

# Submittal

TAG:

PRODUCT NAME \_\_\_\_\_  
LOCATION \_\_\_\_\_  
ARCHITECT \_\_\_\_\_  
ENGINEER \_\_\_\_\_  
CONTRACTOR \_\_\_\_\_  
SUBMITTED BY \_\_\_\_\_ DATA \_\_\_\_\_

## UNIT SUMMARY

|                            |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|
| Quantity                   |  |  |  |  |  |  |
| Unit Designation           |  |  |  |  |  |  |
| Model No.                  |  |  |  |  |  |  |
| Cooling Input              |  |  |  |  |  |  |
| Cooling Output             |  |  |  |  |  |  |
| CFM/ESP                    |  |  |  |  |  |  |
| Electrical                 |  |  |  |  |  |  |
| Minimum Ampacity           |  |  |  |  |  |  |
| Max Overcurrent Protection |  |  |  |  |  |  |
| Net Unit Weight            |  |  |  |  |  |  |
| Accessory                  |  |  |  |  |  |  |
| Catalog Form Number        |  |  |  |  |  |  |

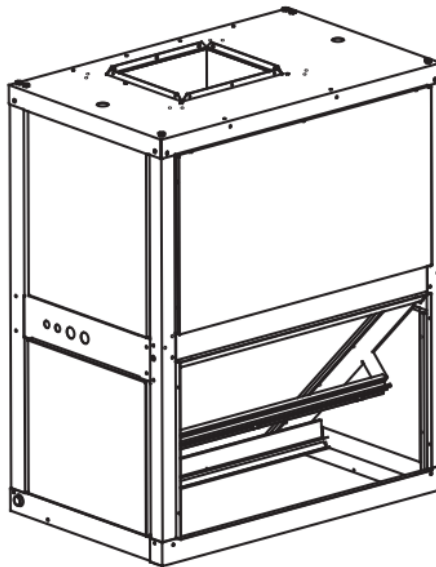
## ACCESSORIES

## NOTES

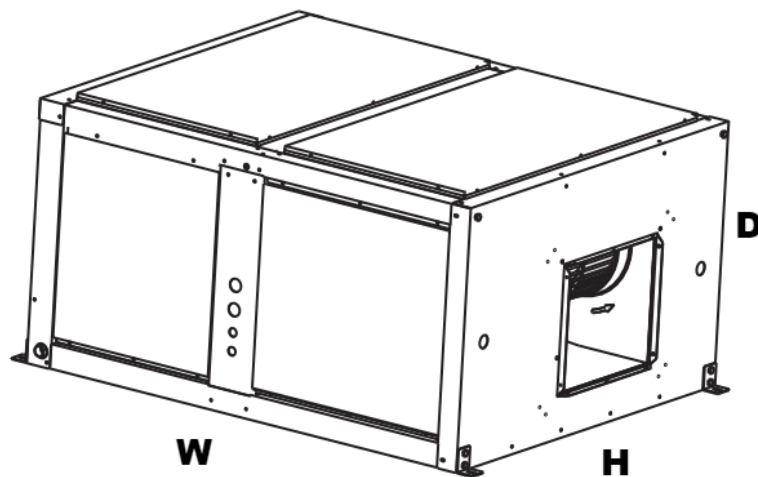
**R410A**

**Air Handler**

**Cooling capacity: 120 kBTU/h**



**Vertical**



**Horizontal**

| Model Size | Unit Height<br>“W” in. [mm] | Unit Width<br>“H” in. [mm] | Unit Length<br>“D” in. [mm] | Unit Weight<br>(lbs.[kg]) |
|------------|-----------------------------|----------------------------|-----------------------------|---------------------------|
| CSH120-3   | 57-3/32”[1450]              | 44-7/8” [1140]             | 28-11/32” [720]             | 419 [190]                 |

## Specifications

|                    |                    |        |                           |
|--------------------|--------------------|--------|---------------------------|
| <b>Model</b>       |                    |        | <b>CSH120-3</b>           |
| Power supply       |                    | V/h/Hz | 220V-3Ph-60Hz             |
| Cooling capacity   |                    | Btu/h  | 119400                    |
|                    |                    | W      | 35000                     |
| Indoor air flow    |                    | CFM    | 3000                      |
| Indoor fan         | Material           |        | Metal                     |
|                    | Type               |        | Centrifugal fan           |
| Fan motor          | Quantity           |        | 1                         |
|                    | Type               |        | AC                        |
| Indoor Coill       | Fin type           |        | Hydrophilic aluminum fin  |
|                    | Tube type          |        | Inner grooved copper pipe |
|                    | Number of circuits |        | 2                         |
| ESP                |                    | In.wg  | 1.5(0.6-2.6)              |
| Indoor noise level |                    | dB(A)  | 60                        |
| Refrigerant system | Refrigerant type   |        | R410A                     |
|                    | Throttle Type      |        | TXV                       |
|                    | Design pressure    | Pa     | 4.4/2.6                   |
|                    | Liquid pipe        | In     | 1/2                       |
|                    | Gas pipe           | In     | 7/8                       |
| Filter level       |                    |        | G1                        |
| Wried Controller   |                    |        | Optional                  |
| Dimension (W×H×D)  | In                 |        | 57-3/32×44-7/8×28-11/32   |
|                    | mm                 |        | 1450×1140×720             |
| Packing (W×H×D)    | In                 |        | 57-7/8×45-1/16×35-3/64    |
|                    | mm                 |        | 1470×1145×890             |
| Net/Gross weight   | lbs                |        | 419/500                   |
|                    | Kg                 |        | 190/226.5                 |
| Drain pipe size    |                    |        | 3/4" NPT Female           |
| Service code       |                    |        | 36B                       |

