



**AQUAFORCE**<sup>™</sup> greenspeed 

Carrier AquaForce®

# 30XQVE

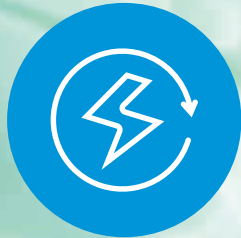
Variable-speed air-cooled screw chiller & heat pump

Cooling Capacity: 400-1480kW  
Heating Capacity: 388-1410kW



New generation AquaForce® 30XQVE variable-speed air-cooled screw chiller & heat pump with Greenspeed™ intelligence, uses the total variable-frequency configuration (Variable speed fan, hydronic module as option) to energize the excellence of 30XQVE in efficiency, stability, smart control and sustainability thus to meet customer needs while providing building resiliency for sustainable development.





Efficient



Reliable



Quiet



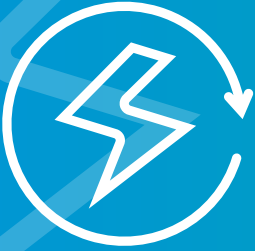
Flexible



Smart



Sustainable

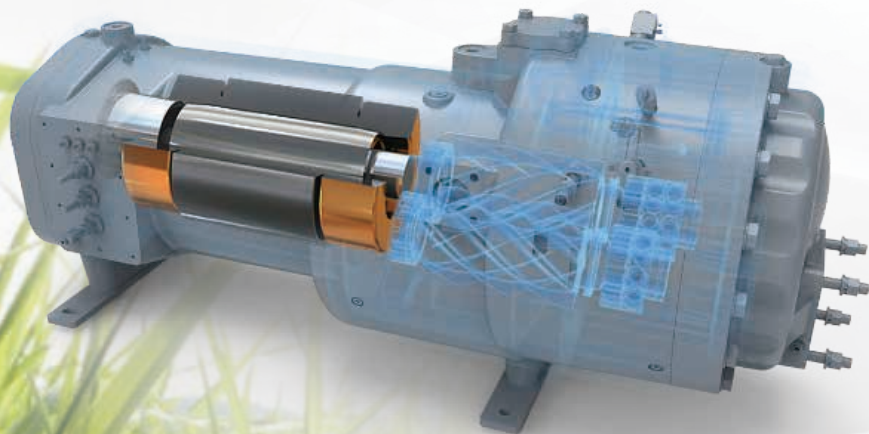


# High efficiency

## The latest generation of 06Z variable-speed compressor

---

1. Newly optimized design of gear ratio with precise gear mesh which has less vibration and smaller leakage compared with 06T compressor.
2. Compressor is designed without slide valve which enables infinite variable frequency adjustment thus to achieve larger operation range, more accurate control and significant mechanical loss reduction.
3. The internal pressure ratio regulating valve is adopted to realize accurate adjustment through turning on and off the internal solenoid valve according to different pressure ratio and load, which can meet requirements of different working conditions and significantly improve the part load performance.
4. Compressor has a wide operation range.





## High speed fan (Optional variable frequency motor)

30XQVE adopts high-speed low-noise axial fan and can be equipped with high-efficiency variable frequency motor (option). The IPLV can reach 4.4\* under GB condition.

\*Selected model



## Variable frequency hydraulic module(option)

30XQVE has built-in variable frequency hydraulic module (option), which integrates variable frequency water pump, closed expansion water tank, filter, pressure sensor, high-precision flow regulating valve and other components. The variable speed compressor equipped with the variable flow system can save system operation cost in the whole life cycle.



## V-shaped coil design

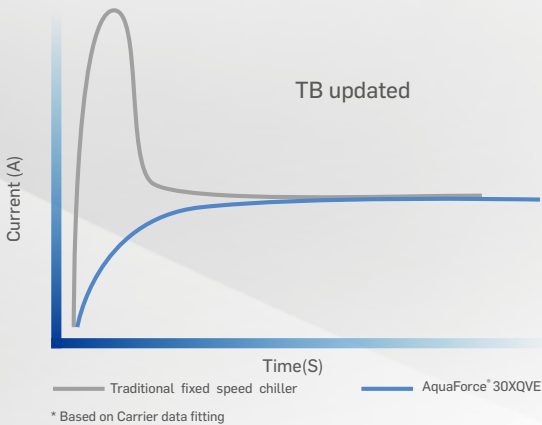
30XQVE adopts V-shaped coil design which makes for the uniform distribution of wind field and also ensures excellent unit performance. Besides, the unique defrosting control logic guarantees stable heating capacity of the unit for a long time.



