

Air Cooled Screw Chiller Performance Specification

| Unit Tag | Qty | Model No. | Capacity (kW) | Volts/Ph/Hz | Refrigerant |
|----------|-----|---------------|---------------|--------------|-------------|
| HAFF1 | 1 | YVAA0200CDG50 | 758.0 | 380-415/3/50 | R134a |

Pin:

| | | | | | | | | | | | | |
|-----------------|-------|-------------|---------|-------|------------|------|---------|------|------|----|----|----|
| BASE MODEL | POWER | CONTROLS | PIPING | COMP | EVAPORATOR | COND | CABINET | MISC | WARR | | | |
| YVAA0200CDG50BA | VSXX | XTAXLXXXX50 | 48XOXXX | S210X | 1SXA2B | NXG | XEXXX | XXXX | XXEX | | | |
| 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 |

| Evaporator Data | | Evaporator Data (Cont.) | | Performance Data | |
|------------------------|---------|---------------------------|-------|-----------------------|------|
| EWT (°C) | 13.8 | Min. Flow Rate (l/s) | 18.9 | COP | 2.16 |
| LWT (°C) | 9.0 | Max. Flow Rate (l/s) | 72.6 | NPLV | 4.09 |
| Design Flow Rate (l/s) | 37.7 | | | Minimum Unit Capacity | 10 % |
| Pressure Drop (kPa) | 37.6 | Condenser Data | | Physical Data | |
| Fluid | Water | Ambient Temp. Design (°C) | 45.0 | Rigging Wt. (kg.) | 6205 |
| Fouling Factor | 0.01796 | Altitude (m) | 0 | Operating Wt. (kg.) | 6551 |
| Water Volume (l) | 276.3 | Ambient Temp. Min (°C) | -17.8 | | |

| Electrical Data | | | | |
|--------------------|-------|-------|---|---|
| Circuit | 1 | 2 | 3 | 4 |
| Compressor RLA | 293 | 293 | | |
| Fan QTY/FLA (each) | 4/6.0 | 4/6.0 | | |

| Single Point | | | | | |
|------------------------------------|----------|--|--|-------------------------------------|-------|
| Min. Circuit Ampacity | 711 | | | | |
| Recommended Fuse/CB Rating | 1000 | | | | |
| Max. Inverse Time CB Rating | 1000 | | | | |
| Max. Dual Element Fuse Size (Amps) | 1000 | | | | |
| Unit Short Circuit Withstand (STD) | 30kA | | | | |
| Wire Lugs Per Phase* | 3 | | | | |
| Wire Range (Lug Size) | 35 - 300 | | | | |
| Unit Power Factor | 0.95 | | | | |
| Control KVA | 2.0 | | | Operating Condition Electrical Data | |
| Starter Type | VSD | | | Compressor kW | 325.3 |
| | | | | Total Fan kW | 25.8 |
| | | | | Total kW | 351.1 |

Notes:

* Use Copper Conductors only

| Part Load Rating Data | | | | |
|-----------------------|--------------|---------------|---------------|-----------------|
| Load % | Ambient (°C) | Capacity (kW) | Compressor kW | Unit Efficiency |
| 100.0 | 45.0 | 758.0 | 325.3 | 2.16 |
| 75.0 | 26.7 | 568.5 | 126.8 | 3.68 |
| 50.0 | 18.3 | 379.0 | 64.8 | 4.36 |
| 25.0 | 12.8 | 189.5 | 28.2 | 4.69 |



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| SOUND POWER LEVELS (In Accordance with AHRI 370) – Octave Band Center Frequency, Hz YVAA0200CDG50 (Equipped with High Airflow Fans and Economical Sound Configuration) | | | | | | | | | | |
|---|--------------|-------|-------|-------|-------|-------|------|------|------|-------|
| Load % | Ambient (°C) | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K | LWA |
| 100.0 | 45.0 | 103.0 | 105.0 | 103.0 | 108.0 | 103.0 | 98.0 | 92.0 | 88.0 | 108.0 |
| 75.0 | 26.7 | 103.0 | 105.0 | 103.0 | 102.0 | 97.0 | 95.0 | 90.0 | 85.0 | 104.0 |
| 50.0 | 18.3 | 102.0 | 104.0 | 102.0 | 101.0 | 97.0 | 94.0 | 89.0 | 84.0 | 103.0 |
| 25.0 | 12.8 | 99.0 | 101.0 | 99.0 | 98.0 | 93.0 | 91.0 | 86.0 | 81.0 | 100.0 |

| SOUND PRESSURE LEVELS in dB at 9.1 (m) ** YVAA0200CDG50 (Equipped with High Airflow Fans and Economical Sound Configuration) | | | | | | | | | | |
|---|--------------|------|------|------|------|------|------|------|------|------|
| Load % | Ambient (°C) | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K | dBA |
| 100.0 | 45.0 | 76.0 | 78.0 | 76.0 | 81.0 | 76.0 | 71.0 | 65.0 | 61.0 | 81.0 |
| 75.0 | 26.7 | 76.0 | 78.0 | 76.0 | 75.0 | 70.0 | 68.0 | 63.0 | 58.0 | 77.0 |
| 50.0 | 18.3 | 75.0 | 77.0 | 75.0 | 74.0 | 70.0 | 67.0 | 62.0 | 57.0 | 76.0 |
| 25.0 | 12.8 | 72.0 | 74.0 | 72.0 | 71.0 | 66.0 | 64.0 | 59.0 | 54.0 | 73.0 |

** Chiller is assumed to be a point source on a reflecting surface (hemispherical radiation)

| YVAA0200CDG50 Performance at AHRI Conditions | | | | | |
|--|---------|--------------------|------|------------------|-------|
| Evaporator Data | | Condenser Data | | Performance Data | |
| EWT (°C) | 12.2 | Ambient Temp. (°C) | 35.0 | COP | 2.6 |
| LWT (°C) | 6.7 | Altitude (kPa) | 0 | IPLV | 3.9 |
| Flow Rate (l/s) | 33.0 | | | Capacity (kW) | 765.4 |
| Pressure Drop (kPa) | 29.9 | | | | |
| Fluid | Water | | | | |
| Fouling Factor | 0.01761 | | | | |
| Water Volume (l) | 276.3 | | | | |