# Capacity table

## CSH120-3

| Gross Cooling Capacity (kW) |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Outdoor DB(°C)              |        | 29.40 |       |       |       |       |       |       |       |       | 35.00 |       |       |       |       |       |       |       |       |
| Indoor                      | WB(°C) | 16.10 |       |       | 19.40 |       |       | 22.80 |       |       | 16.10 |       |       | 19.40 |       |       | 22.80 |       |       |
| CFM                         | DB(°C) | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    |
| 3,230                       | 23.90  | 24.33 | 16.22 | 7.04  | 25.55 | 17.03 | 7.39  | 26.82 | 17.88 | 7.76  | 23.62 | 15.75 | 8.14  | 24.80 | 16.53 | 8.55  | 26.04 | 17.36 | 8.98  |
|                             | 26.70  | 25.30 | 19.46 | 7.32  | 26.57 | 20.44 | 7.68  | 27.90 | 21.46 | 8.07  | 24.57 | 18.90 | 8.47  | 25.79 | 19.84 | 8.89  | 27.08 | 20.83 | 9.34  |
|                             | 29.40  | 26.31 | 21.93 | 7.61  | 27.63 | 23.02 | 7.99  | 29.01 | 24.18 | 8.39  | 25.55 | 21.29 | 8.81  | 26.83 | 22.35 | 9.25  | 28.17 | 23.47 | 9.71  |
|                             | 32.20  | 27.37 | 24.88 | 7.91  | 28.74 | 26.12 | 8.31  | 30.17 | 27.43 | 8.73  | 26.57 | 24.15 | 9.16  | 27.90 | 25.36 | 9.62  | 29.29 | 26.63 | 10.10 |
| 3,500                       | 23.90  | 28.46 | 18.97 | 8.23  | 29.88 | 19.92 | 8.64  | 31.38 | 20.92 | 9.07  | 27.63 | 18.42 | 9.53  | 29.01 | 19.34 | 10.00 | 30.46 | 20.31 | 10.51 |
|                             | 26.70  | 29.60 | 22.77 | 8.56  | 31.08 | 23.91 | 8.99  | 32.63 | 25.10 | 9.44  | 28.74 | 22.11 | 9.91  | 30.17 | 23.21 | 10.41 | 31.68 | 24.37 | 10.93 |
|                             | 29.40  | 30.78 | 25.65 | 8.90  | 32.32 | 26.94 | 9.35  | 33.94 | 28.28 | 9.82  | 29.89 | 24.91 | 10.31 | 31.38 | 26.15 | 10.82 | 32.95 | 27.46 | 11.36 |
|                             | 32.20  | 32.02 | 29.10 | 9.26  | 33.62 | 30.56 | 9.72  | 35.30 | 32.09 | 10.21 | 31.08 | 28.26 | 10.72 | 32.64 | 29.67 | 11.25 | 34.27 | 31.15 | 11.82 |
| 4,000                       | 23.90  | 33.30 | 22.20 | 9.63  | 34.96 | 23.31 | 10.11 | 36.71 | 24.47 | 10.62 | 32.33 | 21.55 | 11.15 | 33.94 | 22.63 | 11.70 | 35.64 | 23.76 | 12.29 |
|                             | 26.70  | 34.63 | 26.64 | 10.01 | 36.36 | 27.97 | 10.51 | 38.18 | 29.37 | 11.04 | 33.62 | 25.86 | 11.59 | 35.30 | 27.15 | 12.17 | 37.07 | 28.51 | 12.78 |
|                             | 29.40  | 35.67 | 29.72 | 10.31 | 37.45 | 31.21 | 10.83 | 39.32 | 32.77 | 11.37 | 34.63 | 28.86 | 11.94 | 36.36 | 30.30 | 12.54 | 38.18 | 31.81 | 13.16 |
|                             | 32.20  | 36.74 | 33.40 | 10.62 | 38.57 | 35.07 | 11.16 | 40.50 | 36.82 | 11.71 | 35.67 | 32.42 | 12.30 | 37.45 | 34.05 | 12.91 | 39.32 | 35.75 | 13.56 |
| 4,550                       | 23.90  | 37.84 | 25.23 | 10.94 | 39.73 | 26.49 | 11.49 | 41.72 | 27.81 | 12.06 | 36.74 | 24.49 | 12.67 | 38.57 | 25.72 | 13.30 | 40.50 | 27.00 | 13.97 |
|                             | 26.70  | 38.97 | 29.98 | 11.27 | 40.92 | 31.48 | 11.83 | 42.97 | 33.05 | 12.43 | 37.84 | 29.11 | 13.05 | 39.73 | 30.56 | 13.70 | 41.72 | 32.09 | 14.39 |
|                             | 29.40  | 40.14 | 33.45 | 11.61 | 42.15 | 35.13 | 12.19 | 44.26 | 36.88 | 12.80 | 38.97 | 32.48 | 13.44 | 40.92 | 34.10 | 14.11 | 42.97 | 35.81 | 14.82 |
|                             | 32.20  | 41.35 | 37.59 | 11.96 | 43.41 | 39.47 | 12.56 | 45.59 | 41.44 | 13.18 | 40.14 | 36.49 | 13.84 | 42.15 | 38.32 | 14.53 | 44.26 | 40.23 | 15.26 |