# Unconditional stability

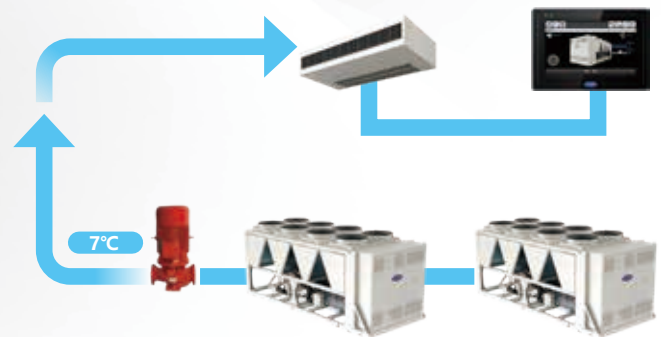
## Low Start-up Current

The compressor starts with VFD drive and the low start-up current avoids the shock to the power grid. Meanwhile, this start-up method has no impact on water system pipe network to prevent the pipe rupture caused by excessive pipe network pressure.



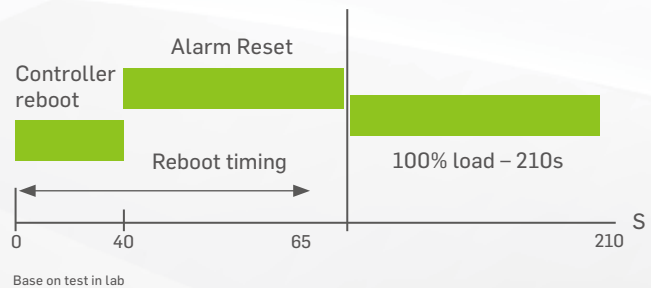
## Modular Design

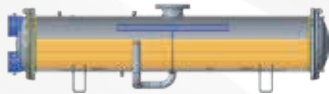
30XQVE modules can be connected in series to avoid operation interference and realize stable control of water temperature thus to ensure more stable operation of the unit.



## Swift Start

30XQVE standardly configures swift start function which can realize 80% capacity upload within 180s after power recovery and keep you away from the potential threat of refrigeration system failure due to temporary power loss.





## Evaporator dual anti-freezing protection(option)

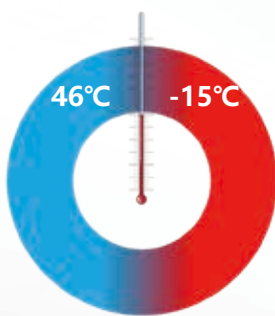
30XQVE is optionally configured with an anti-freeze module to provide dual protection for the chiller in winter.

When the ambient temperature in winter is lower than 0°C, it should select PT041F (anti-freeze module) or interlock control of the customer's chilled pump and electric butterfly valve (operated by Carrier service engineer).

The chiller should remain powered on in winter to solve the chiller error.

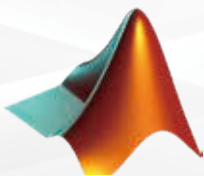
Add EG into the system loop when the chiller is out of use for a long time or drain the water in the heat exchanger and water pipes.

When the ambient temperature is lower than the set point, the built-in antifreeze water pump is started to prevent the falling of evaporator water temperature through the heat dissipation of the water pump motor. If the evaporator water temperature is lower than the set protection point, the built-in auxiliary electric heating is turned on. There will be an alarm when the evaporator water temperature drops down to the limit point.



## Wide operation and stable heating

30XQVE has a wide operating range and can automatically switch between cold and hot modes to ensure comfort throughout the year. When operating under low-temperature heating conditions in winter, the optimized defrosting control logic prevents the heating capacity loss caused by unnecessary defrosting and avoids the large fluctuation of water temperature on the customer side meanwhile.



MATLAB+  
Simulink+  
Embedded Coder\*

## Operation with multiple protection

Accurate algorithms exported by a variety of professional software can provide more than 60 kinds of operation protection under different application scenarios to ensure the continuous stable operation of the unit.

\*MATLAB and its logo are registered trademarks of American MathWorks company



# Quiet operation



## Reduce compressor noise

1. Variable-frequency high-efficiency motor drive is adopted in 30XQVE compressor which produces less pulsating noise compared with the slide valve drive design of constant frequency compressor.
2. The built-in integrated silencer (IRA) of 30XQVE compressor can significantly reduce the pressure pulsation on the exhaust side which reduces 8dBA\* than the compressor equipped with traditional external silencer.
3. The optimized casing structure and special compensation channel design effectively reduce the transmission of vibration noise.
4. Newly optimized design of gear ratio stabilizes the gas and reduces the gas noise.

\* Based on the standard ari575 equipment space noise measurement method to determine the A-weighted sound pressure level





## Reduce noise transmission

1. 30XQVE is designed with built-in silencer inside oil separator which can effectively decrease inside energy thus to reduce the noise of the unit.
2. Optimized shell structure reduced both vibration level and radiation-transmitted noise.
3. The transmission of exhaust pressure pulsation is significantly attenuated due to the optimized design of compressor exhaust pipeline thus to effectively reduce the vibration and noise.



