 | 3.1 | 4.1 | 4.2 | 5.2 | 5.5 | 6.4 | 6.8 | 7.9 | 8.4 | 10.4 | 10.9 | | | | |
| Space for Tube Replacement | | mm | 1,900 | | | | 2,400 | | | | 3,400 | | | | 4,600 | | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 60 | 67 | 77 | 80 | 111 | 123 | 142 | 159 | 216 | 237 | 258 | 286 | 324 | 348 | | | | |
| | Cooling Water Side | ℓ | 215 | 235 | 265 | 276 | 309 | 336 | 391 | 432 | 579 | 622 | 694 | 765 | 927 | 993 | | | | |
| | Hot Water Side | ℓ | 61 | 68 | 79 | 83 | 108 | 118 | 139 | 154 | 184 | 202 | 224 | 248 | 311 | 332 | | | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

LHH Series

Single Effect Hot Water Driven Absorption Chiller

Performance Data

| Model | | Unit | L340HH | L375HH | L420HH | L470HH | L525HH | L580HH | L630HH | L680HH | L750HH | L820HH | L900HH | L975HH | L1050HH | L1125HH | L1300HH | | | | | | | | | | | | | | |
|----------------------------|--------------------------|-------------------|-------------------|--------|--------|----------|--------|--------|-----------|--------|--------|-----------|--------|--------|-----------|---------|---------|-----------|-------|-------|-------|--|-------|--|-------|-------|-------|--|-------|--|--|
| Cooling Capacity | | kW | 1,196 | 1,319 | 1,477 | 1,653 | 1,846 | 2,039 | 2,215 | 2,391 | 2,637 | 2,883 | 3,165 | 3,428 | 3,692 | 3,956 | 4,571 | | | | | | | | | | | | | | |
| | | usRT | 340 | 375 | 420 | 470 | 525 | 580 | 630 | 680 | 750 | 820 | 900 | 975 | 1,050 | 1,125 | 1,300 | | | | | | | | | | | | | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 206 | 227 | 254 | 284 | 318 | 351 | 381 | 411 | 454 | 496 | 544 | 590 | 635 | 680 | 786 | | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 9.2 | 9.7 | 4.4 | 5.9 | 5.6 | 7.4 | 9.2 | 5.5 | 7.1 | 9.1 | 6.9 | 8.6 | 5.2 | 6.4 | 9.5 | | | | | | | | | | | | | | |
| | Connection | mm | 200 | | | | | 250 | | | | | 300 | | | | | | | | | | | | | | | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 415 | 458 | 513 | 574 | 641 | 708 | 769 | 830 | 915 | 1,001 | 1,098 | 1,190 | 1,282 | 1,373 | 1,587 | | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 7.1 | 7.1 | 6.1 | 8.2 | 6.6 | 8.6 | 10.8 | 6.7 | 8.7 | 11.0 | 8.3 | 10.3 | 7.1 | 8.7 | 10.4 | | | | | | | | | | | | | | |
| | Connection | mm | 250 | | | | | 300 | | | | | 350 | | | | | | | | | | | | | | | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 82.8 | 91.3 | 102 | 114 | 128 | 141 | 153 | 166 | 183 | 200 | 219 | 237 | 256 | 274 | 317 | | | | | | | | | | | | | | |
| | | m ³ /h | 86.1 | 94.9 | 106 | 119 | 133 | 147 | 159 | 172 | 190 | 208 | 228 | 247 | 266 | 285 | 329 | | | | | | | | | | | | | | |
| | Pressure Drop | Shell | mH ₂ O | 4.0 | 4.0 | 2.7 | 3.6 | 3.3 | 4.3 | 5.3 | 3.3 | 4.3 | 5.4 | 3.7 | 4.6 | 3.6 | 4.4 | 2.5 | | | | | | | | | | | | | |
| | | Control Valve | mH ₂ O | 4.8 | 2.3 | 2.8 | 3.5 | 4.4 | 2.4 | 2.8 | 3.3 | 4.0 | 4.3 | 1.7 | 2.0 | 2.4 | 2.7 | 3.6 | | | | | | | | | | | | | |
| | Connection | mm | 125 | | | | | 150 | | | | | 200 | | | | | | | | | | | | | | | | | | |
| Control Valve | mm | 100 | 125 | | | | | 150 | | | | | 200 | | | | | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 2.4(7.5) | | | 2.8(8.5) | | | 4.5(11.0) | | | 4.5(13.3) | | | 5.0(15.2) | | | 6.7(20.0) | | | | | | | | | | | | | |
| | Ref. Pump | kW(A) | 0.4(1.4) | | | | | | 1.5(4.0) | | | | | | | | | | | | | | | | | | | | | | |
| | Purge Pump | kW(A) | 0.4(1.4) | | | | | | 0.75(2.2) | | | | | | | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 3.4 | | | 3.8 | | | 5.5 | | | 6.6 | | | 7.0 | | | 7.5 | | | 9.2 | | | | | | | | | | |
| | Total Ampere @400V | A | 11.3 | | | 11.8 | | | 15.6 | | | 19.2 | | | 20.0 | | | 21.9 | | | 26.7 | | | | | | | | | | |
| Size | Length (L) | mm | 4,872 | | 5,414 | | 5,912 | | 6,012 | | 6,537 | | 7,037 | | 6,114 | | 6,639 | | 7,139 | | 6,749 | | 7,249 | | 6,966 | | 7,466 | | 8,466 | | |
| | Width (W) | mm | 1,561 | | | 1,583 | | | 1,833 | | | 2,272 | | | 2,548 | | | 3,289 | | | | | | | | | | | | | |
| | Height (H) | mm | 2,947 | | | | | 3,168 | | | | | 3,474 | | | | | 3,937 | | | | | 4,000 | | | | | | | | |
| Weight | Rigging | ton | 10.5 | 10.9 | 12.3 | 13.7 | 17.2 | 19.0 | 20.6 | 21.7 | 23.9 | 26.0 | 28.5 | 30.8 | 33.1 | 35.4 | 40.0 | | | | | | | | | | | | | | |
| | Operation | ton | 12.5 | 13.1 | 14.8 | 16.4 | 20.8 | 22.9 | 24.9 | 26.3 | 29.0 | 31.6 | 34.6 | 37.5 | 40.3 | 43.2 | 49.0 | | | | | | | | | | | | | | |
| Space for Tube Replacement | mm | 4,600 | | | 5,200 | | | 5,700 | | | 6,200 | | | 6,700 | | | 6,200 | | | 6,700 | | | 6,300 | | | 6,800 | | | 7,800 | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 465 | 485 | 526 | 563 | 656 | 701 | 744 | 944 | 1,004 | 1,060 | 1,355 | 1,423 | 1,795 | 1,890 | 2,079 | | | | | | | | | | | | | | |
| | Cooling Water Side | ℓ | 1,252 | 1,325 | 1,425 | 1,517 | 1,959 | 2,082 | 2,199 | 2,579 | 2,738 | 2,890 | 3,563 | 3,746 | 4,691 | 4,919 | 5,377 | | | | | | | | | | | | | | |
| | Hot Water Side | ℓ | 381 | 406 | 444 | 497 | 563 | 604 | 642 | 781 | 837 | 890 | 1,036 | 1,102 | 1,354 | 1,434 | 1,594 | | | | | | | | | | | | | | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Single Effect Hot Water Driven Absorption Chiller



Performance Data

| Model | | Unit | L30H | L40H | L50H | L60H | L75H | L90H | L110H | L135H | L155H | L180H | L210H | L240H | L270H | L300H | | | |
|----------------------------|--------------------------|-------------------|-------------------|------|-------|----------|-------|------|----------|-------|-------|----------|-------|-------|----------|-------|-----|----------|--|
| Cooling Capacity | | kW | 105 | 141 | 176 | 211 | 264 | 316 | 387 | 475 | 545 | 633 | 738 | 844 | 949 | 1,055 | | | |
| | | usRT | 30 | 40 | 50 | 60 | 75 | 90 | 110 | 135 | 155 | 180 | 210 | 240 | 270 | 300 | | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 18.1 | 24.2 | 30.2 | 36.3 | 45.4 | 54.4 | 66.5 | 81.6 | 93.7 | 109 | 127 | 145 | 163 | 181 | | | |
| | Pressure Drop | mH ₂ O | 4.9 | 5.5 | 6.2 | 7.5 | 6.4 | 6.8 | 9.6 | 10.6 | 9.5 | 10.2 | 9.7 | 10.1 | 10.3 | 10.6 | | | |
| | Connection | mm | 65 | | | 80 | | | 100 | | | 125 | | | 150 | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 37.3 | 49.8 | 62.2 | 74.6 | 93.3 | 112 | 137 | 168 | 193 | 224 | 261 | 299 | 336 | 373 | | | |
| | Pressure Drop | mH ₂ O | 4.1 | 4.4 | 6.6 | 8.4 | 6.7 | 7.0 | 3.4 | 3.8 | 3.9 | 4.1 | 7.8 | 7.7 | 7.8 | 7.7 | | | |
| | Connection | mm | 100 | | | 125 | | | 150 | | | 200 | | | | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 80 | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 7.6 | 10.1 | 12.6 | 15.1 | 18.9 | 22.7 | 27.7 | 34.0 | 39.1 | 45.4 | 52.9 | 60.5 | 68.0 | 75.6 | | | |
| | | m ³ /h | 7.9 | 10.5 | 13.1 | 15.7 | 19.6 | 23.6 | 28.8 | 35.4 | 40.6 | 47.2 | 55.0 | 62.9 | 70.7 | 78.6 | | | |
| | Pressure Drop | Shell | mH ₂ O | 0.2 | 0.4 | 0.6 | 0.8 | 0.3 | 0.4 | 0.6 | 0.7 | 0.7 | 0.8 | 1.3 | 1.3 | 1.3 | 1.3 | | |
| | | Control Valve | mH ₂ O | 2.4 | 3.0 | 1.8 | 2.6 | 4.0 | 2.3 | 3.5 | 2.1 | 2.7 | 3.7 | 2.0 | 2.6 | 3.3 | 4.0 | | |
| | Connection | mm | 50 | | | 65 | | | 80 | | | 100 | | | | | | | |
| Control Valve | mm | 40 | | 50 | | 65 | | 80 | | 100 | | | | | | | | | |
| Electric | Power source | - | 3PH 400V, 50Hz | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 1.4(5.2) | | | 1.6(5.1) | | | 1.6(5.3) | | | 1.9(6.2) | | | 1.9(6.3) | | | 2.4(8.0) | |
| | Ref. Pump | kW(A) | 0.2(1.1) | | | | | | 0.3(1.4) | | | | | | 0.4(1.4) | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.2 | | | 2.4 | | | 2.5 | | | 2.8 | | | 2.9 | | | 3.4 | |
| | Total Ampere @400V | A | 8.2 | | | 8.1 | | | 8.6 | | | 9.5 | | | 9.6 | | | 11.3 | |
| Size | Length (L) | mm | 2,095 | | 2,600 | | 2,634 | | 3,680 | | 3,728 | | 4,748 | | 4,788 | | | | |
| | Width (W) | mm | 1,062 | | 1,095 | | 1,229 | | | | 1,472 | | | | 1,480 | | | | |
| | Height (H) | mm | 1,880 | | | | 2,255 | | | | 2,257 | | | | 2,540 | | | | |
| Weight | Rigging | ton | 2.1 | 2.2 | 2.6 | 2.7 | 3.6 | 3.7 | 4.6 | 4.8 | 5.5 | 5.8 | 6.8 | 7.1 | 8.8 | 9.2 | | | |
| | Operation | ton | 2.3 | 2.5 | 2.9 | 3.1 | 4.1 | 4.2 | 5.2 | 5.5 | 6.4 | 6.8 | 7.9 | 8.4 | 10.4 | 10.9 | | | |
| Space for Tube Replacement | | mm | 1,900 | | | 2,400 | | | 3,400 | | | 4,600 | | | | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 49 | 56 | 66 | 69 | 106 | 116 | 138 | 153 | 210 | 225 | 253 | 274 | 316 | 337 | | | |
| | Cooling Water Side | ℓ | 140 | 162 | 188 | 198 | 313 | 345 | 433 | 480 | 644 | 698 | 715 | 787 | 915 | 993 | | | |
| | Hot Water Side | ℓ | 51 | 62 | 71 | 79 | 98 | 107 | 127 | 142 | 170 | 189 | 214 | 239 | 278 | 303 | | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

LH Series

Single Effect Hot Water Driven Absorption Chiller

Performance Data

| Model | | Unit | L340H | L375H | L420H | L470H | L525H | L600H | L675H | L750H | L825H | L900H | L975H | L1050H | L1125H | L1300H | | | | | | | | | | | | |
|----------------------------|--------------------------|-------------------|-------------------|-------|-----------|-------|----------|-----------|-----------|-------|-----------|-------|-------|-----------|--------|--------|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|
| Cooling Capacity | | kW | 1,196 | 1,319 | 1,477 | 1,653 | 1,846 | 2,039 | 2,215 | 2,637 | 2,883 | 3,165 | 3,428 | 3,692 | 3,956 | 4,571 | | | | | | | | | | | | |
| | | usRT | 340 | 375 | 420 | 470 | 525 | 580 | 630 | 750 | 820 | 900 | 975 | 1,050 | 1,125 | 1,300 | | | | | | | | | | | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 206 | 227 | 254 | 284 | 318 | 351 | 381 | 454 | 496 | 544 | 590 | 635 | 680 | 786 | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 9.4 | 9.8 | 9.5 | 4.3 | 5.8 | 3.4 | 4.6 | 6.1 | 5.5 | 7.0 | 8.8 | 5.2 | 6.4 | 9.5 | | | | | | | | | | | | |
| | Connection | mm | 200 | | | | 250 | | | | 300 | | | | 350 | | | | | | | | | | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 423 | 466 | 522 | 585 | 653 | 746 | 840 | 933 | 1,026 | 1,120 | 1,213 | 1,306 | 1,399 | 1,617 | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 7.5 | 7.6 | 6.6 | 9.0 | 12.1 | 4.2 | 5.6 | 7.4 | 6.3 | 8.1 | 10.0 | 6.7 | 8.2 | 10.9 | | | | | | | | | | | | |
| | Connection | mm | 250 | | | 300 | | | 350 | | | 400 | | | | | | | | | | | | | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 80 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 85.7 | 94.5 | 106 | 118 | 132 | 151 | 170 | 189 | 208 | 227 | 246 | 265 | 284 | 328 | | | | | | | | | | | | |
| | | m ³ /h | 89.1 | 98.2 | 110 | 123 | 138 | 157 | 177 | 196 | 216 | 236 | 255 | 275 | 295 | 341 | | | | | | | | | | | | |
| | Pressure Drop | Shell | mH ₂ O | 1.3 | 1.3 | 1.4 | 1.8 | 2.5 | 1.6 | 2.1 | 2.8 | 2.1 | 2.7 | 3.4 | 2.8 | 3.5 | 5.2 | | | | | | | | | | | |
| | | Control Valve | mH ₂ O | 2.0 | 2.4 | 3.0 | 2.4 | 3.0 | 2.7 | 3.2 | 3.9 | 1.6 | 1.8 | 2.2 | 2.5 | 2.9 | 3.9 | | | | | | | | | | | |
| | Connection | mm | 125 | | | | 150 | | | | 200 | | | | | | | | | | | | | | | | | |
| | Control Valve | mm | 125 | | | | 150 | | | | 200 | | | | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 2.4(8.0) | | 3.7(11.0) | | | 4.2(12.9) | | | 5.2(16.2) | | | 7.5(23.3) | | | | | | | | | | | | | | |
| | Ref. Pump | kW(A) | 0.4(1.4) | | | | 1.5(4.0) | | | | 1.5(4.3) | | | | | | | | | | | | | | | | | |
| | Purge Pump | kW(A) | 0.4(1.4) | | | | | | 0.75(2.2) | | | | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 3.4 | | 4.7 | | | 6.3 | | | 7.7 | | | 10.0 | | | | | | | | | | | | | | |
| | Total Ampere @400V | A | 11.3 | | 14.3 | | | 18.8 | | | 22.9 | | | 30.3 | | | | | | | | | | | | | | |
| Size | Length (L) | mm | 4,876 | | 4,998 | | 5,540 | | 6,038 | | 5,644 | | 6,142 | | 6,667 | | 6,246 | | 6,771 | | 7,271 | | 6,860 | | 7,360 | | 8,360 | |
| | Width (W) | mm | 1,597 | | 1,836 | | | | | | 2,208 | | | | 2,379 | | | | 2,929 | | | | | | | | | |
| | Height (H) | mm | 2,832 | | 3,174 | | | | | | 3,600 | | | | 3,867 | | | | 4,000 | | | | | | | | | |
| Weight | Rigging | ton | 10.5 | 10.9 | 14.7 | 16.0 | 17.2 | 19.3 | 21.6 | 23.9 | 26.2 | 28.5 | 30.8 | 33.1 | 35.4 | 40.0 | | | | | | | | | | | | |
| | Operation | ton | 12.5 | 13.1 | 17.8 | 19.4 | 20.8 | 23.3 | 26.1 | 29.0 | 31.8 | 34.6 | 37.5 | 40.3 | 43.2 | 49.0 | | | | | | | | | | | | |
| Space for Tube Replacement | mm | 4,600 | | | 5,200 | | 5,700 | | 5,200 | | 5,700 | | 6,200 | | 6,700 | | 6,300 | | 6,800 | | 7,800 | | | | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 456 | 479 | 553 | 599 | 642 | 946 | 1,008 | 1,074 | 1,136 | 1,241 | 1,313 | 1,381 | 1,767 | 1,862 | | | | | | | | | | | | |
| | Cooling Water Side | ℓ | 1,291 | 1,370 | 1,871 | 2,006 | 2,131 | 2,763 | 2,932 | 3,111 | 3,280 | 3,735 | 3,939 | 4,134 | 5,741 | 5,988 | | | | | | | | | | | | |
| | Hot Water Side | ℓ | 334 | 365 | 407 | 448 | 485 | 677 | 729 | 784 | 837 | 806 | 870 | 932 | 1,067 | 1,138 | | | | | | | | | | | | |

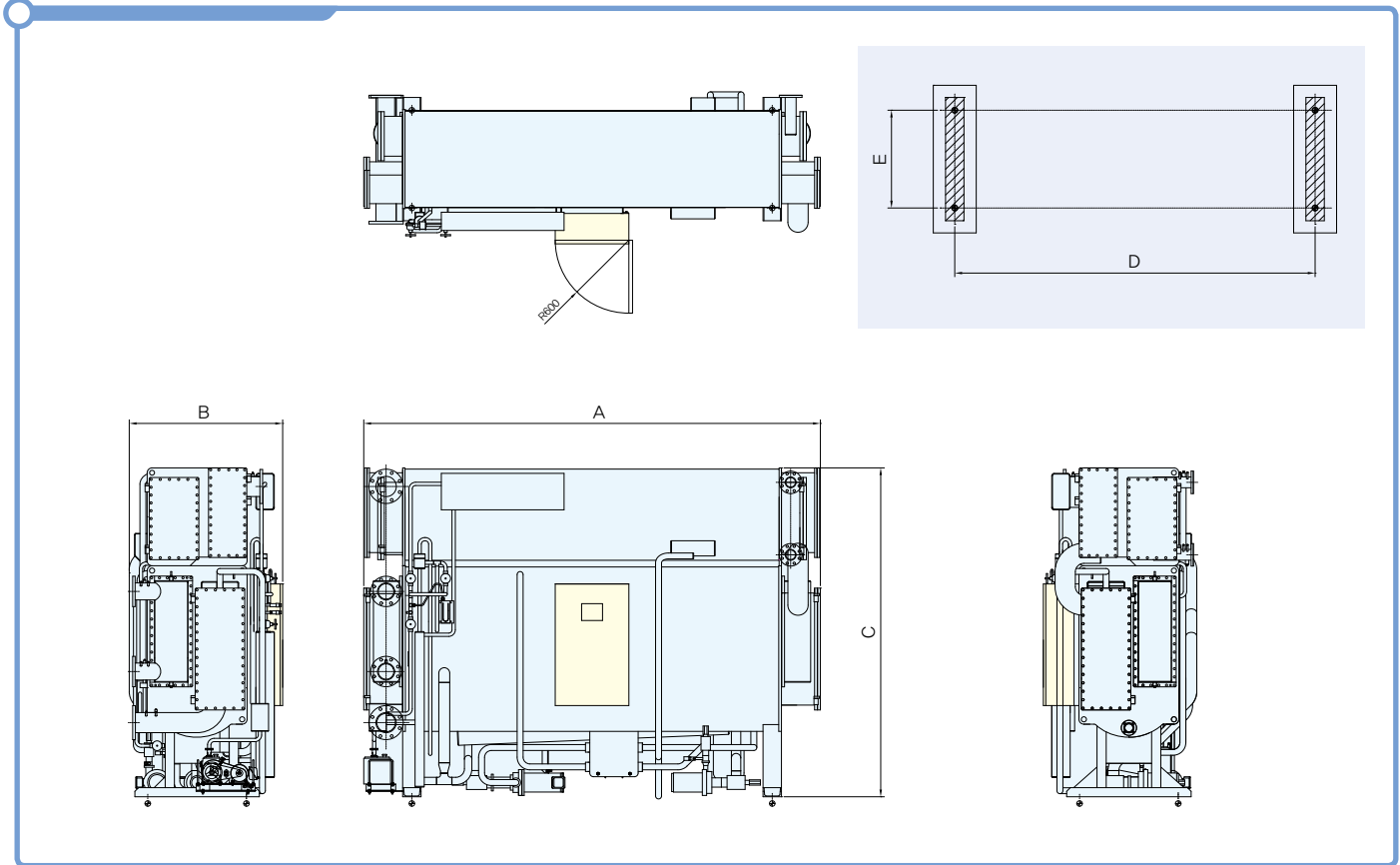
Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Single Effect Hot Water Driven Absorption Chiller

COP
0.827

Outline_Foundation



| | L30HH | L40HH | L50HH | L60HH | L75HH | L90HH | L110HH | L135HH | L155HH | L180HH | L210HH | L240HH | L270HH | L300HH | L340HH |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| A | 2,110 | | 2,610 | | 2,658 | | 3,678 | | 3,728 | | 4,748 | | 4,854 | | 4,872 |
| B | 1,072 | | | | 1,112 | | | | 1,250 | | | | 1,363 | | 1,561 |
| C | 2,210 | | | | 2,473 | | | | 2,705 | | | | 2,781 | | 2,947 |
| D | 1,421 | | 1,941 | | | | 2,961 | | 2,936 | | 3,956 | | 3,906 | | |
| E | 640 | | | | 650 | | | | 800 | | | | 1,100 | | |
| | L375HH | L420HH | L470HH | L525HH | L580HH | L630HH | L680HH | L750HH | L820HH | L900H | L975HH | L1050HH | L1125HH | L1300HH | |
| A | 4,872 | 5,414 | 5,912 | 6,012 | 6,537 | 7,037 | 6,114 | 6,639 | 7,139 | 6,749 | 7,249 | 6,966 | 7,466 | 8,466 | |
| B | 1,561 | 1,583 | | 1,833 | | | | 2,272 | | | 2,548 | | 3,289 | | |
| C | 2,947 | | | | 3,168 | | | | 3,474 | | | 3,937 | | 4,000 | |
| D | 3,906 | 4,448 | 4,946 | 4,896 | 5,421 | 5,921 | 4,846 | 5,371 | 5,871 | 5,371 | 5,871 | 5,371 | 5,871 | 6,871 | |
| E | 1,100 | | | 1,000 | | | | 1,400 | | | 1,600 | | 2,100 | | |

LHH Series

Single Effect Hot Water Driven Absorption Chiller

Thermal Insulation

1. Use only Non-inflammable or flame retardant insulation materials.
2. Do not insulate motor of refrigerant pump.
3. Total insulation area is including pipings.
4. Do not cover components such as service valves, diaphragm valves, sight glass, control valves, thermometers or sensor.
5. Use the standard insulation material and thickness as the recommendation

6. For the information of insulation area, please refer to the Table below.
7. The water box sections should be worked to be disassembled for the cleaning or repairing.

Note

HOT Surface insulation

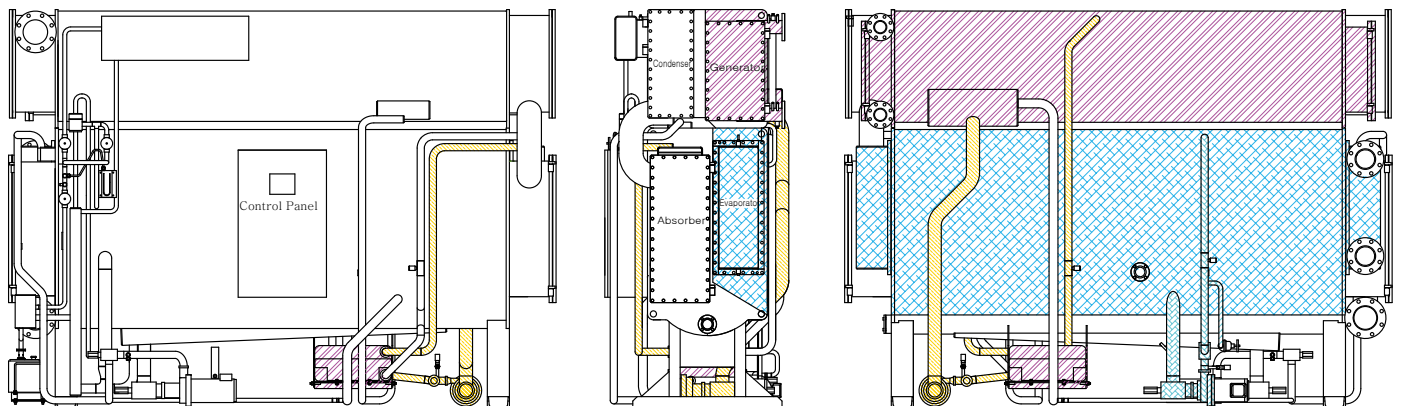
- Material of insulation : Inflammable polymer sponge usable at 120°C
- Thickness of insulation : 19mm [3/4 inch], 10mm [3/8 inch] when polymer sponge is used

COLD Surface insulation

- Material of insulation : Closed cell type Inflammable polymer sponge
- Thickness of insulation : 19mm [3/4 inch], 10mm [3/8 inch]

| Model | Hot Surface(m ²) | | Cold Surface(m ²) | |
|--------|------------------------------|--------|-------------------------------|--------|
| | 19(mm) | 10(mm) | 19(mm) | 10(mm) |
| L30HH | 3.7 | 0.9 | 3.6 | 0.4 |
| L40HH | 3.7 | 0.9 | 3.6 | 0.4 |
| L50HH | 4.4 | 0.9 | 4.2 | 0.5 |
| L60HH | 4.4 | 1.0 | 4.2 | 0.5 |
| L75HH | 4.6 | 1.1 | 4.3 | 0.5 |
| L90HH | 4.6 | 1.1 | 4.3 | 0.5 |
| L110HH | 6.2 | 1.2 | 5.8 | 0.5 |
| L135HH | 6.2 | 1.3 | 5.8 | 0.5 |
| L155HH | 6.5 | 1.6 | 6.6 | 0.7 |
| L180HH | 6.5 | 1.7 | 6.6 | 0.9 |
| L210HH | 8.3 | 1.8 | 8.0 | 0.9 |
| L240HH | 8.5 | 1.9 | 8.2 | 0.9 |
| L270HH | 9.8 | 2.1 | 8.9 | 0.9 |
| L300HH | 9.8 | 2.1 | 8.9 | 0.9 |

| Model | Hot Surface(m ²) | | Cold Surface(m ²) | |
|---------|------------------------------|--------|-------------------------------|--------|
| | 19(mm) | 10(mm) | 19(mm) | 10(mm) |
| L340HH | 10.9 | 2.1 | 10.6 | 0.9 |
| L375HH | 10.9 | 2.2 | 10.6 | 0.9 |
| L420HH | 12.2 | 2.6 | 14.6 | 1.1 |
| L470HH | 13.5 | 2.7 | 16.2 | 1.2 |
| L525HH | 15.0 | 2.8 | 17.3 | 1.2 |
| L580HH | 20.3 | 3.4 | 17.6 | 2.1 |
| L630HH | 21.9 | 3.5 | 19.3 | 2.1 |
| L750HH | 23.7 | 3.6 | 21.0 | 2.1 |
| L820HH | 24.2 | 3.8 | 21.1 | 2.3 |
| L900HH | 26.0 | 3.9 | 22.9 | 2.3 |
| L975HH | 27.6 | 4.0 | 27.8 | 2.3 |
| L1050HH | 35.8 | 5.3 | 12.4 | 2.6 |
| L1125HH | 37.5 | 5.4 | 13.1 | 2.6 |
| L1300HH | 40.6 | 5.5 | 14.4 | 2.6 |



Hot Surfaces

- 19mm [3/4 in] : Generator with Water Box
- 10mm [3/8 in] : Heat Exchanger Body with Piping

Cold Surfaces

- 19mm [3/4 in] : Evaporator Body with Water Box
- 10mm [3/8 in] : Inlet and Outlet Piping of Refrigerant Pump

Single Effect Hot Water Driven Absorption Chiller



Performance Data

→ →

| Model | | Unit | 2ABH30 | 2ABH40 | 2ABH50 | 2ABH60 | 2ABH75 | 2ABH90 | 2ABH110 | 2ABH135 | 2ABH155 | 2ABH180 | 2ABH210 | 2ABH240 | 2ABH270 | 2ABH300 | |
|----------------------------|--------------------------|-------------------|-------------------|--------|--------|--------|--------|--------|-----------|---------|---------|-----------|---------|---------|------------|---------|-----|
| Cooling Capacity | | kW | 105 | 141 | 176 | 211 | 264 | 316 | 387 | 475 | 545 | 633 | 738 | 844 | 949 | 1,055 | |
| | | usRT | 30 | 40 | 50 | 60 | 75 | 90 | 110 | 135 | 155 | 180 | 210 | 240 | 270 | 300 | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 18.1 | 24.2 | 30.2 | 36.3 | 45.4 | 54.4 | 66.5 | 81.6 | 93.7 | 109 | 127 | 145 | 163 | 181 | |
| | Pressure Drop | mH ₂ O | 4.6 | 5.2 | 5.9 | 6.5 | 6.7 | 6.9 | 4.6 | 4.9 | 4.5 | 4.5 | 9.9 | 9.7 | 10.2 | 10.2 | |
| | Connection | mm | 65 | | | | 80 | | | 100 | | | 125 | | | 150 | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 39.3 | 52.4 | 65.5 | 78.6 | 98.3 | 118 | 144 | 177 | 203 | 236 | 275 | 314 | 354 | 393 | |
| | Pressure Drop | mH ₂ O | 4.4 | 4.9 | 7.4 | 8.1 | 7.6 | 8.1 | 4.9 | 5.5 | 5.5 | 5.7 | 10.6 | 10.4 | 10.0 | 10.0 | |
| | Connection | mm | 100 | | | | 125 | | | 150 | | | 200 | | | 250 | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 55 | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 3.1 | 4.1 | 5.2 | 6.2 | 7.8 | 9.3 | 11.4 | 14.0 | 16.1 | 18.6 | 21.8 | 24.9 | 28.0 | 31.1 | |
| | | m ³ /h | 3.2 | 4.3 | 5.4 | 6.5 | 8.1 | 9.7 | 11.8 | 14.5 | 16.7 | 19.4 | 22.6 | 25.8 | 29.1 | 32.3 | |
| | Pressure Drop | Shell | mH ₂ O | 0.6 | 1.2 | 2.2 | 2.5 | 2.4 | 2.6 | 5.0 | 5.4 | 4.6 | 4.7 | 4.7 | 4.8 | 6.0 | 6.1 |
| | | Control Valve | mH ₂ O | 4.2 | 1.9 | 2.9 | 4.2 | 2.5 | 3.7 | 2.2 | 3.4 | 1.8 | 2.5 | 3.4 | 1.6 | 2.0 | 2.5 |
| | Connection | mm | 50 | | | | 65 | | | 80 | | | | | | | |
| Control Valve | mm | 20 | 25 | | 32 | | | 40 | | 50 | | | 65 | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 2.1 (8.2) | | | | | | 2.4 (9.0) | | | 2.6 (9.0) | | | 3.1 (10.7) | | |
| | Ref. Pump | kW(A) | 0.2 (1.1) | | | | | | 0.3 (1.4) | | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | |
| | Total kW | kW | 2.9 | | | | | | 3.3 | | | 3.5 | | | 4.0 | | |
| | Total Ampere @400V | A | 11.2 | | | | | | 12.3 | | | 12.3 | | | 14.0 | | |
| Size | Length (L) | mm | 2,110 | | 2,610 | | 2,658 | | 3,678 | | 3,728 | | 4,748 | | 4,854 | | |
| | Width (W) | mm | 1,554 | | | | 1,594 | | | | 1,732 | | | | 2,048 | | |
| | Height (H) | mm | 2,280 | | | | 2,473 | | | | 2,705 | | | | 2,781 | | |
| Weight | Rigging | ton | 2.7 | 2.8 | 3.3 | 3.4 | 4.5 | 4.7 | 5.9 | 6.2 | 7.4 | 7.7 | 9.1 | 9.5 | 11.6 | 12.2 | |
| | Operation | ton | 2.9 | 3.2 | 3.7 | 4.0 | 5.3 | 5.5 | 6.8 | 7.2 | 8.7 | 9.2 | 10.7 | 11.2 | 13.8 | 14.5 | |
| Space for Tube Replacement | | mm | 1,900 | | 2,400 | | | | 3,400 | | | | 4,600 | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 60 | 67 | 77 | 80 | 111 | 123 | 142 | 159 | 216 | 237 | 258 | 286 | 324 | 348 | |
| | Cooling Water Side | ℓ | 287 | 315 | 354 | 369 | 433 | 469 | 553 | 606 | 803 | 871 | 995 | 1,086 | 1,358 | 1,450 | |
| | Hot Water Side | ℓ | 126 | 141 | 162 | 172 | 221 | 244 | 282 | 317 | 374 | 414 | 454 | 507 | 621 | 670 | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