| Gross Cooling Capacity (kW) |        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Outdoor DB(°C)              |        | 40.60 |       |       |       |       |       |       |       |       | 46.10 |       |       |       |       |       |       |       |       |
| Indoor                      | WB(°C) | 16.10 |       |       | 19.40 |       |       | 22.80 |       |       | 16.10 |       |       | 19.40 |       |       | 22.80 |       |       |
| CFM                         | DB(°C) | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    | TC    | SC    | PI    |
| 3,230                       | 23.90  | 22.40 | 14.93 | 9.07  | 23.52 | 15.68 | 9.53  | 24.70 | 16.46 | 10.01 | 21.75 | 14.50 | 10.51 | 22.83 | 15.22 | 11.03 | 23.98 | 15.98 | 11.58 |
|                             | 26.70  | 23.30 | 17.92 | 9.44  | 24.46 | 18.82 | 9.91  | 25.68 | 19.76 | 10.41 | 22.62 | 17.40 | 10.93 | 23.75 | 18.27 | 11.47 | 24.93 | 19.18 | 12.05 |
|                             | 29.40  | 24.23 | 20.19 | 9.82  | 25.44 | 21.20 | 10.31 | 26.71 | 22.26 | 10.82 | 23.52 | 19.60 | 11.36 | 24.70 | 20.58 | 11.93 | 25.93 | 21.61 | 12.53 |
|                             | 32.20  | 25.20 | 22.91 | 10.21 | 26.46 | 24.05 | 10.72 | 27.78 | 25.25 | 11.25 | 24.46 | 22.24 | 11.82 | 25.69 | 23.35 | 12.41 | 26.97 | 24.52 | 13.03 |
| 3,500                       | 23.90  | 26.20 | 17.47 | 10.62 | 27.51 | 18.34 | 11.15 | 28.89 | 19.26 | 11.70 | 25.44 | 16.96 | 12.29 | 26.71 | 17.81 | 12.90 | 28.05 | 18.70 | 13.55 |
|                             | 26.70  | 27.25 | 20.96 | 11.04 | 28.61 | 22.01 | 11.59 | 30.05 | 23.11 | 12.17 | 26.46 | 20.35 | 12.78 | 27.78 | 21.37 | 13.42 | 29.17 | 22.44 | 14.09 |
|                             | 29.40  | 28.34 | 23.62 | 11.48 | 29.76 | 24.80 | 12.06 | 31.25 | 26.04 | 12.66 | 27.52 | 22.93 | 13.29 | 28.89 | 24.08 | 13.96 | 30.34 | 25.28 | 14.66 |
|                             | 32.20  | 29.48 | 26.80 | 11.94 | 30.95 | 28.14 | 12.54 | 32.50 | 29.54 | 13.17 | 28.62 | 26.02 | 13.82 | 30.05 | 27.32 | 14.52 | 31.55 | 28.68 | 15.24 |
| 4,000                       | 23.90  | 30.65 | 20.44 | 12.42 | 32.19 | 21.46 | 13.04 | 33.80 | 22.53 | 13.69 | 29.76 | 19.84 | 14.38 | 31.25 | 20.83 | 15.10 | 32.81 | 21.88 | 15.85 |
|                             | 26.70  | 31.88 | 24.52 | 12.92 | 33.48 | 25.75 | 13.56 | 35.15 | 27.04 | 14.24 | 30.95 | 23.81 | 14.95 | 32.50 | 25.00 | 15.70 | 34.13 | 26.25 | 16.49 |
|                             | 29.40  | 32.84 | 27.36 | 13.30 | 34.48 | 28.73 | 13.97 | 36.20 | 30.17 | 14.67 | 31.88 | 26.57 | 15.40 | 33.48 | 27.90 | 16.17 | 35.15 | 29.29 | 16.98 |
|                             | 32.20  | 33.82 | 30.75 | 13.70 | 35.51 | 32.29 | 14.39 | 37.29 | 33.90 | 15.11 | 32.84 | 29.85 | 15.86 | 34.48 | 31.34 | 16.66 | 36.20 | 32.91 | 17.49 |
| 4,550                       | 23.90  | 34.84 | 23.22 | 14.11 | 36.58 | 24.39 | 14.82 | 38.41 | 25.61 | 15.56 | 33.82 | 22.55 | 16.34 | 35.51 | 23.68 | 17.16 | 37.29 | 24.86 | 18.01 |
|                             | 26.70  | 35.88 | 27.60 | 14.54 | 37.68 | 28.98 | 15.26 | 39.56 | 30.43 | 16.03 | 34.84 | 26.80 | 16.83 | 36.58 | 28.14 | 17.67 | 38.41 | 29.54 | 18.55 |
|                             | 29.40  | 36.96 | 30.80 | 14.97 | 38.81 | 32.34 | 15.72 | 40.75 | 33.96 | 16.51 | 35.88 | 29.90 | 17.33 | 37.68 | 31.40 | 18.20 | 39.56 | 32.97 | 19.11 |
|                             | 32.20  | 38.07 | 34.61 | 15.42 | 39.97 | 36.34 | 16.19 | 41.97 | 38.15 | 17.00 | 36.96 | 33.60 | 17.85 | 38.81 | 35.28 | 18.75 | 40.75 | 37.04 | 19.68 |