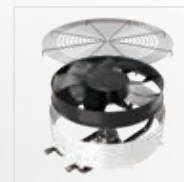
## Rich ultra-low noise options

30XQVE provide various customized noise reduction options according to the project and customer needs

**PT015LS ultra-low noise option** Compressor suction pipe is packed with sound-absorbing materials and equipped with a low-noise fan based on PT015 thus to further reduce the noise of the whole unit (5 dB lower than that of the standard unit \*)

**PT015 Low noise level (compressor enclosure)** can further isolate the noise of compressor, exhaust pipe and other components.

**PT305A spring isolator** can balance the unit weight and cooperate with the compressor shock absorber to further reduce vibration thus to effectively alleviate the noise transmission caused by unit vibration.



\* Compared with the standard unit without this configuration and the sound power level test method and value refer to the standard ISO3747



# Flexible Installation

We cherish  
Your precious time and space

---



# Smart Control



## Intelligent Operation



### User-friendly interface

30XQVE is equipped with a 7-inch high-resolution colorful touch screen. The intuitive menu enables accurate control of the unit without turning page.



### BAS protocols

Control panel supports both Modbus IP/RTU and BACnet IP protocols with which the chiller can seamlessly connect with the Building Automation System or Carrier control network.



### Wireless communication

Standard WIFI connection communication provides more professional intelligent service experience.








# Our 2030 ESG Goals




## OUR PLANET

-  Invest over **\$2B** to develop **healthy, safe and sustainable building and cold chain solutions** that incorporate **sustainable design principles and reduce life-cycle impacts**.
-  Achieve **carbon-neutral** operations.
-  Reduce **energy intensity** by 10% across our operations.
-  Achieve **water neutrality** in our operations, prioritizing water-scarce locations.
-  Deliver **zero waste** to landfill from manufacturing locations.
-  Establish a **responsible supply chain program** and assess key factory suppliers against program criteria.

## OUR PEOPLE

-  Exceed benchmark **employee engagement**.
-  Achieve **gender parity** in senior leadership roles.
-  Maintain world-class **safety metrics**.
-  Achieve a **diverse workforce** that represents the communities in which we live and work.
-  Foster the growth of **employee resource groups** to drive social impact.

## OUR COMMUNITIES

-  Positively impact communities through enabling access to **safe and healthy indoor environments, alleviating hunger and food waste, and volunteering our time and talent**.
-  Invest in **STEM education** programs that promote **diversity and inclusion**.
-  Promote **sustainability** through education, partnerships and climate resiliency programs.



REDUCE OUR CUSTOMERS' CARBON FOOTPRINT BY MORE THAN

# 1 GIGATON.

## Carrier has been continuously working on sustainable solutions for our customers



### Product and technology

High efficiency chillers  
Heat pump  
VFD  
Free cooling  
Heat recovery  
Digital solutions



### System

HCP  
District cooling/heating  
Retrofit  
Energy saving solutions  
for different applications



### New Refrigerant

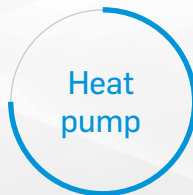
Research and apply new  
environmentally  
responsible refrigerant



### Achieve carbon-neutral

Reduce our customers'  
carbon footprint by more  
than 1 Gigaton Maintain  
world-class safety metrics.  
Develop healthy, safe and  
sustainable building and  
cold chain solutions

## 30XQVE Your Ideal Option



## Nomenclature

30XQVEC0401 PT015LS

|               | Option list                            | Scope               |
|---------------|--|---------------------|
|               | 003A Pretreated Coating (Gold Fin)     | 0400-1500           |
|               | 010V VS condenser fan                  | 0400-1500           |
|               | 012 High static fan                    | 0401-1500           |
|               | 015 Sheet metal enclosure              | 0401-1500           |
|               | 015LS Super low noise                  | 0401-1500           |
|               | 020A IP54 Control Box                  | 0401-1500           |
|               | 023 Grid ang dual panel                | 0401-1500           |
|               | 023B Dual panel                        | 0401-1500           |
|               | 041F Anti-freeze module                | 0401-1500           |
|               | 104 1.6Mpa evaporator                  | 0401-1500           |
|               | 116J VFD hydronic kit(single circuit)  | 0401/0501/0621/0751 |
|               | 148B J-Bus gateway                     | 0401-1500           |
|               | 148C BacNet MSTP gateway               | 0401-1500           |
|               | 148D LonTalk gateway                   | 0401-1500           |
|               | 156 EMM                                | 0401-1500           |
|               | 275 Remote controller                  | 0401-1500           |
|               | 299 38mm evaporator isolation          | 0401-1500           |
|               | 305A Spring isolator                   | 0401-1500           |
|               | 309D Dual safety valve with ball valve | 0401-1500           |
|               | 345 Wood packing                       | 0401-1500           |
|               | 835 Intelligent power meter            | 0401-1500           |
|               | 312 Australian Request                 | 0401-1500           |
|               | C R513A                                |                     |
|               | E Export                               |                     |
| Chiller model | 30XQVE VFD Air-cooled Screw Heat Pump  | 30XQVE0401-1500     |

Chiller picture contains PT023B option,standard chiller doesn't have.