2ABH Series

Single Effect Hot Water Driven Absorption Chiller

Performance Data

| Model | | Unit | 2ABH340 | 2ABH375 | 2ABH420 | 2ABH470 | 2ABH525 | 2ABH580 | 2ABH630 | 2ABH680 | 2ABH750 | 2ABH820 | 2ABH900 | 2ABH975 | 2ABH1050 | 2ABH1125 | 2ABH1300 | | | | | | | | | | | | | |
|----------------------------|--------------------------|-------------------|-------------------|---------|--------------|---------|--------------|---------|--------------|--------------|---------|--------------|---------|---------------|----------|----------|----------|-------|-------|-------|-------|--|-------|--|-------|--|-------|--|-------|--|
| Cooling Capacity | | kW | 1,196 | 1,319 | 1,477 | 1,653 | 1,846 | 2,039 | 2,215 | 2,391 | 2,637 | 2,883 | 3,165 | 3,428 | 3,692 | 3,956 | 4,571 | | | | | | | | | | | | | |
| | | usRT | 340 | 375 | 420 | 470 | 525 | 580 | 630 | 680 | 750 | 820 | 900 | 975 | 1,050 | 1,125 | 1,300 | | | | | | | | | | | | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 206 | 227 | 254 | 284 | 318 | 351 | 381 | 411 | 454 | 496 | 544 | 590 | 635 | 680 | 786 | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 9.2 | 9.7 | 4.4 | 5.9 | 5.6 | 7.4 | 9.2 | 5.5 | 7.1 | 9.1 | 6.9 | 8.6 | 5.2 | 6.4 | 9.5 | | | | | | | | | | | | | |
| | Connection | mm | 200 | | | | | | 250 | | | 300 | | | | | | | | | | | | | | | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 445 | 491 | 550 | 616 | 688 | 760 | 825 | 891 | 983 | 1,074 | 1,179 | 1,277 | 1,376 | 1,474 | 1,703 | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 10.8 | 10.9 | 6.4 | 8.5 | 6.5 | 8.4 | 10.5 | 6.7 | 8.7 | 11.0 | 8.1 | 10.1 | 2.4 | 3.0 | 4.3 | | | | | | | | | | | | | |
| | Connection | mm | 250 | | | | 300 | | | 350 | | | 400 | | | 450 | | | | | | | | | | | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 55 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 35.2 | 38.9 | 43.5 | 48.7 | 54.4 | 60.1 | 65.3 | 70.4 | 77.7 | 85.0 | 93.2 | 101 | 109 | 117 | 135 | | | | | | | | | | | | | |
| | | m ³ /h | 36.6 | 40.4 | 45.2 | 50.6 | 56.5 | 62.5 | 67.9 | 73.2 | 80.8 | 88.3 | 96.9 | 105 | 113 | 121 | 140 | | | | | | | | | | | | | |
| | Pressure Drop | Shell | mH ₂ O | 5.4 | 5.4 | 3.7 | 5.0 | 4.0 | 5.1 | 6.3 | 3.2 | 4.6 | 5.8 | 4.7 | 5.7 | 4.0 | 4.9 | 7.1 | | | | | | | | | | | | |
| | | Control Valve | mH ₂ O | 3.2 | 2.0 | 2.5 | 3.1 | 3.9 | 2.3 | 2.7 | 3.2 | 3.9 | 2.2 | 2.7 | 3.1 | 3.6 | 4.2 | 2.4 | | | | | | | | | | | | |
| | Connection | mm | 80 | 100 | | | | | 125 | | | | 150 | | | | | | | | | | | | | | | | | |
| | Control Valve | mm | 60 | 80 | | | | 100 | | | | 125 | | | | 150 | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 3.2 (11.0) | | 3.6 (11.5) | | 6.4 (18.1) | | | 7.5 (21.9) | | 8.5 (25.7) | | 10.9 (32.9) | | | | | | | | | | | | | | | | |
| | Ref. Pump | kW(A) | 0.4 (1.4) | | | | | | 1.5 (4.0) | | | | | | | | | | | | | | | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | 0.75 (2.2) | | | | | | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 4.2 | | | 4.6 | | | 7.4 | | | 9.6 | | 10.0 | | 11.0 | | 13.4 | | | | | | | | | | | | |
| | Total Ampere @400V | A | 14.3 | | | 14.8 | | | 21.4 | | | 27.8 | | 28.6 | | 32.4 | | 39.6 | | | | | | | | | | | | |
| Size | Length (L) | mm | 4,872 | | 5,414 | | 5,912 | | 6,012 | | 6,537 | | 7,037 | | 6,114 | | 6,639 | | 7,139 | | 6,749 | | 7,249 | | 6,966 | | 7,466 | | 8,466 | |
| | Width (W) | mm | 2,310 | | | 2,332 | | | 2,588 | | | 3,179 | | | 3,691 | | | 4,508 | | | | | | | | | | | | |
| | Height (H) | mm | 2,947 | | | | | 3,168 | | | | 3,474 | | | | 3,937 | | | | 4,000 | | | | | | | | | | |
| Weight | Rigging | ton | 13.9 | 14.4 | 16.3 | 18.1 | 22.9 | 25.2 | 27.4 | 28.7 | 31.6 | 34.4 | 39.6 | 42.0 | 44.4 | 47.5 | 54.7 | | | | | | | | | | | | | |
| | Operation | ton | 16.7 | 17.4 | 19.7 | 21.8 | 27.7 | 30.5 | 33.2 | 33.9 | 37.4 | 40.7 | 46.9 | 49.7 | 54.0 | 57.8 | 66.0 | | | | | | | | | | | | | |
| Space for Tube Replacement | mm | 4,600 | | | 5,200 | | | 5,700 | | | 6,200 | | 6,700 | | 6,200 | | 6,700 | | 6,200 | | 6,700 | | 6,300 | | 6,800 | | 7,800 | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 465 | 485 | 526 | 563 | 656 | 701 | 744 | 944 | 1,004 | 1,060 | 1,355 | 1,423 | 1,795 | 1,890 | 2,079 | | | | | | | | | | | | | |
| | Cooling Water Side | ℓ | 1,755 | 1,844 | 1,979 | 2,102 | 2,707 | 2,870 | 3,026 | 3,655 | 3,865 | 4,066 | 5,182 | 5,427 | 7,684 | 7,991 | 8,607 | | | | | | | | | | | | | |
| | Hot Water Side | ℓ | 786 | 844 | 922 | 994 | 1,129 | 1,211 | 1,289 | 1,533 | 1,642 | 1,745 | 2,011 | 2,140 | 2,648 | 2,806 | 3,120 | | | | | | | | | | | | | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Single Effect Hot Water Driven Absorption Chiller



Performance Data

→→

| Model | | Unit | 2AB75 | 2AB90 | 2AB110 | 2AB135 | 2AB155 | 2AB180 | 2AB210 | 2AB240 | 2AB270 | 2AB300 | 2AB340 | 2AB375 | |
|----------------------------|--------------------------|-------------------|-------------------|-------|-----------|--------|-----------|--------|-----------|--------|----------|--------|--------|--------|-----|
| Cooling Capacity | | kW | 264 | 316 | 387 | 475 | 545 | 633 | 738 | 844 | 949 | 1,055 | 1,196 | 1,319 | |
| | | usRT | 75 | 90 | 110 | 135 | 155 | 180 | 210 | 240 | 270 | 300 | 340 | 375 | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 45.4 | 54.4 | 66.5 | 81.6 | 93.7 | 109 | 127 | 145 | 163 | 181 | 206 | 227 | |
| | Pressure Drop | mH ₂ O | 3.7 | 3.8 | 10.0 | 10.5 | 9.4 | 10.1 | 9.6 | 10.0 | 10.2 | 10.5 | 9.3 | 9.7 | |
| | Connection | mm | 80 | | 100 | | | 125 | | | 150 | | 200 | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 106 | 128 | 156 | 191 | 220 | 255 | 298 | 340 | 383 | 425 | 482 | 531 | |
| | Pressure Drop | mH ₂ O | 7.6 | 8.1 | 5.2 | 5.8 | 5.9 | 6.3 | 11.4 | 11.3 | 10.8 | 10.6 | 11.0 | 11.3 | |
| | Connection | mm | 125 | | | 150 | | | 200 | | | 250 | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 55 | | | | | | | | | | | | |
| | Flow rate | ton/h | 8.9 | 10.6 | 13.0 | 15.9 | 18.3 | 21.3 | 24.8 | 28.3 | 31.9 | 35.4 | 40.2 | 44.3 | |
| | | m ³ /h | 9.2 | 11.1 | 13.5 | 16.6 | 19.0 | 22.1 | 25.8 | 29.5 | 33.2 | 36.8 | 41.8 | 46.1 | |
| | Pressure Drop | Shell | mH ₂ O | 1.0 | 1.2 | 2.8 | 3.4 | 3.0 | 3.2 | 6.4 | 6.7 | 6.1 | 6.1 | 6.0 | 6.0 |
| | | Control Valve | mH ₂ O | 2.2 | 3.2 | 4.7 | 2.9 | 3.8 | 5.1 | 2.7 | 3.6 | 4.5 | 2.2 | 2.8 | 3.4 |
| | Connection | mm | 65 | | | | 80 | | | | 100 | | | | |
| Control Valve | mm | 40 | | | 50 | | | 65 | | | 80 | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 2.3 (7.7) | | 2.3 (8.3) | | 2.6 (9.1) | | 2.6 (9.2) | | 3.2 (11) | | | | |
| | Ref. Pump | kW(A) | 0.2 (1.1) | | 0.3 (1.4) | | | | 0.4 (1.4) | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | |
| | Total kW | kW | 3.1 | | 3.2 | | 3.5 | | 3.6 | | 4.2 | | | | |
| | Total Ampere @400V | A | 10.7 | | 11.6 | | 12.4 | | 12.5 | | 14.3 | | | | |
| Size | Length (L) | mm | 2,658 | | 3,678 | | 3,728 | | 4,748 | | 4,872 | | 4,882 | | |
| | Width (W) | mm | 1,834 | | | | 2,109 | | | | 2,248 | | 2,430 | | |
| | Height (H) | mm | 2,084 | | | | 2,257 | | | | 2,519 | | 2,787 | | |
| Weight | Rigging | ton | 4.4 | 4.6 | 5.7 | 6.0 | 7.2 | 7.5 | 8.8 | 9.2 | 11.3 | 11.8 | 13.5 | 14.0 | |
| | Operation | ton | 5.1 | 5.3 | 6.6 | 7.0 | 8.4 | 8.9 | 10.4 | 10.9 | 13.4 | 14.1 | 16.2 | 16.9 | |
| Space for Tube Replacement | | mm | 2,400 | | | 3,400 | | | 4,600 | | | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 105 | 117 | 136 | 154 | 210 | 225 | 253 | 274 | 316 | 337 | 456 | 479 | |
| | Cooling Water Side | ℓ | 425 | 466 | 549 | 610 | 779 | 853 | 911 | 1,009 | 1,353 | 1,461 | 1,730 | 1,827 | |
| | Hot Water Side | ℓ | 212 | 230 | 273 | 300 | 367 | 401 | 444 | 490 | 600 | 651 | 772 | 830 | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

2AB Series

Single Effect Hot Water Driven Absorption Chiller

Performance Data

| Model | | Unit | 2AB420 | 2AB470 | 2AB525 | 2AB600 | 2AB675 | 2AB750 | 2AB825 | 2AB900 | 2AB975 | 2AB1050 | 2AB1125 | 2AB1300 | |
|----------------------------|--------------------------|-------------------|-------------------|--------|--------|------------|--------|--------|------------|--------|--------|-------------|---------|---------|-----|
| Cooling Capacity | | kW | 1,477 | 1,653 | 1,846 | 2,110 | 2,373 | 2,637 | 2,901 | 3,165 | 3,428 | 3,692 | 3,956 | 4,571 | |
| | | usRT | 420 | 470 | 525 | 600 | 675 | 750 | 825 | 900 | 975 | 1,050 | 1,125 | 1,300 | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 254 | 284 | 318 | 363 | 408 | 454 | 499 | 544 | 590 | 635 | 680 | 786 | |
| | Pressure Drop | mH ₂ O | 9.4 | 12.8 | 5.7 | 4.1 | 5.5 | 7.2 | 5.4 | 6.9 | 8.6 | 5.2 | 6.3 | 9.4 | |
| | Connection | mm | 200 | | | 250 | | | 300 | | | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36.5 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 595 | 666 | 744 | 850 | 956 | 1,063 | 1,169 | 1,275 | 1,382 | 1,488 | 1,594 | 1,842 | |
| | Pressure Drop | mH ₂ O | 4.2 | 5.8 | 7.7 | 5.8 | 7.8 | 10.2 | 7.7 | 9.9 | 11.6 | 3.2 | 3.9 | 5.3 | |
| | Connection | mm | 300 | | | 350 | | | 400 | | | 450 | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 95 / 55 | | | | | | | | | | | | |
| | Flow rate | ton/h | 49.6 | 55.5 | 62.0 | 70.9 | 79.7 | 88.6 | 97.4 | 106 | 115 | 124 | 133 | 154 | |
| | | m ³ /h | 51.6 | 57.7 | 64.5 | 73.7 | 82.9 | 92.1 | 101 | 111 | 120 | 129 | 138 | 160 | |
| | Pressure Drop | Shell | mH ₂ O | 5.4 | 7.3 | 6.6 | 4.4 | 2.6 | 3.3 | 2.9 | 3.6 | 4.4 | 3.0 | 3.6 | 5.2 |
| | | Control Valve | mH ₂ O | 1.8 | 2.2 | 2.7 | 3.6 | 4.5 | 2.2 | 2.6 | 3.2 | 3.7 | 4.3 | 2.0 | 2.7 |
| | Connection | mm | 100 | | | 125 | | | | | | 150 | | | |
| Control Valve | mm | 100 | | | | | | 125 | | | 150 | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 5.6 (16.8) | | | 7.7 (23.4) | | | 9.4 (29.1) | | | 12.7 (39.2) | | | |
| | Ref. Pump | kW(A) | 0.4 (1.4) | | | 1.5 (4.0) | | | | | | 1.5 (4.3) | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | 0.75 (2.2) | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | |
| | Total kW | kW | 6.6 | | | 9.8 | | | 11.9 | | | 15.2 | | | |
| | Total Ampere @400V | A | 20.1 | | | 29.3 | | | 35.8 | | | 46.2 | | | |
| Size | Length (L) | mm | 4,992 | 5,534 | 6,032 | 5,637 | 6,135 | 6,660 | 6,246 | 6,771 | 7,271 | 7,010 | 7,510 | 8,510 | |
| | Width (W) | mm | 2,788 | | | 3,140 | | | 3,531 | | | 4,430 | | | |
| | Height (H) | mm | 3,036 | | | 3,471 | | | 3,837 | | | 4,000 | | | |
| Weight | Rigging | ton | 19.0 | 20.7 | 22.2 | 26.7 | 28.7 | 30.7 | 36.4 | 38.4 | 40.8 | 43.4 | 46.1 | 53.1 | |
| | Operation | ton | 23.0 | 25.0 | 26.9 | 31.6 | 34.0 | 36.3 | 43.1 | 45.5 | 48.3 | 52.5 | 55.7 | 64.1 | |
| Space for Tube Replacement | mm | 4,600 | 5,200 | 5,700 | 5,200 | 5,700 | 6,200 | 5,700 | 6,200 | 6,700 | 6,300 | 6,800 | 7,800 | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 553 | 599 | 642 | 873 | 928 | 987 | 1,241 | 1,313 | 1,381 | 1,767 | 1,862 | 2,052 | |
| | Cooling Water Side | ℓ | 2,448 | 2,626 | 2,789 | 3,567 | 3,776 | 3,997 | 4,938 | 5,206 | 5,462 | 7,868 | 8,193 | 8,845 | |
| | Hot Water Side | ℓ | 901 | 984 | 1,060 | 1,340 | 1,439 | 1,543 | 1,735 | 1,865 | 1,989 | 2,409 | 2,558 | 2,856 | |

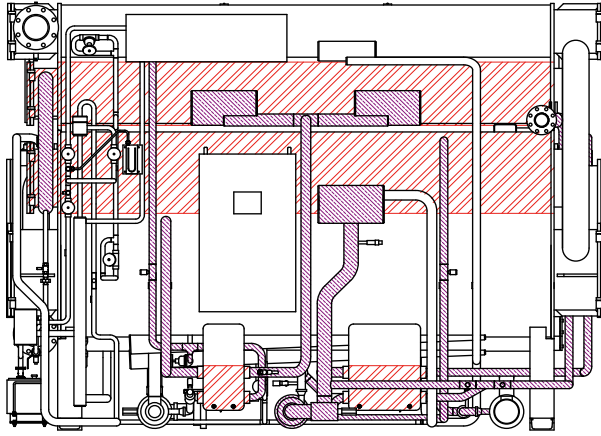
Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Single Effect Hot Water Driven Absorption Chiller

COP
0.71

Thermal Insulation



Hot Surface

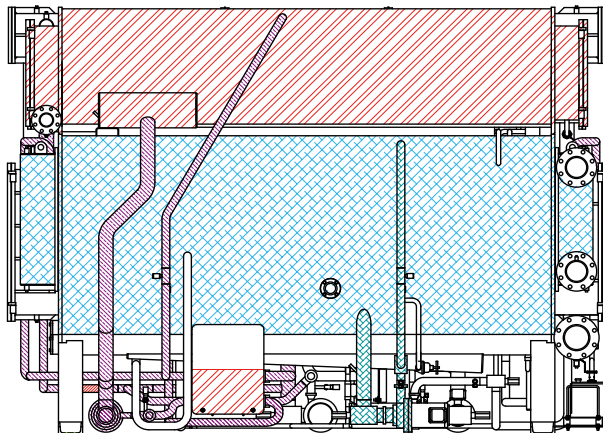
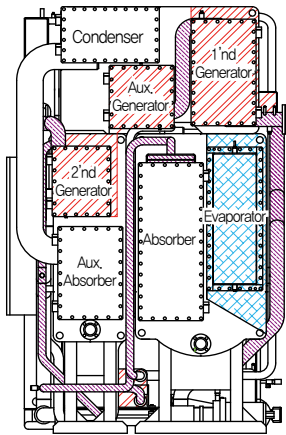
- 19mm : 1st Generator with water box, 2nd Generator with water box, Aux. Generator with water box, Heat Exchanger body
- 10mm : Pipes of High temperature's parts

Cold Surface

- 19mm : Evaporator with water box
- 10mm : Inlet and outlet pipes of refrigerant pump

Note

1. Use only Non-inflammable or flame retardants insulatio materials.
2. Do not insulate motor of refrigerant pump.
3. Total insulation area is including pipings.
4. Do not cover components such as service valves, diaphragm valves, sight glass, control valves, thermometers or sensor.
5. Use the standard insulation material and thickness as the recommendation.



HOT Surface insulation

- Material of insulation : Inflammable polymer sponge usable at 120°C
- Thickness of insulation : 19mm (3/4 inch), 10mm (3/8 inch) when polymer sponge is used

COLD Surface insulation

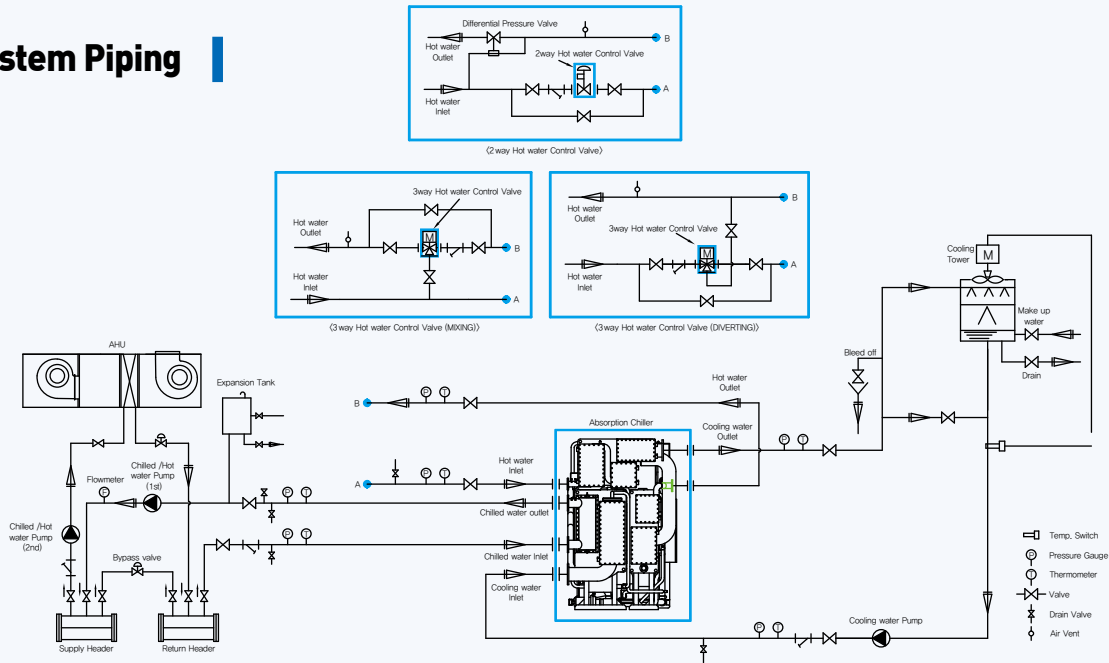
- Material of insulation : Closed cell type Non-inflammable polymer sponge
- Thickness of insulation : 19mm (3/4 inch), 10mm (3/8 inch)

| Model \ Thickness (mm) | Hot Surface(m ²) | | Cold Surface(m ²) | |
|------------------------|------------------------------|------|-------------------------------|-----|
| | 19 | 10 | 19 | 10 |
| 2ABH30 | 6.8 | 4.9 | 3.5 | 0.6 |
| 2ABH40 | 6.8 | 4.9 | 3.5 | 0.6 |
| 2ABH50 | 8.1 | 4.9 | 4.1 | 0.7 |
| 2ABH60 | 8.1 | 5.5 | 4.1 | 0.7 |
| 2ABH75 | 8.5 | 6 | 4.2 | 0.7 |
| 2ABH90 | 8.5 | 6 | 4.2 | 0.7 |
| 2ABH110 | 11.4 | 6 | 5.7 | 0.7 |
| 2ABH135 | 11.4 | 6 | 5.7 | 0.7 |
| 2ABH155 | 13.1 | 6.4 | 6.2 | 0.9 |
| 2ABH180 | 13.1 | 6.4 | 6.2 | 0.9 |
| 2ABH210 | 16.6 | 6.8 | 7.8 | 1.0 |
| 2ABH240 | 16.6 | 6.8 | 7.8 | 1.0 |
| 2ABH270 | 18.6 | 9 | 8.6 | 1.1 |
| 2ABH300 | 18.6 | 9 | 8.6 | 1.1 |
| 2ABH340 | 21.7 | 10.6 | 10.3 | 1.1 |
| 2ABH375 | 21.7 | 10.6 | 10.3 | 1.1 |
| 2ABH420 | 25.2 | 12.5 | 14.2 | 1.3 |
| 2ABH470 | 27.4 | 12.5 | 15.8 | 1.4 |
| 2ABH525 | 29.5 | 12.5 | 16.9 | 1.4 |
| 2ABH580 | 32.9 | 14.7 | 17.2 | 2.3 |
| 2ABH630 | 35.1 | 14.7 | 18.8 | 2.3 |
| 2ABH680 | 33.7 | 14.7 | 20.2 | 2.3 |
| 2ABH750 | 37.2 | 14.7 | 20.4 | 2.3 |
| 2ABH820 | 40.7 | 1.6 | 20.6 | 2.5 |
| 2ABH900 | 42.9 | 1.6 | 22.3 | 2.5 |
| 2ABH975 | 45 | 1.6 | 27.1 | 2.5 |
| 2ABH1050 | 47.2 | 16.9 | 28.5 | 2.7 |
| 2ABH1125 | 49.6 | 16.9 | 29.9 | 2.7 |
| 2ABH1300 | 52.1 | 16.9 | 31.4 | 2.7 |

2ABH Series

Single Effect 2-Lift Hot water Driven Absorption Chiller

System Piping



- 1) All external equipment out of the blue line is the customer's scope.
- 2) Refer to outline drawing and specification data sheet to figure out the external dimensions of the machine, the location & the diameter of water pipe connection and etc.
- 3) Driving hot water must be maintained as the designed temperature.
- 4) It is strongly recommended to install shut-off valves at hot water inlet and outlet pipe.
- 5) The locations of chilled water pumps, cooling water pumps and expansion tanks shall be determined in consideration of the hydrostatic head of pumps and the height of building. And the Machine shall not be subjected to a pressure higher than the designed pressure at any water header.
- 6) For cooling water quality control, it is recommended to install cooling water bleed-off device on the inlet pipe line of cooling towers.

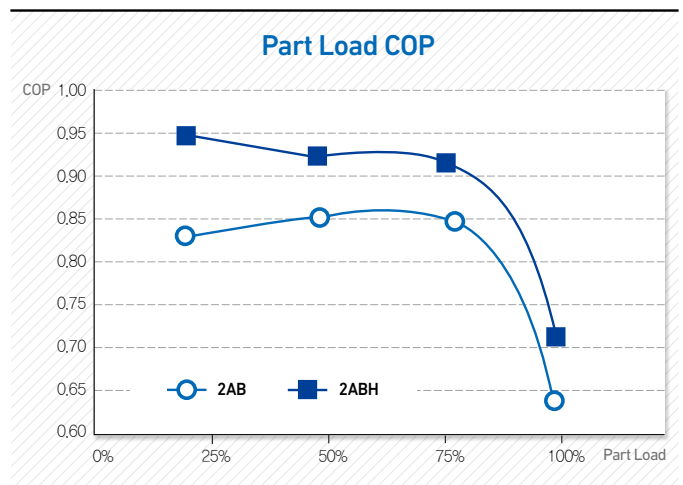
- 7) Around 10 meshes of strainers are recommended to be installed in the cooling water line.
- 8) For the maintenance and the inspection of the machine, the following equipments shall be installed on each chilled water and cooling water inlet/outlet lines as well as stop valve.
 - Thermometers and pressure gauges shall be installed at chilled and cooling water inlet/outlet.
 - Air relief valves shall be installed on each chilled and cooling water lines at higher points than each water header.
 - Drain valves shall be installed at the lowest position between the shut off valves of chilled and cooling water and the Machine and the drain valve shall be piped to the drain ditch.
- 9) There shall be a sufficient clearance for access to the absorber, evaporator, condenser, and generator to facilitate inspection and cleaning work.

Advantage of 2ABH Series

- * 14% Less operational cost
- * 20% Less foot print
- * 8% Smaller sized Cooling water pump & Cooling tower
- * Higher COP at Full load & Part load

| | CW In (°C) | Cooling Capacity(%) | HW out (°C) | Aux. cycle Operation | COP | Part Load rate | IPLV |
|------|------------|---------------------|-------------|----------------------|------|----------------|------|
| 2ABH | 31.0 | 100% | 55.0 | ON | 0.71 | 0.01 | 0.91 |
| | 29.8 | 75% | 48.3 | OFF | 0.85 | 0.42 | |
| | 28.8 | 50% | 43.0 | OFF | 0.86 | 0.45 | |
| 2AB | 28.0 | 25% | 38.3 | OFF | 0.89 | 0.12 | 0.83 |
| | 31.0 | 100% | 55.0 | ON | 0.64 | 0.01 | |
| | 29.8 | 75% | 47.9 | OFF | 0.83 | 0.42 | |
| | 28.8 | 50% | 42.8 | OFF | 0.83 | 0.45 | |
| | 28.0 | 25% | 38.5 | OFF | 0.81 | 0.12 | |

- 1) CHW Outlet is maintained as 8°C and HW inlet as 95°C
- 2) WB temperature : 27°C
- 3) Part load rate is according to ARI560-222



Single Effect Hot Water Driven Absorption Chiller



Performance Data

→ →

| Model | | Unit | 2AA30 | 2AA40 | 2AA50 | 2AA60 | 2AA75 | 2AA90 | 2AA110 | 2AA135 | 2AA155 | 2AA180 | 2AA210 | 2AA240 | 2AA270 | 2AA300 | | |
|----------------------------|--------------------------|-------------------|-------------------|-------|-------|-------|------------|-------|--------|--------|------------|--------|--------|------------|--------|------------|-------|-------|
| Cooling Capacity | | kW | 105 | 141 | 176 | 211 | 264 | 326 | 387 | 475 | 545 | 633 | 738 | 844 | 949 | 1,055 | | |
| | | usRT | 30 | 40 | 50 | 60 | 75 | 90 | 110 | 135 | 155 | 180 | 210 | 240 | 270 | 300 | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 18.1 | 24.2 | 30.2 | 36.3 | 45.4 | 54.4 | 66.5 | 81.6 | 93.7 | 109 | 127 | 145 | 163 | 181 | | |
| | Pressure Drop | mH ₂ O | 4.6 | 5.2 | 3.4 | 3.9 | 3.7 | 3.9 | 4.6 | 4.9 | 4.5 | 4.5 | 3.3 | 3.3 | 3.4 | 3.5 | | |
| | Connection | mm | 65 | | | | 80 | | | 100 | | | 125 | | | 150 | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 62.5 | 83.4 | 104 | 125 | 156 | 188 | 229 | 281 | 323 | 375 | 438 | 500 | 563 | 625 | | |
| | Pressure Drop | mH ₂ O | 7.9 | 8.9 | 5.0 | 5.5 | 5.4 | 5.8 | 3.5 | 3.9 | 4.0 | 4.2 | 7.8 | 7.6 | 7.9 | 7.9 | | |
| | Connection | mm | 100 | | 125 | | | 150 | | | 200 | | | 250 | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 70 / 60 | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 22.0 | 29.4 | 36.7 | 44.0 | 55.1 | 66.1 | 80.7 | 99.1 | 114 | 132 | 154 | 176 | 198 | 220 | | |
| | | m ³ /h | 22.5 | 30.0 | 37.6 | 45.1 | 56.3 | 67.6 | 82.6 | 101 | 116 | 135 | 158 | 180 | 203 | 225 | | |
| | Pressure Drop | Shell | mH ₂ O | 3.7 | 4.1 | 6.6 | 7.5 | 4.2 | 4.5 | 3.8 | 4.2 | 4.4 | 5.1 | 3.9 | 4.2 | 3.5 | 3.6 | |
| | | Control Valve | mH ₂ O | 1.2 | 2.1 | 1.7 | 2.5 | 1.9 | 2.7 | 4.0 | 2.9 | 3.8 | 5.2 | 3.1 | 4.1 | 5.1 | 1.4 | |
| | Connection | mm | 80 | | 100 | | | | 125 | | | | 150 | | 200 | | | |
| Control Valve | mm | 65 | | 80 | | | 100 | | | 125 | | | 150 | | 200 | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 2.8 (10.4) | | | | 3.0 (10.8) | | | | 3.6 (12.0) | | | 3.8 (12.0) | | 3.8 (15.0) | | |
| | Ref. Pump | kW(A) | 0.2 (1.2) | | | | 0.2 (1.2) | | | | 0.3 (1.4) | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.2 | | | | 2.3 | | | | 2.7 | | | 2.8 | | | | |
| | Total Ampere @400V | A | 8.3 | | | | 8.5 | | | | 9.3 | | | | 10.8 | | | |
| Size | Length (L) | mm | 2,340 | | 2,840 | | | 2,972 | | | 3,992 | | | 4,129 | | 5,149 | | 5,266 |
| | Width (W) | mm | 1,729 | | | | 1,801 | | | 1,887 | | | 2,080 | | 2,168 | | 2,360 | |
| | Height (H) | mm | 2,282 | | | | 2,545 | | | | 2,777 | | | | 2,853 | | | |
| Weight | Rigging | ton | 2.9 | 3.0 | 3.5 | 3.6 | 4.8 | 5.1 | 6.3 | 6.6 | 7.9 | 8.3 | 9.7 | 10.1 | 12.4 | 13.0 | | |
| | Operation | ton | 5.6 | 5.8 | 7.3 | 7.7 | 9.2 | 9.8 | 11.4 | 12.0 | 14.7 | 15.5 | 17.8 | 18.6 | 319 | 319 | | |
| Space for Tube Replacement | mm | 2,400 | | | 3,400 | | | | 4,600 | | | | | | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 111 | 123 | 142 | 159 | 216 | 237 | 258 | 286 | 324 | 348 | 465 | 485 | 319 | 319 | | |
| | Cooling Water Side | ℓ | 499 | 546 | 636 | 706 | 933 | 1,027 | 1,135 | 1,260 | 1,616 | 1,725 | 2,071 | 2,195 | 319 | 319 | | |
| | Hot Water Side | ℓ | 213 | 234 | 274 | 305 | 363 | 399 | 442 | 490 | 611 | 652 | 750 | 800 | 319 | 319 | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