### Notes:

DB= Dry Bulb temperature; WB= Wet Bulb Temperature

TC= Total Capacity (Unit: kW)

SC= Sensible Capacity (Unit: kW)

PI = Power Input (Unit: kW)

## Electric characteristics

| Model    | Indoor unit |         |      |      | Power supply |     | IFM |      |
|----------|-------------|---------|------|------|--------------|-----|-----|------|
|          | Hz          | Voltage | Min. | Max. | MCA          | MFA | kW  | FLA  |
| CSH120-3 | 60          | 220V    | 198V | 240V | 6.29         | 7   | 1.5 | 5.99 |

Notes:

MCA: Min. Current Amps. (A)

MFA: Max. Fuse Amps. (A)

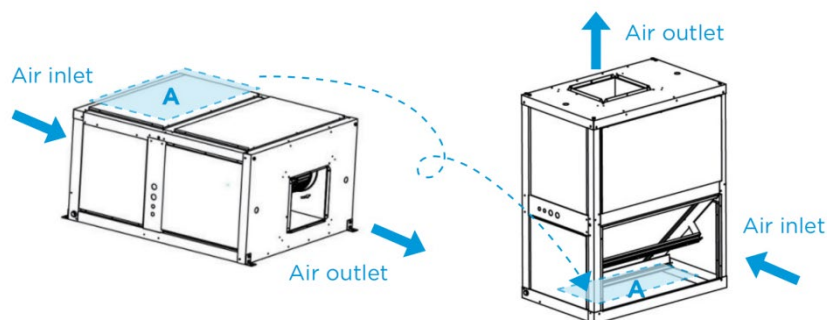
IFM: Indoor Fan Motor

kW: Fan Motor Rated Output (kW)

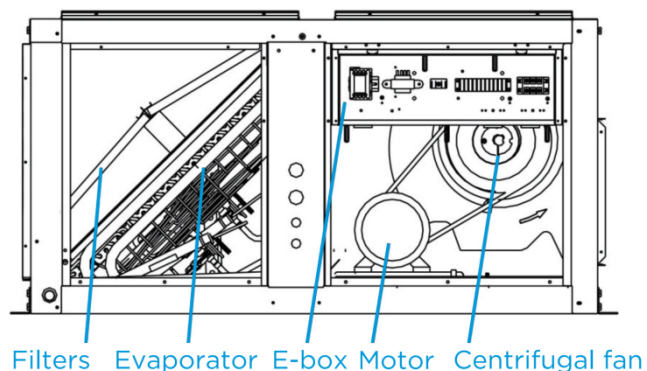
FLA: Full Load Amps. (A)

## Features

- 7.5ton and 10ton, dual circuits design, standard with TXV
- Flexible installation, horizontal installation and vertical installation are available.



- 24V universal communication, compatible with 24V condenser units.
- Easy maintenance, Inlet & outlet pipe of evaporator, control box, fan and motor are in same side.





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