## Range of operation

| Cooling Condition                                      |                |             |
|--|----------------|-------------|
| Water Side Heat Exchanger                              | Minium (°C )   | Maxium(°C ) |
| Chilled Water Entering Water Temperater (start) °C     | -              | 45          |
| Chilled Water Entering Water Temperater (operating) °C | 6.8            | 25          |
| Chilled Water Leaving Water Temperater (operating) °C  | 3.3            | 20          |
| Air Side Heat Exchanger                                | Minium (°C )   | Maxium(°C ) |
| Inlet Air Temperature °C                               | -10            | 46          |
| Heating Condition                                      |                |             |
| Water Side Heat Exchanger                              | Minium (°C )   | Maxium(°C ) |
| Hot Water Entering Water Temperater (operating) °C     | 25             | 55          |
| Hot Water Leaving Water Temperater (operating) °C      | 30             | 60          |
| Air Side Heat Exchanger                                | Minium (°C )   | Maxium(°C ) |
| Inlet Air Temperature °C                               | -10(full load) | 30          |
|  | -15(part load) |             |

# 30XQVE Performance Data

| Chiller Model 30XQV                           |                | 0401  | 0501  | 0621  | 0751  | 0802  | 0902  | 1002  | 1122   | 1250   | 1370   | 1500   |
|---|----------------|---|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Nominal Cooling Capacity                      | kW             | 396.0   | 485.1 | 608.9 | 732.6 | 776.0 | 873.0 | 950.6 | 1072.0 | 1218.0 | 1341.0 | 1465.0 |
| Nominal Heating Capacity                      | kW             | 384.1   | 455.4 | 592.0 | 698.0 | 752.8 | 846.8 | 922.5 | 1040.0 | 1153.0 | 1290.0 | 1396.0 |
| Power input (cooling)                         | kW             | 127.1   | 158.6 | 199.6 | 239.5 | 254.5 | 282.8 | 307.9 | 351.5  | 398.0  | 439.2  | 478.9  |
| Power input (heating)                         | kW             | 123.3   | 149.5 | 193.6 | 228.4 | 246.1 | 272.7 | 297.1 | 340.1  | 377.9  | 422.0  | 456.8  |
| Min Load%                                     | %              | 30  | 25    | 33    | 25    | 15    | 15    | 15    | 15     | 15     | 15     | 15     |
| Refrigerant                                   |                | HFC-134a  |       |       |       |       |       |       |        |        |        |        |
| Refrigerant Charge Circuit A                  | kg             | 140   | 160   | 205   | 235   | 115   | 140   | 160   | 160    | 160    | 205    | 235    |
| Refrigerant Charge Circuit B                  | kg             | -   | -     | -     | -     | 160   | 160   | 160   | 205    | -      | -      | -      |
| Refrigerant Charge Circuit C                  | kg             | -   | -     | -     | -     | -     | -     | -     | -      | 235    | 235    | 235    |
| Refrigerant Charge Circuit D                  | kg             | -   | -     | -     | -     | -     | -     | -     | -      | -      | -      | -      |
| Compressor                                    |                | Variable Semi-hermetic Screw Compressor         |       |       |       |       |       |       |        |        |        |        |
| Compressor Qty, Circuit A                     |                | 1   | 1     | 1     | 1     | 1     | 1     | 1     | 1      | 1      | 1      | 1      |
| Compressor Qty, Circuit B                     |                | -   | -     | -     | -     | 1     | 1     | 1     | 1      | -      | -      | -      |
| Compressor Qty, Circuit C                     |                | -   | -     | -     | -     | -     | -     | -     | -      | 1      | 1      | 1      |
| Compressor Qty, Circuit D                     |                | -   | -     | -     | -     | -     | -     | -     | -      | -      | -      | -      |
| Controller                                    |                | 7 inch touch pilot control system               |       |       |       |       |       |       |        |        |        |        |
| Air Heat Exchanger                            |                | Cu-Al heat exchanger                            |       |       |       |       |       |       |        |        |        |        |
| Fan   |                | Gen IV "Axial Flying Bird with rotating shroud" |       |       |       |       |       |       |        |        |        |        |
| Fan Quantity                                  |                | 8   | 8     | 10    | 12    | 14    | 16    | 16    | 18     | 20     | 22     | 24     |
| Total Air-Flow                                | l/s            | 36112   | 36112 | 45140 | 54168 | 63196 | 72224 | 72224 | 81252  | 90280  | 99308  | 108336 |
| Fan Speed                                     | rpm            | 950   | 950   | 950   | 950   | 950   | 950   | 950   | 950    | 950    | 950    | 950    |
| Water Heat Exchanger                          |                | Flooded Heat Exchanger                          |       |       |       |       |       |       |        |        |        |        |
| Water Content                                 | m <sup>3</sup> | 84  | 84    | 101   | 101   | 147   | 175   | 175   | 175    | 185    | 202    | 202    |
| Nominal flow rate (cooling)                   | l/s            | 18.88   | 23.12 | 29.03 | 34.92 | 36.99 | 41.62 | 45.31 | 51.09  | 58.04  | 63.95  | 69.84  |
| Nominal Pressure Drop                         | kPa            | 26.6  | 39.5  | 45.7  | 64.1  | 45.8  | 66.2  | 77.4  | 96.6   | 53.0   | 58.0   | 67.2   |
| Max Water side pressure(without Hydronic Kit) | kPa            | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  | 1000   | 1000   | 1000   | 1000   |
| Water Connection                              |                | Victaulic                                       |       |       |       |       |       |       |        |        |        |        |
| Nominal Diameter                              | DN             | 125   | 125   | 150   | 150   | 150   | 150   | 150   | 150    | 200    | 200    | 200    |
| Electrical data                               |                |   |       |       |       |       |       |       |        |        |        |        |
| Nominal Power Supply                          |                | 400V-3ph-50hz                                   |       |       |       |       |       |       |        |        |        |        |
| Control Power Supply                          |                | 24V via internal transformer                    |       |       |       |       |       |       |        |        |        |        |
| Starter                                       |                | VFD   |       |       |       |       |       |       |        |        |        |        |
| Fan and Control Power                         | kW             | 13.3  | 13.3  | 16.5  | 19.7  | 26.6  | 26.6  | 26.6  | 29.8   | 33     | 36.2   | 39.4   |
| Nominal unit current draw, Circuit A+B        | A              | 191   | 239   | 309   | 361   | 391   | 434   | 473   | 540    | 239    | 309    | 361    |
| Nominal unit current draw, Circuit C+D        | A              | -   | -     | -     | -     | -     | -     | -     | -      | 361    | 361    | 361    |
| Max unit current draw, Circuit A+B            | A              | 307   | 360   | 457   | 541   | 531   | 573   | 641   | 737    | 360    | 457    | 541    |
| Max unit current draw, Circuit C+D            | A              | -   | -     | -     | -     | -     | -     | -     | -      | 541    | 541    | 541    |
| Max Start-up current draw, Circuit A+B        | A              | 307   | 360   | 457   | 541   | 614   | 667   | 720   | 817    | 360    | 457    | 541    |
| Max Start-up current draw, Circuit C+D        | A              | -   | -     | -     | -     | -     | -     | -     | -      | 541    | 541    | 541    |
| Max Start-up Power                            | kW             | 198   | 232   | 294   | 348   | 396   | 430   | 464   | 526    | 580    | 643    | 697    |
| Unit Length                                   | mm             | 5454  | 5454  | 6648  | 7842  | 9118  | 10312 | 10312 | 11506  | 13296  | 14490  | 15684  |
| Unit Width                                    | mm             | 2253  |       |       |       |       |       |       |        |        |        |        |
| Unit Height                                   | mm             | 2297  |       |       |       |       |       |       |        |        |        |        |
| Shipment Weight( without hydronic kit)        | kg             | 5957  | 6126  | 7025  | 7370  | 9933  | 10410 | 10540 | 11705  | 13496  | 14395  | 14740  |
| Operation Weight( without hydronic kit)       | kg             | 5819  | 6027  | 6905  | 7267  | 9830  | 10300 | 10430 | 11560  | 13294  | 14172  | 14534  |

Note:

- 30XQV0800-1500 duplex design, Module 1 (circuit A+B) and Module 2 (C+D) are shipped separately when ex-factory.
- Nominal cooling mode: Water heat exchanger entering/leaving temperature 12/7°C, outdoor air-bulb temperature: 35°C.
- Nominal heating mode: Nominal flow rate/leaving temperature -/45°C, outdoor air dry/wet-bulb temperature: 7/6°C.
- Water heat exchanger fouling factor 0.018 m<sup>2</sup>·K/kW.