2AA Series

Single Effect 2-Lift Waste Heat Recovery Driven Absorption Chiller

Performance Data

| Model | | Unit | 2AA340 | 2AA375 | 2AA420 | 2AA470 | 2AA525 | 2AA580 | 2AA630 | 2AA680 | 2AA750 | 2AA820 | 2AA900 | 2AA975 | 2AA1050 | 2AA1125 | 2AA1300 | | | | | | | | | | | | | | |
|----------------------------|--------------------------|-------------------|-------------------|--------|--------|------------|--------|--------|--------------|--------|--------|------------|--------|--------|-------------|---------|---------|-------------|-------|-------|-------|--|-------|-------|-------|-------|-------|--|-------|--|--|
| Cooling Capacity | | kW | 1,196 | 1,319 | 1,477 | 1,653 | 1,846 | 2,039 | 2,215 | 2,391 | 2,637 | 2,883 | 3,165 | 3,428 | 3,692 | 3,956 | 4,571 | | | | | | | | | | | | | | |
| | | usRT | 340 | 375 | 420 | 470 | 525 | 580 | 630 | 680 | 750 | 820 | 900 | 975 | 1,050 | 1,125 | 1,300 | | | | | | | | | | | | | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 13 / 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 206 | 227 | 254 | 284 | 318 | 351 | 381 | 411 | 454 | 496 | 544 | 590 | 535 | 680 | 786 | | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 3.0 | 3.2 | 4.4 | 5.9 | 5.6 | 7.3 | 9.1 | 5.5 | 7.1 | 9.0 | 6.9 | 8.6 | 5.2 | 6.4 | 9.5 | | | | | | | | | | | | | | |
| | Connection | mm | 200 | | | | | 250 | | | | | 300 | | | | | | | | | | | | | | | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 31 / 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 709 | 782 | 875 | 979 | 1,094 | 1,209 | 1,313 | 1,417 | 1,563 | 1,709 | 1,876 | 2,032 | 2,188 | 2,345 | 2,709 | | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 8.0 | 8.0 | 7.9 | 10.6 | 4.7 | 5.7 | 7.2 | 4.7 | 6.0 | 7.2 | 5.9 | 7.3 | 5.6 | 5.8 | 10.0 | | | | | | | | | | | | | | |
| | Connection | mm | 300 | | | 350 | | | 400 | | | 450 | | | 500 | | | | | | | | | | | | | | | | |
| Hot Water | Inlet Temp./Outlet Temp. | °C | 70 / 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 250 | 275 | 308 | 345 | 385 | 426 | 462 | 499 | 551 | 502 | 661 | 716 | 771 | 826 | 954 | | | | | | | | | | | | | | |
| | | m ³ /h | 255 | 282 | 315 | 353 | 394 | 436 | 473 | 511 | 563 | 616 | 676 | 732 | 789 | 845 | 976 | | | | | | | | | | | | | | |
| | Pressure Drop | Shell | mH ₂ O | 3.9 | 4.0 | 5.1 | 6.8 | 6.7 | 3.5 | 4.4 | 3.1 | 3.9 | 4.0 | 3.4 | 4.1 | 3.1 | 3.7 | 5.4 | | | | | | | | | | | | | |
| | | Control Valve | mH ₂ O | 1.8 | 2.2 | 2.8 | 3.5 | 4.4 | 2.3 | 2.7 | 3.2 | 3.9 | 4.6 | 1.8 | 2.1 | 2.4 | 2.8 | 3.7 | | | | | | | | | | | | | |
| | Connection | mm | 200 | | | 250 | | | 300 | | | 350 | | | | | | | | | | | | | | | | | | | |
| Control Valve | mm | 200 | | | | | 250 | | | | | 300 | | | | | | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 4.8 (15.0) | | | 5.6 (17.0) | | | 9.0 (22.0) | | | 9.0 (22.6) | | | 10.0 (30.4) | | | 13.4 (40.0) | | | | | | | | | | | | | |
| | Ref. Pump | kW(A) | 0.4 (1.4) | | | | | | 1.5 (4.0) | | | | | | | | | | | | | | | | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | 0.75 (2.2) | | | | | | | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 3.4 | | | 3.8 | | | 5.5 | | | 6.6 | | | 7.0 | | | 7.5 | | | 9.2 | | | | | | | | | | |
| | Total Ampere @400V | A | 10.8 | | | 11.8 | | | 14.3 | | | 19.2 | | | 20.0 | | | 21.9 | | | 26.7 | | | | | | | | | | |
| Size | Length (L) | mm | 5,368 | | 5,910 | | 6,408 | | 6,633 | | 7,158 | | 7,658 | | 6,841 | | 7,366 | | 7,866 | | 7,378 | | 7,878 | | 7,866 | | 8,166 | | 9,166 | | |
| | Width (W) | mm | 2,718 | | | 2,815 | | | 2,995 | | | 3,072 | | | 3,657 | | | 3,746 | | | 4,150 | | | 5,052 | | | | | | | |
| | Height (H) | mm | 3,019 | | | | | 3,240 | | | | | 3,546 | | | | | 3,929 | | | | | 4,000 | | | | | | | | |
| Weight | Rigging | ton | 14.9 | 15.4 | 20.9 | 22.8 | 24.4 | 26.9 | 29.3 | 30.7 | 33.8 | 40.0 | 42.2 | 44.9 | 47.4 | 50.7 | 58.4 | | | | | | | | | | | | | | |
| | Operation | ton | 17.8 | 18.6 | 25.3 | 27.5 | 29.6 | 32.6 | 35.5 | 36.2 | 39.9 | 47.4 | 50.1 | 53.1 | 57.7 | 61.7 | 70.5 | | | | | | | | | | | | | | |
| Space for Tube Replacement | mm | 4,600 | | | 5,200 | | | 5,700 | | | 6,200 | | | 6,700 | | | 6,200 | | | 6,700 | | | 6,300 | | | 6,800 | | | 7,800 | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 465 | 485 | 526 | 563 | 656 | 701 | 744 | 944 | 1,004 | 1,060 | 1,355 | 1,423 | 1,795 | 1,890 | 2,076 | | | | | | | | | | | | | | |
| | Cooling Water Side | ℓ | 1,696 | 1,780 | 1,909 | 2,027 | 2,405 | 2,545 | 2,678 | 3,127 | 3,308 | 3,481 | 4,376 | 4,586 | 6,112 | 6,390 | 6,946 | | | | | | | | | | | | | | |
| | Hot Water Side | ℓ | 762 | 812 | 889 | 959 | 1,127 | 1,207 | 1,284 | 1,562 | 1,674 | 1,781 | 2,073 | 2,205 | 2,708 | 2,868 | 3,188 | | | | | | | | | | | | | | |

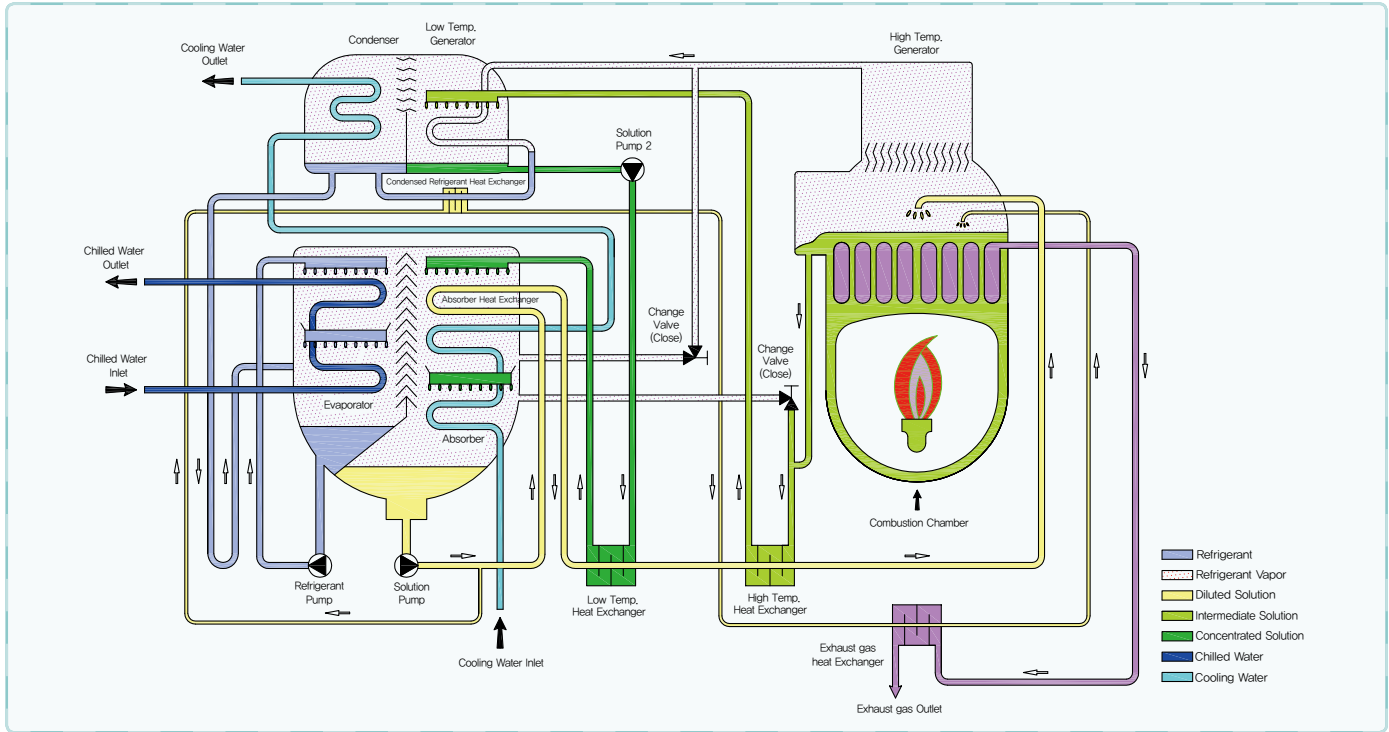
Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

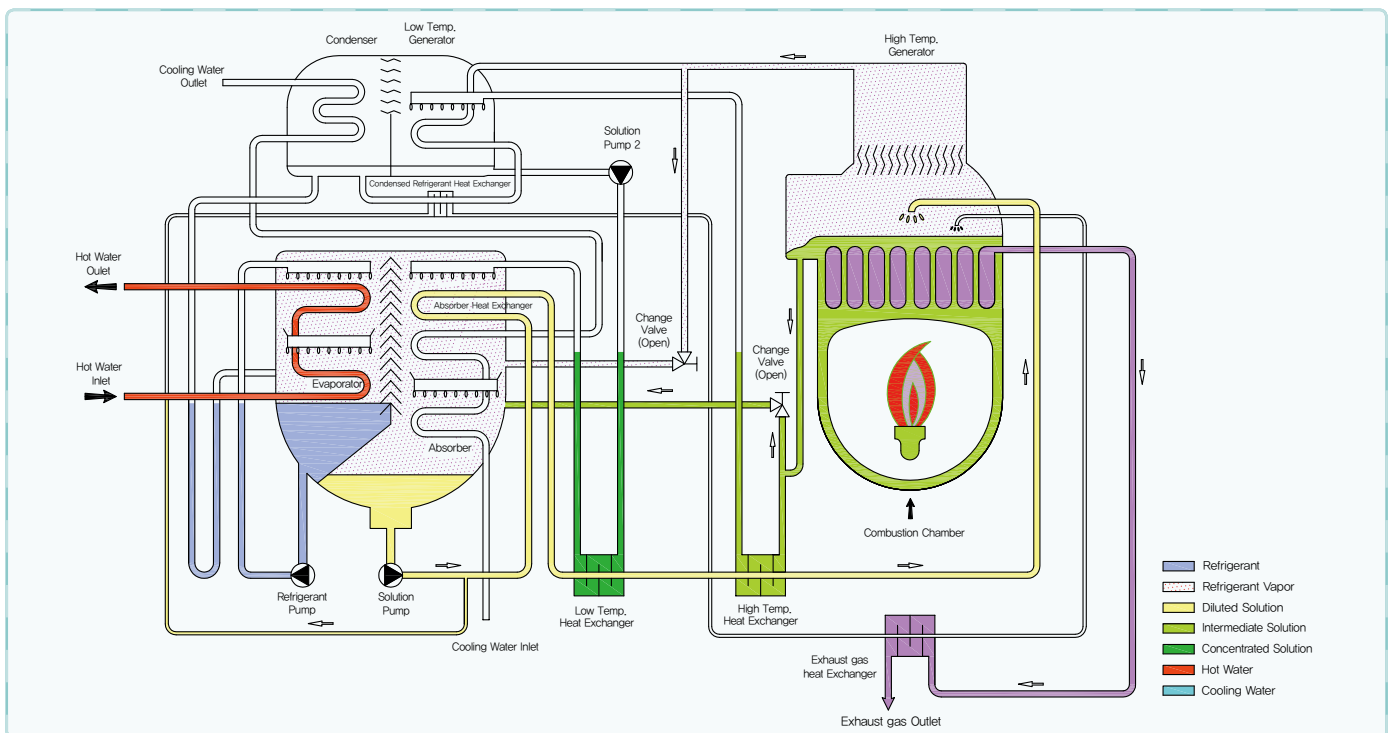
Double Effect Direct Fired Absorption Chiller & Heater

DWHH Series

• Cooling Cycle

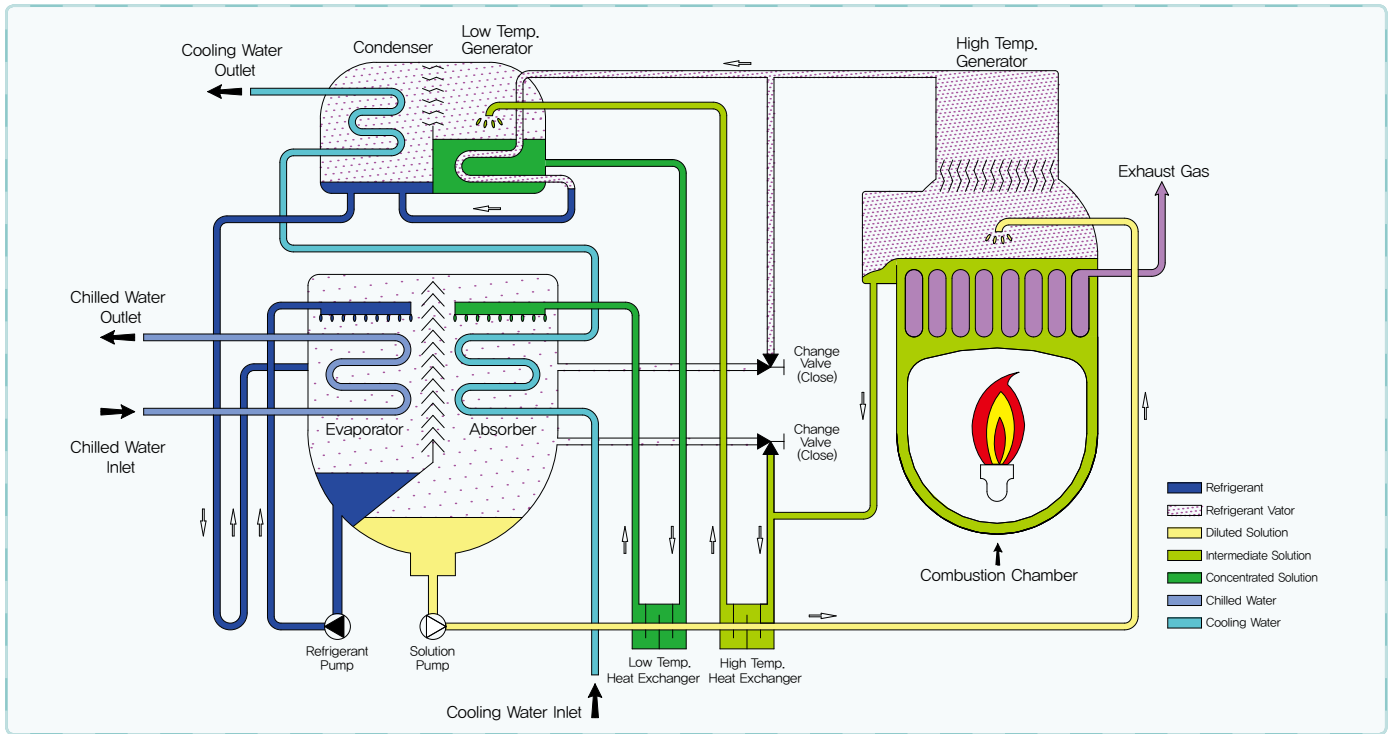


• Heating Cycle

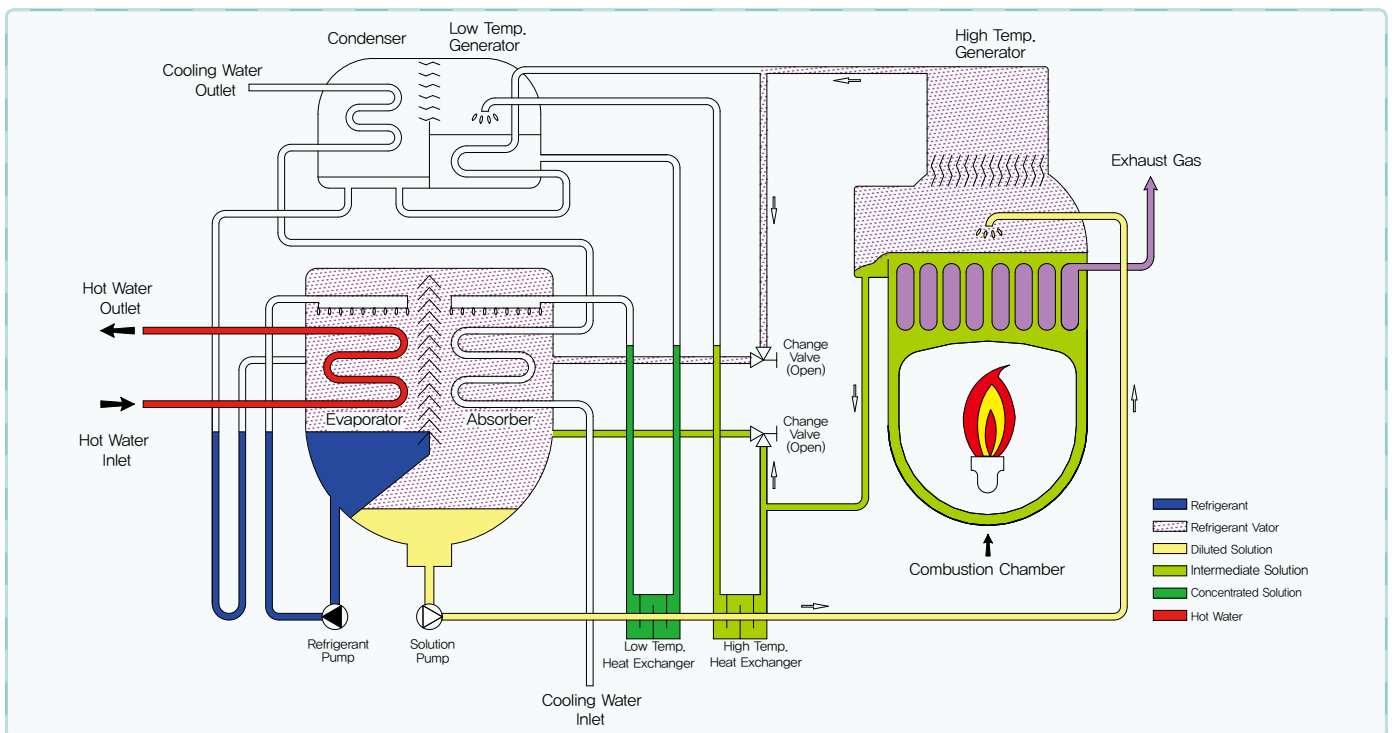


DW Series

• **Cooling Cycle**



• **Heating Cycle**



Double Effect Direct Fired Absorption Chiller & Heater



Performance Data



| Model | | Unit | DWHH50 | DWHH60 | DWHH70 | DWHH80 | DWHH100 | DWHH120 | DWHH150 | DWHH180 | DWHH210 | DWHH240 | DWHH280 | DWHH320 | DWHH360 | | | | | |
|----------------------------|--------------------|----------------------|-----------------|---------|--------|--------|---------------|---------|----------|---------|---------|---------------|---------|---------|---------|-------|-------|--|------|--|
| Cooling Capacity | kW | | 176 | 211 | 246 | 281 | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | 1,266 | | | | | |
| | usRT | | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | | | | | |
| Heating Capacity | kW | | 116 | 139 | 162 | 185 | 232 | 278 | 348 | 417 | 487 | 556 | 649 | 742 | 834 | | | | | |
| | Mcal/h | | 100 | 120 | 140 | 159 | 199 | 239 | 299 | 359 | 419 | 478 | 558 | 638 | 718 | | | | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | | | | | |
| | Pressure Drop | mH ₂ O | 7.5 | 6.9 | 6.3 | 6.9 | 5.9 | 6.1 | 8.0 | 8.2 | 7.6 | 7.5 | 5.4 | 5.3 | 5.7 | | | | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 56.4 / 60 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | | | | | |
| | Pressure Drop | mH ₂ O | 7.5 | 6.9 | 6.3 | 6.9 | 5.9 | 6.1 | 8.0 | 8.2 | 7.6 | 7.5 | 5.4 | 5.3 | 5.7 | | | | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.1 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | | | | | |
| | Pressure Drop | mH ₂ O | 7.3 | 6.1 | 8.0 | 7.6 | 7.3 | 7.7 | 9.9 | 10.4 | 11.5 | 10.2 | 8.3 | 7.9 | 8.1 | | | | | |
| | Connection | mm | 100 | | | | 125 | | | 150 | | | | 200 | | | | | | |
| Gas | High Heating Value | kcal/Nm ³ | 10,400 | | | | | | | | | | | | | | | | | |
| | Flow rate | Nm ³ /h | 11.0 | 13.2 | 15.4 | 17.6 | 22.0 | 26.4 | 33.0 | 39.7 | 46.3 | 52.9 | 61.7 | 70 | 79 | | | | | |
| | Inlet Pressure | mmAq | 200 | | | | 4000 | | | | | | | | | | | | | |
| | Connection | mm | 50 (200mmAq) | | | | 40 (4000mmAq) | | | | | 50 (4000mmAq) | | | | | | | | |
| | Exhaust gas | mm | 190x110 | 270x150 | | | 232x400 | | | | 290x600 | | | | 360x310 | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.2(1.1) | | | | | | 0.3(1.5) | | | | | | | | | | | |
| | Abs. Pump1 | kW | 1.5 | | | | 2.0 | | | | 2.4 | | | 3.2 | | | | | | |
| | Abs. Pump2 | kW | 0.2 | | | | 0.3 | | | | 0.4 | | | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | | | | | | | | | | | | |
| | Burner | kW | 0.4 | | | | 0.7 | | | 1.1 | | | | 2.2 | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.9 | | | | 3.9 | | | 4.3 | | | 4.8 | | | 6.0 | | | 6.8 | |
| | Total Ampere @400V | A | 9.7 | | | | 13.0 | | | 15.2 | | | 15.7 | | | 17.3 | | | 19.4 | |
| Size | Length (L) | mm | 2,245 | 2,748 | | 2,747 | 2,771 | | 3,804 | | 3,869 | | | 4,919 | | 5,077 | | | | |
| | Width (W) | mm | 1,477 | 1,615 | | | 1,810 | 1,697 | | 1,792 | | | 1,902 | | | | 2,200 | | | |
| | Height (H) | mm | 1,760 | | | 2,085 | | 2,473 | | | | 2,705 | | | | 2,781 | | | | |
| Weight | Rigging | ton | 2.7 | 2.9 | 3.4 | 3.6 | 4.5 | 4.8 | 5.7 | 6.2 | 7.2 | 7.6 | 8.8 | 9.3 | 11.5 | | | | | |
| | Operation | ton | 2.9 | 3.1 | 3.7 | 3.9 | 5.0 | 5.3 | 6.3 | 6.8 | 8.0 | 8.5 | 9.8 | 10.4 | 12.8 | | | | | |
| Space for Tube Replacement | mm | 1,900 | | | 2,400 | | | | 3,400 | | | | 4,600 | | | | | | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 25~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

DWHH Series

Double Effect Direct Fired Absorption chiller & Heater

Performance Data

| Model | | Unit | DWHH400 | DWHH450 | DWHH500 | DWHH560 | DWHH630 | DWHH700 | DWHH800 | DWHH900 | DWHH1000 | DWHH1100 | DWHH1200 | DWHH1300 | DWHH1400 | DWHH1500 | | | | | | | | | | | |
|----------------------------|--------------------|----------------------|----------------|-----------|---------|---------|---------|---------|---------------|-----------|----------|----------|----------|----------|----------|----------|-------|-------|-------|-------|--|-------|--|-------|--|-------|--|
| Cooling Capacity | kW | 1,407 | 1,582 | 1,758 | 1,969 | 2,215 | 2,461 | 2,813 | 3,165 | 3,516 | 3,868 | 4,220 | 4,571 | 4,923 | 5,274 | | | | | | | | | | | | |
| | usRT | 400 | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | | | | | | | | | | | |
| Heating Capacity | kW | 927 | 1,043 | 1,159 | 1,298 | 1,460 | 1,622 | 1,854 | 2,086 | 2,318 | 2,549 | 2,781 | 3,013 | 3,245 | 3,476 | | | | | | | | | | | | |
| | Mcal/h | 797 | 897 | 997 | 1,116 | 1,256 | 1,395 | 1,594 | 1,794 | 1,993 | 2,192 | 2,392 | 2,591 | 2,790 | 2,990 | | | | | | | | | | | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12/7 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 241.9 | 272.2 | 302.4 | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 5.8 | 5.0 | 5.3 | 7.3 | 9.9 | 9.4 | 12.8 | 17.0 | 11.9 | 15.1 | 11.4 | 14.3 | 8.6 | 10.6 | | | | | | | | | | | |
| | Connection | mm | 150 | 200 | | | | 250 | | | 300 | | | 350 | | | | | | | | | | | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 56.4 / 60 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 241.9 | 272.2 | 302.4 | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 5.8 | 5.0 | 5.3 | 7.3 | 9.9 | 9.4 | 12.8 | 17.0 | 11.9 | 15.1 | 11.4 | 14.3 | 8.6 | 10.6 | | | | | | | | | | | |
| | Connection | mm | 150 | 200 | | | | 250 | | | 300 | | | 350 | | | | | | | | | | | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 400 | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 8.2 | 8.2 | 8.3 | 11.3 | 15.3 | 11.9 | 14.3 | 15.8 | 14.8 | 15.8 | 14.1 | 13.4 | 13.6 | 14.1 | | | | | | | | | | | |
| | Connection | mm | 200 | 250 | | | | 300 | | | 350 | | | 400 | | 450 | | | | | | | | | | | |
| Gas | High Heating Value | kcal/Nm ³ | 10,400 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | Nm ³ /h | 88 | 99 | 110 | 123 | 139 | 154 | 176 | 198 | 220 | 242 | 264 | 286 | 308 | 330 | | | | | | | | | | | |
| | Inlet Pressure | mmAq | 4000 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Connection | mm | 50 (4000mmAq) | | | | | | 65 (4000mmAq) | | | | | | | | | | | | | | | | | | |
| | Exhaust gas | mm | 410x310 | | | 412x670 | | | 400x620 | | | 400x900 | | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH, 400V,50Hz | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.3(1.5) | 0.4 (1.5) | | | | | | 1.5 (4.0) | | | | | | | | | | | | | | | | | |
| | Abs. Pump1 | kW | 3.2 | 3.2 | | | | 5.5 | | | | 7.5 | | | | | | | | | | | | | | | |
| | Abs. Pump2 | kW | 0.4 | 0.4 | | | | 2.2 | | | | 4.5 | | | | | | | | | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | 0.75 | | | | | | | | | | | | | | | | | | |
| | Burner | kW | 4.0 | 4.0 | | | | 7.5 | | | | 11.0 | | | | | | | | | | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 8.6 | | | 12.7 | | | 16.2 | | | 17.3 | | | 19.7 | | 23.2 | | 25.5 | | | | | | | | |
| | Total Ampere @400V | A | 23.0 | | | 34.1 | | | 40.0 | | | 42.6 | | | 52.4 | | 58.7 | | 68.2 | | | | | | | | |
| Size | Length (L) | mm | 5077 | | | 5,739 | | 6,219 | | 6,231 | | 6,836 | | 7,336 | | 6,829 | | 7,449 | | 6,920 | | 7,420 | | 7,197 | | 7,697 | |
| | Width (W) | mm | 2,200 | 2,510 | | | 2,760 | | | 2,410 | | 3,281 | | 3,281 | | 3,290 | | 3,880 | | | | 4,420 | | | | | |
| | Height (H) | mm | 2,781 | 2,950 | | | | | 3,068 | | | | 3,500 | | | 3,940 | | | 4,000 | | | | | | | | |
| Weight | Rigging | ton | 12.1 | 14.1 | 14.8 | 19.6 | 21.2 | 22.7 | 28.7 | 30.6 | 32.9 | 40.4 | 43.4 | 46.0 | 50.1 | 52.7 | | | | | | | | | | | |
| | Operation | ton | 13.5 | 15.8 | 16.6 | 22.2 | 24.0 | 25.7 | 32.0 | 34.4 | 37.1 | 45.1 | 48.5 | 51.5 | 56.1 | 59.1 | | | | | | | | | | | |
| Space for Tube Replacement | mm | 4,600 | | | 5,200 | | 5,700 | | 6,700 | | 6,700 | | 6,300 | | 6,700 | | 6,300 | | 6,700 | | | | | | | | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Double Effect Direct Fired Absorption Chiller & Heater



Performance Data

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| Model | | Unit | DWH50 | DWH60 | DWH70 | DWH80 | DWH100 | DWH120 | DWH150 | DWH180 | DWH210 | DWH240 | DWH280 | DWH320 | DWH360 | DWH400 | | | | | | | | | |
|----------------------------|--------------------|----------------------|-----------------|-------|-----------|-------|---------------|--------|--------|--------|---------------|--------|--------|--------|-----------|--------|-----|------|-----|--|-----|------|-----|------|--|
| Cooling Capacity | kW | 176 | 211 | 246 | 281 | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | 1,266 | 1,407 | | | | | | | | | | |
| | usRT | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | | | | | | | | | |
| Heating Capacity | kW | 121 | 145 | 170 | 194 | 242 | 291 | 363 | 436 | 509 | 581 | 678 | 775 | 872 | 969 | | | | | | | | | | |
| | kcal/h | 104 | 125 | 146 | 167 | 208 | 250 | 313 | 375 | 438 | 500 | 583 | 667 | 750 | 833 | | | | | | | | | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | 241.9 | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 6.9 | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | 7.4 | 5.4 | 5.3 | 5.8 | 6.0 | | | | | | | | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | | 150 | | | | | | | | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 56.3 / 60 | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | 241.9 | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 6.9 | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | 7.4 | 5.4 | 5.3 | 5.8 | 6.0 | | | | | | | | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | | 150 | | | | | | | | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.1 | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 7.0 | 6.1 | 10.2 | 10.0 | 8.9 | 9.1 | 10.4 | 10.8 | 10.7 | 11.2 | 8.9 | 8.6 | 8.8 | 8.7 | | | | | | | | | |
| | Connection | m | 100 | | | | 125 | | | | 150 | | | | 200 | | | | | | | | | | |
| Gas | High Heating Value | kcal/Nm ³ | 10,400 | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | Nm ³ /h | 12.1 | 14.5 | 17.0 | 19.4 | 24.2 | 29.1 | 36.3 | 43.6 | 50.9 | 58.2 | 67.8 | 77.5 | 87.2 | 96.9 | | | | | | | | | |
| | Inlet Pressure | mmAq | 200 | | | | 4,000 | | | | | | | | | | | | | | | | | | |
| | Connection | mm | 50(200mmAq) | | | | 40(4,000mmAq) | | | | 50(4,000mmAq) | | | | | | | | | | | | | | |
| | Exhaust gas | mm | 180 x 110 | | 270 x 150 | | 280 x 210 | | | | 310 x 310 | | | | 360 x 310 | | | | | | | | | | |
| Electric | Power source | – | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.2 | | | | 0.3 | | | | 0.4 | | | | | | | | | | | | | | |
| | Abs. Pump1 | kW | 1.5 | | | | 2.0 | | | | 2.4 | | | | 3.2 | | | | | | | | | | |
| | Abs. Pump2 | kW | 0.2 | | | | 0.3 | | | | 0.4 | | | | | | | | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | | | | | | | | | | | | | | | | | |
| | Burner | kW | 0.4 | | | | 0.7 | | 1.1 | | | | 2.2 | | | | 4.0 | | | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.9 | | | | 3.9 | | | | 4.3 | | | | 4.8 | | | | 6.0 | | 6.8 | | 8.6 | | |
| Total Ampere @400V | A | 9.7 | | | | 13.0 | | | | 15.2 | | | | 15.7 | | | | 17.3 | | | | 19.4 | | 23.0 | |
| Size | Length (L) | mm | 2,095 | | 2,598 | | 2,597 | | 3,680 | | 3,708 | | 4,734 | | 4,776 | | | | | | | | | | |
| | Width (W) | mm | 1,477 | | 1,615 | | 1,810 | | 1,920 | | 2,117 | | 2,137 | | 2,270 | | | | | | | | | | |
| | Height (H) | mm | 1,760 | | | | 2,090 | | | | 2,122 | | | | 2,385 | | | | | | | | | | |
| Weight | Rigging | ton | 2.7 | 2.9 | 3.4 | 3.6 | 4.5 | 4.8 | 5.7 | 6.2 | 7.2 | 7.6 | 8.8 | 9.3 | 11.5 | 12.1 | | | | | | | | | |
| | Operation | ton | 2.9 | 3.1 | 3.7 | 3.9 | 5.0 | 5.3 | 6.3 | 6.8 | 8.0 | 8.5 | 9.8 | 10.4 | 12.8 | 13.5 | | | | | | | | | |
| Space for Tube Replacement | mm | 1,900 | | 2,400 | | | | 3,400 | | | | 4,500 | | | | | | | | | | | | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 25~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

