



# Air Cooled Water Chiller

*Model 30GTF Series*

Nominal: 15-45 Tons



# Air Cooled Water Chiller

30GTF  
Series



## Features

- Single refrigerant circuit for maximum safety and part loaded operation
- Completed with control panel, unit operation at low different pressure
- Equipped with reliable Carrier Semi-Hermetic reciprocating compressor
- Manufactured in factory with ISO9002 Certified
- Completed with replaceable core filter drier, indicated sight glass, shut-off valve, thermal expansion valve and solenoid valve
- Intergrated flow switch, freezestat and temperature sensor

## Benefits

- **Compact and energy efficient**
- **Designed for commercial and industrial applications**
- **Easily for installation**
- **Conveniently located power supply and water inlet/outlet**

## Physical Data

| Description                    |                    | Air Cooled Water Chiller    |          |          |                     |            |            |  |
|--------------------------------|--------------------|-----------------------------|----------|----------|---------------------|------------|------------|--|
| Chiller Mate Model             |                    | 30GTF015                    | 30GTF020 | 30GTF025 | 30GTF030            | 30GTF040   | 30GTF045   |  |
| Nominal Capacity               | Kw.                | 52.90                       | 72.01    | 87.97    | 106.98              | 141.75     | 158.45     |  |
|                                | Tons               | 15.04                       | 20.47    | 25.00    | 30.41               | 40.30      | 45.05      |  |
| Cooler                         | Type               | Shell and Tube DX Cooler    |          |          |                     |            |            |  |
|                                | GPM                | 35.89                       | 48.45    | 60.72    | 79.99               | 98.40      | 120.50     |  |
|                                | Inlet/Outlet (in.) | 2/2                         | 2/2      | 2 1/2    | 2 1/2               | 3          | 3          |  |
|                                | PD ( FT.WG )       | 4.7                         | 5.7      | 4.4      | 6.0                 | 5.7        | 4.4        |  |
| Air Cooled Condensing Model    |                    | 38AF020                     | 38AF025  | 38AF030  | 38AF040             | 38AF050    | 38AF060    |  |
| Compressor Model               | Type               | Reciprocating Semi-Hermetic |          |          |                     |            |            |  |
|                                | Model              | 06E250                      | 06E266   | 06E275   | 06E299              | 2...06E266 | 2...06E275 |  |
| Condenser                      | No. Fan            | 2                           | 2        | 2        | 2                   | 3          | 3          |  |
|                                | Fan Motor          | 220V/1Ph/50Hz...1HP         |          |          | 380V/3Ph/50Hz...2HP |            |            |  |
|                                | CFM                | 20,000                      | 21,200   | 23,200   | 23,200              | 33,000     | 33,000     |  |
| Shipping Weight (Combine Unit) | Kg.                | 820                         | 910      | 1,050    | 1,110               | 1,500      | 1,750      |  |
| Refrigerant                    |                    | R-407c                      |          |          |                     |            |            |  |