# 30XQVEC Performance Data

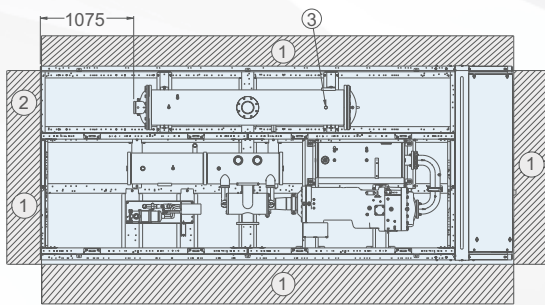
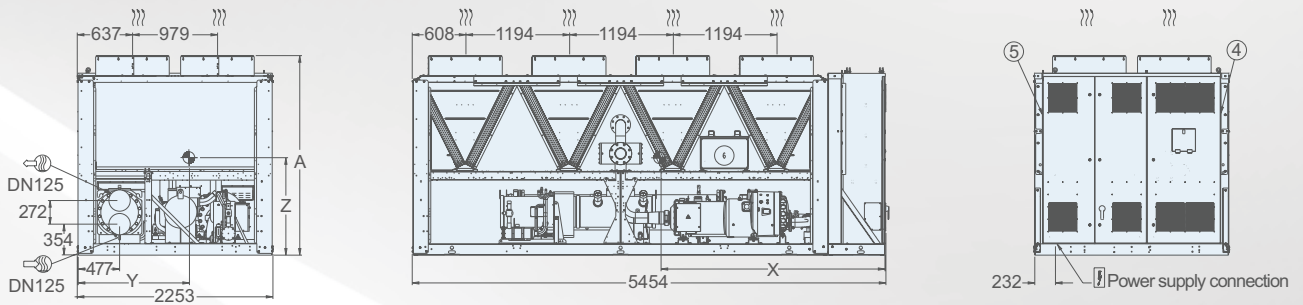
| Chiller Model 30XQVEC                         |                | 0401  | 0501  | 0621  | 0751  | 0802  | 0902  | 1002  | 1122   | 1250   | 1370   | 1500   |
|---|----------------|---|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Nominal Cooling Capacity                      | kW             | 396.2   | 484.9 | 608.8 | 732.5 | 776.3 | 873.4 | 950.9 | 1072.0 | 1218.0 | 1342.0 | 1465.0 |
| Nominal Heating Capacity                      | kW             | 384.0   | 455.5 | 591.9 | 698.3 | 752.5 | 846.7 | 922.4 | 1039.0 | 1154.0 | 1291.0 | 1396.0 |
| Power input (cooling)                         | kW             | 132.4   | 165.1 | 207.9 | 249.4 | 265.1 | 294.7 | 320.9 | 366.3  | 414.8  | 457.8  | 498.9  |
| Power input (heating)                         | kW             | 128.4   | 155.8 | 201.7 | 238.0 | 256.3 | 284.0 | 309.3 | 354.0  | 393.9  | 439.8  | 475.7  |
| Min Load%                                     | %              | 30  | 25    | 30    | 25    | 15    | 15    | 15    | 15     | 15     | 15     | 15     |
| Refrigerant                                   |                | R513A   |       |       |       |       |       |       |        |        |        |        |
| Refrigerant Charge Circuit A                  | kg             | 140   | 160   | 205   | 235   | 115   | 140   | 160   | 160    | 160    | 205    | 235    |
| Refrigerant Charge Circuit B                  | kg             | -   | -     | -     | -     | 160   | 160   | 160   | 205    | -      | -      | -      |
| Refrigerant Charge Circuit C                  | kg             | -   | -     | -     | -     | -     | -     | -     | -      | 235    | 235    | 235    |
| Refrigerant Charge Circuit D                  | kg             | -   | -     | -     | -     | -     | -     | -     | -      | -      | -      | -      |
| Compressor                                    |                | Variable Semi-hermetic Screw Compressor         |       |       |       |       |       |       |        |        |        |        |
| Compressor Qty, Circuit A                     |                | 1   | 1     | 1     | 1     | 1     | 1     | 1     | 1      | 1      | 1      | 1      |
| Compressor Qty, Circuit B                     |                | -   | -     | -     | -     | 1     | 1     | 1     | 1      | -      | -      | -      |
| Compressor Qty, Circuit C                     |                | -   | -     | -     | -     | -     | -     | -     | -      | 1      | 1      | 1      |
| Compressor Qty, Circuit D                     |                | -   | -     | -     | -     | -     | -     | -     | -      | -      | -      | -      |
| Controller                                    |                | 7 inch touch pilot control system               |       |       |       |       |       |       |        |        |        |        |
| Air Heat Exchanger                            |                | Cu-Al heat exchanger                            |       |       |       |       |       |       |        |        |        |        |
| Fan   |                | Gen IV "Axial Flying Bird with rotating shroud" |       |       |       |       |       |       |        |        |        |        |
| Fan Quantity                                  |                | 8   | 8     | 10    | 12    | 14    | 16    | 16    | 18     | 20     | 22     | 24     |
| Total Air-Flow                                | l/s            | 36112   | 36112 | 45140 | 54168 | 63196 | 72224 | 72224 | 81252  | 90280  | 99308  | 108336 |
| Fan Speed                                     | rpm            | 950   | 950   | 950   | 950   | 950   | 950   | 950   | 950    | 950    | 950    | 950    |