DWH Series

Double Effect Direct Fired Absorption chiller & Heater

Performance Data

| Model | | Unit | DWH450 | DWH500 | DWH560 | DWH630 | DWH700 | DWH800 | DWH900 | DWH1000 | DWH1100 | DWH1200 | DWH1300 | DWH1400 | DWH1500 | |
|----------------------------|--------------------|----------------------|-----------------|--------|--------|-----------|--------|--------|----------------|---------|---------|-----------|---------|---------|---------|--|
| Cooling Capacity | kW | 1,582 | 1,758 | 1,969 | 2,215 | 2,461 | 2,813 | 3,165 | 3,516 | 3,868 | 4,220 | 4,571 | 4,923 | 5,274 | | |
| | usRT | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| Heating Capacity | kW | 1,090 | 1,211 | 1,357 | 1,526 | 1,696 | 1,938 | 2,181 | 2,423 | 2,665 | 2,907 | 3,510 | 3,392 | 3,634 | | |
| | kcal/h | 937 | 1,041 | 1,167 | 1,312 | 1,459 | 1,667 | 1,876 | 2,084 | 2,292 | 2,500 | 3,019 | 2,917 | 3,125 | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 272.2 | 302.4 | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | |
| | Pressure Drop | mH ₂ O | 5.1 | 5.4 | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 | |
| | Connection | mm | 200 | | | | 250 | | | | 300 | | | | 350 | |
| Hot Water | Inlet/Outlet Temp. | °C | 56.3 / 60 | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 272.2 | 302.4 | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | |
| | Pressure Drop | mH ₂ O | 5.1 | 5.4 | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 | |
| | Connection | mm | 200 | | | | 250 | | | | 300 | | | | 350 | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.1 | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | |
| | Pressure Drop | mH ₂ O | 8.4 | 8.6 | 6.8 | 9.3 | 12.4 | 8.8 | 12.0 | 15.8 | 11.1 | 14.1 | 17.6 | 14.0 | 16.8 | |
| | Connection | m | 250 | | | 300 | | | 350 | | | 400 | | | 450 | |
| Gas | High Heating Value | kcal/Nm ³ | 10,400 | | | | | | | | | | | | | |
| | Flow rate | Nm ³ /h | 109.0 | 121.2 | 135.7 | 152.7 | 169.6 | 193.8 | 218.1 | 242.3 | 266.5 | 290.8 | 315.0 | 339.2 | 363.5 | |
| | Inlet Pressure | mmAq | 4,000 | | | | | | | | | | | | | |
| | Connection | mm | 50 (4,000mmAq) | | | | | | 65 (4,000mmAq) | | | | | | | |
| | Exhaust gas | mm | 410 x 310 | | | 350 x 500 | | | 400 x 620 | | | 400 x 900 | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.4 | | | | 1.5 | | | | | | | | | |
| | Abs. Pump1 | kW | 3.2 | | 5.5 | | | | 7.5 | | | | | | | |
| | Abs. Pump2 | kW | 0.4 | | 2.2 | | | | 4.5 | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | 0.75 | | | | | | | |
| | Burner | kW | 4.0 | | | | 7.5 | | | | 11.0 | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | | |
| | Total kW | kW | 8.6 | | 12.7 | | 16.2 | | 17.3 | | 19.7 | | 23.2 | | 25.5 | |
| Total Ampere @400V | A | 23.0 | | 34.1 | | 40.0 | | 42.6 | | 52.4 | | 58.7 | | 68.2 | | |
| Size | Length (L) | mm | 4,880 | | 4,998 | | 5,540 | | 6,038 | | 5,644 | | 6,142 | | 6,667 | |
| | Width (W) | mm | 2,469 | | 2,935 | | | | 3,330 | | | | 3,929 | | | |
| | Height (H) | mm | 2,633 | | 2,962 | | | | 3,310 | | | | 3,500 | | | |
| Weight | Rigging | ton | 14.1 | 14.8 | 19.6 | 21.2 | 22.7 | 28.7 | 30.6 | 32.9 | 40.4 | 43.4 | 46.0 | 50.1 | 52.7 | |
| | Operation | ton | 15.8 | 16.6 | 22.2 | 24.0 | 25.7 | 32.0 | 34.4 | 37.1 | 45.1 | 48.5 | 51.5 | 56.1 | 59.1 | |
| Space for Tube Replacement | mm | 4,500 | | | 5,200 | | 5,700 | | 5,200 | | 5,700 | | 6,200 | | 6,700 | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Double Effect Direct Fired Absorption Chiller & Heater



Performance Data

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| Model | | Unit | DW50 | DW60 | DW70 | DW80 | DW100 | DW120 | DW150 | DW180 | DW210 | DW240 | DW280 | DW320 | DW360 | DW400 | | |
|----------------------------|----------------------------|----------------------|-----------------|-------|-----------|-------|---------------|-------|-------|-------|---------------|-------|-------|-----------|-------|-------|-------|------|
| Cooling Capacity | kW | | 176 | 211 | 246 | 281 | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | 1,266 | 1,407 | | |
| | usRT | | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | |
| Heating Capacity | kW | | 147 | 176 | 205 | 235 | 293 | 352 | 440 | 528 | 616 | 704 | 822 | 939 | 1,056 | 1,174 | | |
| | Mcal/h | | 126 | 151 | 176 | 202 | 252 | 303 | 378 | 454 | 530 | 605 | 707 | 808 | 908 | 1,010 | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | 241.9 | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 6.9 | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | 7.4 | 5.4 | 5.3 | 5.8 | 6.0 | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 55.8 / 60 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | 241.9 | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 6.9 | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | | 5.4 | 5.3 | 5.8 | 6.0 | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.5 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | |
| | Pressure Drop | mH ₂ O | 7.0 | 6.1 | 10.2 | 10.0 | 8.9 | 9.1 | 10.4 | 10.8 | 10.7 | 11.2 | 8.9 | 8.6 | 8.8 | 8.7 | | |
| | Connection | mm | 100 | | | | 125 | | | | 150 | | | 200 | | | | |
| Gas | High Heating Value | kcal/Nm ³ | 10,400 | | | | | | | | | | | | | | | |
| | Flow rate | Nm ³ /h | 14.5 | 17.3 | 20.2 | 23.1 | 28.9 | 34.7 | 43.4 | 52.0 | 60.7 | 69.4 | 80.9 | 92.5 | 104.1 | 115.6 | | |
| | Inlet Pressure | mmAq | 200 | | | | 4,000 | | | | | | | | | | | |
| | Connection | mm | 50(200mmAq) | | | | 40(4,000mmAq) | | | | 50(4,000mmAq) | | | | | | | |
| | Exhaust gas | mm | 190 X 110 | | 270 X 150 | | 280 X 210 | | | | 310 X 310 | | | 360 X 310 | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.2 | | | | 0.3 | | | | 0.4 | | | | | | | |
| | Abs. Pump | kW | 1.5 | | | | 2.0 | | | | 2.4 | | | 3.2 | | | | |
| | Purge Pump | kW | 0.4 | | | | | | | | | | | | | | | |
| | Burner | kW | 0.4 | | 0.7 | | 1.1 | | | | 2.2 | | | 4.0 | | | | |
| | Control Pane | kW | 0.2 | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.7 | | 3.0 | | 3.6 | | 4.0 | | | 4.5 | | 5.5 | | 5.6 | | 8.2 |
| | Total Ampere @400V | A | 8.7 | | 10.0 | | 11.6 | | 13.8 | | | 14.3 | | 15.7 | | 15.9 | | 21.6 |
| | Size | Length (L) | mm | 2,095 | | 2,598 | | 2,597 | | 3,680 | | | 3,708 | | 4,734 | | 4,776 | |
| Width (W) | | mm | 1,477 | | 1,615 | | 1,810 | | 1,920 | | | 2,100 | | 2,200 | | 2,290 | | |
| Height (H) | | mm | 1,760 | | | | 2,090 | | | | 2,122 | | | | 2,385 | | | |
| Weight | Rigging | ton | 2.6 | 2.7 | 3.2 | 3.3 | 4.6 | 4.9 | 5.8 | 6.2 | 7.3 | 7.7 | 8.9 | 9.4 | 11.6 | 12.2 | | |
| | Operation | ton | 2.8 | 3.0 | 3.5 | 3.7 | 5.0 | 5.3 | 6.3 | 6.8 | 8.0 | 8.5 | 9.8 | 10.4 | 12.8 | 13.5 | | |
| Space for Tube Replacement | mm | 1,900 | | 2,400 | | | | 3,400 | | | | 4,500 | | | | | | |
| Diesel Boiler | High Heating Value | kcal/l | 10,550 | | | | | | | | | | | | | | | |
| | Flow Rate | l/h | 16.7 | 20.0 | 23.3 | 26.6 | 33.3 | 40.0 | 50.0 | 59.9 | 69.9 | 79.9 | 93.2 | 107 | 120 | 133 | | |
| | Oil piping connection size | A | 15A*2 | | | | | | | | | 20A*2 | | | | | | |
| | Exhaust gas | mm | 190 X 110 | | 270 X 150 | | 280 X 210 | | | | 310 X 310 | | | 360 X 310 | | | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 25~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

DW Series

Double Effect Direct Fired Absorption chiller & Heater

Performance Data

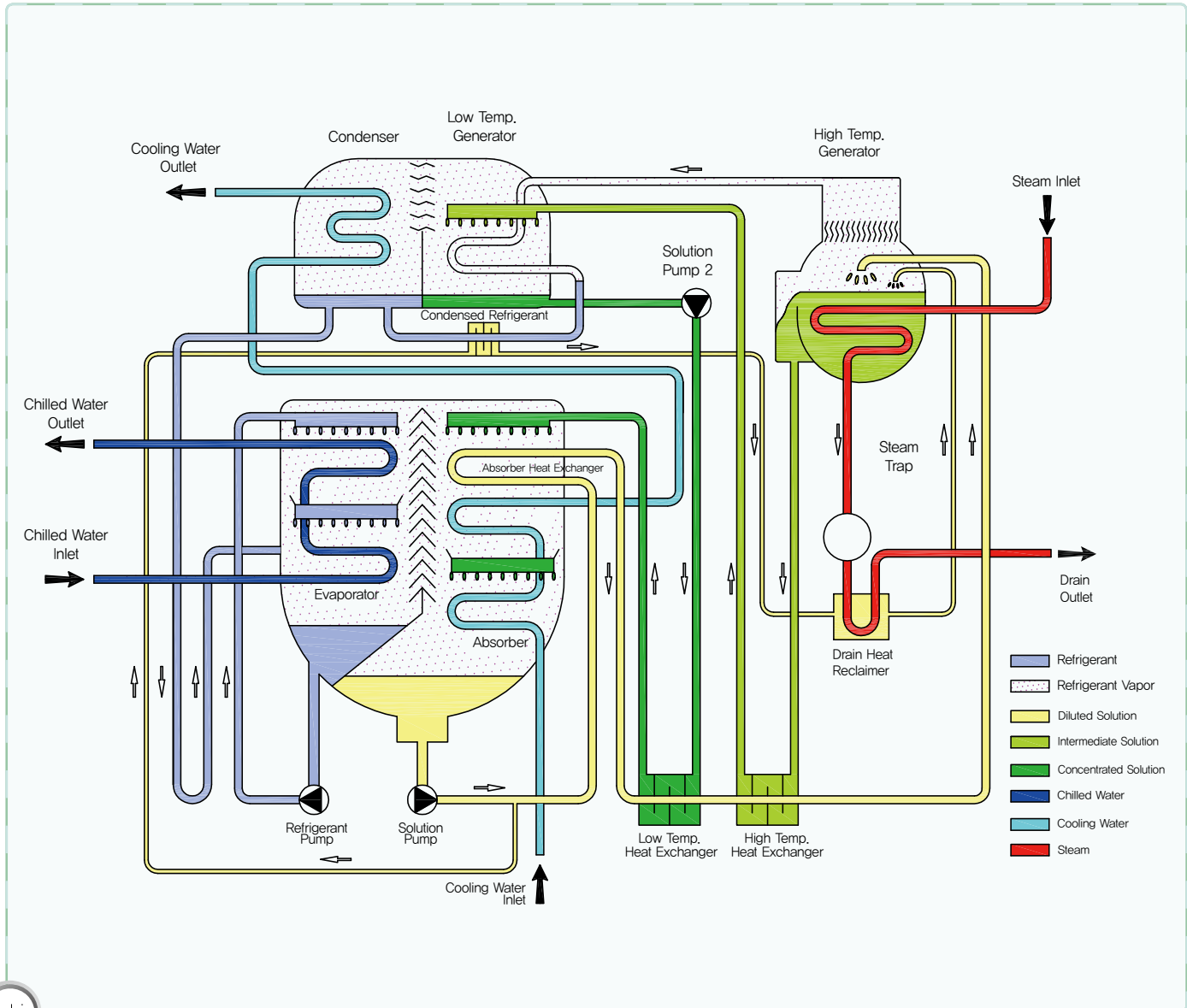
| Model | | Unit | DW450 | DW500 | DW560 | DW630 | DW700 | DW800 | DW900 | DW1000 | DW1100 | DW1200 | DW1300 | DW1400 | DW1500 | | |
|----------------------------|----------------------------|----------------------|-----------------|-------|-------|-----------|-------|-------|-----------|--------|--------|---------------|--------|--------|--------|--|--|
| Cooling Capacity | kW | | 1,582 | 1,758 | 1,969 | 2,215 | 2,461 | 2,813 | 3,165 | 3,516 | 3,868 | 4,220 | 4,571 | 4,923 | 5,274 | | |
| | usRT | | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| Heating Capacity | kW | | 1,320 | 1,467 | 1,643 | 1,848 | 2,054 | 2,347 | 2,641 | 2,934 | 3,227 | 3,521 | 3,814 | 4,108 | 4,401 | | |
| | Mcal/h | | 1,135 | 1,262 | 1,413 | 1,590 | 1,766 | 2,019 | 2,523 | 2,271 | 2,523 | 2,776 | 3,280 | 3,532 | 3,785 | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 272.2 | 302.4 | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | | |
| | Pressure Drop | mH ₂ O | 5.1 | 5.4 | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 | | |
| | Connection | mm | 200 | | | | | 250 | | | 300 | | | 350 | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 56.3 / 60 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 272.2 | 302.4 | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | | |
| | Pressure Drop | mH ₂ O | 5.1 | 5.4 | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 | | |
| | Connection | mm | 200 | | | | | 250 | | | 300 | | | 350 | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.5 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| | Pressure Drop | mH ₂ O | 8.4 | 8.6 | 6.8 | 9.3 | 12.4 | 8.8 | 12.0 | 15.8 | 11.1 | 14.1 | 17.6 | 14.0 | 16.8 | | |
| | Connection | mm | 250 | | | 300 | | | 350 | | | 400 | | | 450 | | |
| Gas | High Heating Value | kcal/Nm ³ | 10,400 | | | | | | | | | | | | | | |
| | Flow rate | Nm ³ /h | 130.1 | 144.5 | 161.9 | 182.1 | 202.3 | 231.2 | 260.1 | 289.0 | 318.0 | 346.9 | 375.8 | 404.7 | 433.6 | | |
| | Inlet Pressure | mmAq | 4,000 | | | | | | | | | | | | | | |
| | Connection | mm | 50(4,000mmAq) | | | | | | 400 X 620 | | | 65(4,000mmAq) | | | | | |
| | Exhaust gas | mm | 410 X 310 | | | 350 X 500 | | | 400 X 620 | | | 400 X 900 | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.4 | | | | | 1.5 | | | | | | | | | |
| | Abs. Pump | kW | 3.2 | | | 5.5 | | | 7.5 | | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | 0.75 | | | | | | | | |
| | Burner | kW | 4.0 | | | 7.5 | | | 11.0 | | | 15.0 | | | | | |
| | Control Pane | kW | 0.2 | | | | | | | | | | | | | | |
| | Total kW | kW | 8.2 | | 10.5 | | 14.0 | | 15.1 | | 18.6 | | 21.0 | | 25.0 | | |
| | Total Ampere @400V | A | 21.6 | | 28.4 | | 33.5 | | 36.1 | | 42.4 | | 52.2 | | 58.8 | | |
| Size | Length (L) | mm | 4,880 | | 4,998 | | 5,540 | | 6,038 | | 5,644 | | 6,142 | | 6,667 | | |
| | Width (W) | mm | 2,490 | | | 3,055 | | | 3,330 | | | 3,738 | | | 4,460 | | |
| | Height (H) | mm | 2,633 | | | 2,962 | | | 3,310 | | | 3,500 | | | 3,700 | | |
| Weight | Rigging | ton | 14.2 | 14.9 | 19.5 | 21.1 | 22.7 | 27.9 | 30.4 | 32.8 | 40.0 | 43.0 | 45.8 | 49.7 | 52.3 | | |
| | Operation | ton | 15.8 | 16.6 | 22.2 | 24.0 | 25.7 | 32.0 | 34.4 | 37.1 | 45.1 | 48.5 | 51.5 | 56.1 | 59.1 | | |
| Space for Tube Replacement | mm | 4,500 | | | 5,200 | | 5,700 | | 5,200 | | 5,700 | | 6,200 | | 6,700 | | |
| Diesel Boiler | High Heating Value | kcal/l | 10,550 | | | | | | | | | | | | | | |
| | Flow Rate | l/h | 150 | 167 | 186 | 210 | 233 | 266 | 300 | 333 | 366 | 400 | 433 | 466 | 500 | | |
| | Oil piping connection size | A | 20A*2 | | | | 25A*2 | | | | 32A*2 | | | | | | |
| | Exhaust gas | mm | 410 X 310 | | | 350 X 500 | | | 400 X 620 | | | 400 X 900 | | | | | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Steam Driven Absorption Chiller

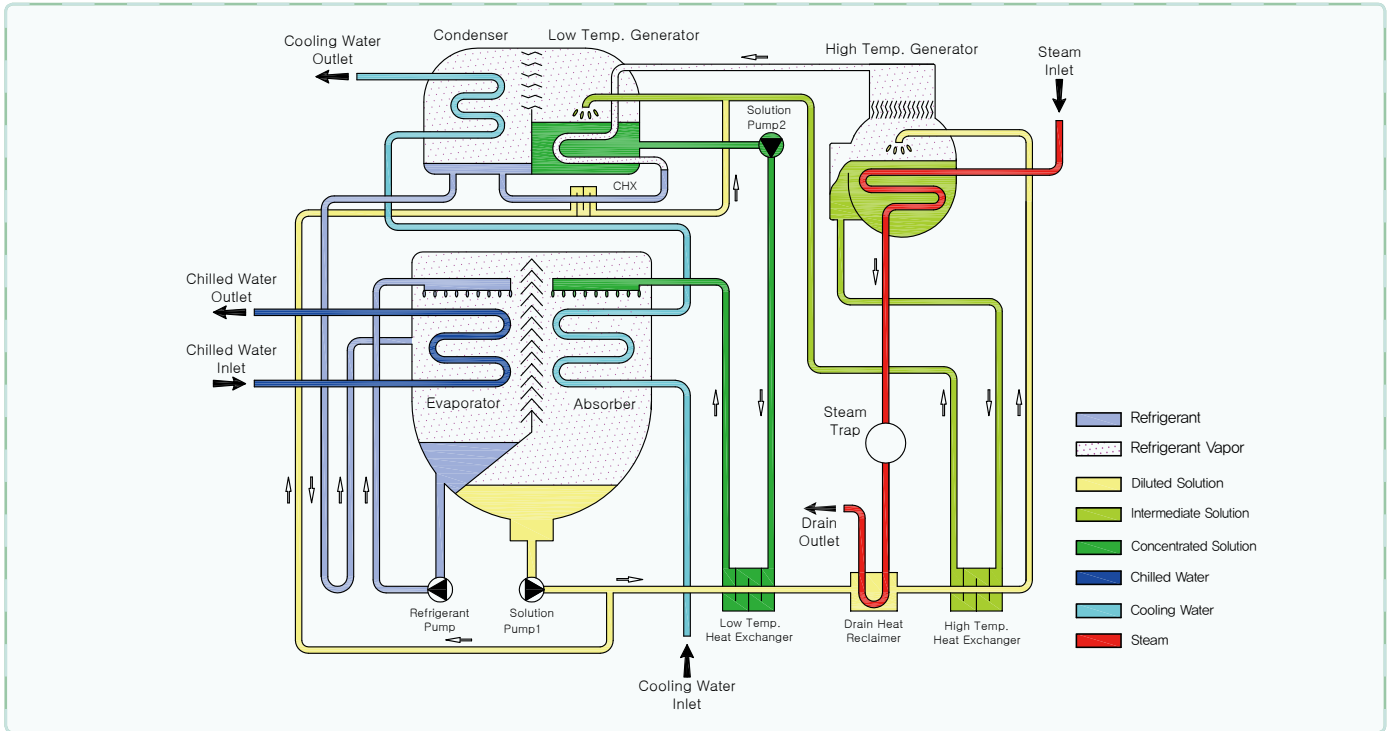
SWHH Series



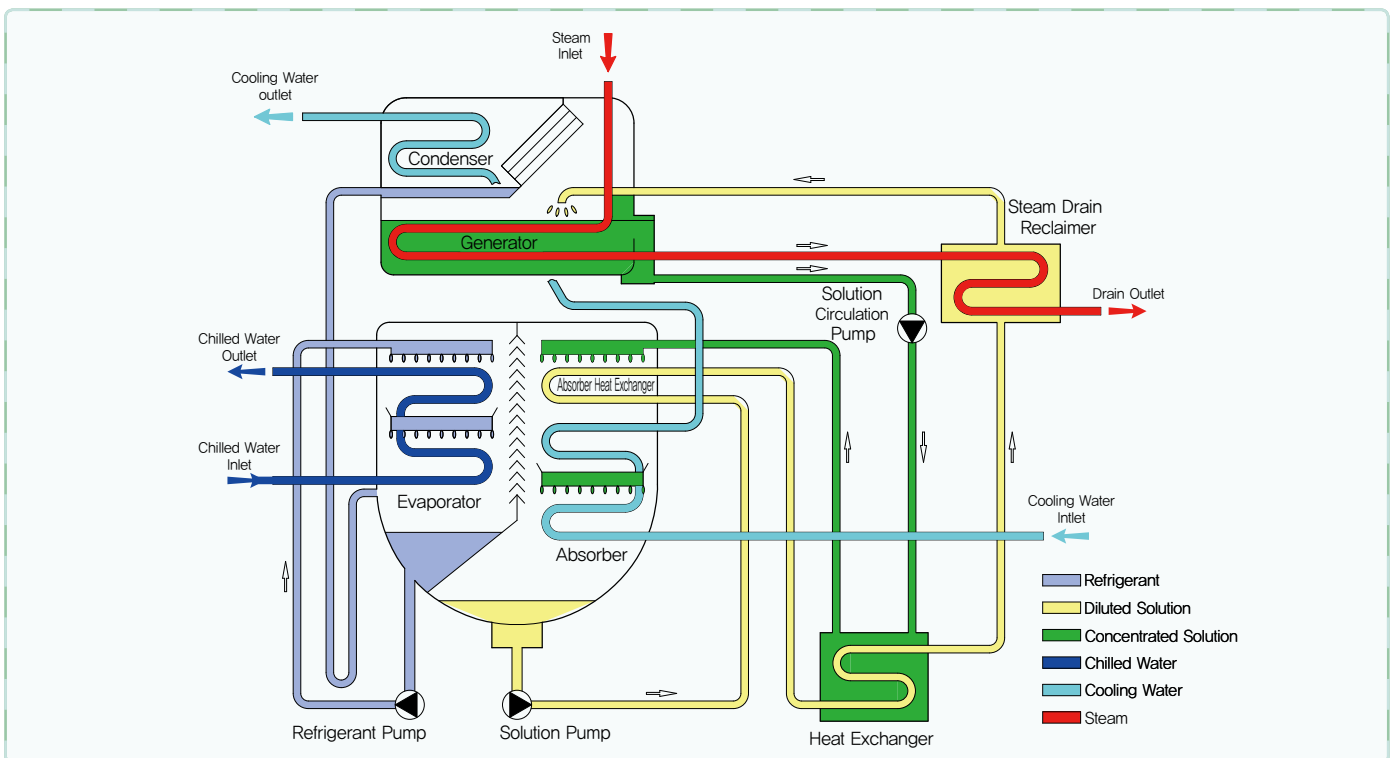
Absorption chiller is composed of evaporator, absorber, condenser, low/ high temp. generator, low/ high tem. heat exchanger, solution pump #1&2, refrigerant pump, Drain Heat Reclaimer. Chilled water temp. goes down in the evaporator and steam from evaporator is absorbed into the concentrated solution in absorber. Diluted solution in absorber flows into the High Temp. Generator by solution pump through low temp./high temp. heat exchanger and it is heated by steam to become intermediated solution.

Concentrated Intermediate solution in the low temp. generator exchanges it's heat in the low/high heat exchanger, low temp. solution flow back to absorber and repeat the process. Steam in the high temp. generator exchanges It's heat twice in the chiller, firstly in the high temp. generator and secondly in Drain Heat reclaimer, therefore high temp. steam drains out at low temp. like 95°C. This Process can increase heat recovery rate and chiller capacity

SWH Series



SHH Series



Steam Driven Absorption Chiller



Performance Data

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| Model | | Unit | SWHH100 | SWHH120 | SWHH150 | SWHH180 | SWHH210 | SWHH240 | SWHH280 | SWHH320 | SWHH360 | SWHH400 | SWHH450 | SWHH500 |
|----------------------------|--------------------|-------------------|-----------------|---------|---------|---------|----------|---------|---------|---------|-----------|---------|---------|---------|
| Cooling Capacity | | kW | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | 1,266 | 1,407 | 1,582 | 1,758 |
| | | usRT | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | 450 | 500 |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | |
| | Flow rate | m ³ /h | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | 241.9 | 272.2 | 302.4 |
| | Pressure Drop | mH ₂ O | 5.9 | 6.1 | 8.0 | 8.2 | 7.6 | 7.5 | 5.4 | 5.3 | 5.7 | 5.8 | 5.0 | 5.7 |
| | Connection | mm | 100 | | | 125 | | | 150 | | | 200 | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.1 | | | | | | | | | | | |
| | Flow rate | m ³ /h | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | 450 | 500 |
| | Pressure Drop | mH ₂ O | 7.3 | 7.7 | 9.9 | 10.4 | 11.5 | 10.2 | 8.3 | 7.9 | 8.1 | 8.2 | 8.2 | 8.3 |
| | Connection | mm | 125 | | 150 | | | 200 | | | 250 | | | |
| Steam | Inlet Pressure | MPa | 0.8 | | | | | | | | | | | |
| | Flow rate | Kg/h | 359 | 431 | 539 | 646 | 754 | 862 | 1,005 | 1,149 | 1,292 | 1,436 | 1,616 | 1,795 |
| | Inlet Connection | mm | 50 | | | | 65 | | | | 80 | | | |
| | Drain Connection | mm | 25 | | | | | | 40 | | | | | |
| | Control Valve | mm | 40 | | | | 50 | | | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | |
| | Ref. Pump | kW | 0.2(1.1) | | | | 0.3(1.5) | | | | 0.4 (1.5) | | | |
| | Abs. Pump1 | kW | 2.0 | | | | 2.4 | | | | 3.2 | | | |
| | Abs. Pump2 | kW | 0.3 | | | | 0.4 | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | |
| | Total kW | kW | 3.2 | | | | 3.7 | | | | 4.6 | | | |
| | Total Ampere @400V | A | 10.9 | | | | 11.4 | | | | 13.7 | | | |
| Size | Length (L) | mm | 2,771 | | 3,816 | | 3,869 | | 4,940 | | 5,069 | | 5,074 | |
| | Width (W) | mm | 1,490 | | | | 1,652 | | | | 2,004 | | 1,990 | |
| | Height (H) | mm | 2,473 | | 2,473 | | 2,705 | | 2,781 | | 2,947 | | | |
| Weight | Rigging | ton | 4.0 | 4.1 | 5.1 | 5.2 | 5.9 | 6.1 | 7.3 | 7.6 | 9.6 | 9.9 | 11.5 | 11.9 |
| | Operation | ton | 4.4 | 4.6 | 5.7 | 5.8 | 6.7 | 7.0 | 8.3 | 8.7 | 10.9 | 11.3 | 13.2 | 13.7 |
| Space for Tube Replacement | | mm | 2,400 | | | 3,400 | | | 4,600 | | | | | |

Note

- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
- Each water flow can be adjusted within 50~120%.

SWHH Series

Steam Driven Absorption Chiller

Performance Data

| Model | | Unit | SWHH560 | SWHH630 | SWHH700 | SWHH800 | SWHH900 | SWHH1000 | SWHH1100 | SWHH1200 | SWHH1300 | SWHH1400 | SWHH1500 | | |
|----------------------------|--------------------|-------------------|-----------------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|--|------|
| Cooling Capacity | | kW | 1,969 | 2,215 | 2,461 | 2,813 | 3,165 | 3,516 | 3,868 | 4,220 | 4,571 | 4,923 | 5,274 | | |
| | | usRT | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | | |
| | Pressure Drop | mH ₂ O | 7.3 | 9.9 | 9.4 | 12.8 | 17.0 | 11.9 | 15.1 | 11.4 | 14.3 | 8.6 | 10.6 | | |
| | Connection | mm | 200 | | | 250 | | | 300 | | | 350 | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.1 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| | Pressure Drop | mH ₂ O | 11.3 | 15.3 | 11.9 | 14.3 | 15.8 | 14.8 | 15.8 | 14.1 | 13.4 | 13.6 | 14.1 | | |
| | Connection | mm | 250 | | 300 | | | 350 | | 400 | | 450 | | | |
| Steam | Inlet Pressure | MPa | 0.8 | | | | | | | | | | | | |
| | Flow rate | Kg/h | 2,010 | 2,262 | 2,513 | 2,872 | 3,231 | 3,590 | 3,949 | 4,308 | 4,667 | 5,026 | 5,385 | | |
| | Inlet Connection | mm | 100 | | | 125 | | | 150 | | | | | | |
| | Drain Connection | mm | 50 | | | 65 | | | 80 | | | | | | |
| | Control Valve | mm | 65 | | | | 80 | | | | 100 | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.4 | | | | | 1.5 | | | | | | | |
| | Abs. Pump1 | kW | 5.5 | | | | | | 7.5 | | | | | | |
| | Abs. Pump2 | kW | 2.2 | | | | | | | | | 4.5 | | | |
| | Purge Pump | kW | 0.4 | | | | | | | 0.75 | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | |
| | Total kW | kW | 8.7 | | | | 9.8 | | | | 12.2 | | | | 14.5 |
| | Total Ampere @400V | A | 24.8 | | | | 27.4 | | | | 37.2 | | | | 46.7 |
| Size | Length (L) | mm | 5,717 | 6,215 | 6,231 | 6,833 | 7,333 | 6,849 | 7,449 | 6,967 | 7,467 | 7,192 | 7,697 | | |
| | Width (W) | mm | 2,180 | | 2,403 | 2,475 | | 2,751 | 3,161 | | | 3,505 | | | |
| | Height (H) | mm | 2,950 | | 3,068 | 3,350 | | 3,471 | 3,474 | | 3,937 | 4,000 | | | |
| Weight | Rigging | ton | 16.1 | 17.5 | 18.9 | 21.1 | 23.7 | 26.2 | 28.7 | 31.3 | 33.8 | 36.4 | 38.9 | | |
| | Operation | ton | 18.7 | 20.3 | 21.8 | 24.5 | 27.4 | 30.4 | 33.4 | 36.4 | 39.4 | 42.3 | 45.3 | | |
| Space for Tube Replacement | | mm | 5,200 | 5,700 | 5,700 | 6,300 | 6,700 | 6,300 | 6,700 | 6,300 | 6,700 | 6,300 | 6,700 | | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Steam Driven Absorption Chiller



Performance Data

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| Model | | Unit | SWH100 | SWH120 | SWH150 | SWH180 | SWH210 | SWH240 | SWH280 | SWH320 | SWH360 | SWH400 | SWH450 | SWH500 | | | |
|----------------------------|--------------------|-------------------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--|
| Cooling Capacity | | kW | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | 1,266 | 1,407 | 1,582 | 1,758 | | | |
| | | usRT | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | 450 | 500 | | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 60.5 | 72.6 | 90.7 | 108.9 | 127.0 | 145.2 | 169.3 | 193.5 | 217.7 | 241.9 | 272.2 | 302.4 | | | |
| | Pressure Drop | mH ₂ O | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | 7.4 | 5.4 | 5.3 | 5.8 | 6.0 | 5.1 | 5.4 | | | |
| | Connection | mm | 100 | | | | 125 | | | 150 | | | | 200 | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.2 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | 450 | 500 | | | |
| | Pressure Drop | mH ₂ O | 8.9 | 9.1 | 10.4 | 10.8 | 10.7 | 11.2 | 8.9 | 8.6 | 8.8 | 8.7 | 8.4 | 8.6 | | | |
| | Connection | mm | 125 | | 150 | | | | 200 | | | | 250 | | | | |
| Steam | Inlet Pressure | MPa | 0.8 | | | | | | | | | | | | | | |
| | Flow rate | kg/h | 390 | 468 | 585 | 702 | 819 | 936 | 1,092 | 1,248 | 1,404 | 1,560 | 1,755 | 1,950 | | | |
| | Inlet Connection | mm | 50 | | | | 65 | | | | 80 | | | | | | |
| | Drain Connection | mm | 25 | | | | | | | | 40 | | | | | | |
| | Control Valve | mm | 40 | | | | 50 | | | | 65 | | | | | | |
| Electric | Power source | – | 3PH / 400V / 50Hz | | | | | | | | | | | | | | |
| | Ref. Pump | kW | 0.3 | | | | 0.4 | | | | 0.4 | | | | | | |
| | Abs. Pump1 | kW | 2.0 | | | | 2.4 | | | | 3.2 | | | | | | |
| | Abs. Pump2 | kW | 0.3 | | | | 0.4 | | | | 0.4 | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | | | | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | | | |
| | Total kW | kW | 3.2 | | | | 3.7 | | | | 3.8 | | | | 4.6 | | |
| Total Ampere @400V | A | 10.9 | | | | 11.4 | | | | 11.6 | | | | 13.7 | | | |
| Size | Length (L) | mm | 2,597 | | 3,680 | | | 3,708 | | | 4,734 | | | 4,776 | | 4,880 | |
| | Width (W) | mm | 1,420 | | | | 1,652 | | | | 1,735 | | | | 1,954 | | |
| | Height (H) | mm | 2,200 | | | | 2,250 | | | | 2,450 | | | | 2,600 | | |
| Weight | Rigging | ton | 4.0 | 4.1 | 5.1 | 5.2 | 5.9 | 6.1 | 7.3 | 7.6 | 9.6 | 9.9 | 11.5 | 11.9 | | | |
| | Operation | ton | 4.4 | 4.6 | 5.7 | 5.8 | 6.7 | 7.0 | 8.3 | 8.7 | 10.9 | 11.3 | 13.2 | 13.7 | | | |
| Space for Tube Replacement | | mm | 2,400 | | | 3,400 | | | | 4,500 | | | | | | | |

Note

1. Working pressure of each water side is based on 1.0MPa (150psig)
2. Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
3. Min. outlet temp. of chilled water: 5°C
4. Min. allowable inlet temp. of cooling water: 20°C.
5. Controllable range shall be 0~100%.
6. Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
7. Each water flow can be adjusted within 50~120%.