Remark: Rating at

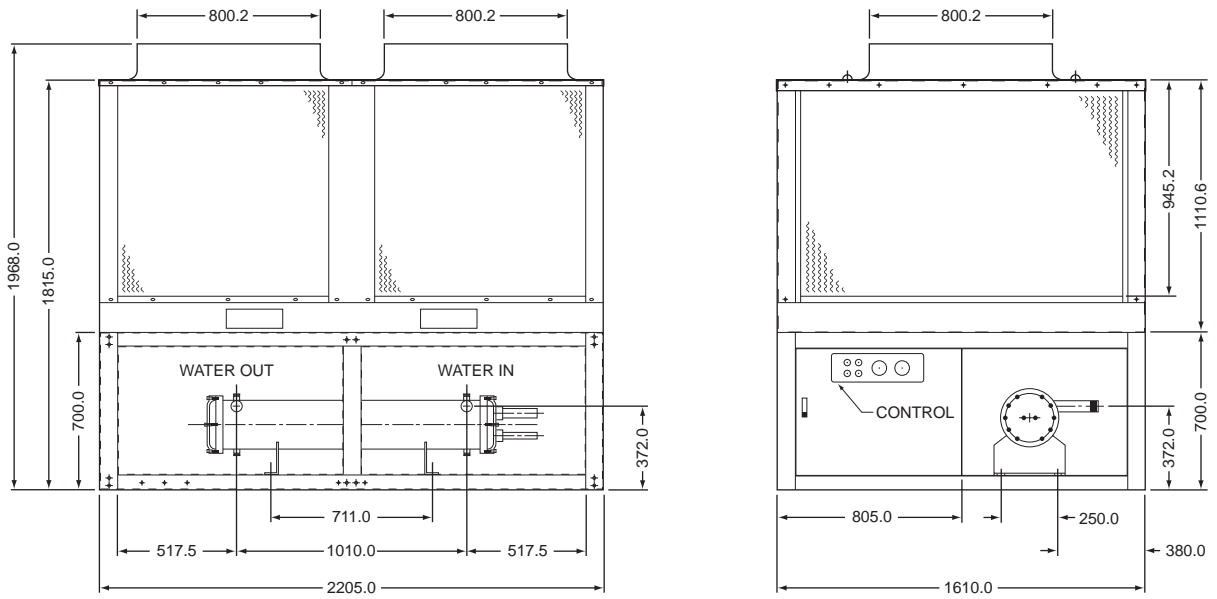
1. Ambient Temperature 95° F
2. Leaving Chilled Water Temperature 45° F

## Electrical Data

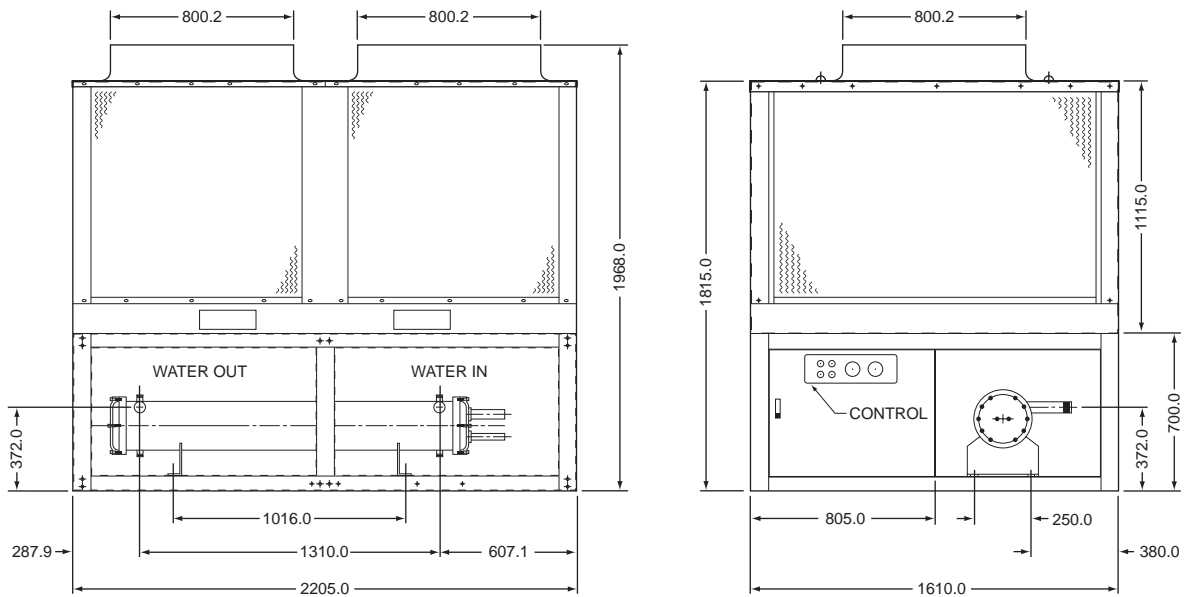
| Unit Model | Nominal Voltage | Voltage Range |     | Compressor |             | Fan Motor |          | Power Supply |      |
|------------|-----------------|---------------|-----|------------|-------------|-----------|----------|--------------|------|
|            |                 | MIN           | MAX | RLA        | LRA         | QTY       | RLA(ea)  | MCA          | MOCP |
| 30GTF015   | 380V/3Ph/50Hz   | 342           | 415 | 44.0       | 104/173     | 2         | 8.0(4.0) | 54           | 90   |
| 30GTF020   | 380V/3Ph/50Hz   | 342           | 415 | 56.0       | 134/223     | 2         | 4.8(2.4) | 70           | 110  |
| 30GTF025   | 380V/3Ph/50Hz   | 342           | 415 | 68.0       | 152/253     | 2         | 4.8(2.4) | 84           | 125  |
| 30GTF030   | 380V/3Ph/50Hz   | 342           | 415 | 95.0       | 175/345     | 2         | 4.8(2.4) | 118          | 175  |
| 30GTF040   | 380V/3Ph/50Hz   | 342           | 415 | 2...56.0   | 2...134/223 | 3         | 7.2(2.4) | 140          | 200  |
| 30GTF045   | 380V/3Ph/50Hz   | 342           | 415 | 2...68.0   | 2...152/253 | 3         | 7.2(2.4) | 143          | 250  |