| Water Heat Exchanger                          |                | Flooded Heat Exchanger                          |       |       |       |       |       |       |        |        |        |        |
| Water Content                                 | m <sup>3</sup> | 84  | 84    | 101   | 101   | 147   | 175   | 175   | 175    | 185    | 202    | 202    |
| Nominal flow rate (cooling)                   | l/s            | 18.89   | 23.12 | 29.03 | 34.92 | 37.00 | 41.63 | 45.33 | 51.10  | 58.05  | 63.96  | 69.85  |
| Nominal Pressure Drop                         | kPa            | 26.6  | 39.5  | 45.7  | 64.1  | 45.8  | 66.2  | 77.5  | 96.6   | 53.0   | 58.1   | 67.2   |
| Max Water side pressure(without Hydronic Kit) | kPa            | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  | 1000  | 1000   | 1000   | 1000   | 1000   |
| Water Connection (with Hydronic Kit)          |                | Victaulic                                       |       |       |       |       |       |       |        |        |        |        |
| Nominal Diameter                              | DN             | 125   | 125   | 150   | 150   | 150   | 150   | 150   | 150    | 200    | 200    | 200    |
| Electrical data                               |                |   |       |       |       |       |       |       |        |        |        |        |
| Nominal Power Supply                          |                | 400V-3ph-50hz                                   |       |       |       |       |       |       |        |        |        |        |
| Control Power Supply                          |                | 24V via internal transformer                    |       |       |       |       |       |       |        |        |        |        |
| Starter                                       |                | VFD   |       |       |       |       |       |       |        |        |        |        |
| Fan and Control Power                         | kW             | 13.3  | 13.3  | 16.5  | 19.7  | 26.6  | 30.4  | 30.4  | 34.2   | 33.0   | 36.2   | 39.4   |
| Nominal unit current draw, Circuit A+B        | A              | 191   | 239   | 309   | 361   | 391   | 434   | 473   | 540    | 239    | 309    | 361    |
| Nominal unit current draw, Circuit C+D        | A              | -   | -     | -     | -     | -     | -     | -     | -      | 361    | 361    | 361    |
| Max unit current draw, Circuit A+B            | A              | 276   | 327   | 413   | 489   | 531   | 573   | 641   | 737    | 327    | 413    | 489    |
| Max unit current draw, Circuit C+D            | A              | -   | -     | -     | -     | -     | -     | -     | -      | 489    | 489    | 489    |
| Max Start-up current draw, Circuit A+B        | A              | 276   | 327   | 413   | 489   | 531   | 573   | 641   | 737    | 327    | 413    | 489    |
| Max Start-up current draw, Circuit C+D        | A              | -   | -     | -     | -     | -     | -     | -     | -      | 489    | 489    | 489    |
| Max Start-up Power                            | kW             | 198   | 232   | 294   | 348   | 342   | 369   | 413   | 475    | 580    | 643    | 697    |
| Unit Length                                   | mm             | 5454  | 5454  | 6648  | 7842  | 9118  | 10312 | 10312 | 11506  | 13296  | 14490  | 15684  |
| Unit Width                                    | mm             | 2253  |       |       |       |       |       |       |        |        |        |        |
| Unit Height                                   | mm             | 2297  |       |       |       |       |       |       |        |        |        |        |
| Shippment Weight( without hydronic kit)       | kg             | 5957  | 6126  | 7025  | 7370  | 9933  | 10410 | 10540 | 11705  | 13496  | 14395  | 14740  |
| Operation Weight( without hydronic kit)       | kg             | 5819  | 6027  | 6905  | 7267  | 9830  | 10300 | 10430 | 11560  | 13294  | 14172  | 14534  |