SWH Series

Steam Driven Absorption Chiller

Performance Data

| Model | | Unit | SWH560 | SWH630 | SWH700 | SWH800 | SWH900 | SWH1000 | SWH1100 | SWH1200 | SWH1300 | SWH1400 | SWH1500 | |
|----------------------------|--------------------|-------------------|-------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|------|
| Cooling Capacity | | kW | 1,969 | 2,215 | 2,461 | 2,813 | 3,465 | 3,516 | 3,868 | 4,220 | 4,571 | 4,923 | 5,274 | |
| | | usRT | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | |
| | Flow rate | m ³ /h | 338.7 | 381.0 | 423.4 | 483.8 | 544.3 | 604.8 | 665.3 | 725.8 | 786.2 | 846.7 | 907.2 | |
| | Pressure Drop | mH ₂ O | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 | |
| | Connection | mm | 200 | | | 250 | | | 300 | | | 350 | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.2 | | | | | | | | | | | |
| | Flow rate | m ³ /h | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | |
| | Pressure Drop | mH ₂ O | 6.8 | 9.3 | 12.4 | 8.8 | 12.0 | 15.8 | 11.1 | 14.1 | 17.6 | 14.0 | 16.8 | |
| | Connection | m | 300 | | | 350 | | | 400 | | | 450 | | |
| Steam | Inlet Pressure | MPa | 0.8 | | | | | | | | | | | |
| | Flow rate | kg/h | 2,184 | 2,457 | 2,730 | 3,120 | 3,510 | 3,900 | 4,290 | 4,680 | 5,070 | 5,460 | 5,850 | |
| | Inlet Connection | mm | 100 | | | 125 | | | 150 | | | | | |
| | Drain Connection | mm | 50 | | | 65 | | | 80 | | | | | |
| | Control Valve | mm | 65 | 80 | | | | 100 | | | | | | |
| Electric | Power source | – | 3PH / 400V / 50Hz | | | | | | | | | | | |
| | Ref. Pump | kW | 0.4 | | | | 1.5 | | | | | | | |
| | Abs. Pump1 | kW | 5.5 | | | | | 7.5 | | | | | | |
| | Abs. Pump2 | kW | 2.2 | | | | | | | | 4.5 | | | |
| | Purge Pump | kW | 0.4 | | | | | | 0.75 | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | |
| | Total kW | kW | 8.7 | | | | 9.8 | | | | 12.2 | | | |
| Total Ampere @400V | A | 24.8 | | | | 27.4 | | | | 37.2 | | | | 46.7 |
| Size | Length (L) | mm | 4,998 | 5,540 | 6,038 | 5,644 | 6,142 | 6,667 | 6,293 | 6,818 | 7,318 | 6,860 | 7,360 | |
| | Width (W) | mm | 2,180 | | | 2,606 | | | 3,000 | | | 3,250 | | |
| | Height (H) | mm | 2,900 | | | 3,350 | | | 3,450 | | | 3,650 | | |
| Weight | Rigging | ton | 16.1 | 17.5 | 18.9 | 21.1 | 23.7 | 26.2 | 28.7 | 31.3 | 33.8 | 36.4 | 38.9 | |
| | Operation | ton | 18.7 | 20.3 | 21.8 | 24.5 | 27.4 | 30.4 | 33.4 | 36.4 | 39.4 | 42.3 | 45.3 | |
| Space for Tube Replacement | mm | 4,500 | 5,200 | 5,700 | 5,200 | 5,700 | 6,200 | 5,700 | 6,200 | 6,700 | 6,200 | 6,700 | | |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Steam Driven Absorption Chiller



Performance Data

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| Model | | Unit | S50HH | S60HH | S70HH | S80HH | S100HH | S120HH | S150HH | S180HH | S210HH | S240HH | S280HH | S320HH | S360HH | S400HH | | |
|----------------------------|--------------------------|-------------------|----------------|-------|-------|-------|------------|--------|--------|--------|-----------|--------|--------|-----------|--------|-----------|--|--|
| Cooling Capacity | | kW | 176 | 211 | 246 | 281 | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | 1,266 | 1,407 | | |
| | | usRT | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 109 | 127 | 145 | 169 | 194 | 218 | 242 | | |
| | Pressure Drop | mH ₂ O | 6.8 | 6.4 | 5.8 | 6.0 | 5.9 | 6.1 | 8.0 | 8.2 | 7.6 | 7.5 | 5.4 | 5.3 | 5.7 | 5.8 | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 32 / 38.8 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | |
| | Pressure Drop | mH ₂ O | 6.4 | 5.9 | 7.7 | 7.7 | 7.3 | 7.7 | 9.9 | 10.4 | 10.6 | 10.2 | 8.3 | 7.9 | 8.1 | 8.2 | | |
| | Connection | mm | 100 | | | | 125 | | | 150 | | | | 200 | | | | |
| Steam | Inlet Pressure | MPa | 0.15 | | | | | | | | | | | | | | | |
| | Flow rate | kg/h | 390 | 468 | 546 | 624 | 780 | 936 | 1,170 | 1,404 | 1,638 | 1,872 | 2,184 | 2,496 | 2,808 | 3,120 | | |
| | Inlet Connection | mm | 100 | | | | 125 | | | | 150 | | | 200 | | | | |
| | Drain Connection | mm | 25 | | | | 40 | | | | | | | | 50 | | | |
| | Control Valve | mm | 40 | | 50 | | 65 | | | 80 | | 100 | | | | 125 | | |
| Electric | Power source | - | 3PH 400V, 50Hz | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 1.4 (5.2) | | | | 11.5 (5.4) | | | | 1.8 (6.0) | | | 1.9 (6.0) | | 1.9 (7.5) | | |
| | Ref. Pump | kW(A) | 0.2 (1.2) | | | | | | | | 0.3 (1.4) | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | |
| | Total kW | kW | 2.2 | | | | 2.3 | | | | 2.7 | | | 2.8 | | | | |
| | Total Ampere @400V | A | 8.3 | | | | 8.5 | | | | 9.3 | | | | 10.8 | | | |
| Size | Length (L) | mm | 2,110 | | 2,610 | | 2,658 | | 3,678 | | 3,728 | | 4,748 | | 4,854 | | | |
| | Width (W) | mm | 1,072 | | | | 1,151 | | | | 1,222 | | | | 1,395 | | | |
| | Height (H) | mm | 2,097 | | | | 2,372 | | | | 2,640 | | | | 2,677 | | | |
| Weight | Rigging | ton | 2.1 | 2.2 | 2.6 | 2.7 | 3.6 | 3.7 | 4.6 | 4.8 | 5.5 | 5.8 | 6.8 | 7.1 | 8.8 | 9.2 | | |
| | Operation | ton | 2.3 | 2.5 | 2.9 | 3.1 | 4.1 | 4.2 | 5.2 | 5.5 | 6.4 | 6.8 | 7.9 | 8.4 | 10.4 | 10.9 | | |
| Space for Tube Replacement | | mm | 1,900 | | | 2,400 | | | | 3,400 | | | | 4,600 | | | | |
| Water Volume of Machine | Chilled Water Side | ℓ | 60 | 67 | 77 | 80 | 111 | 123 | 142 | 159 | 216 | 237 | 258 | 286 | 324 | 348 | | |
| | Cooling Water Side | ℓ | 215 | 235 | 265 | 276 | 309 | 336 | 391 | 432 | 569 | 622 | 694 | 765 | 927 | 993 | | |
| | Hot Water Side | ℓ | 51 | 62 | 71 | 79 | 98 | 107 | 127 | 142 | 170 | 189 | 214 | 239 | 278 | 303 | | |

Note

1. Working pressure of each water side is based on 1.0MPa (150psig)
2. Fouling factor 0.0001 m².hr. °C/Kcal for Absorber, Condenser and Evaporator.
3. Min. outlet temp. of chilled water: 5°C
4. Min. allowable inlet temp. of cooling water: 20°C.
5. Controllable range shall be 0~100%.
6. Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
7. Each water flow can be adjusted within 50~120%.

SHH Series

Steam Driven Absorption Chiller

Performance Data

| Model | | Unit | S450HH | S500HH | S560HH | S630HH | S700HH | S770HH | S840HH | S840HH | S1000HH | S1100HH | S1200HH | S1300HH | S1400HH | S1500HH | |
|----------------------------|--------------------------|-------------------|----------------|--------|-----------|--------|------------|--------|------------|--------|------------|---------|----------|---------|------------|---------|--|
| Cooling Capacity | | kW | 1,582 | 1,758 | 1,969 | 2,215 | 2,461 | 2,708 | 2,954 | 3,165 | 3,516 | 3,868 | 4,220 | 4,571 | 4,923 | 5,274 | |
| | | usRT | 450 | 500 | 560 | 630 | 700 | 770 | 840 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | |
| Chilled Water | Inlet Temp./Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 272 | 302 | 339 | 381 | 423 | 466 | 508 | 544 | 605 | 665 | 726 | 786 | 847 | 907 | |
| | Pressure Drop | mH ₂ O | 5.0 | 5.3 | 7.3 | 9.9 | 9.2 | 9.6 | 10.6 | 9.0 | 10.1 | 10.6 | 8.6 | 10.7 | 8.6 | 10.6 | |
| | Connection | mm | 200 | | | | 250 | | | | 300 | | | 350 | | | |
| Cooling Water | Inlet Temp./Outlet Temp. | °C | 32 / 38.8 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 450 | 500 | 560 | 630 | 700 | 770 | 840 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | |
| | Pressure Drop | mH ₂ O | 8.2 | 8.3 | 7.2 | 9.7 | 7.8 | 10.0 | 10.1 | 7.7 | 10.2 | 10.5 | 9.7 | 9.7 | 8.3 | 10.1 | |
| | Connection | mm | 250 | | | | 300 | | | | 350 | | | 400 | | | |
| Steam | Inlet Pressure | MPa | 0.15 | | | | | | | | | | | | | | |
| | Flow rate | kg/h | 3,510 | 3,900 | 4,368 | 4,914 | 5,460 | 6,006 | 6,552 | 7,020 | 7,800 | 8,580 | 9,360 | 10,140 | 10,920 | 11,700 | |
| | Inlet Connection | mm | 200 | | | 250 | | | 300 | | | 350 | | | 400 | | |
| | Drain Connection | mm | 65 | | | | | | 80 | | | 100 | | | | | |
| | Control Valve | mm | 125 | | | | 150 | | | | 200 | | | | | | |
| Electric | Power source | - | 3PH 400V, 50Hz | | | | | | | | | | | | | | |
| | Abs. Pumps | kW(A) | 2.4 (7.5) | | 2.8 (8.5) | | 4.5 (11.0) | | | | 4.5 (13.3) | | 5 (15.2) | | 6.7 (20.0) | | |
| | Ref. Pump | kW(A) | 0.4 (1.4) | | | | | | 1.5 (4.0) | | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.4) | | | | | | 0.75 (2.2) | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | |
| | Total kW | kW | 3.4 | | 3.8 | | 5.5 | | | | 6.6 | 7.0 | 7.5 | | 9.2 | | |
| | Total Ampere @400V | A | 10.8 | | 11.8 | | 14.3 | | | | 19.2 | 20.0 | 21.9 | | 26.7 | | |
| Size | Length (L) | mm | 4,872 | | 5,414 | 5,912 | 6,012 | 6,537 | 7,037 | 6,114 | 6,639 | 7,139 | 6,749 | 7,249 | 6,966 | 7,466 | |
| | Width (W) | mm | 1,557 | | | | 1,780 | | | | 2,177 | | | 2,467 | | 3,289 | |
| | Height (H) | mm | 2,880 | | | | 3,140 | | | | 3,461 | | | 3,874 | | 4,000 | |
| Weight | Rigging | ton | 10.5 | 10.9 | 12.3 | 13.7 | 17.2 | 19.0 | 20.6 | 21.7 | 23.9 | 26.0 | 28.5 | 30.8 | 33.1 | 35.4 | |
| | Operation | ton | 12.5 | 13.1 | 14.8 | 16.4 | 20.8 | 22.9 | 24.9 | 26.3 | 29.0 | 31.6 | 34.6 | 37.5 | 40.3 | 43.2 | |
| Space for Tube Replacement | | mm | 4,600 | | 5,200 | 5,700 | | 6,200 | 6,700 | 5,700 | 6,200 | 6,700 | 6,200 | 6,700 | 6,300 | 6,800 | |
| Water Volume of Machine | Chilled Water Side | ℓ | 465 | 485 | 526 | 563 | 656 | 701 | 744 | 944 | 1,004 | 1,060 | 1,355 | 1,423 | 1,795 | 1,890 | |
| | Cooling Water Side | ℓ | 1,252 | 1,325 | 1,425 | 1,517 | 1,959 | 2,082 | 2,199 | 3,127 | 2,738 | 2,890 | 3,563 | 3,746 | 4,691 | 4,919 | |
| | Hot Water Side | ℓ | 334 | 365 | 407 | 448 | 485 | 523 | 553 | 578 | 784 | 837 | 870 | 932 | 1,067 | 1,138 | |

Option

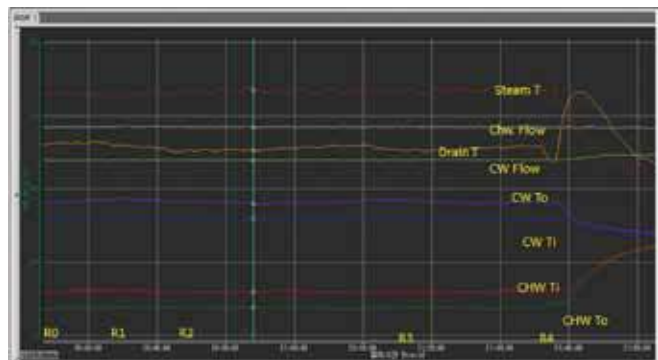
1. Non-standard cooling capacity.
2. Higher working pressure [230psig = 1.6MPa, 300psig = 2.0MPa]
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Double Effect Steam Fired Maritime Absorption chiller



World Energy Absorption Chiller is certified for seaworthiness at seagoing condition

Capacity : 50~1,100usRT Service Condition : Chilled water 12/7c Cooling water : 32/37c Driving Heat source : 6bar
 Refrigerant : Distilled water, Absorbent : LiBr Solution



Ship Movement Test

- Rolling condition test

Chiller Temperature Variation

- Stabilized Temperature at Rolling and Pitching condition

Performance Data

| Model | | Unit | SWM60 | SWM70 | SWM80 | SWM100 | SWM120 | SWM150 | SWM180 | SWM210 | SWM240 | SWM280 | SWM320 | SWM360 | | | | | | |
|----------------------------|--------------------|-------------------|-----------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--|--|-------|--|--|
| Cooling Capacity | | kW | 176 | 211 | 246 | 281 | 352 | 422 | 527 | 633 | 738 | 844 | 985 | 1,125 | | | | | | |
| | | usRT | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | | | | | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30 | 36 | 42 | 48 | 60 | 73 | 91 | 109 | 127 | 145 | 169 | 194 | | | | | | |
| | Pressure Drop | mH ₂ O | 2.7 | 4.7 | 5.4 | 3.7 | 4.2 | 5.1 | 5.8 | 5.7 | 5.8 | 4.1 | 4.2 | 4.7 | | | | | | |
| | Connection | mm | 80 | | | 100 | | | 125 | | | 150 | | | | | | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37 | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 55 | 66 | 77 | 88 | 110 | 132 | 165 | 198 | 231 | 265 | 309 | 353 | | | | | | |
| | Pressure Drop | mH ₂ O | 4.6 | 8.1 | 8.2 | 6.2 | 6.9 | 7.3 | 8.1 | 8.5 | 9.2 | 7.1 | 7.1 | 7.4 | | | | | | |
| | Connection | mm | 100 | | | 125 | | | 150 | | | 200 | | | | | | | | |
| Steam | Inlet Pressure | MPa | 0.6 | | | | | | | | | | | | | | | | | |
| | Flow rate | kg/h | 216 | 259 | 303 | 346 | 432 | 519 | 649 | 778 | 908 | 1,038 | 1,211 | 1,384 | | | | | | |
| | Inlet Connection | mm | 40 | | | 50 | | | 65 | | | 80 | | | | | | | | |
| | Drain Connection | mm | 25 | | | | | | | | | | | | | | | | | |
| | Control Valve | mm | 32 | | | 40 | | | 50 | | | 65 | | | | | | | | |
| Electric | Power source | - | 3PH, 440V, 60Hz | | | | | | | | | | | | | | | | | |
| | Abs. Pumps | kW | 0.2 | | | 0.3 | | | 0.4 | | | 0.4 | | | | | | | | |
| | Ref. Pump | kW | 1.5 | | | 1.8 | | | 2.4 | | | 3.2 | | | | | | | | |
| | Purge Pump | kW | 0.4 | | | | | | | | | | | | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | | | | | | | |
| | Total Ampere | kW | 2.3 | | | 2.7 | | | 3.4 | | | 4.2 | | | | | | | | |
| | Total Current | A | 6.9 | | | 8.0 | | | 10.2 | | | 12.3 | | | | | | | | |
| Size | Length [L] | mm | 2,600 | | | 2,716 | | | 3,680 | | | 3,717 | | | 4,734 | | | 4,872 | | |
| | Width [W] | mm | 1,400 | | | 1,506 | | | 1,700 | | | 1,920 | | | | | | | | |
| | Height [H] | mm | 1,877 | | | 2,166 | | | 2,147 | | | 2,399 | | | | | | | | |
| Weight | Rigging | ton | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.9 | 5.2 | 5.9 | 6.4 | 7.4 | 7.8 | 9.6 | | | | | | |
| | Operation | ton | 3.9 | 4 | 4.1 | 4.2 | 4.4 | 5.5 | 5.8 | 6.7 | 7.2 | 8.4 | 8.9 | 10.9 | | | | | | |
| Space for Tube Replacement | mm | 1900 | 2400 | | | 2,400 | | | 3,400 | | | 4,500 | | | | | | | | |

SWM Series

Double Effect Steam Fired Maritime Absorption chiller

GL Certificate & Patent of Maritime Absorption chiller



Development

- The absorption chiller has been used for many years as an onshore applications. World energy succeeded in developing Maritime absorption chiller which runs safely under seagoing conditions.

Energy saving

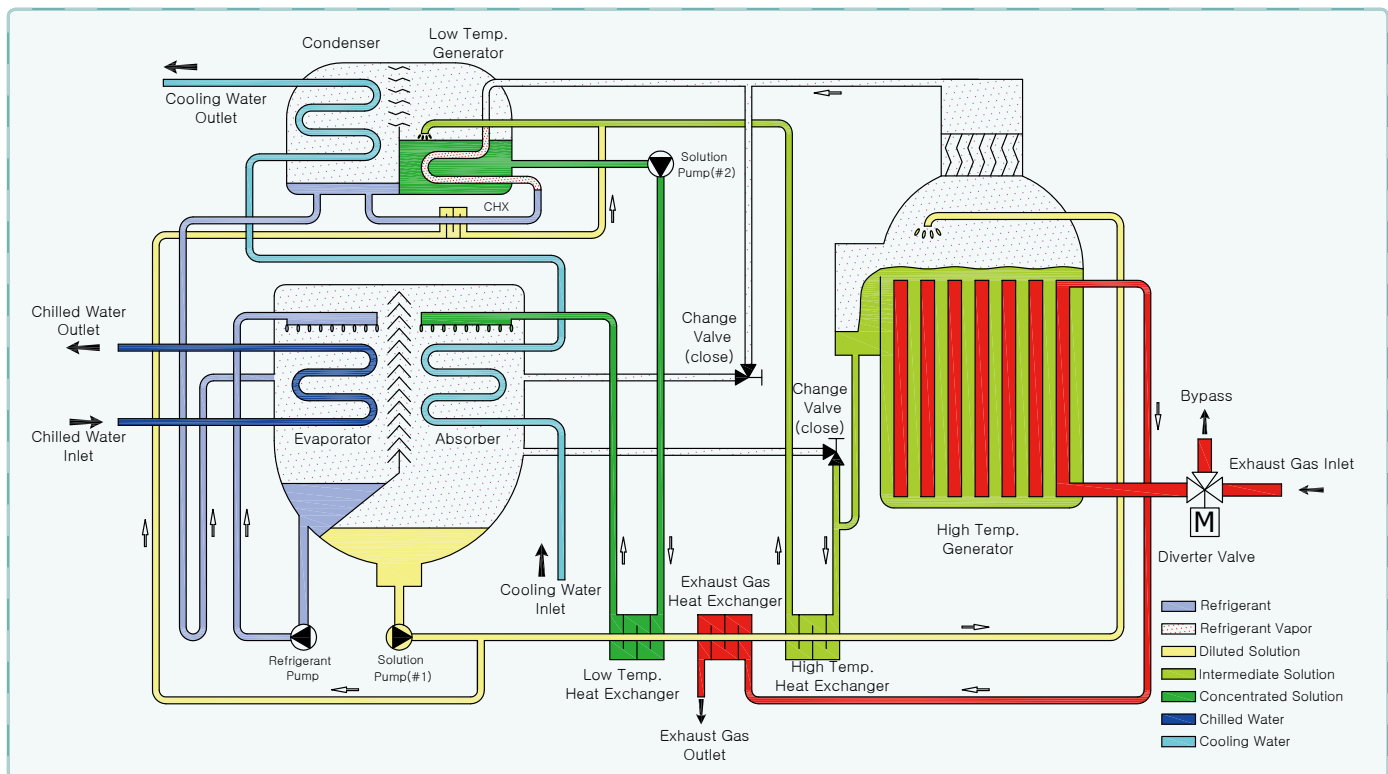
- Maritime absorption chiller is recovering surplus heat of the vessel so will save approximately 80% electrical energy compared to conventional electrical chiller.
- Compared to the traditional refrigerant system, use of the absorption system will reduce CO₂ emission up to 800tons/year and also conventional refrigerant Freon gas is substituted by eco-friendly distilled water.

| Model | | Unit | SWM400 | SWM450 | SWM500 | SWM560 | SWM630 | SWM700 | SWM800 | SWM900 | SWM1000 | SWM1100 | SWM1200 | |
|----------------------------|--------------------|-------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--|
| Cooling Capacity | | kW | 1,266 | 1,407 | 1,582 | 1,758 | 1,969 | 2,215 | 2,461 | 2,813 | 3,165 | 3,516 | 3,868 | |
| | | usRT | 360 | 400 | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | |
| Chilled Water | Inlet/Outlet Temp. | ℃ | 12 / 7 | | | | | | | | | | | |
| | Flow rate | m ³ /h | 218 | 242 | 272 | 302 | 339 | 381 | 423 | 484 | 544 | 605 | 665 | |
| | Pressure Drop | mH ₂ O | 5.0 | 4.1 | 4.5 | 3.4 | 4.7 | 6.4 | 4.5 | 6.2 | 8.4 | 5.6 | 7.4 | |
| | Connection | mm | 150 | 200 | | | | 250 | | | 300 | | | |
| Cooling Water | Inlet/Outlet Temp. | ℃ | 32 / 37 | | | | | | | | | | | |
| | Flow rate | m ³ /h | 397 | 441 | 496 | 551 | 617 | 694 | 772 | 882 | 992 | 1,102 | 1,212 | |
| | Pressure Drop | mH ₂ O | 7.5 | 7.1 | 7.4 | 5.8 | 7.9 | 10.7 | 7.2 | 10.1 | 13.7 | 9.8 | 12.6 | |
| | Connection | mm | 200 | 250 | | 300 | | | 350 | | | 400 | | |
| Steam | Inlet Pressure | MPa | 0.6 | | | | | | | | | | | |
| | Flow rate | kg/h | 1,556 | 1,729 | 1,946 | 2,162 | 2,421 | 2,724 | 3,026 | 3,459 | 3,891 | 4,323 | 4,756 | |
| | Inlet Connection | mm | 80 | | | 100 | | | 125 | | | 150 | | |
| | Drain Connection | mm | 40 | | | 50 | | | 65 | | | 80 | | |
| | Control Valve | mm | 65 | | | 80 | | | 100 | | | | | |
| Electric | Power source | - | 3PH, 440V, 60Hz | | | | | | | | | | | |
| | Abs. Pumps | kW | 0.4 | | | | 1.5 | | | | | | | |
| | Ref. Pump | kW | 3.2 | | | 5.5 | | | 7.5 | | | | | |
| | Purge Pump | kW | 0.4 | | | 0.75 | | | | | | | | |
| | Control Panel | kW | 0.2 | | | | | | | | | | | |
| | Total Ampere | kW | 4.2 | | | 6.5 | | | 7.6 | | | 10.0 | | |
| | Total Current | A | 12.3 | | | 18.3 | | | 20.9 | | | 30.7 | | |
| Size | Length (L) | mm | 4,872 | 4,876 | | 4,998 | 5,534 | 6,038 | 5,953 | 6,410 | 6,650 | 6,293 | 6,818 | |
| | Width (W) | mm | 1,920 | 2,138 | | | 2,344 | | | 2,631 | | | 2,829 | |
| | Height (H) | mm | 2,399 | 2,667 | | 2,860 | | | 3,176 | | | 3,450 | | |
| Weight | Rigging | ton | 10.1 | 11.6 | 12.0 | 16.1 | 17.5 | 18.9 | 21.1 | 23.7 | 26.2 | 28.7 | 31.3 | |
| | Operation | ton | 11.5 | 13.3 | 13.8 | 18.7 | 20.3 | 21.8 | 24.5 | 27.4 | 30.4 | 33.4 | 36.4 | |
| Space for Tube Replacement | mm | 4,500 | | | 5,200 | | 5,700 | 5,200 | 5,700 | 6,200 | 5,700 | 6,200 | | |

Double Effect Exhaust Gas Driven Absorption Chiller

CHPH Series

• Cooling Cycle



The double-effect, exhaust-gas driven absorption machine is consisted of an evaporator, absorber, condenser, high/low temperature generators, solution heat exchangers, refrigerant & solution pumps, purge system, controls and accessories.

When the chiller is under cooling mode, water boils at a low temperature approximately at 4.4°C (40°F) because it is under vacuum condition. Thereby chilled water is cooled down through the tubes in evaporator by the evaporative latent heat. The process of this cycle is like below. A refrigerant pump is used to spray the refrigerant (distilled water) over the evaporator tubes to improve heat transfer.

To make the cooling process continuous, the refrigerant (water) vapor flows into the absorber and it is absorbed in lithium bromide solution (which has a high affinity for water). As this process continues, the lithium bromide becomes diluted solution and reduce its absorption capacity. A solution pump then transfers this diluted solution to the generators where it is re-concentrated in two stages (double-effect) to boil off the previously absorbed water.

The diluted solution is pumped to the high-temperature generator where it is heated and re-concentrated to a medium concentration solution by the exhaust heat from the gas turbine or reciprocating engine exhaust gas. The intermediate solution from the high-temperature generator flows to the low-temperature generator where it is heated to become a

concentrated solution by the high temperature water vapor released from the solution in the high temperature generator.

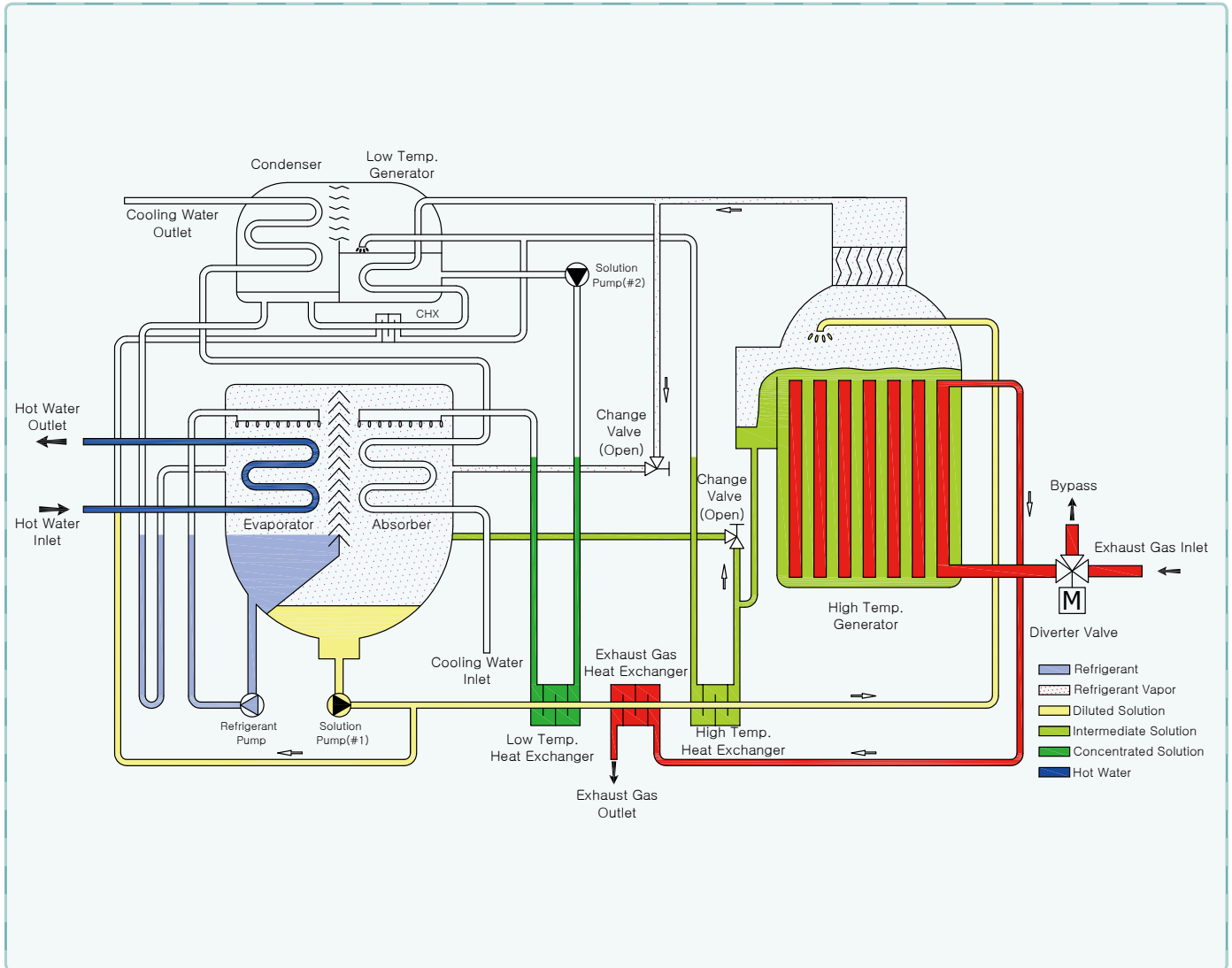
Since the low-stage generator acts as the condenser for the high-stage generator, the heat energy firstly applied in the high-stage generator is used again in the low-stage generator, thus reduced heat input is approximately 45% compared to an single-stage chiller.

Vapor released in the shell side of the low-stage generator enters the condenser to be cooled and return to a liquid state. The refrigerant water then returns to the evaporator to begin a new cycle.

To remove heat from the machine, cooling water from a cooling tower is firstly circulated through the tubes of the absorber to remove the heat of vaporization. The water is then circulated through the tubes of the condenser. The re-concentrated (strong) solution from the low temp. generator flows back to the absorber to begin a new cycle.

For efficiency purposes, the medium concentration solution from the high-temp. generator passes through the high-temperature solution heat exchanger to pre-heat the diluted (weak) solution, while pre-cooling the medium concentration solution. The re-concentrated (strong) solution from the low-temp. generator passes through the low temperature solution heat exchanger to pre-heat/cool the solution before being returned to the absorber.

• Heating Cycle



During heating mode, the absorber-condenser cooling water circuit is different from typical absorption process. High temperature water vapor produced in the high-temperature generator section passes directly to the evaporator via the absorber and transfers its heat to the tube bundles and hot water is heated from 55°C to 60°C. The Condensed water in evaporator flows to the absorber section and be mixed with the concentrated solution returning from the igh-temperature generator.

The diluted solution is pumped back to the high temperature generator to repeat the vapor generation phase for the heating function. To changeover the chiller mode from cooling to heating is simple. Change the position of chiller mode in the control panel first and drain the absorber-condenser water circuit and put the machine into heating mode by switching the positions of change valve. The hot water inlet temperatures is 60°C (140°F) as a standard and 80°C (176°F) as an option with the additional heat exchanger.