RLA : RATED LOAD AMPS.      MCA : MINIMUM CIRCUIT AMPS.  
LRA : LOCKED ROTOR AMPS.    MOCP : MAXIMUM OVER CURRENT PROTECTION

# Unit dimensions

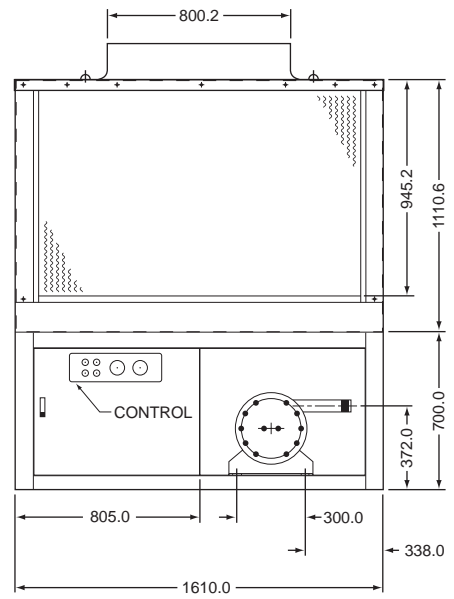
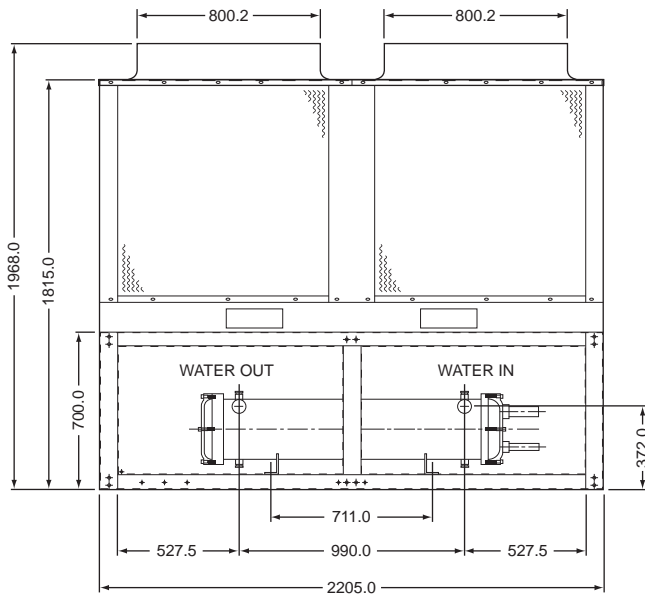