**Note:**

- 30XQVEC1250-1500 duplex design, Module1 (circuit A+B) and Module 2 (C+D) are shipped separately when ex-factory.
- Nominal cooling mode: Water heat exchanger entering/leaving temperature 12/7°C, outdoor air-bulb temperature: 35°C.
- Nominal heating mode: Nominal flow rate/leaving temperature -/45°C, outdoor air dry/wet-bulb temperature: 7/6°C.
- Water heat exchanger fouling factor 0.018 m<sup>2</sup>·K/kW.

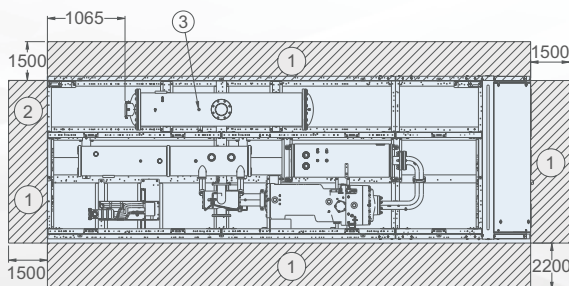
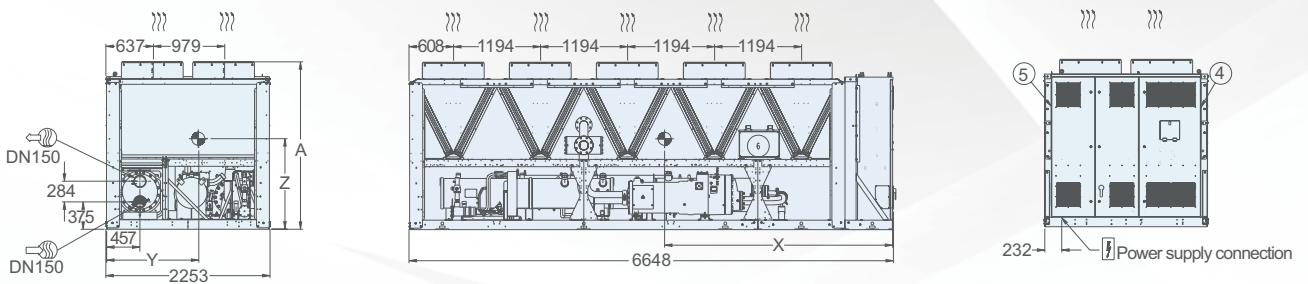