Double Effect Exhaust Gas Fired Absorption Chiller



Performance Data

→ →

| Model | Unit | CHP005H | CHP006H | CHP007H | CHP008H | CHP010H | CHP012H | CHP015H | CHP018H | CHP021H | CHP024H | CHP028H | CHP032H | CHP036H | CHP040H | | | | | | | | |
|--------------------|-----------------------------|--------------------|-----------------------|---------|---------|---------|-----------------------|---------|---------|---------|-----------------------|---------|---------|---------|-----------------------|----------|------|-------|--|--|-------|--|--|
| Cooling Capacity | usRT | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | | | | | | | |
| | kW | 176 | 211 | 246 | 281 | 351 | 422 | 527 | 633 | 738 | 844 | 984 | 1,125 | 1,265 | 1,406 | | | | | | | | |
| Chilled Water | Inlet/Outlet Temp. | 12 / 7 | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 30 | 36 | 42 | 48 | 60 | 73 | 91 | 109 | 127 | 145 | 169 | 194 | 218 | 242 | | | | | | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 6.9 | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | 7.4 | 5.4 | 5.3 | 5.8 | 6.0 | | | | | | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | | | | | | |
| Cooling Water | Inlet/Outlet Temp. | 32 / 37.2 | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | | | | | | |
| | Pressure Drop | mH ₂ O | 7.0 | 6.1 | 10.2 | 10.0 | 8.9 | 9.1 | 10.4 | 10.8 | 10.7 | 11.2 | 8.9 | 8.6 | 8.8 | 8.7 | | | | | | | |
| | Connection | mm | 100 | | | | 125 | | | | 150 | | | | 200 | | | | | | | | |
| Heating Capacity | Mcal/h | 111 | 133 | 156 | 178 | 222 | 267 | 334 | 400 | 467 | 534 | 623 | 712 | 800 | 889 | | | | | | | | |
| | kW | 129 | 155 | 181 | 207 | 258 | 310 | 388 | 465 | 543 | 620 | 724 | 827 | 930 | 1034 | | | | | | | | |
| Hot Water | Inlet/Outlet Temp. | 55.3 / 60 | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 30 | 36 | 42 | 48 | 60 | 73 | 91 | 109 | 127 | 145 | 169 | 194 | 218 | 242 | | | | | | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 6.9 | 5.6 | 5.9 | 7.6 | 8.1 | 7.5 | 7.4 | 5.4 | 5.3 | 5.8 | 6.0 | | | | | | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | | | | | | |
| Exhaust Gas | Gas Flow rate | kg/sec | 0.330 | 0.396 | 0.461 | 0.527 | 0.659 | 0.791 | 0.989 | 1.187 | 1.384 | 1.582 | 1.846 | 2.109 | 2.373 | 2.637 | | | | | | | |
| | Inlet/Outlet Temp @ Cooling | °C | 450 / 120 | | | | | | | | | | | | | | | | | | | | |
| | Inlet/Outlet Temp @ Heating | °C | 450 / 125 | | | | | | | | | | | | | | | | | | | | |
| | Pressure Drop | mmH ₂ O | 44 | 44 | 55 | 53 | 55 | 58 | 57 | 77 | 81 | 103 | 109 | 135 | 99 | 124 | | | | | | | |
| | Inlet Connection | mm-mm | 782×291 | 782×330 | 782×369 | 782×408 | 922×408 | 922×486 | 922×603 | 922×642 | 922×681 | 922×681 | 922×798 | 922×876 | 1376×720 | 1376×759 | | | | | | | |
| | Outlet Connection | mm | 300 | | | | 400 | | | | 500 | | | | 600 | | | | | | | | |
| | Diverter Valve | mm | 300 | | | | 400 | | | | 500 | | | | 600 | | | | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | | | | |
| | Absorbent Pump | kW(A) | 1.5 (4.7) + 0.2 (1.1) | | | | 2.0 (6.0) + 0.3 (1.6) | | | | 2.4 (7.0) + 0.4 (1.6) | | | | 3.2 (9.0) + 0.4 (1.6) | | | | | | | | |
| | Refrigerant Pump | kW(A) | 0.2 (1.1) | | | | 0.3 (1.5) | | | | 0.4 (1.6) | | | | | | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.45) | | | | | | | | | | | | | | | | | | | | |
| | Sealing Blower | kW(A) | 0.8 (5.2) | | | | | | | | | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | | | | | | | | | |
| | Total Ampere @ 400V | A | 13.7 | | | | 15.8 | | | | 16.3 | | | 16.5 | | | 18.6 | | | | | | |
| External Dimension | Length (L) | mm | 2,100 | | | 2,600 | | | 2,638 | | | 3,680 | | | 3,686 | | | 4,744 | | | 4,776 | | |
| | Width (W) | mm | 1,683 | 1,722 | 1,761 | 1,800 | 1,857 | 1,935 | 2,052 | 2,091 | 2,230 | 2,230 | 2,347 | 2,425 | 2,270 | 2,309 | | | | | | | |
| | Height (H) | mm | 1,800 | | | | 2,090 | | | | 2,147 | | | | 2,420 | | | | | | | | |
| Weight | Rigging | ton | 3.0 | 3.2 | 3.7 | 3.9 | 5.0 | 5.3 | 6.4 | 6.8 | 7.9 | 8.5 | 9.8 | 10.3 | 12.8 | 13.2 | | | | | | | |
| | Operation | ton | 3.2 | 3.5 | 4.0 | 4.3 | 5.4 | 5.8 | 7.0 | 7.4 | 8.6 | 9.3 | 10.7 | 11.3 | 14.0 | 14.6 | | | | | | | |

Note

1. Working pressure of each water side is based on 1.0MPa (150psig)
2. Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
3. Min. outlet temp. of chilled water: 5°C
4. Min. allowable inlet temp. of cooling water: 20°C.
5. Controllable range shall be 0~100%.
6. Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
7. Each water flow can be adjusted within 50~120%.

CHPH Series

Double Effect Exhaust Gas Driven Absorption Chiller & Heater

Performance Data

| Model | | Unit | CHP045H | CHP050H | CHP056H | CHP063H | CHP070H | CHP080H | CHP090H | CHP100H | CHP110H | CHP120H | CHP130H | CHP140H | CHP150H |
|--------------------|-----------------------------|--------------------|-----------------------|----------|-----------|------------------------|-----------|-----------|-----------|-----------|------------------------|-----------|-----------|-------------------------|-----------|
| Cooling Capacity | | usRT | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 |
| | | kW | 1,582 | 1,757 | 1,968 | 2,214 | 2,460 | 2,812 | 3,163 | 3,515 | 3,866 | 4,218 | 4,569 | 4,921 | 5,272 |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | |
| | Flow rate | ton/h | 272 | 302 | 339 | 381 | 423 | 484 | 544 | 605 | 665 | 726 | 786 | 847 | 907 |
| | Pressure Drop | mH ₂ O | 5.1 | 5.4 | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 |
| | Connection | mm | 200 | | | | 250 | | | 300 | | | 350 | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.2 | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 |
| | Pressure Drop | mH ₂ O | 8.4 | 8.6 | 6.8 | 9.3 | 12.4 | 8.8 | 12.0 | 15.8 | 11.1 | 14.1 | 17.6 | 14.0 | 16.8 |
| | Connection | mm | 250 | | | 300 | | | 350 | | | 400 | | | |
| Heating Capacity | | Mcal/h | 1,001 | 1,112 | 1,245 | 1,401 | 1,556 | 1,779 | 2,001 | 2,224 | 2,446 | 2,668 | 2,891 | 3,113 | 3,335 |
| | | kW | 1,163 | 1,292 | 1,447 | 1,628 | 1,809 | 2,067 | 2,326 | 2,584 | 2,843 | 3,101 | 3,360 | 3,618 | 3,876 |
| Hot Water | Inlet/Outlet Temp. | °C | 55.3 / 60 | | | | | | | | | | | | |
| | Flow rate | ton/h | 272 | 302 | 339 | 381 | 423 | 484 | 544 | 605 | 665 | 726 | 786 | 847 | 907 |
| | Pressure Drop | mH ₂ O | 5.1 | 5.4 | 4.2 | 5.8 | 7.7 | 5.7 | 7.7 | 10.1 | 6.7 | 8.6 | 10.7 | 8.7 | 10.6 |
| | Connection | mm | 200 | | | | 250 | | | 300 | | | 350 | | |
| Exhaust Gas | Gas Flow rate | kg/sec | 2.966 | 3.296 | 3.692 | 4.153 | 4.614 | 5.274 | 5.933 | 6.592 | 7.251 | 7.910 | 8.570 | 9.229 | 9.888 |
| | Inlet/Outlet Temp @ Cooling | °C | 450 / 120 | | | | | | | | | | | | |
| | Inlet/Outlet Temp @ Heating | °C | 450 / 125 | | | | | | | | | | | | |
| | Pressure Drop | mmH ₂ O | 128 | 123 | 113 | 100 | 113 | 105 | 117 | 120 | 165 | 165 | 160 | 156 | 139 |
| | Inlet Connection | mm-mm | 1376×837 | 1376×915 | 1376×1008 | 1376×1143 | 1376×1233 | 1376×1218 | 1376×1368 | 1376×1418 | 1376×1418 | 1376×1518 | 1376×1668 | 1376×1818 | 1376×2068 |
| | Outlet Connection | mm | 600 | | | 750 | | | | 1000 | | | | | |
| | Diverter Valve | mm | 600 | | | 750 | | | | 1000 | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | |
| | Absorbent Pump | kW(A) | 3.2 (9.0) + 0.4 (1.6) | | | 5.5 (15.0) + 2.2 (6.5) | | | | | 7.5 (24.0) + 2.2 (6.5) | | | 7.5 (24.0) + 4.5 (16.0) | |
| | Refrigerant Pump | kW(A) | 0.4 (1.6) | | | | | 1.5 (4.0) | | | | | | | |
| | Purge Pump | kW(A) | 0.4 (1.45) | | | | | 0.75(2.3) | | | | | | | |
| | Sealing Blower | kW(A) | 0.8 (5.2) | | | | | | | | | | | | |
| | Control Panel | kW(A) | 0.2 (0.5) | | | | | | | | | | | | |
| | Total Ampere @ 400V | A | 18.6 | | | 29.7 | | | 32.3 | | | 42.1 | | | 51.6 |
| External Dimension | Length (L) | mm | 4,954 | | 4,998 | 5,540 | 6,038 | 5,644 | 6,142 | 6,667 | 6,293 | 6,818 | 7,318 | 6,974 | 7,475 |
| | Width (W) | mm | 2,491 | 2,569 | 2,934 | 3,069 | 3,159 | 3,330 | 3,480 | 3,530 | 4,348 | 4,448 | 4,598 | 4,932 | 5,182 |
| | Height (H) | mm | 2,633 | | | 2,962 | | | 3,380 | | | 3,500 | | | 3,700 |
| Weight | Rigging | ton | 15.7 | 16.5 | 21.2 | 23.1 | 24.6 | 31.0 | 33.6 | 35.6 | 41.1 | 43.4 | 46.4 | 50.2 | 54.1 |
| | Operation | ton | 17.2 | 18.1 | 23.7 | 25.8 | 27.5 | 34.8 | 37.6 | 39.9 | 46.2 | 48.8 | 52.1 | 56.5 | 60.8 |

Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.

Double Effect Exhaust Gas Fired Absorption Chiller



Performance Data

→

| Model | | Unit | CHP005 | CHP006 | CHP007 | CHP008 | CHP010 | CHP012 | CHP015 | CHP018 | CHP021 | CHP024 | CHP028 | CHP032 | CHP036 | CHP040 | | |
|------------------|--------------------|--------------------|-----------------|---------|---------|---------|-----------|---------|---------|---------|-----------|---------|---------|---------|-----------|----------|--|--|
| Cooling Capacity | usRT | | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | |
| | kW | | 176 | 211 | 246 | 281 | 351 | 422 | 527 | 633 | 738 | 844 | 984 | 1125 | 1,265 | 1,406 | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 30.2 | 36.3 | 42.3 | 48.4 | 60.5 | 72.6 | 90.7 | 109 | 127 | 145 | 169 | 194 | 218 | 242 | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 5.6 | 4.8 | 5.1 | 6.6 | 7.0 | 6.4 | 6.3 | 4.6 | 4.5 | 5.0 | 5.1 | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.5 | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 210 | 240 | 280 | 320 | 360 | 400 | | |
| | Pressure Drop | mH ₂ O | 7.0 | 6.1 | 10.2 | 9.6 | 11.1 | 11.3 | 11.5 | 11.8 | 11.8 | 12.1 | 11.2 | 10.7 | 11.1 | 10.8 | | |
| | Connection | mm | 100 | | | | 125 | | | | 150 | | | | 200 | | | |
| Heating Capacity | Mcal/h | | 142 | 170 | 198 | 227 | 283 | 340 | 425 | 510 | 595 | 680 | 793 | 906 | 1,019 | 1,133 | | |
| | kW | | 165 | 197 | 230 | 263 | 329 | 395 | 494 | 592 | 691 | 790 | 922 | 1,053 | 1,185 | 1,317 | | |
| Hot Water | Inlet/Outlet Temp. | °C | 55.3 / 60 | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 30 | 36 | 42 | 48 | 60.5 | 72.6 | 90.7 | 109 | 127 | 145 | 169 | 194 | 218 | 242 | | |
| | Pressure Drop | mH ₂ O | 4.0 | 3.7 | 6.2 | 5.6 | 4.8 | 5.1 | 6.6 | 7.0 | 6.4 | 6.3 | 4.6 | 4.5 | 5.0 | 5.1 | | |
| | Connection | mm | 80 | | | | 100 | | | | 125 | | | 150 | | | | |
| Exhaust Gas | Flow rate | kg/sec | 0.439 | 0.527 | 0.615 | 0.703 | 0.88 | 1.05 | 1.32 | 1.58 | 1.84 | 2.11 | 2.46 | 2.81 | 3.16 | 3.51 | | |
| | Temp. | Cooling | 450 / 165 | | | | | | | | | | | | | | | |
| | | Heating | 450 / 125 | | | | | | | | | | | | | | | |
| | Pressure Drop | mmH ₂ O | 58 | 58 | 74 | 71 | 77 | 82 | 79 | 92 | 97 | 113 | 129 | 131 | 123 | 131 | | |
| | Inlet Connection | mm×mm | 782×291 | 782×330 | 782×369 | 782×408 | 922×408 | 922×486 | 922×603 | 922×642 | 922×681 | 922×681 | 922×798 | 922×876 | 1376×720 | 1376×759 | | |
| | Outlet Conn | mm | 300 | | | | 400 | | | | 500 | | | | 600 | | | |
| | Diverter Valve | mm | 300 | | | | 400 | | | | 500 | | | | 600 | | | |
| Electric | Power source | kW | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | |
| | Abs. Pump | kW [A] | 1.5 (5.5) | | | | 2.0 (6.4) | | | | 2.4 (6.9) | | | | 3.2 (9.0) | | | |
| | Ref. Pump | kW [A] | 0.2 (1.0) | | | | 0.3 (1.2) | | | | 0.4 (1.4) | | | | | | | |
| | Purge Pump | kW [A] | 0.4 (1.4) | | | | | | | | | | | | | | | |
| | Sealing Blower | kW [A] | 0.4 (2.5) | | | | | | | | | | | | | | | |
| | Control Panel | kW [A] | 0.2 (0.5) | | | | | | | | | | | | | | | |
| | Amp.(400Vac) | A | 10.8 | | | | 11.9 | | | | 12.6 | | | | 14.7 | | | |
| Size | Length (L) | mm | 2,100 | | 2,600 | | 2,638 | | 3,680 | | 3,717 | | 4,742 | | 4,872 | | | |
| | Width (W) | mm | 1,683 | 1,722 | 1,761 | 1,800 | 1,857 | 1,935 | 2,052 | 2,091 | 2,194 | 2,194 | 2,310 | 2,349 | 2,349 | 2,349 | | |
| | Height (H) | mm | 1800 | | | | 2,090 | | | | 2,147 | | | | 2,399 | | | |
| Weight | Rigging | ton | 3.0 | 3.2 | 3.7 | 3.9 | 5.0 | 5.3 | 6.4 | 6.8 | 7.9 | 8.5 | 9.8 | 10.3 | 12.8 | 13.2 | | |
| | Operation | ton | 3.2 | 3.5 | 4.0 | 4.3 | 5.4 | 5.8 | 7.0 | 7.4 | 8.6 | 9.3 | 10.7 | 11.3 | 14.0 | 14.6 | | |

Note

1. Working pressure of each water side is based on 1.0MPa (150psig)
2. Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
3. Min. outlet temp. of chilled water: 5°C
4. Min. allowable inlet temp. of cooling water: 20°C.
5. Controllable range shall be 0~100%.
6. Standard Power source is 3ph, 400V, 50Hz and available 220, 380, 440V and 460V power source.
7. Each water flow can be adjusted within 50~120%.

CHP Series

Double Effect Exhaust Gas Driven Absorption Chiller & Heater

Performance Data

| Model | | Unit | CHP045 | CHP050 | CHP056 | CHP063 | CHP070 | CHP080 | CHP090 | CHP100 | CHP110 | CHP120 | CHP130 | CHP140 | CHP150 | | |
|------------------|--------------------|--------------------|-----------------|----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|-----------|--|--|
| Cooling Capacity | | usRT | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| | | kW | 1,582 | 1,757 | 1,968 | 2,214 | 2,460 | 2,812 | 3,163 | 3,515 | 3,866 | 4,218 | 4,569 | 4,921 | 5,272 | | |
| Chilled Water | Inlet/Outlet Temp. | °C | 12 / 7 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 272 | 302 | 339 | 381 | 423 | 484 | 544 | 605 | 665 | 726 | 786 | 847 | 907 | | |
| | Pressure Drop | mH ₂ O | 4.4 | 3.9 | 3.6 | 5.0 | 6.6 | 4.7 | 6.4 | 8.5 | 7.2 | 9.2 | 11.5 | 8.3 | 10.2 | | |
| | Connection | mm | 200 | | | | | 250 | | | 300 | | | 350 | | | |
| Cooling Water | Inlet/Outlet Temp. | °C | 32 / 37.5 | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 450 | 500 | 560 | 630 | 700 | 800 | 900 | 1,000 | 1,100 | 1,200 | 1,300 | 1,400 | 1,500 | | |
| | Pressure Drop | mH ₂ O | 10.7 | 10.8 | 7.7 | 10.6 | 14.0 | 8.7 | 11.8 | 15.6 | 3.0 | 3.8 | 4.8 | 4.0 | 4.8 | | |
| | Connection | mm | 250 | | | 300 | | | 350 | | | 400 | | | | | |
| Heating Capacity | | Mcal/h | 1,274 | 1,416 | 1,586 | 1,784 | 1,982 | 2,266 | 2,549 | 2,832 | 3,115 | 3,398 | 3,682 | 3,965 | 4,248 | | |
| | | kW | 1,481 | 1,646 | 1,843 | 2,074 | 2,304 | 2,633 | 2,962 | 3,291 | 3,621 | 3,950 | 4,279 | 4,608 | 4,937 | | |
| Hot Water | Inlet/Outlet Temp. | °C | 55.3 / 60 | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 272 | 302 | 339 | 381 | 423 | 484 | 544 | 605 | 665 | 726 | 786 | 847 | 907 | | |
| | Pressure Drop | mH ₂ O | 4.4 | 3.9 | 3.6 | 5.0 | 6.6 | 4.7 | 6.4 | 8.5 | 7.2 | 9.2 | 11.5 | 8.3 | 10.2 | | |
| | Connection | mm | 200 | | | | | 250 | | | 300 | | | 350 | | | |
| Exhaust Gas | Flow rate | kg/sec | 3.95 | 4.39 | 4.92 | 5.53 | 6.15 | 7.03 | 7.91 | 8.78 | 9.66 | 10.54 | 11.42 | 12.30 | 13.18 | | |
| | Temp. | Cooling | °C 450 / 165 | | | | | | | | | | | | | | |
| | | Heating | °C 450 / 125 | | | | | | | | | | | | | | |
| | Pressure Drop | mmH ₂ O | 133 | 134 | 143 | 133 | 146 | 155 | 153 | 176 | 213 | 221 | 212 | 206 | 184 | | |
| | Inlet Connection | mm×mm | 1376×837 | 1376×915 | 1376×1008 | 1376×1143 | 1376×1233 | 1376×1218 | 1376×1368 | 1376×1418 | 1376×1418 | 1376×1518 | 1376×1668 | 1376×1818 | 1376×2068 | | |
| | Outlet Conn | mm | 600 | | | | | 750 | | | | | 1000 | | | | |
| | Diverter Valve | mm | 600 | | | | | 750 | | | | | 1000 | | | | |
| Electric | Power source | kW | 3PH, 400V, 50Hz | | | | | | | | | | | | | | |
| | Abs. Pump | kW [A] | 3.2 (9.0) | | | 5.5 (15.0) | | | | | | 7.5 (24.0) | | | | | |
| | Ref. Pump | kW [A] | 0.3 (1.2) | | | | | | 1.5 (4.0) | | | | | | | | |
| | Purge Pump | kW [A] | 0.4 (1.4) | | | | | | 0.75 (2.2) | | | | | | | | |
| | Sealing Blower | kW [A] | 0.4 (2.5) | | | | | | | | | | | | | | |
| | Control Panel | kW [A] | 0.2 (0.5) | | | | | | | | | | | | | | |
| | Total Ampere @400V | A | 14.7 | | | 20.7 | | | 23.3 | | | 33.1 | | | | | |
| Size | Length (L) | mm | 4,954 | | 4,998 | 5,540 | 6,038 | 5,644 | 6,142 | 6,667 | 6,293 | 6,818 | 7,318 | 6,974 | 7,475 | | |
| | Width (W) | mm | 2,491 | 2,569 | 2,934 | 3,069 | 3,159 | 3,330 | 3,480 | 3,530 | 4,348 | 4,448 | 4,598 | 4,932 | 5,182 | | |
| | Height (H) | mm | 2,633 | | | 2,962 | | | 3,380 | | | 3,500 | | | 3,700 | | |
| Weight | Rigging | ton | 15.7 | 16.5 | 21.2 | 23.1 | 24.6 | 31.0 | 33.6 | 35.6 | 41.1 | 43.4 | 46.4 | 50.2 | 54.1 | | |
| | Operation | ton | 17.2 | 18.1 | 23.7 | 25.8 | 27.5 | 34.8 | 37.6 | 39.9 | 46.2 | 48.8 | 52.1 | 56.5 | 60.8 | | |





Option

1. Non-standard cooling capacity.
2. Higher working pressure (230psig = 1.6MPa, 300psig = 2.0MPa)
3. Special tubes (material) & thickness.
4. Various temp. conditions (CHW, CW, HW)
5. Outdoor installation.
6. The specifications above are subject to change without prior notice for an improvement of the chiller.



Double Effect Exhaust Gas Driven Absorption Chiller

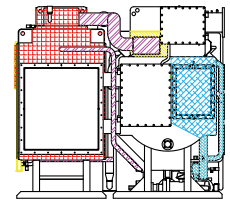
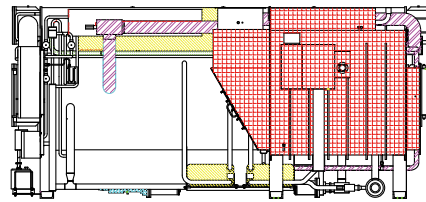
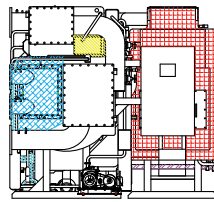
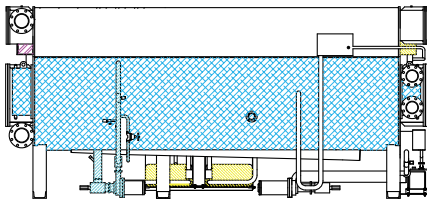
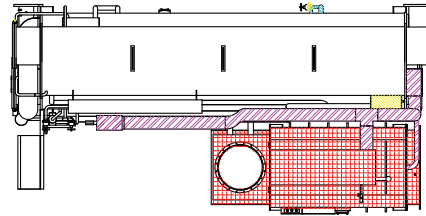
Thermal Insulation

INSULATION FOR HOT SURFACES

-  75mm(3inch) : High Temp. Generator
-  50mm(2inch) : Steam Pippings, Box of Low Temp. Generator, Pippings of High Temp. Generator(Inlet, Outlet), Boxes of High Temp. Heat Exchanger
-  19mm(3/4inch) : Low Temp. Generator Body and Outlet Box(ABSO), High & Low Temp. Heat Exchanger Body and Box of Heat
-  10mm(3/8inch) : Inlet & Outlet Pippings of Low Temp. Generator.

INSULATION FOR COLD SURFACES

-  19mm(3/4inch) : Evaporator Body and It's Water Box.
-  10mm(3/8inch) : Piping of Refrigerant Pump(Inlet, Outlet), Generator(Inlet, Outlet), Boxes of High Temp. Heat Exchanger



Note

1. Use only Non-inflammable or flame retardant insulation materials.
2. Do not insulate motor of refrigerant pump.
3. Total insulation area is including pipings.
4. Do not cover components such as service valves, diaphragm valves, sight glass, control valves, thermometers or sensor.
5. Use the standard insulation material and thickness as the recommendation

HOT Surface insulation

- Material of insulation : Glass wool, Thermal Conductivity 0.04kcal/m·h·°C
- Thickness of insulation : 50mm [2 inch], 75mm [3 inch]
- Material of insulation : Closed cell type Non-inflammable polymer sponge
- Thickness of insulation : 19mm [3/4inch], 10mm [3/8inch]

COLD Surface insulation

- Material of insulation : Closed cell type Non-inflammable polymer sponge
- Thickness of insulation : 19mm [3/4 inch], 10mm [3/8 inch]

Wrapping Material when Glass wool is used.

- Insulated parts on body : Colored galvanized steel with 0.45mm thickness or over
- Insulated parts on pipes : Colored galvanized steel with 0.30mm thickness or over

| Model | Hot Surface (m ²) | | | | Cold Surface (m ²) | |
|--------|-------------------------------|------|------|------|--------------------------------|------|
| | 75mm | 50mm | 19mm | 10mm | 19mm | 10mm |
| CHP005 | 8.2 | 0.9 | 2.7 | 0.4 | 2.6 | 0.3 |
| CHP006 | 8.2 | 0.9 | 2.7 | 0.4 | 2.6 | 0.3 |
| CHP007 | 8.2 | 0.9 | 3.4 | 0.4 | 2.6 | 0.3 |
| CHP008 | 8.2 | 1.1 | 3.4 | 0.4 | 2.6 | 0.3 |
| CHP010 | 9.5 | 1.8 | 4.2 | 0.7 | 3.6 | 0.3 |
| CHP012 | 10.4 | 1.8 | 4.3 | 0.7 | 3.6 | 0.3 |
| CHP015 | 11.2 | 2.2 | 6.3 | 0.7 | 4.8 | 0.3 |
| CHP018 | 11.4 | 2.2 | 6.3 | 0.7 | 4.8 | 0.3 |
| CHP021 | 12.8 | 2.2 | 7.1 | 0.9 | 5.8 | 0.3 |
| CHP024 | 13.6 | 2.2 | 7.1 | 0.9 | 5.8 | 0.4 |
| CHP028 | 14.1 | 2.5 | 8.3 | 1.1 | 7.1 | 0.4 |
| CHP032 | 18.2 | 2.5 | 8.3 | 1.1 | 7.1 | 0.4 |
| CHP036 | 18.4 | 3.0 | 9.1 | 1.2 | 7.9 | 0.4 |
| CHP040 | 18.4 | 3.0 | 9.1 | 1.2 | 7.9 | 0.4 |

| Model | Hot Surface (m ²) | | | | Cold Surface (m ²) | |
|--------|-------------------------------|------|------|------|--------------------------------|------|
| | 75mm | 50mm | 19mm | 10mm | 19mm | 10mm |
| CHP045 | 20.6 | 3.1 | 10.1 | 1.2 | 7.9 | 0.4 |
| CHP050 | 21.3 | 3.1 | 10.1 | 1.2 | 11 | 0.4 |
| CHP056 | 23.4 | 7.5 | 11.4 | 1.4 | 13.5 | 0.6 |
| CHP063 | 24.7 | 8.3 | 12.2 | 1.4 | 15 | 0.7 |
| CHP070 | 25.3 | 9.2 | 13.0 | 1.5 | 16 | 0.7 |
| CHP080 | 32.1 | 10.5 | 13.9 | 1.6 | 17 | 1.1 |
| CHP090 | 33.7 | 11.5 | 14.4 | 1.6 | 18.5 | 1.2 |
| CHP100 | 34.2 | 13.0 | 14.9 | 1.7 | 20 | 1.2 |
| CHP110 | 36.5 | 15.5 | 13.7 | 1.7 | 22.2 | 1.4 |
| CHP120 | 37.6 | 16.8 | 14.0 | 1.7 | 22.5 | 1.4 |
| CHP130 | 39.3 | 18.2 | 14.3 | 1.8 | 23.4 | 1.4 |
| CHP140 | 41.1 | 18.1 | 14.6 | 1.8 | 26.6 | 1.5 |
| CHP150 | 43.9 | 19.6 | 15.1 | 1.8 | 27.6 | 1.5 |

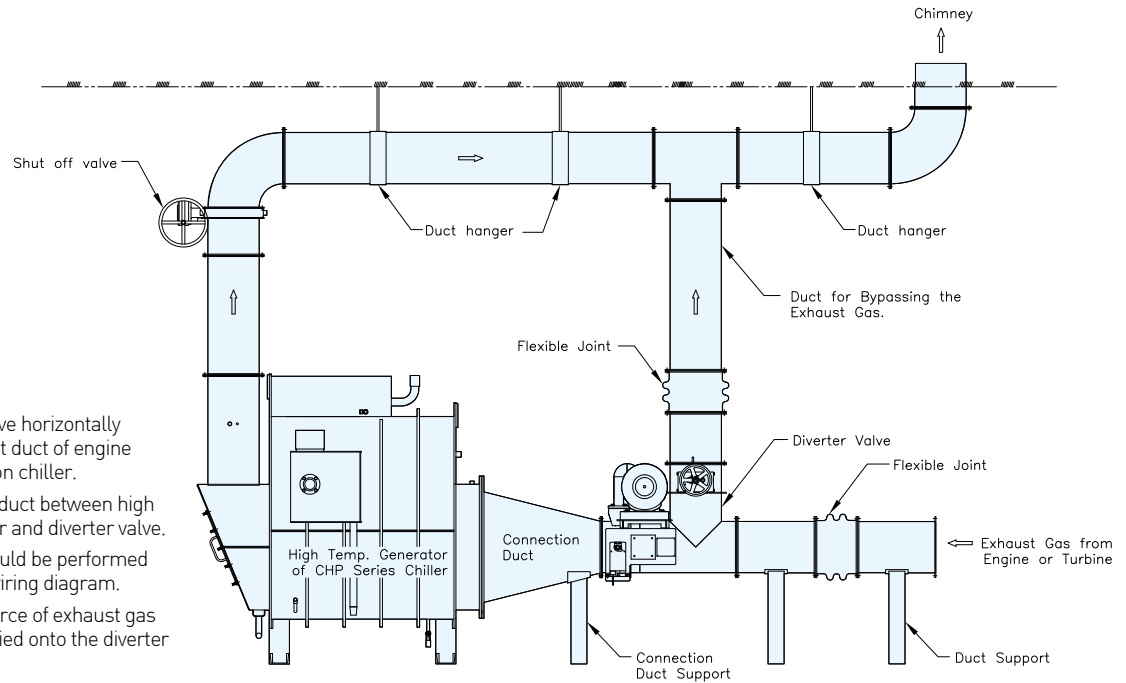
CHP Series

Double Effect Exhaust Gas Driven Absorption Chiller

Diverter Valve Installation Guide

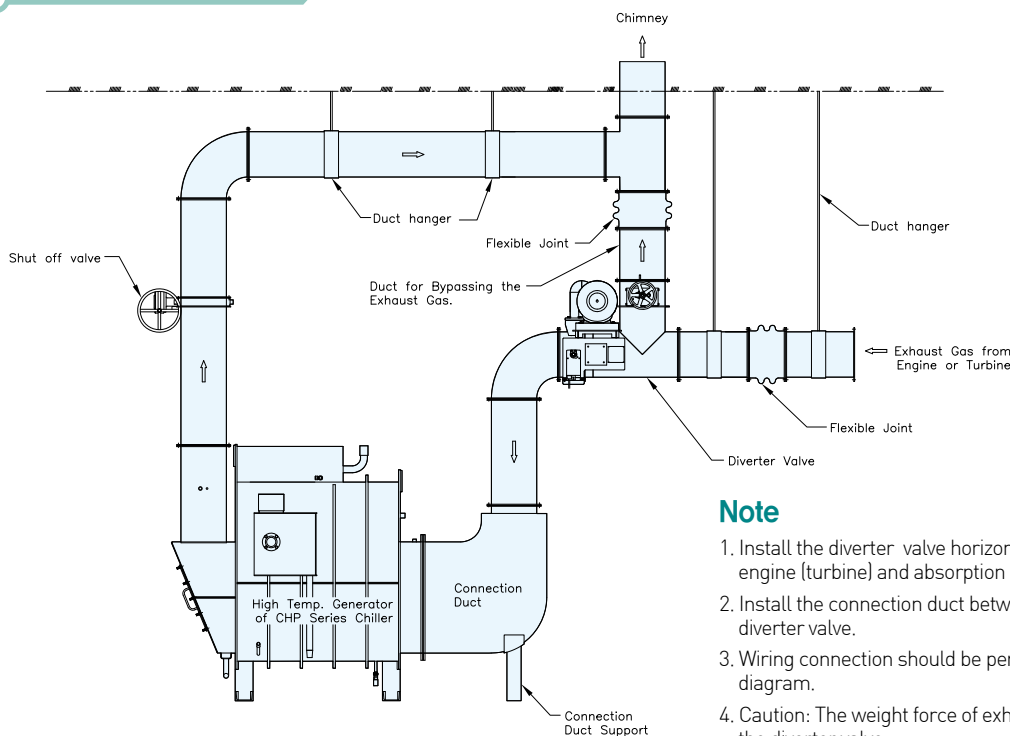
Note

1. Install the diverter valve horizontally in between the exhaust duct of engine (turbine) and absorption chiller.
2. Install the connection duct between high temperature generator and diverter valve.
3. Wiring connection should be performed accordance with the wiring diagram.
4. Caution: The weight force of exhaust gas duct shouldn't be applied onto the diverter valve.