Model : 30GTF015

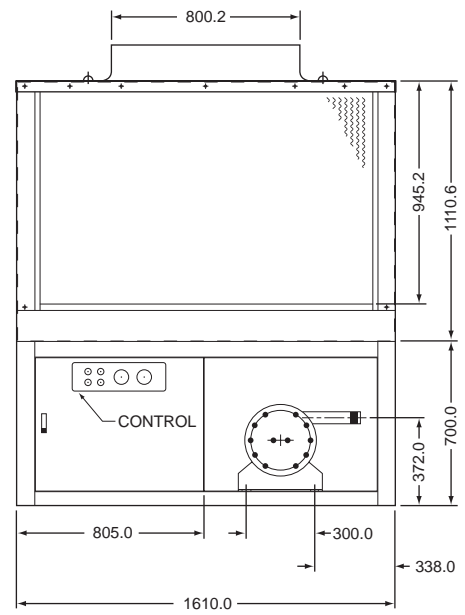
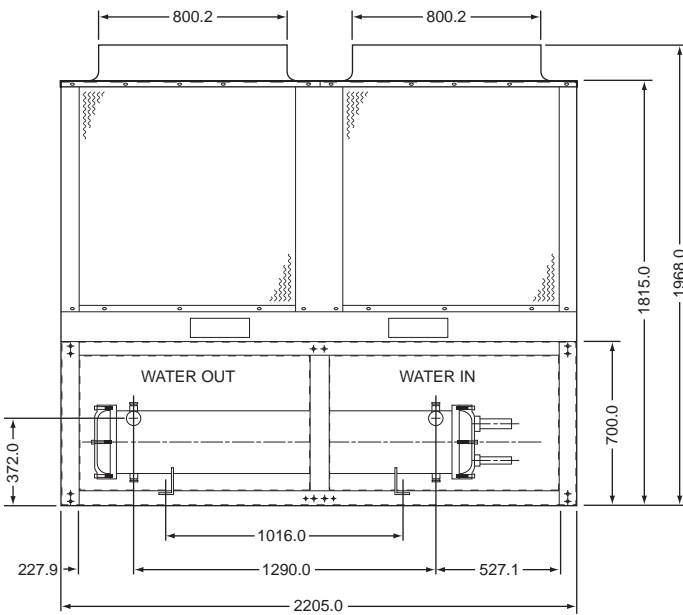


