



## Wongso Heavy Duty Evaporator Series

Wongso Low Temperature Evaporator (WHDE Series) is a 4 FPI fin spacing evaporator or air cooler designed for medium temperature application. We are using special fin pattern design and inner grooved copper tube to make higher heat transfer efficiency.

We are also using 500 mm diameter fan motor for high air volume and air throw. Casing with white coating will prevent from corrosion. Dual drain tray design to avoid water condensation. Easy moving design of side cover for easy maintenance.

*Competent  
solution for all  
refrigeration.*

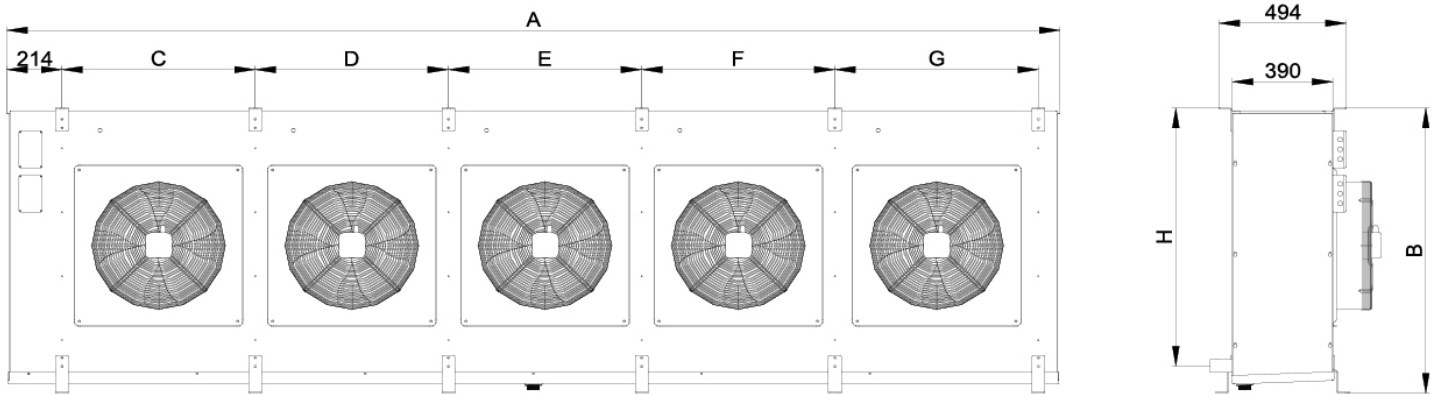
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| MODEL   | Capacity (KW)<br>SC3<br>Condition*1 | Capacity (KW)<br>SC4<br>Condition*2 | No. Of<br>Row | Exchange<br>surface<br>m <sup>2</sup> | Fan Data<br>(500 mm diameter)<br>(380V/3P/50Hz) |                               |                    |                  |                   | Heater Data (50Hz) |                 |
|---------|-------------------------------------|-------------------------------------|---------------|---------------------------------------|---|-------------------------------|--------------------|------------------|-------------------|--------------------|-----------------|
|         | R404A                               | R404A                               |               |                                       | No. Fans<br>Qty                                 | Air flow<br>m <sup>3</sup> /h | Air Throw<br>meter | Total Power<br>W | Total Curent<br>A | Total Power<br>W   | Total Amps<br>A |
|         | WHDE051                             | 6.4                                 |               |                                       | 4.9   | 4                             | 27.4               | 1                | 7056              | 18                 | 600             |
| WHDE071 | 9.2                                 | 7.0                                 | 6             | 41.0                                  | 1   | 5912                          | 18                 | 600              | 1.15              | 5250               | 8.5             |
| WHDE081 | 9.4                                 | 7.2                                 | 3             | 41.0                                  | 2   | 14256                         | 20                 | 1200             | 2.3               | 8700               | 14.6            |
| WHDE101 | 12.4                                | 9.5                                 | 4             | 54.7                                  | 2   | 14112                         | 20                 | 1200             | 2.3               | 8700               | 14.6            |
| WHDE131 | 16.0                                | 12.2                                | 5             | 80.8                                  | 2   | 13968                         | 20                 | 1200             | 2.3               | 8700               | 14.6            |
| WHDE151 | 18.3                                | 14.0                                | 6             | 82.0                                  | 2   | 13824                         | 20                 | 1200             | 2.3               | 8700               | 14.6            |
| WHDE181 | 22.5                                | 17.2                                | 5             | 102.6                                 | 3   | 20952                         | 22                 | 1800             | 3.45              | 13600              | 20.0            |
| WHDE221 | 26.8                                | 20.5                                | 6             | 123.0                                 | 3   | 20772                         | 22                 | 1800             | 3.45              | 13600              | 20.0            |
| WHDE251 | 30.4                                | 23.2                                | 5             | 126.0                                 | 4   | 27996                         | 23                 | 2400             | 4.6               | 15320              | 28.2            |
| WHDE281 | 34.0                                | 26.0                                | 6             | 151.0                                 | 4   | 27684                         | 23                 | 2400             | 4.6               | 15320              | 28.2            |
| WHDE341 | 40.4                                | 30.8                                | 6             | 188.8                                 | 5   | 34596                         | 24                 | 3000             | 5.75              | 18280              | 33.6            |