Note

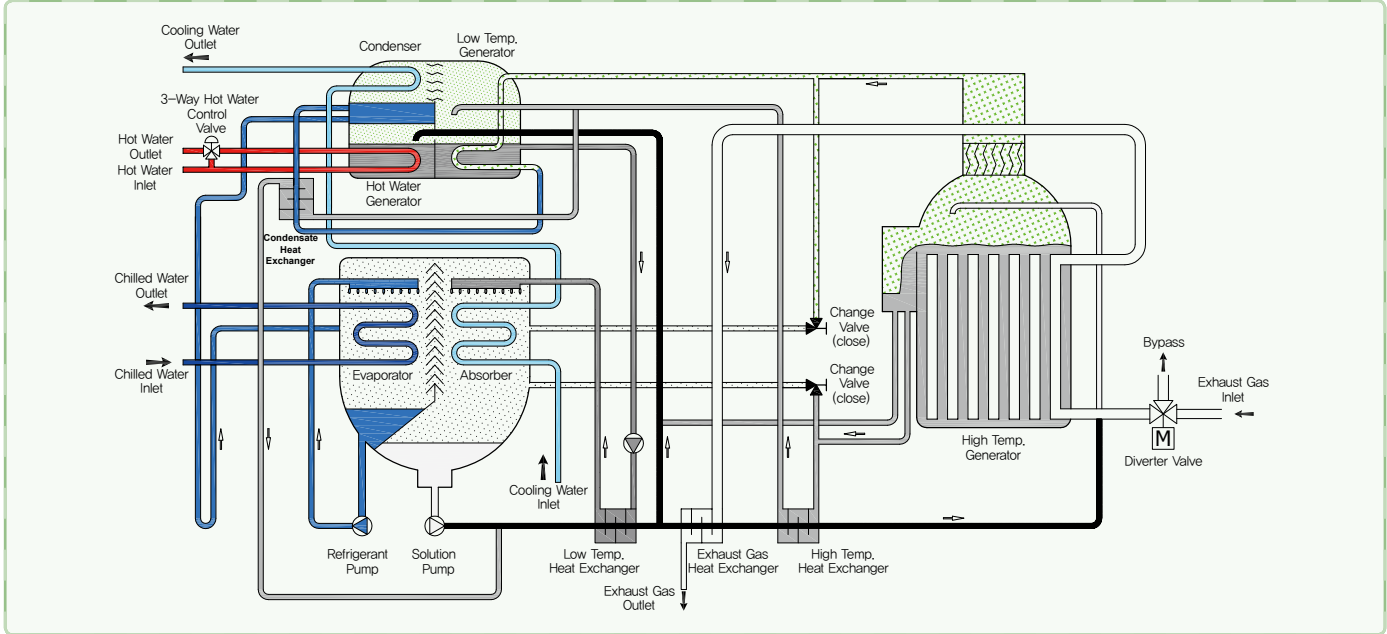
1. Install the diverter valve horizontally in between the exhaust duct of engine (turbine) and absorption chiller.
2. Install the connection duct between high temperature generator and diverter valve.
3. Wiring connection should be performed accordance with the wiring diagram.
4. Caution: The weight force of exhaust gas duct shouldn't be applied onto the diverter valve.



Hybrid Absorption Chiller



CHPL Series_Hybrid Type



Performance Data

| Model | Unit | CHPL045H | CHPL050H | CHPL056H | CHPL063H | CHPL070H | CHPL080H | CHPL090H | |
|------------------|--------------------|-------------------|----------|----------|----------|----------|----------|----------|--------|
| Cooling Capacity | usRT | 374 | 416 | 466 | 524 | 582 | 666 | 749 | |
| | kW | 1,315 | 1,463 | 1,639 | 1,843 | 2,046 | 2,342 | 2,634 | |
| Chilled Water | Temp. | 12 / 7 | | | | | | | |
| | Flow rate | m ³ /h | 226 | 252 | 282 | 317 | 352 | 403 | 453 |
| | Pressure Drop | mH ₂ O | 3.7 | 4.2 | 4.6 | 4.6 | 6.9 | 4.9 | 5.2 |
| | Connection | mm | 200 | 200 | 200 | 200 | 200 | 250 | 250 |
| Cooling Water | Temp. | 32 / 37.5 | | | | | | | |
| | Flow rate | m ³ /h | 395 | 439 | 492 | 553 | 614 | 703 | 790 |
| | Pressure Drop | mH ₂ O | 6.4 | 7.1 | 7.4 | 8.7 | 12.6 | 7.5 | 8.2 |
| | Connection | mm | 250 | 250 | 250 | 250 | 300 | 300 | 300 |
| Exhaust Gas Side | Temperature | 450 / 120 | | | | | | | |
| | Flow rate | ton/h | 5,989 | 6,655 | 7,468 | 8,404 | 9,316 | 10,672 | 12,003 |
| | Pressure Drop | mH ₂ O | 66 | 50 | 52 | 30 | 42 | 43 | 50 |
| | Diverter Valve | mm | 400 | 400 | 500 | 500 | 500 | 600 | 600 |
| Hot Water Side | Temperature | 90 / 80 | | | | | | | |
| | Flow rate | m ³ /h | 51.3 | 57.2 | 63.8 | 71.7 | 99.7 | 91.2 | 102.6 |
| | Pressure Drop | mH ₂ O | 1.4 | 2.4 | 4.4 | 2.7 | 3.7 | 1.4 | 2.2 |
| | Connection | mm | 80 | 80 | 100 | 100 | 125 | 125 | 125 |
| Elec. Power | Power Source | 3PH/380V/50Hz | | | | | | | |
| | Consumption | kW | 5.4 | 5.9 | 6.3 | 7.4 | 7.4 | 8.5 | 5.4 |
| | Total Ampere @380V | A | 19.4 | 21.2 | 22.4 | 24.6 | 24.6 | 26.7 | 29.7 |
| Size | Length (L) | mm | 4,876 | 4,876 | 5,213 | 5,534 | 6,032 | 5,644 | 6,032 |
| | Width (W) | mm | 2,570 | 2,670 | 2,726 | 2,726 | 2,799 | 3,188 | 3,188 |
| | Height (H) | mm | 2,657 | 2,657 | 2,860 | 2,860 | 2,860 | 3,380 | 3,380 |
| Weight | Rigging | Ton | 16.3 | 18.2 | 20.3 | 24.5 | 26.1 | 33.1 | 35.2 |
| | Operation | Ton | 14.9 | 16.9 | 18.9 | 21.9 | 23.4 | 29.5 | 33.5 |

CHPL Series

Double Effect Hybrid (Exhaust Gas + Hot Water) Absorption Chiller

Performance Data

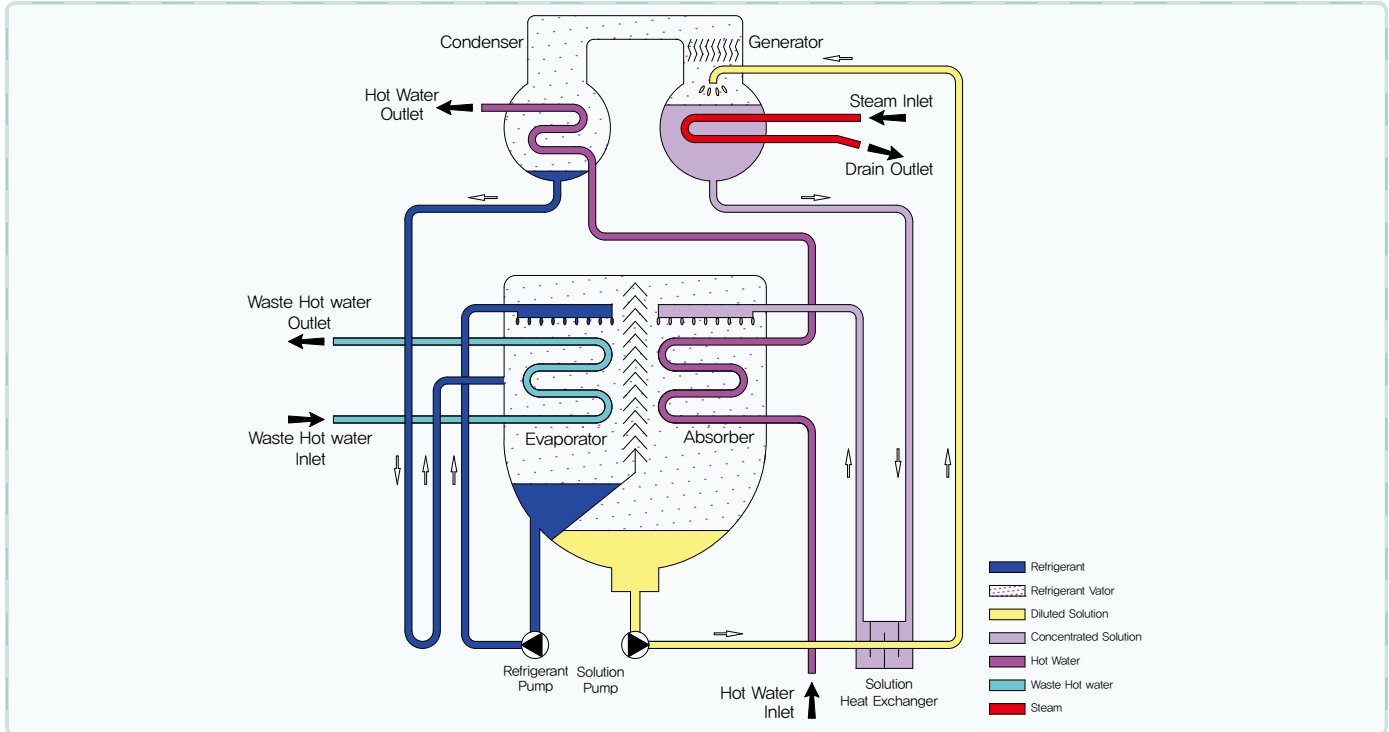
| Model | | Unit | CHPL100H | CHPL110H | CHPL120H | CHPL130H | CHPL140H | CHPL150H |
|------------------|--------------------|-------------------|---------------|----------|----------|----------|----------|----------|
| Cooling Capacity | | usRT | 832 | 915 | 998 | 1,082 | 1,165 | 1,248 |
| | | kW | 2,926 | 3,217 | 3,509 | 3,805 | 4,096 | 4,388 |
| Chilled Water | Temp. | °C | 12 / 7 | | | | | |
| | Flow rate | m ³ /h | 503 | 552 | 604 | 654 | 705 | 755 |
| | Pressure Drop | mH ₂ O | 8.0 | 8.3 | 8.0 | 7.3 | 7.8 | 8.2 |
| | Connection | mm | 250 | 250 | 300 | 300 | 200 | 300 |
| Cooling Water | Temp. | °C | 32 / 37.5 | | | | | |
| | Flow rate | m ³ /h | 878 | 965 | 1053 | 1142 | 1229 | 1317 |
| | Pressure Drop | mH ₂ O | 8.9 | 9.2 | 10.0 | 13.7 | 11.3 | 10.5 |
| | Connection | mm | 350 | 350 | 400 | 400 | 400 | 400 |
| Exhaust Gas Side | Temperature | °C | 450 / 120 | | | | | |
| | Flow rate | ton/h | 12,934 | 14,225 | 15,516 | 16,807 | 18,098 | 19,389 |
| | Pressure Drop | mH ₂ O | 97 | 90 | 87 | 85 | 100 | 110 |
| | Diverter Valve | mm | 600 | 600 | 600 | 600 | 750 | 750 |
| Hot Water Side | Temperature | °C | 90 / 80 | | | | | |
| | Flow rate | m ³ /h | 142.2 | 125.3 | 136.7 | 185.2 | 159.8 | 171.1 |
| | Pressure Drop | mH ₂ O | 2.8 | 3.2 | 4.3 | 3.7 | 3.8 | 2.7 |
| | Connection | mm | 125 | 80 | 150 | 150 | 80 | 150 |
| Elec. Power | Power Source | - | 3PH/380V/50Hz | | | | | |
| | Consumption | kW | 8.5 | 12.4 | 14.5 | 14.5 | 15.0 | 16.0 |
| | Total Ampere @380V | A | 26.7 | 32.4 | 46.2 | 46.2 | 51.3 | 56.6 |
| Size | Length (L) | mm | 5,644 | 6,212 | 6,818 | 7,318 | 7,318 | 7,475 |
| | Width (W) | mm | 3,188 | 3,840 | 4,161 | 4,411 | 4,834 | 5,182 |
| | Height (H) | mm | 3,380 | 3,380 | 3,500 | 3,500 | 3,600 | 3,700 |
| Weight | Rigging | Ton | 33.1 | 36.7 | 46.4 | 49.5 | 52.8 | 57.8 |
| | Operation | Ton | 29.5 | 31.5 | 41.2 | 44.1 | 49.7 | 51.4 |

Note

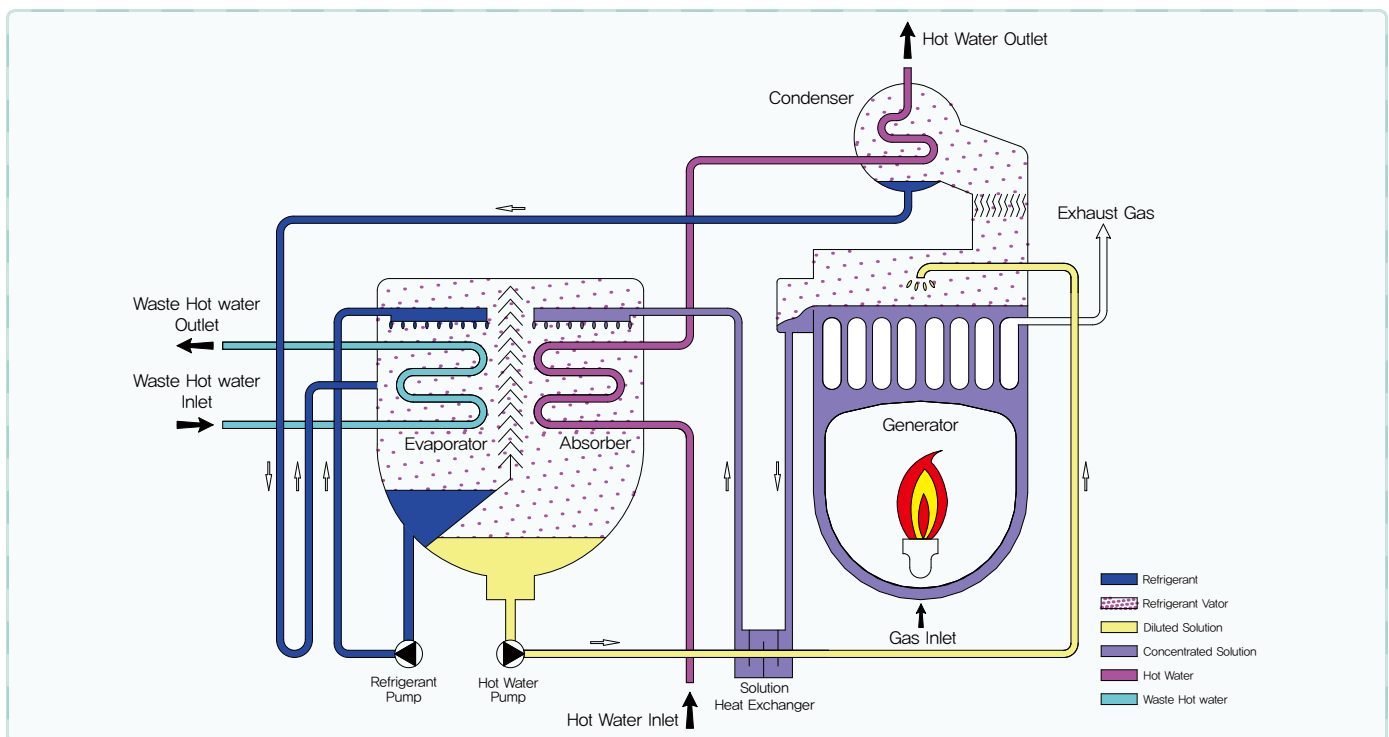
- Working pressure of each water side is based on 1.0MPa (150psig)
- Fouling factor 0.0001 m².hr.°C/Kcal for Absorber, Condenser and Evaporator.
- Min. outlet temp. of chilled water: 5°C
- Min. allowable inlet temp. of cooling water: 20°C.
- Controllable range shall be 0~100%.
- Available power sources (options): 220V, 380V, 440V and 460V with 50Hz or 60Hz.
- Custom design is available with modifications of the standard specification
 - Cooling capacity
 - Chilled and Cooling water circuit with anti-freezing additives
 - Higher working pressure
 - Special tubes and thicker shell material
 - Various operational temp. conditions (CHW or/and CW)
 - Higher delta-T operation
 - Outdoor installation
- The specifications above are subject to change without prior notice for an improvement of the chiller.

Absorption Heat Pump

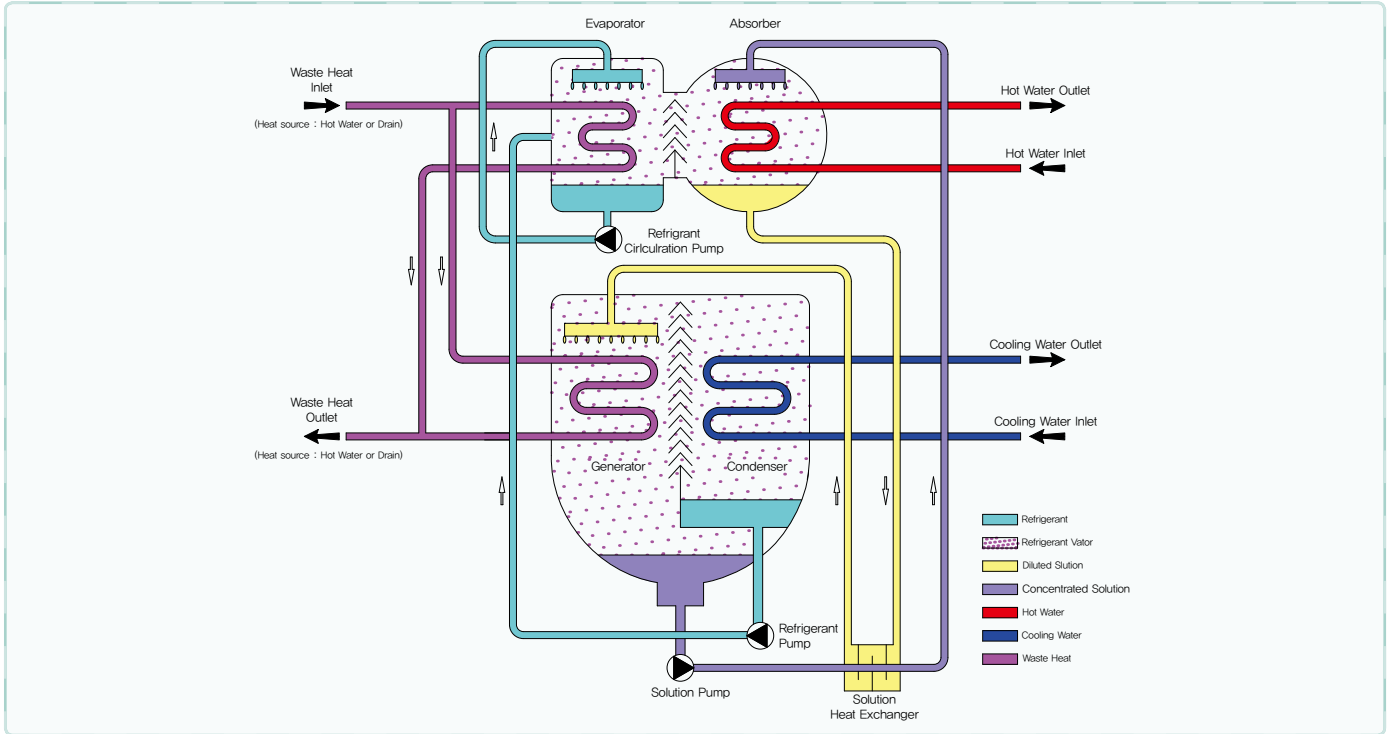
HPS Series_Steam Driven Type



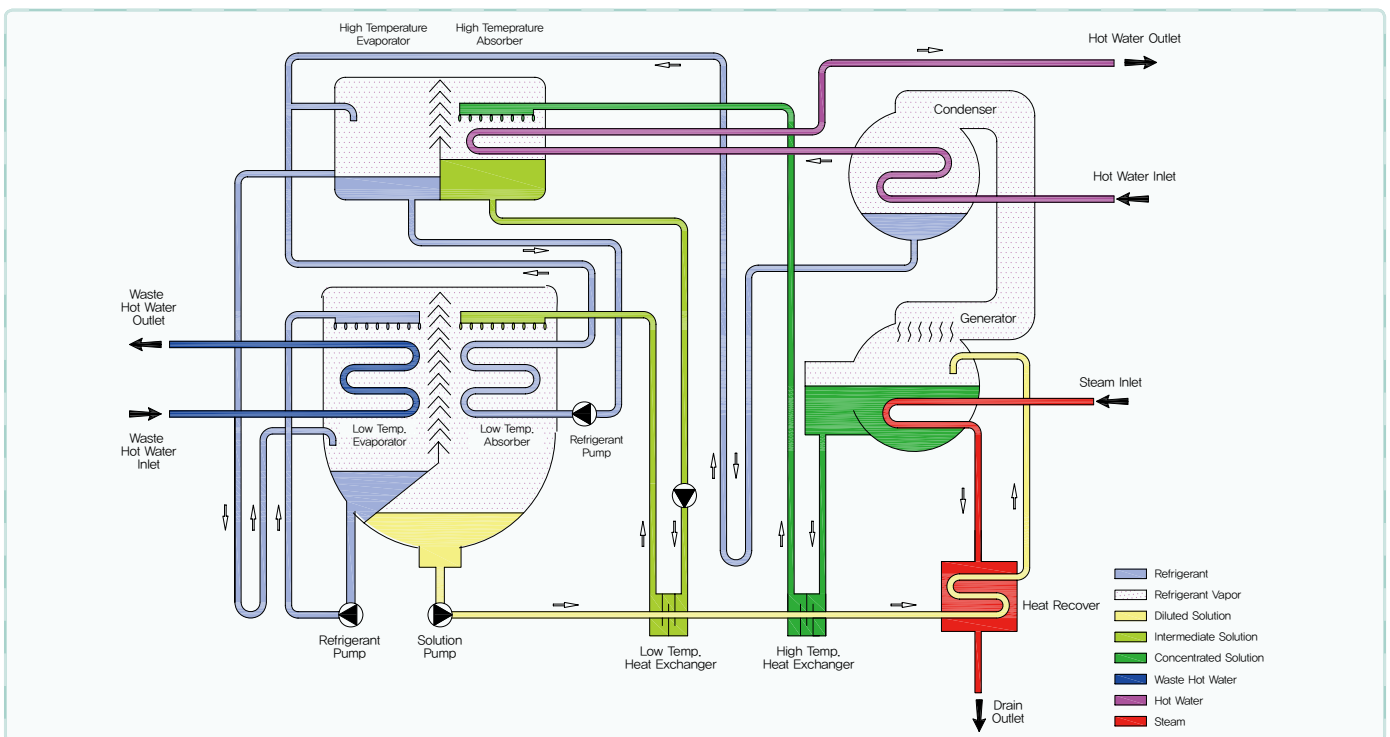
HPD Series_Direct Fired Type



AHT Series_Steam Generation Type



H2A Series_2-Lift Type



Absorption Heat Pump

Performance Data

• HPS Series

Steam Fired Type Absorption Heat Pump (670 ~ 4686kW)

| Model | | Unit | HPS010 | HPS012 | HPS015 | HPS018 | HPS021 | HPS024 | HPS028 | HPS032 | HPS036 | HPS040 | HPS045 | HPS050 | HPS056 | HPS063 | HPS070 | | | | | | | | | | |
|----------------------------|--------------------|-------------------|-----------------|--------|--------|-----------|--------|-----------|------------|--------|--------|------------|---------|--------|----------|--------|--------|-------|--|--|-------|--|-------|-------|--|--|--|
| Heating capacity | | Mcal/h | 576 | 691 | 864 | 1,036 | 1,209 | 1,382 | 1,612 | 1,842 | 2,073 | 2,303 | 2,591 | 2,879 | 3,224 | 3,627 | 4,030 | | | | | | | | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 20 / 80 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 9.6 | 11.5 | 14.4 | 17.3 | 20.2 | 23.0 | 26.9 | 30.7 | 34.5 | 38.4 | 43.2 | 48.0 | 53.7 | 60.5 | 67.2 | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 3.6 | 3.7 | 9.8 | 10.0 | 9.4 | 9.9 | 8.9 | 9.4 | 9.4 | 9.0 | 9.4 | 9.3 | 3.0 | 4.1 | 5.4 | | | | | | | | | | |
| | Connection | mm | 65A | | | | | 80A | | | | | 100A | | | | | | | | | | | | | | |
| Recovery Heat Capacity | | Mcal/h | 227 | 272 | 340 | 408 | 476 | 544 | 635 | 726 | 816 | 907 | 1,021 | 1,134 | 1,270 | 1,429 | 1,588 | | | | | | | | | | |
| Waste Hot Water | Inlet/Outlet Temp. | °C | 30 / 20 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 22.7 | 27.2 | 34.0 | 40.8 | 47.6 | 54.4 | 63.5 | 72.6 | 81.6 | 90.7 | 102.1 | 113.4 | 127.0 | 142.9 | 158.8 | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 10.7 | 10.8 | 10.7 | 11.3 | 9.9 | 10.6 | 10.5 | 11.0 | 11.1 | 12.0 | 10.6 | 11.0 | 10.3 | 13.9 | 14.8 | | | | | | | | | | |
| | Connection | A | 80A | | | | | 100A | | | | | 125A | | | | | | | | | | | | | | |
| Steam side | Flow rate | kg/h | 622.5 | 747.0 | 933.8 | 1120.5 | 1307.3 | 1494.0 | 1743.0 | 1992.0 | 2241.0 | 2490.0 | 2801.3 | 3112.5 | 3486.0 | 3921.8 | 4357.5 | | | | | | | | | | |
| | Inlet Connection | mm | 80 | | | | | 100 | | | | | 125 | | | | | | | | | | | | | | |
| | Drain Connection | mm | 25 | | | | | 40 | | | | | 50 | | | | | | | | | | | | | | |
| | Valve Connection | mm | 40 | | | | | 50 | | | | | 65 | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | | | |
| | Absb. Pump | kW [A] | 1.5 (5.4) | | | 3.0 (7.5) | | | 3.4 (10.2) | | | 5.5 (15.0) | | | | | | | | | | | | | | | |
| | Ref. Pump | kW [A] | 0.3 (1.5) | | | | | 0.4 (1.6) | | | | | 1.5 (4) | | | | | | | | | | | | | | |
| | Purge Pump | kW [A] | 0.4 (1.0) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Control Panel | kW [A] | 0.3 (0.5) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total Ampere @400V | A | 8.4 | | | 10.5 | | | 13.3 | | | 20.5 | | | | | | | | | | | | | | | |
| Size | Length (L) | mm | 2,436 | | | 3,456 | | | 3,506 | | | 4,526 | | | 4,606 | | | 4,666 | | | 5,208 | | | 5,706 | | | |
| | Width (W) | mm | 1,335 | | | | | 1,495 | | | | | 1,558 | | | | | 1,689 | | | | | 1,861 | | | | |
| | Height (H) | mm | 1,980 | | | | | 2,370 | | | | | 2,700 | | | | | 3,100 | | | | | | | | | |
| Weight | Rigging | ton | 3.3 | 3.4 | 4.1 | 4.3 | 5.2 | 5.5 | 6.2 | 6.6 | 7.9 | 8.5 | 10.0 | 10.4 | 14.4 | 15.6 | 16.4 | | | | | | | | | | |
| | Operation | ton | 4.5 | 4.8 | 5.8 | 6.2 | 7.5 | 8.0 | 9.0 | 9.7 | 11.5 | 12.3 | 14.5 | 15.2 | 20.0 | 21.8 | 23.1 | | | | | | | | | | |
| | Max. Shipping | ton | 3.3 | 3.4 | 4.1 | 4.3 | 5.2 | 5.5 | 6.2 | 6.6 | 7.9 | 8.5 | 10.0 | 10.4 | 12.4 | 13.4 | 14.0 | | | | | | | | | | |
| | Shipment Type | - | One Body | | | | | | | | | | | | Two Body | | | | | | | | | | | | |
| Space for Tube Replacement | | mm | 2,400 | | | 3,400 | | | 4,500 | | | 5,200 | | | 5,700 | | | | | | | | | | | | |

• HPD Series

Steam Fired Type Absorption Heat Pump (670 ~ 4686kW)

| Model | | Unit | HPD010 | HPD012 | HPD015 | HPD018 | HPD021 | HPD024 | HPD028 | HPD032 | HPD036 | HPD040 | HPD045 | HPD050 | HPD056 | HPD063 | HPD070 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|----------------------------------|--------------------|-----------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|--------|------------|---------|--------|------------|--------|--------|---------|--|--|-------|--|---|-------|--|--|-------|-------|--|--|--|--|-------|--|--|--|--|-------|--|--|--|--|-------|--|--|--|--|
| Hot Water Outlet capacity | | Mcal/h | 576 | 691 | 864 | 1,036 | 1,209 | 1,382 | 1,612 | 1,842 | 2,073 | 2,303 | 2,591 | 2,879 | 3,224 | 3,627 | 4,030 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hot Water | Inlet/Outlet Temp. | °C | 20 / 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | ton/h | 9.6 | 11.5 | 14.4 | 17.3 | 20.2 | 23.0 | 26.9 | 30.7 | 34.5 | 38.4 | 43.2 | 48.0 | 53.7 | 60.5 | 67.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 3.6 | 3.7 | 9.8 | 10.0 | 9.4 | 9.9 | 8.9 | 9.4 | 9.4 | 9.0 | 9.4 | 9.3 | 3.0 | 4.1 | 5.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Connection | mm | 65A | | | | | 80A | | | | | 100A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waste Heat Capacity | | Mcal/h | 227 | 272 | 340 | 408 | 476 | 544 | 635 | 726 | 816 | 907 | 1,021 | 1,134 | 1,270 | 1,429 | 1,588 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Waste Water | Inlet/Outlet Temp. | °C | 30 / 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flow rate | m ³ /h | 22.7 | 27.2 | 34.0 | 40.8 | 47.6 | 54.4 | 63.5 | 72.6 | 81.6 | 90.7 | 102.1 | 113.4 | 127.0 | 142.9 | 158.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Pressure Drop | mH ₂ O | 10.7 | 10.8 | 10.7 | 11.3 | 9.9 | 10.6 | 10.5 | 11.0 | 11.1 | 12.0 | 10.6 | 11.0 | 10.3 | 13.9 | 14.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Connection | mm | 80A | | | | | 100A | | | | | 125A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| fuel consumption | LNG(10,500kcal/Nm ³) | Nm ³ /h | 40.0 | 48.0 | 60.1 | 72.1 | 84.1 | 96.1 | 112.1 | 128.1 | 144.1 | 160.1 | 180.2 | 200.2 | 224.2 | 252.2 | 280.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LPG(12,000kcal/kg) | kg/h | 35.0 | 42.0 | 52.5 | 63.1 | 73.6 | 84.1 | 96.1 | 112.1 | 126.1 | 140.1 | 157.6 | 175.2 | 196.2 | 220.7 | 245.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Supply pressure | mmH ₂ O | 4,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Gas connection | A | 40A | | | | | 50A | | | | | 20A x 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Kerosene(10,960kcal/l) | l/h | 39.3 | 47.2 | 59.0 | 70.7 | 82.5 | 94.3 | 110.1 | 125.8 | 141.5 | 157.2 | 176.9 | 196.5 | 220.1 | 247.6 | 275.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Diesel(11,100kcal/l) | l/h | 38.8 | 46.6 | 58.2 | 69.9 | 81.5 | 93.1 | 106.7 | 124.2 | 139.7 | 155.2 | 174.6 | 194.0 | 217.3 | 244.5 | 271.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electric | Power source | - | 3PH, 400V, 50Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Absb. Pump | kW [A] | 1.5 (5.4) | | | 3.0 (7.5) | | | 3.4 (10.2) | | | 5.5 (15.0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ref. Pump | kW [A] | 0.3 (1.5) | | | | | 0.4 (1.6) | | | | | 1.5 (4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Gas Burner | kW [A] | 1.5 (3.5) | | | 2.2 (5.0) | | | 3.7 (8.1) | | | 4.0 (10.5) | | | 7.5 (18.6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Oil Burner | kW [A] | 1.5 (3.5) | | | 2.2 (5.0) | | | 3.7 (8.1) | | | 6.3 (13.1) | | | 8.6 (21.9) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Purge Pump | kW [A] | 0.4 (1.0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control Panel | kW [A] | 0.3 (0.5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Ampere @400V | A | 11.9/11.9 | 11.9/13.4 | 14.0/15.5 | 15.5/23.1 | 15.5/23.1 | 21.4/26.4 | 23.8/26.4 | 31.9/35.2 | 39.1/42.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Size | Length (L) | mm | 2,643 | | | 2,843 | | | 3,456 | | | 3,645 | | | 4,526 | | | 4,606 | | | 4,666 | | | 5,206 | | | 5,706 | | | | | | | | | | | | | | | | | | | | |
| | Width (W) | mm | 1,980 | | | | | 2,370 | | | | | 2,315 | | | | | 2,461 | | | | | 0 | | | | | 2,557 | | | | | 2,590 | | | | | 2,819 | | | | | 2,965 | | | | |
| | Height (H) | mm | 1,930 | | | | | 2,370 | | | | | 2,700 | | | | | 3,100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | Rigging | ton | 4.0 | 4.1 | 4.9 | 5.3 | 6.5 | 6.9 | 7.9 | 8.6 | 10.3 | 10.8 | 12.6 | 13.3 | 19.0 | 20.6 | 21.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Operation | ton | 5.2 | 5.5 | 6.6 | 7.3 | 8.7 | 9.3 | 10.7 | 11.7 | 13.9 | 14.6 | 17.1 | 18.1 | 24.6 | 26.8 | 28.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Max. Shipping | ton | 4.0 | 4.1 | 4.9 | 5.3 | 6.5 | 6.9 | 7.9 | 8.6 | 10.3 | 10.8 | 12.6 | 13.3 | 12.4 | 13.4 | 14.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Shipment Type | - | One Body | | | | | | | | | | | | Two Body | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exhaust Duct | | mm | 280x210 | | | 310x310 | | | 360x310 | | | 410x310 | | | 350x350 | | | 400x620 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Space for Tube Replacement | | mm | 2,400 | | | 3,400 | | | 4,500 | | | 5,200 | | | 5,700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