Model : 30GTF020

# Unit dimensions

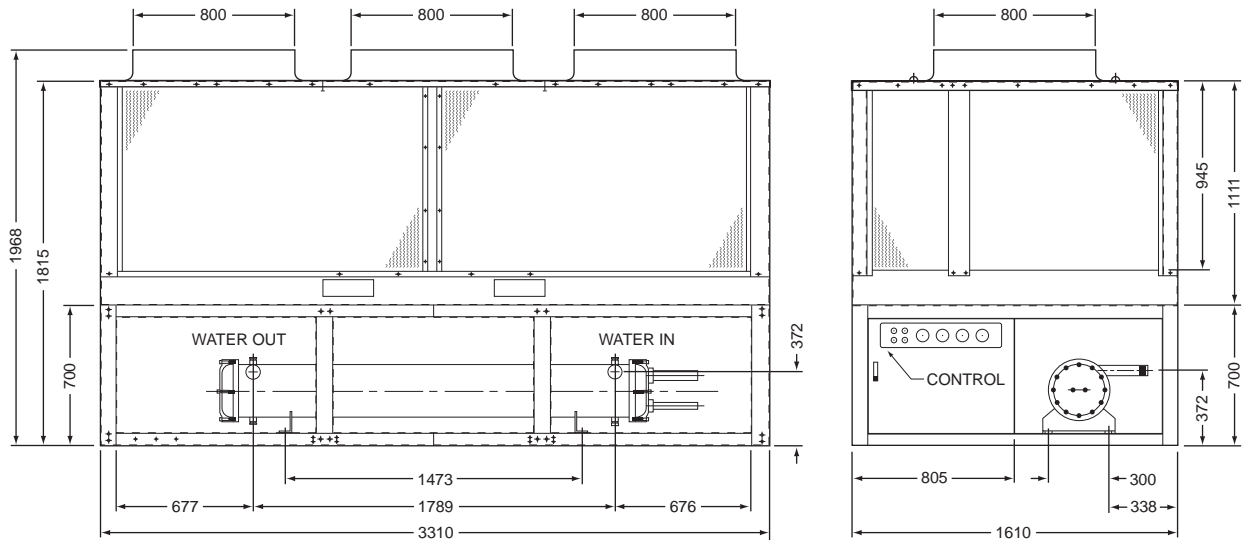


Model : 30GTF025

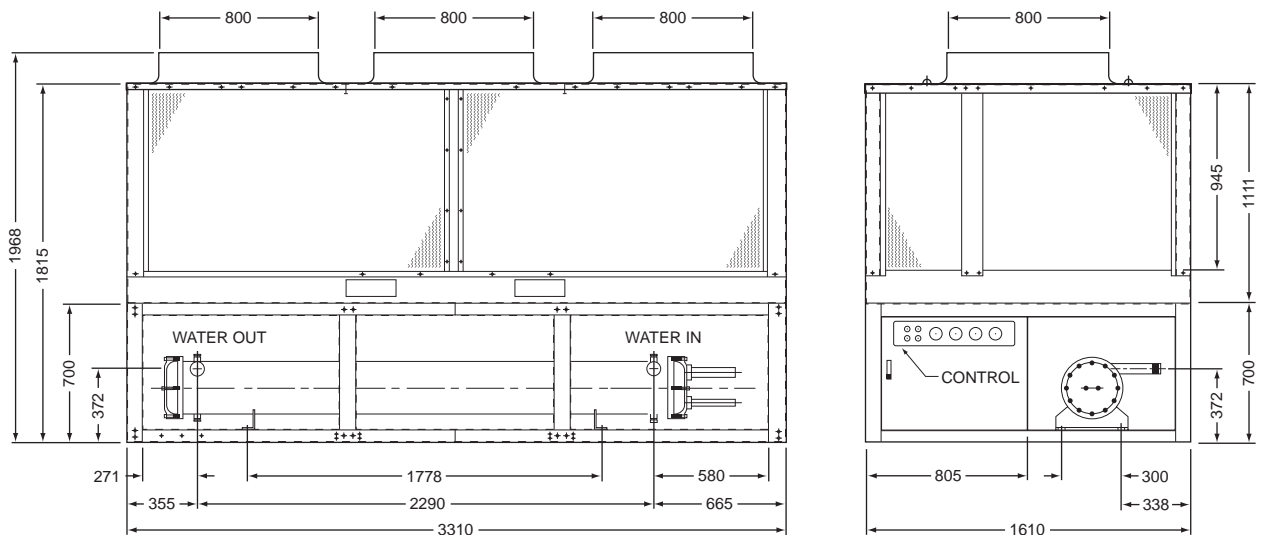


Model : 30GTF030

# Unit dimensions



Model : 30GTF040



Model : 30GTF045

# Metric conversion chart

| Metric Tech         | x        | = | English Unit                      | x       | = | SI Unit         |
|---------------------|----------|---|-----------------------------------|---------|---|-----------------|
| <b>Area</b>         |          |   |                                   |         |   |                 |
| cm <sup>2</sup>     |          |   |                                   | 100     |   | mm <sup>2</sup> |
| cm <sup>2</sup>     | 0.1550   |   | in. <sup>2</sup>                  | 645.2   |   | mm <sup>2</sup> |
| m <sup>2</sup>      |          |   |                                   | 1.0     |   | m <sup>2</sup>  |
| m <sup>2</sup>      | 10.76    |   | ft <sup>2</sup>                   | 0.09290 |   | m <sup>2</sup>  |
| <b>Length</b>       |          |   |                                   |         |   |                 |
| µm                  |          |   |                                   | 1.0     |   | µm              |
| µm                  | 39.37    |   | micro-inch                        | 0.0254  |   | µm              |
| mm                  |          |   |                                   | 1.0     |   | mm              |
| mm                  | 0.03937  |   | in.                               | 25.4    |   | mm              |
| mm                  | 0.003281 |   | ft                                | 304.8   |   | mm              |
| m                   |          |   |                                   | 1.0     |   | m               |
| m                   | 3.281    |   | ft                                | 0.3048  |   | m               |
| m                   | 1.094    |   | yd                                | 0.9144  |   | m               |
| <b>Mass</b>         |          |   |                                   |         |   |                 |
| g                   |          |   |                                   | 1.0     |   | g               |