\*1 SC3 Conditions : -25°C SST, -18°C Room Temperature, 7KTD

\*2 SC4 Conditions : -31°C SST, -25°C Room Temperature, 6KTD

~ 80% liquid and 20% vapour by volume including header and heater and heater exchanger.



| MODEL   | Dimension |      |     |     |     |     |     |      | Suction<br>Connection | Liquid<br>Connection | Net<br>Weight<br>Kg |
|---------|-----------|------|-----|-----|-----|-----|-----|------|-----------------------|----------------------|---------------------|
|         | A         | B    | C   | D   | E   | F   | G   | H    |                       |                      |                     |
|         | mm        | mm   | mm  | mm  | mm  | mm  | mm  | mm   |                       |                      |                     |
| WHDE051 | 1288      | 1007 | 990 | --  | --  | --  | --  | 896  | 1 1/8                 | 1/2                  | 75                  |
| WHDE071 | 1288      | 1007 | 990 | --  | --  | --  | --  | 896  | 1 1/8                 | 1/2                  | 85                  |
| WHDE081 | 2238      | 1007 | 950 | 990 | --  | --  | --  | 896  | 1 3/8                 | 1/2                  | 125                 |
| WHDE101 | 2238      | 1007 | 950 | 990 | --  | --  | --  | 896  | 1 3/8                 | 1/2                  | 135                 |
| WHDE131 | 2238      | 1007 | 950 | 990 | --  | --  | --  | 896  | 1 3/8                 | 5/8                  | 150                 |
| WHDE151 | 2238      | 1007 | 950 | 990 | --  | --  | --  | 896  | 1 5/8                 | 5/8                  | 160                 |
| WHDE181 | 3188      | 1007 | 950 | 950 | 990 | --  | --  | 896  | 1 5/8                 | 5/8                  | 205                 |
| WHDE221 | 3188      | 1007 | 950 | 950 | 990 | --  | --  | 896  | 1 5/8                 | 3/4                  | 230                 |
| WHDE251 | 3338      | 1159 | 750 | 750 | 750 | 790 | --  | 1048 | 2 1/8                 | 7/8                  | 270                 |
| WHDE281 | 3338      | 1159 | 750 | 750 | 750 | 790 | --  | 1048 | 2 1/8                 | 7/8                  | 290                 |
| WHDE341 | 4088      | 1159 | 750 | 750 | 750 | 750 | 790 | 1048 | 2 1/8                 | 7/8                  | 350                 |

Capacity Factor and Application Limits Table

| R404A<br>R407C | SST °C       | -36  | -33  | -30  | -27  | -25  | -21  | -18  | -15  | -12  |
|----------------|--------------|------|------|------|------|------|------|------|------|------|
|                | Factor R404A | 0.79 | 0.85 | 0.91 | 0.96 | 1.00 | 1.08 | 1.14 | 1.22 | 1.29 |
|                | Factor R407C | 0.86 | 0.9  | 0.94 | 0.97 | 1.00 | 1.05 | 1.09 | 1.15 | 1.21 |
|                | Max KTD      | 8    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 8    |
|                | Min KTD      | 4    | 4    | 4    | 3    | 3    | 4    | 4    | 4    | 4    |

| R22<br>R507 | SST °C      | -36  | -33  | -30  | -27  | -25  | -21  | -18  | -15  | -12  |
|-------------|-------------|------|------|------|------|------|------|------|------|------|
|             | Factor R22  | 0.83 | 0.88 | 0.93 | 0.97 | 1.00 | 1.07 | 1.13 | 1.19 | 1.26 |
|             | Factor R507 | 0.81 | 0.86 | 0.91 | 0.97 | 1.00 | 1.08 | 1.13 | 1.21 | 1.28 |
|             | Max KTD     | 8    | 9    | 9    | 9    | 9    | 9    | 9    | 8    | 8    |
|             | Min KTD     | 4    | 4    | 3    | 3    | 3    | 3    | 4    | 4    | 5    |

Fin Capacity Correction by Factors Cooler Capacity

| 4FPI | 5FPI | 6FPI |
|------|------|------|
| 1    | 1.08 | 1.15 |