HPS, HPD, AHT, H2A Series

Absorption Heat Pump

Performance Data

• AHT Series

Steam Fired Type Absorption Heat Pump (670 ~ 4686kW)

| Model | | Unit | AHT-560 | AHT-1100 | AHT-1650 | AHT-2200 | AHT-2250 | AHT-3300 | AHT-3800 | |
|-----------------------|----------------------|----------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| Hot Water | Heating Capacity | kcal/h | 300,000 | 600,000 | 900,000 | 1,200,000 | 1,500,000 | 1,800,000 | 2,100,000 | |
| | flow rate | ton | 50 | 100 | 150 | 200 | 250 | 300 | 350 | |
| | Inlet Temp. | ℃ | 127 | 127 | 127 | 127 | 127 | 127 | 127 | |
| | Outlet Temp. | ℃ | 133 | 133 | 133 | 133 | 133 | 133 | 133 | |
| | Pressure Drop | mH ₂ O | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | Connection | A | 100 | 125 | 150 | 200 | 200 | 200 | 250 | |
| Max. Working Pressure | kg/cm ² G | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| Waste Steam | Waste Heat Capacity | kcal/h | 625,000 | 1,250,000 | 1,875,000 | 2,500,000 | 3,125,000 | 3,750,000 | 4,375,000 | |
| | Temp. | ℃ | 88 | 88 | 88 | 88 | 88 | 88 | 88 | |
| | Connection | A | 150 | 200 | 200 | 250 | 250 | 300 | 300 | |
| | Drain Connection | A | 50 | 80 | 100 | 125 | 125 | 125 | 150 | |
| | Max. Working Pre | kg/cm ² G | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cooling Water | Flow rate | ton/h | 54 | 108 | 162 | 216 | 270 | 324 | 378 | |
| | Inlet Temp. | ℃ | 26 | 26 | 26 | 26 | 26 | 26 | 26 | |
| | Outlet Temp. | ℃ | 32 | 32 | 32 | 32 | 32 | 32 | 32 | |
| | Pressure Drop | mH ₂ O | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | Connection | A | 100 | 125 | 150 | 200 | 200 | 250 | 250 | |
| | Condition | — | Industrial Water | | | | | | | |
| Max. Working | kg/cm ² G | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | |
| Electric | Power source | — | 3PH, 400V, 50Hz | | | | | | | |
| | Abs. Pump | kw(A) | 1.5 | 2.2 | 3.7 | 3.7 | 5.5 | 5.5 | 5.5 | |
| | Ref. Pump-1 | kw(A) | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | |
| | Ref. Pump-2 | kw(A) | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 1.5 | 1.5 | |
| | Purge Pump | kw(A) | 0.4 | 0.4 | 0.4 | 0.75 | 0.75 | 0.75 | 0.75 | |
| | Control Panel | kw(A) | 300 | 300 | 300 | 300 | 300 | 300 | 300 | |
| Size | Length (L) | mm | 4,470 | 4,645 | 4,680 | 6,870 | 6,870 | 7,150 | 7,735 | |
| | Width (W) | mm | 2,405 | 3,005 | 3,260 | 3,240 | 3,310 | 3,585 | 4,000 | |
| | Height (H) | mm | 4,300 | 4,615 | 5,010 | 5,120 | 5,370 | 5,770 | 5,430 | |
| Operation | ton | 16 | 27 | 36 | 48 | 52 | 59 | 63 | | |

• H2A Series

2-Lift Type Absorption Heat Pump

| Model | | Unit | H2A-100 | H2A-200 | H2A-300 |
|-----------------------------|---------------------------|-------------------|-----------------|----------|-----------|
| Heating capacity | | kW | 1,000 | 2,000 | 3,000 |
| | | Mcal/h | 860 | 1,720 | 2,580 |
| Hot Water | Inlet/ Outlet Temp. | ℃ | 50/ 70 | | |
| | Flow rate | m ³ /h | 43.6 | 87.1 | 130.7 |
| | Pressure Drop | mH ₂ O | - | - | - |
| | Connection | mm | 100A | 125A | 150A |
| Waste Hot Water | Inlet/ Outlet Temp. | ℃ | 15/ 10 | | |
| | Flow rate | m ³ /h | 41.3 | 82.5 | 123.8 |
| | Pressure Drop | mH ₂ O | - | - | - |
| | Connection | mm | 100A | 125A | 150A |
| Steam Side | Steam Pressure | MPa(g) | 0.3 | | |
| | Steam Flow rate | kg/h | 1,168 | 2,337 | 3,505 |
| | Steam Connection | mm | 80A | 125A | 200A |
| | Drain Connection | mm | 40A | 50A | 65A |
| | Control Valve | mm | 65A | 100A | 125A |
| Electric | Power Source | - | 3PH, 380V, 60Hz | | |
| | Absb. Pump (Diluted) | kW(A) | 1.2(4.0) | 2.4(7.0) | 3.0(11.0) |
| | Absb. Pump (Concentrated) | kW(A) | 0.4(1.6) | 1.2(4.0) | 1.5(4.0) |
| | High Temp. Ref. Pump | kW(A) | 1.5(4.0) | 3.0(5.8) | 4.0(12.0) |
| | Low Temp. Ref. Pump | kW(A) | 0.3(1.5) | 0.4(1.6) | 0.4(1.6) |
| | Purge Pump | kW | 0.4(1.5) | | |
| | Control Panel | kW | 0.2(0.5) | | |
| | Total kW | kW | 4.0 | 7.6 | 9.5 |
| Size | Length (L) | mm | 3,720 | 4,876 | 6,038 |
| | Width (W) | mm | 1,389 | 1,495 | 1,594 |
| | Height (H) | mm | 2,257 | 2,832 | 3,174 |
| Weight | Rigging | ton | 7.1 | 10.9 | 17.2 |
| | Operation | ton | 8.4 | 13.1 | 20.8 |
| Space for Tube Replacement. | mm | 3,400 | 4,500 | 5,700 | |

Water Quality / Scope of Supply / Painting

Cooling Water Quality Control

The cooling water which is recycled by cooling tower is exposed into atmosphere and polluted as it is vaporized. If the cooling water gets polluted, it develops corrosion and also scale inside the tubes and absorption machine performance drops.

Therefore, it is recommended to control the water quality; the following table shows guideline for cooling water and make-up water. The tube cleaning method and interval depends on each water quality.

| | Items | Cooling Water | Make-up Water | Tendency | |
|-----------|---|---------------|---------------|-----------|-------|
| | | | | Corrosion | Scale |
| Standard | PH (25°C) | 6.5 ~ 8.0 | 6.5 ~ 8.0 | ○ | ○ |
| | Conductivity (25°C, $\mu\text{S}/\text{cm}$) | Max. 800 | Max. 200 | ○ | ○ |
| | Chloride ion Cl (mg / cl / ℓ) | Max. 200 | Max. 50 | ○ | |
| | Sulfuric acid ion SO_4^{2-} (mg CaCO_3 / ℓ) | Max. 200 | Max. 50 | ○ | |
| | Alkalinity pH4.8 (mg CaCO_3 / ℓ) | Max. 100 | Max. 50 | | ○ |
| | Total hardness (mg CaCO_3 / ℓ) | Max. 200 | Max. 50 | | ○ |
| Reference | Iron Fe (25°C) | Max. 1.0 | Max. 0.3 | ○ | |
| | Sulfides S^{2-} ion (ms S^{2-} / ℓ) | No trace | No trace | ○ | |
| | Ammonium ion NH_4^+ (mg NH_4^+ / ℓ) | Max. 1.0 | Max. 0.2 | ○ | |
| | Silica SiO_2 (mg SiO_2 / ℓ) | Max. 50 | Max. 30 | | ○ |

Supply Scope (Standard)

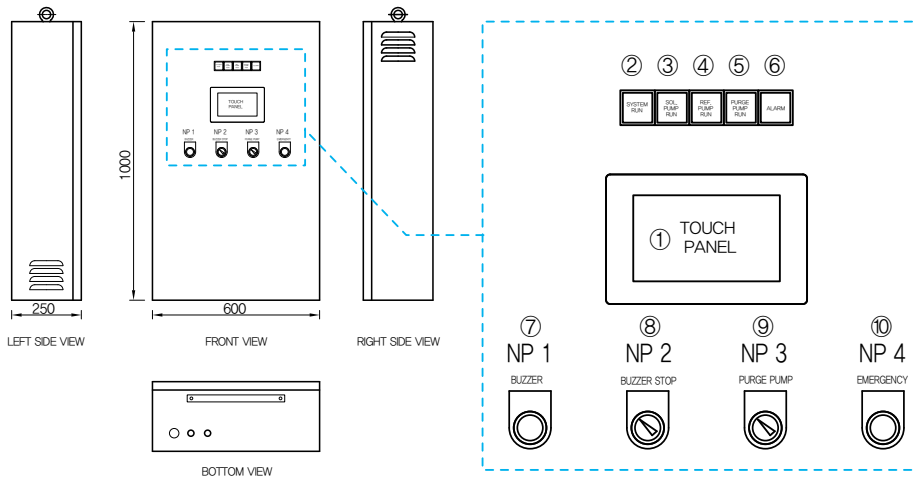
| Item | Description | Scope |
|-------------------|---|--------|
| Chiller Assembly | 1) Evaporator, Absorber, Condenser, Generators 2) Solution Heat Exchanger 3) Pumps - Solution pumps with isolation valves - Refrigerant pump with isolation valves - Purge pump 4) Control panel - Panel unit, Circuit Breakers - Switches (Operation, emergency, man/auto selector) - Relays, Controller, Touch screen 5) Locally mounted control instruments - Flow switch or D.P. switch - Temperature Sensors 6) Purge Unit - Storage tank, Manometer, Purge pump, Liquid trap, Diaphragm valves and PD cell(Optional) 7) Interconnecting piping and wiring - Refrigerant and absorbent piping for internal mechanical components - Control & Power wiring for Internal electrical components | Vendor |
| Initial charge | Absorbent (Lithium bromide) with inhibitor Refrigerant (demineralized water), N-alcohol | Vendor |
| Painting | Painting for chiller assembly and control panel | Vendor |
| Insulation | Insulation on hot surface and cold surface of Absorption chiller | Option |
| Test & Inspection | 1) Check of external dimensions 2) Hydraulic Pressure test for water Boxes 3) Leak Test (Vacuum side) 4) Function test for electric circuit and safety device | Vendor |
| Performance Test | Factory performance test, Commissioning & Start-up | Option |
| Installation | 1. Foundation 2. Installation 3. External piping and wiring 4. Interlock wiring of chilled water pump and cooling water pump. 5. Installation and wiring of control valve. | Buyer |

Painting

- Painting type : Prime and Epoxy Finish painting
- Color : Chiller body - Blue (Munsell No. 4.0 PB3.4/6.7)
Control Panel - Grey (Munsell No.5Y 7/1)

Controls

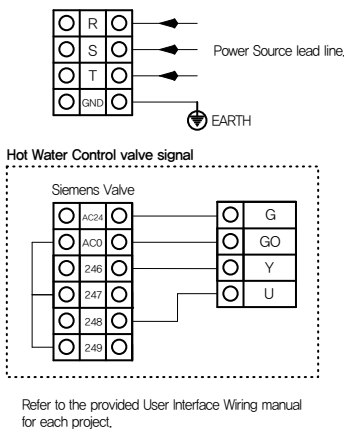
Control Panel



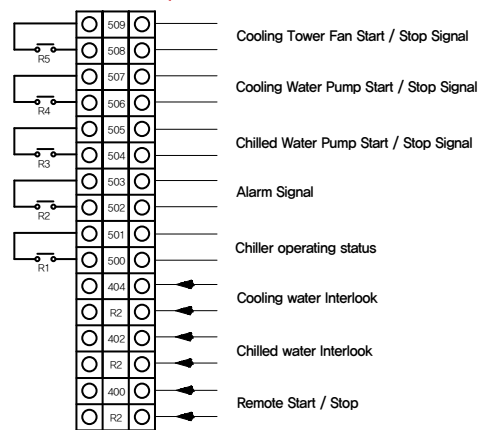
| Number | Model |
|--------|---------------------------------|
| ① | Touch Screen |
| ② | Chiller operating lamp |
| ③ | Solution pump operating lamp |
| ④ | Refrigerant pump operating lamp |
| ⑤ | Purge pump operating lamp |
| ⑥ | Alarm lamp |
| ⑦ | Buzzer |
| ⑧ | Buzzer stop switch |
| ⑨ | Purge pump ON/OFF switch |
| ⑩ | Emergency switch |

User Interface Wiring

Vendor scope ← → Buyer scope



Vendor scope ← → Buyer scope



Chiller Control

(1) SIEMENS Contoller



SIEMENS Contoller POL635/638

- Power : 24VDC
- IO Quantity
 - Binary Output : 6 ea
 - Analog Output : 4 ea
 - Relay Inputs : 5 ea
 - Universal Inputs : 2 ea
 - Universal IO : 6 ea
- Feature
 - The controller can be connected to extension I/O modules.
- Communication: RS-485



SIEMENS Contoller POL955

- Extension I/O module. Use when the main controller's I/O connections are not enough.
- Extension I/O modules can be attached up to 31 units at most.
- IO Quantity
 - Relay Output : 4ea
 - Analog Output : 2ea
 - Universal IO : 8ea

(2) Touch Screen



- Power : 24Vdc
- Communication : RS-232, RS-485
- Display : 7" TFT Color
- Colors : 65,536

Controls

Function

(1) You can have the overview of the chiller's data and easily start/stop the operation.



(2) It provides 4 kinds of operation modes to choose : Local, Shedule, Remote, Internet.



(3) You can see the chart of the chilled water inlet/outlet temperature.



(4) It supports Korean & English. The language can be added upon the customer's request.



(5) In the 'Schedule' operation mode, you can set the start/stop time on a weekly basis.

| | In | Start Time | Stop Time | Out |
|---|----|------------|-----------|-----|
| S | NO | 0 : 0 | 0 : 0 | OFF |
| M | NO | 0 : 0 | 0 : 0 | OFF |
| T | NO | 0 : 0 | 0 : 0 | OFF |
| W | NO | 0 : 0 | 0 : 0 | OFF |
| T | NO | 0 : 0 | 0 : 0 | OFF |
| F | NO | 0 : 0 | 0 : 0 | OFF |
| S | NO | 0 : 0 | 0 : 0 | OFF |

(6) You can check the alarm status.

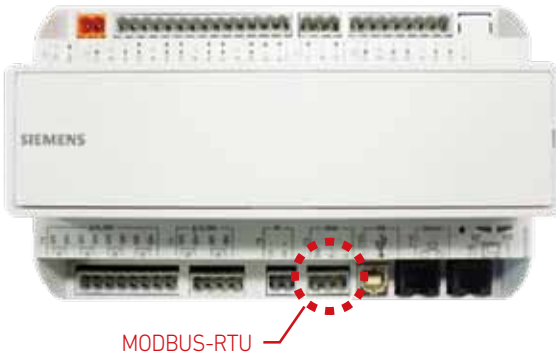
| Date Time | Alarm Status | Reset Time |
|------------------|---------------------------------|------------------|
| 2015/08/25 15:00 | Cooling water Low flow | |
| 2015/08/25 15:00 | Cooling water Low flow | 2015/08/25 15:05 |
| 2015/08/25 15:00 | Cooling water Low flow | 2015/08/25 15:02 |
| 2015/08/25 15:00 | Emergency Stop | |
| 2015/08/25 15:00 | Hot Water Inlet Temp. High | |
| 2015/08/25 15:00 | 1st Gen. Absorbent Temp. High | |
| 2015/08/25 15:00 | 1st Gen. absorbent temp. sensor | |

2015/08/25 15:26:55 Run hours: 0 h

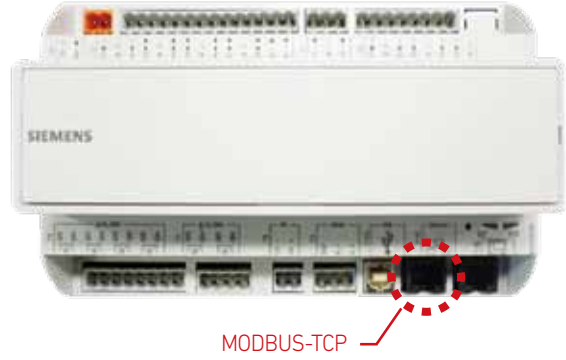
Controls

Communication Specification

(1) MODBUS-RTU



(2) MODBUS-TCP



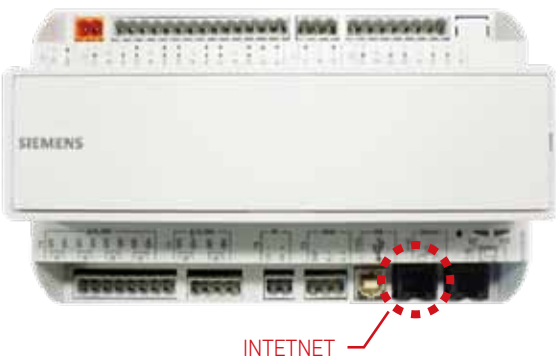
(3) PROFIBUS



(4) BACnet



(5) INETNET



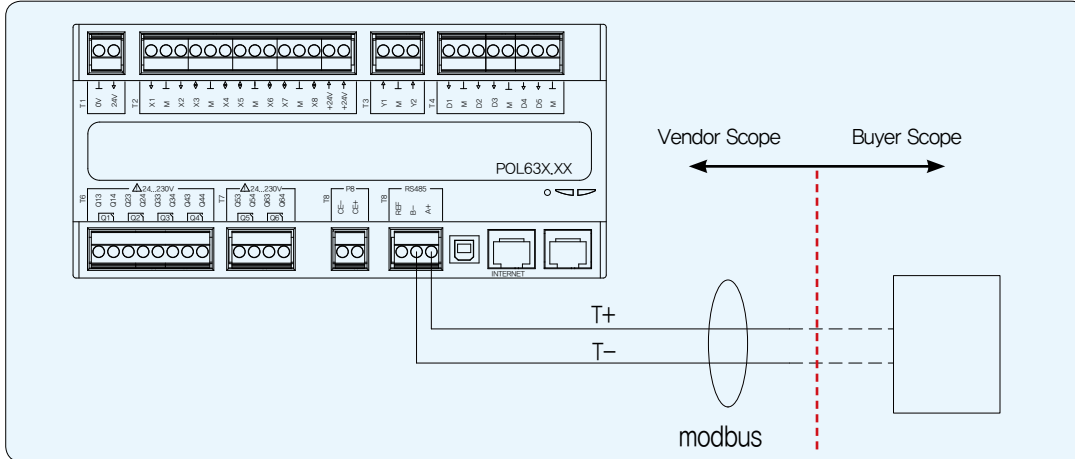
(6) MMI(SCADA SYSTEM)



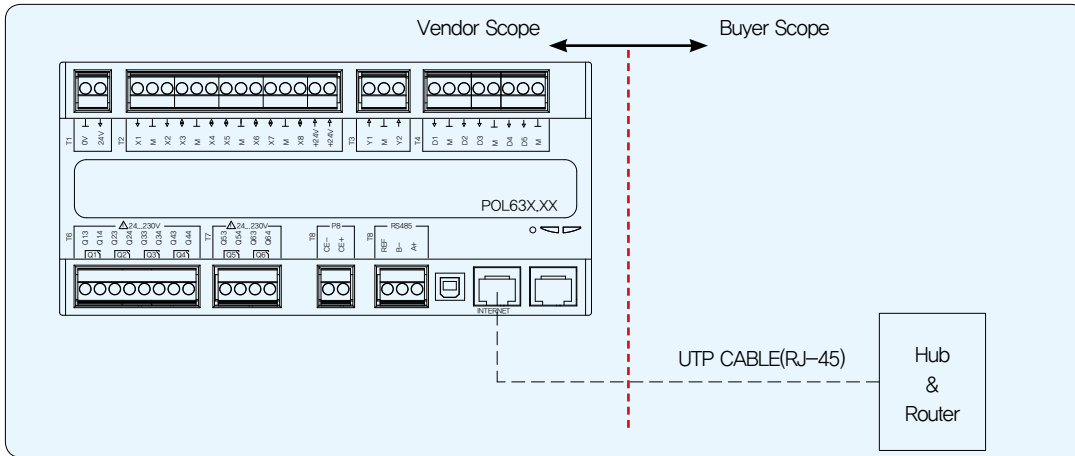
Controls

Communication Protocol

(1) MODBUS-RTU

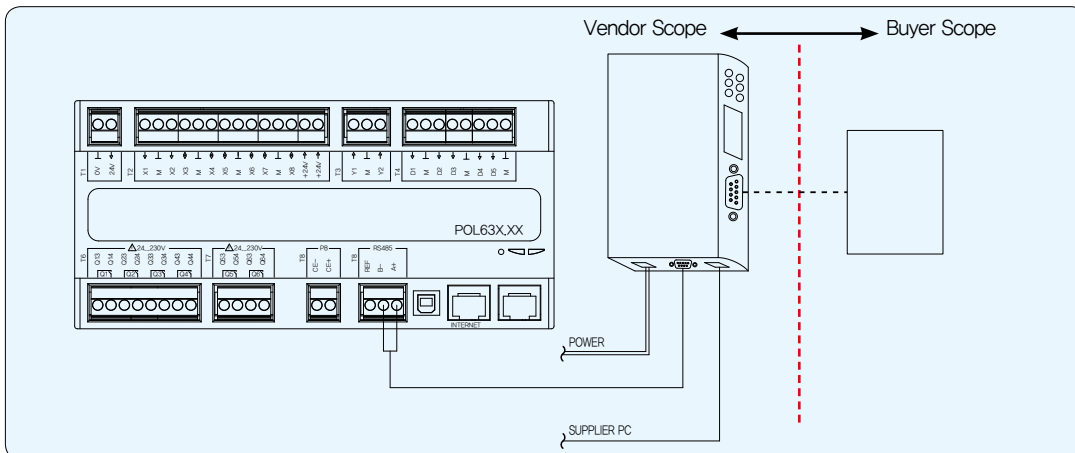


(2) MODBUS-TCP



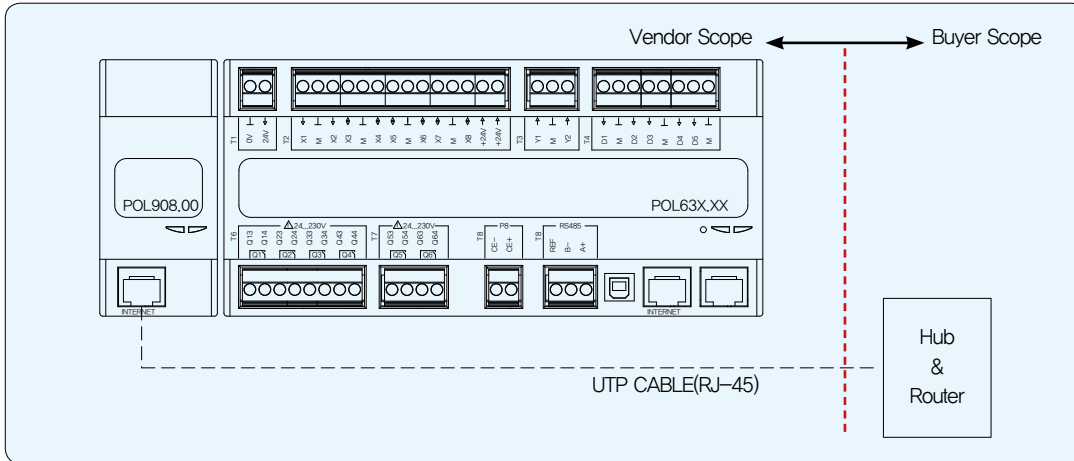
Caution
Use "Direct Cable" for UTP CABLE(RJ-45) if you use a hub or a router (line sharer). If not, use "Cross Cable".

(3) PROFIBUS

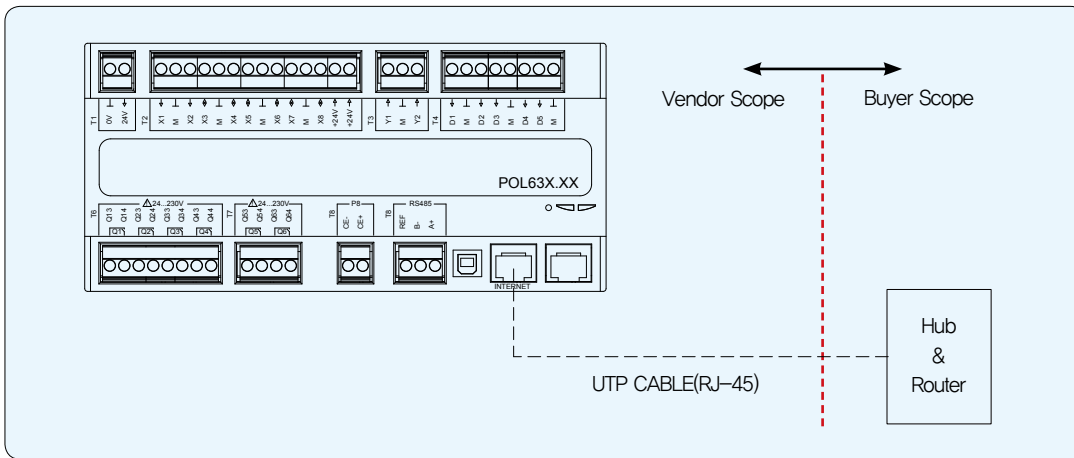


Controls

(4) BACnet

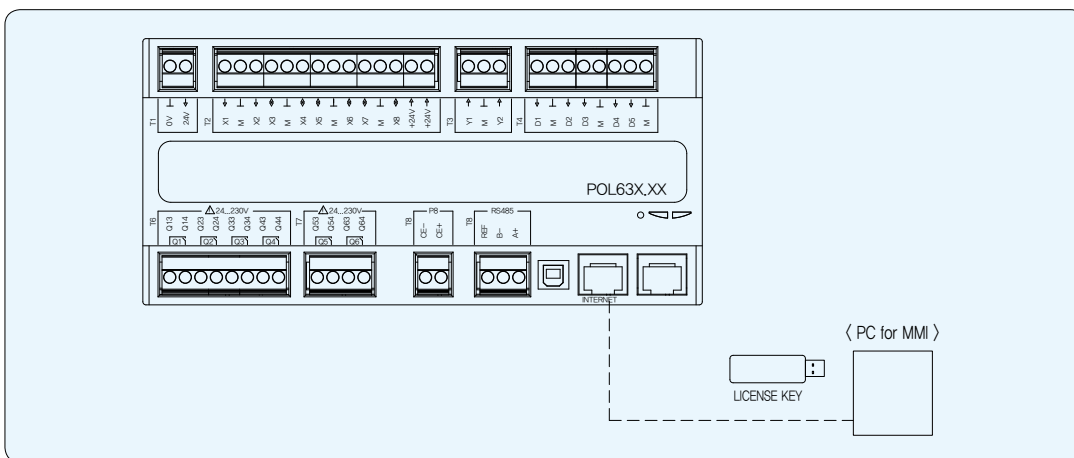


(5) INTERNET



Caution
Use "Direct Cable" for UTP CABLE(RJ-45) if you use a hub or a router (line sharer). If not, use "Cross Cable".

(6) MMI(SCADA SYSTEM)



[Note]
Vendor Scope :
LICENSE KEY, PC for MMI

Buyer Scope :
Communication Cable
between the chiller and the
PC for MMI

Caution
Must use "Cross Cable" for UTP CABLE(RJ-45).

Installation Records (Global)



Germany



Giessen Hospital
CHP 292usRT (1,027kW)



BCMG EHNINGEN
2AB 1031usRT(3,625kW)



Belgium



STEENFABRIEK
HWR-L 96usRT(338kW)



France



France

Piscine Sainte Manehould
HWR-L 40usRT(141kW)



Netherland



University of Amsterdam
HWR-L 568usRT(1,997kW)



USA



Macy's Department Store in Brooklyn
HWR-L 360usRT(1,266kW)



Australia



Qantas Trigeration at Sydney Airport
CHP & HWR-L 3,642usRT(12,805kW)



Hungary



SZT LASZLO Hotel
HWR-L 145usRT(510kW)



Switzerland



Zentralwascherei
HWR-L 50usRT(176kW)



Bangladeshi



Ismail Textile Mills Ltd
CHP 160usRT(563kW)



USA



CBS Television City, with UTC
HWR-L 50usRT(176kW)



UTC Power in Connecticut
Absorption Chiller for Fuel Cell Exhaust Gas 50usRT(176kW)



Italy



3SUN Group Co-generation Plant in Catania
SW & 2AB 2,388 usRT(8,396kW)



Taiwan



Chang Chun Miao Liao
2AB 830 usRT(2,918kW)



Finland



GADLAB Engineering
Maritime Abs. Chiller 142usRT(500kW)



Russia



Dovgalenko Shopping Mall in St. Petersburg
HWR-L375H 3 sets 9,989usRT(35,121kW)



Mexico



Hermosillo
CHP 040H 400usRT(1,406kW)



Iran



BEHESHT Residential Complex
DWH210 28 sets 5,880usRT(20,674kW)



Pakistan



Shaukat Khanum Memorial Cancer Hospital
DW 450usRT(1,582kW)

Installation Records (Korea)



R&D Institutes



Pangyo Industry-Academic Cooperation R&D Center
2AB 480usRT(1,688kW)



Pangyo Samyang R&D Center
2AB 680usRT(2,391kW)



Pangyo Hanhwa R&D Center
2AB 840usRT(2,953kW)



CJ Onlyone R&D Center Gwangyo
2AB 6 sets 5,400usRT(18,986kW)

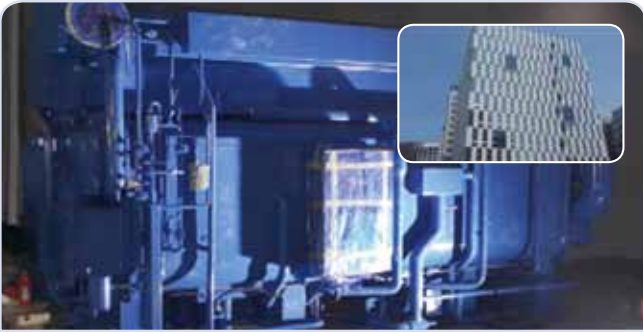
Large Sized Building



U-SPACE Pangyo
2AB 9 sets 6,295usRT(22,133kW)



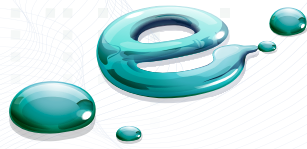
E-mart Gwangyo
2AB 1,050 usRT(3,692kW)



Truebook Sinsago Co., Ltd. Magock
2AB 520usRT(1,828kW)



Korea Transportation Safety Authority Gimcheon Office
DW 360usRT(1,266kW)



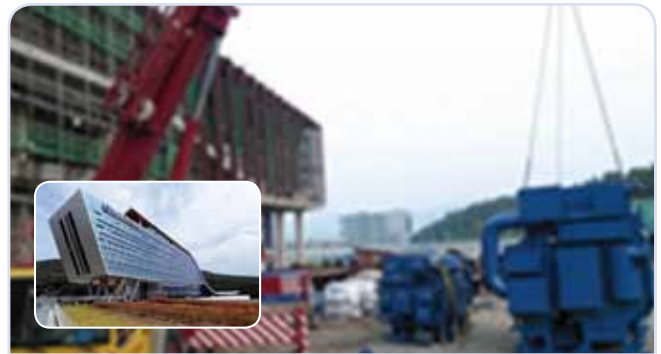
Hwaeom Building Munjeong-dong
2AB 270usRT(949kW)



Incheon International Highschool
2AB 1,500usRT(5,274kW)



E-mart HeungDuck
2AB 455usRT(1,599kW)



Korea Gas Corporation Daegu Office
2AB 1,300usRT(4,571kW)



SK Pangyo TechnoValley
2AB 2,023usRT(7,113kW)



Hanhwa SD Pangyo
2AB 4 sets 2,850usRT(10,021kW)



KCC Pangyo InnoValley
2AB 13 sets 5,010 usRT(17,615kW)



Shindorim D-Cube City
2AB sets 2,250usRT(7,911kW)

Industrial Plant



Kumho Petro-Chemical Factory
HeatPump AHT (1.2barG Steam Production 8 ton/hour)



Korea Zinc.
2AA 210usRT(738kW),
Air Handling Units Chilled Water Tank, Air Duct



Daesan Lotte Chemical D-EG1
2AB 1,125usRT(3,956kW)



Hanhwa Chemical PE Manufacturing 1 Plant
HWAR- L 1,400usRT(4,922kW)



Samsung Total
SW & HWAR-L 9,787usRT(34,411kW)



Lotte Petro Chemical Factory
Explosion-Proof Steam Abs. Chiller, HWAR-L 7,800usRT(27,425kW)



TOK
HWAR-L 1,100usRT(3,868kW)



Youngpoong Seokpo Refinery
2AA 240usRT(844kW)



Public Facilities



Korea Elevator Safety Agency
2AB 150usRT(527kW)



Korea Polar Research Institute Songdo
2AB 210usRT(738kW)



Sejong Government Complex
2AB 840usRT(2,953kW)



Nakdonggang National Institute of Biological Resource
2AB 720usRT(2,532kW)



Incheon Interational Airport
2AB 8 sets 8,000usRT(28,128kW)



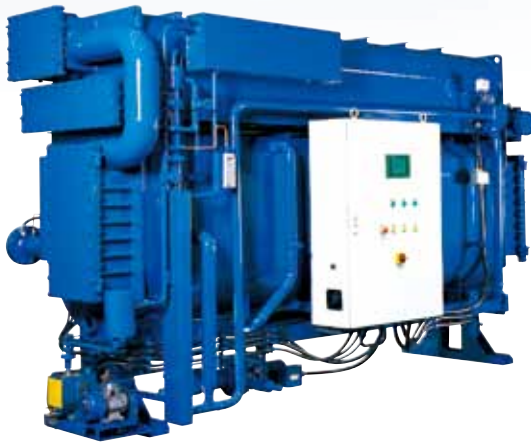
Yangcheon-gu Community Center
2AB 1,050usRT(3,692kW)



Chungcheongnam-do Provincial Government Administration Building
2AB 2,400 usRT(8,438kW)



Yongin Forest of Tranquility
DW 240 usRT(844kW)



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