| g                   | 0.03527  |   | oz                                | 28.35   |   | g               |
| kg                  |          |   |                                   | 1.0     |   | kg              |
| kg                  | 2.205    |   | lb                                | 0.4536  |   | kg              |
| tonne, Mg           |          |   |                                   | 1.0     |   | tonne, Mg       |
| tonne, Mg           | 1.102    |   | U.S. ton<br>(2000 lb)             | 0.9072  |   | tonne, Mg       |
| <b>Power</b>        |          |   |                                   |         |   |                 |
| kcal/h              |          |   |                                   | 1.163   |   | W               |
| kcal/h              | 3.968    |   | Btu/h                             | 0.2931  |   | W               |
| Hp metric           |          |   |                                   | 0.7355  |   | kW              |
| Hp metric           | 0.9863   |   | HP (550 $\frac{ft \cdot lb}{S}$ ) | 0.7457  |   | kW              |
| Mcal/h              |          |   |                                   | 1.163   |   | kW              |
| Mcal/h              | 0.3307   |   | Ton refr.                         | 3.517   |   | kW              |
| <b>Pressure</b>     |          |   |                                   |         |   |                 |
| mm w.g. 4°C         |          |   |                                   | 9.806   |   | Pa              |
| mm w.g. 4°C         | 0.03937  |   | in H <sub>2</sub> O 39.2°F        | 249.1   |   | Pa              |
| mm Hg 0°C           |          |   |                                   | 0.1333  |   | kPa             |
| mm Hg 0°C           | 0.03937  |   | in Hg 32°F                        | 3.386   |   | kPa             |
| kgf/cm <sup>2</sup> |          |   |                                   | 98.07   |   | kPa             |
| kgf/cm <sup>2</sup> | 14.22    |   | psi                               | 6.895   |   | kPa             |
| mH <sub>2</sub> O   | 3.281    |   | ft H <sub>2</sub> O               | 2.989   |   | kPa             |

| Metric Tech                           | x                        | = | English Unit         | x                        | = | SI Unit        |
|---------------------------------------|--------------------------|---|----------------------|--------------------------|---|----------------|
| <b>Temperature</b>                    |                          |   |                      |                          |   |                |
| <b>Interval</b>                       |                          |   |                      |                          |   |                |
| °C                                    |                          |   |                      | 1.0                      |   | K              |
| °C                                    | 1.8                      |   | °F                   | 0.5556                   |   | °C             |
| <b>Velocity</b>                       |                          |   |                      |                          |   |                |
| m/s                                   |                          |   |                      | 1.0                      |   | m/s            |
| m/s                                   | 3.281                    |   | ft/s                 | 0.3048                   |   | m/s            |
| m/s                                   | 196.9                    |   | ft/min               | 0.00508                  |   | m/s            |
| <b>Volume</b>                         |                          |   |                      |                          |   |                |
| mm <sup>3</sup>                       |                          |   |                      | 1.0 x 10 <sup>-6</sup>   |   | L              |
| mm <sup>3</sup>                       | 6.102 x 10 <sup>-5</sup> |   | in. <sup>3</sup>     | 0.01639                  |   | L              |
| L                                     |                          |   |                      | 1.0                      |   | L              |
| L                                     | 0.03531                  |   | ft <sup>3</sup>      | 28.32                    |   | L              |
| m <sup>3</sup>                        |                          |   |                      | 1.0                      |   | m <sup>3</sup> |
| m <sup>3</sup>                        | 1.308                    |   | yd <sup>3</sup>      | 0.7646                   |   | m <sup>3</sup> |
| L                                     | 0.2642                   |   | U.S. gal             | 3.785                    |   | L              |
| L                                     | 2.113                    |   | U.S. pint            | 0.4732                   |   | L              |
| mL, cm <sup>3</sup>                   |                          |   |                      | 1.0                      |   | mL             |
| mL, cm <sup>3</sup>                   | 0.03381                  |   | U.S. oz              | 29.57                    |   | mL             |
| <b>Volume/Time</b>                    |                          |   |                      |                          |   |                |
| m <sup>3</sup> /h                     |                          |   |                      | 0.2778                   |   | L/s            |
| m <sup>3</sup> /h                     | 0.5886                   |   | ft <sup>3</sup> /min | 0.4719                   |   | L/s            |
| m <sup>3</sup> /h                     | 4.403                    |   | U.S. gal/min         | 0.06309                  |   | L/s            |
| L/h                                   |                          |   |                      | 2.778 x 10 <sup>-4</sup> |   | L/s            |
| L/h                                   | 4.403 x 10 <sup>-3</sup> |   | U.S. gal/min         | 0.06309                  |   | L/s            |
| (m <sup>3</sup> /h)/<br>(1000 kcal/h) | 1.780                    |   | cfm/ton              | 0.1342                   |   | L/s kw         |

| Metric Tech        | Conversion Factor | = | English Unit | Conversion Factor | = | SI Unit |
|--------------------|-------------------|---|--------------|-------------------|---|---------|
| <b>Temperature</b> |                   |   |              |                   |   |         |
| °C                 |                   |   |              | °C + 273.15       |   | K       |
| °C                 | (°C x 1.8) + 32   |   | °F           | (°F - 32) ÷ 1.8   |   | °C      |

**Prefixes**

|   |       |                    |
|---|-------|--------------------|
| M | MEGA  | - 10 <sup>6</sup>  |
| k | KILO  | - 10 <sup>3</sup>  |
| d | DECI  | - 10 <sup>-1</sup> |
| c | CENTI | - 10 <sup>-2</sup> |
| m | MILLI | - 10 <sup>-3</sup> |
| µ | MICRO | - 10 <sup>-6</sup> |

**Legend**

|     |                  |    |        |
|-----|------------------|----|--------|
| m   | METER            | K  | KELVIN |
| cal | CALORIE          | W  | WATT   |
| kg  | KILOGRAM (mass)  | Pa | PASCAL |
| kgf | KILOGRAM - FORCE | J  | JOULE  |
| L   | LITER            | N  | NEWTON |
| °C  | DEGRESS CELSIUS  | h  | HOUR   |

**Units**

|                          |                         |       |                     |
|--------------------------|-------------------------|-------|---------------------|
| cP                       | CENTIPOISE              | mm Hg | MILLIMETERS MERCURY |
| cSt                      | CENTISTOKE              | tonne | = 1000 kg           |
| HP metric = (PS, CV, ch) | METRIC HORSEPOWER       | kcal  | = fg FRIGORIE       |
| mm w.g.                  | MILLIMETERS WATER GAUGE | bar   | = 100 kPa           |

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Carrier reserves the right to make changes in specifications without prior notice.  
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