## 30XQVE/XQVEC0401&0501 drawing



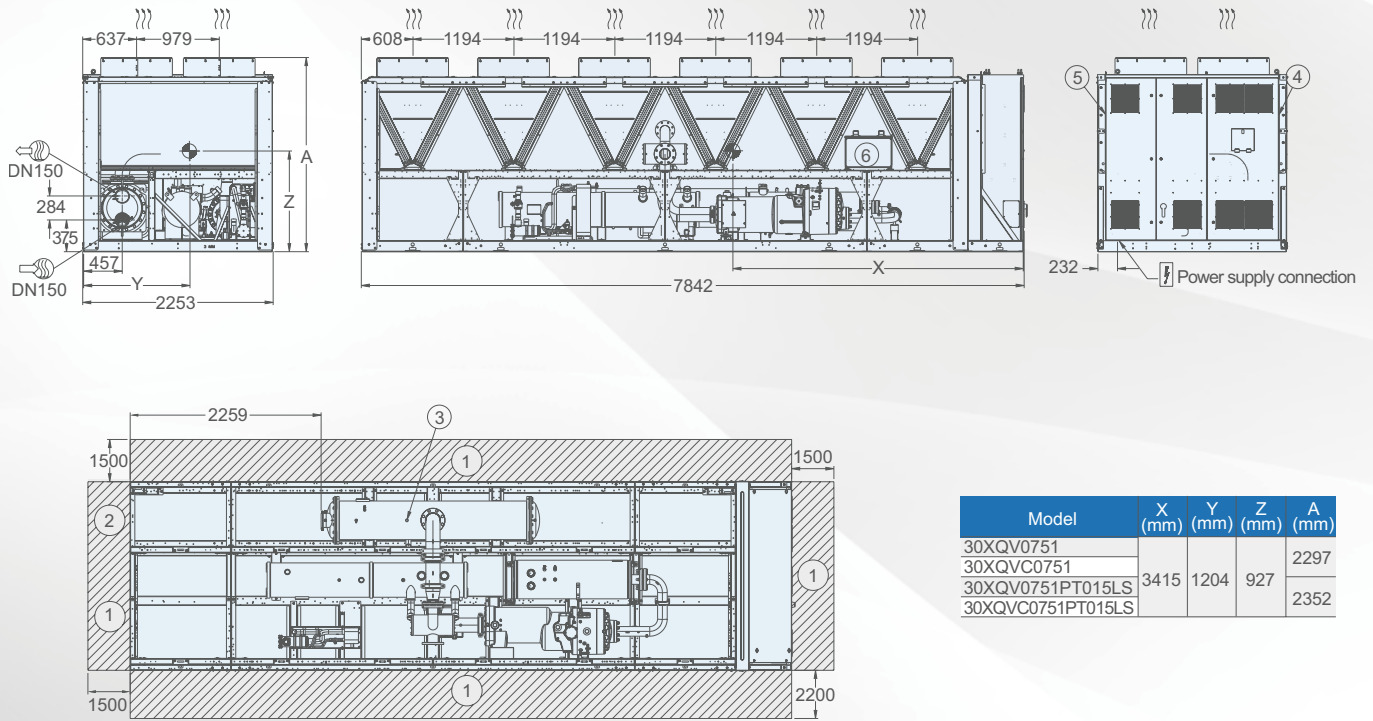
| Model             | X (mm) | Y (mm) | Z (mm) | A (mm) |
|-------------------|--------|--------|--------|--------|
| 30XQV0401         | 2566   | 1235   | 860    | 2297   |
| 30XQVC0401        |        |        |        |        |
| 30XQV0401PT015LS  |        |        |        |        |
| 30XQVC0401PT015LS |        |        |        |        |
| 30XQV0501         | 2566   | 1235   | 860    | 2297   |
| 30XQVC0501        |        |        |        |        |
| 30XQV0501PT015LS  |        |        |        |        |
| 30XQVC0501PT015LS |        |        |        |        |

## 30XQVE/XQVEC0621 drawing

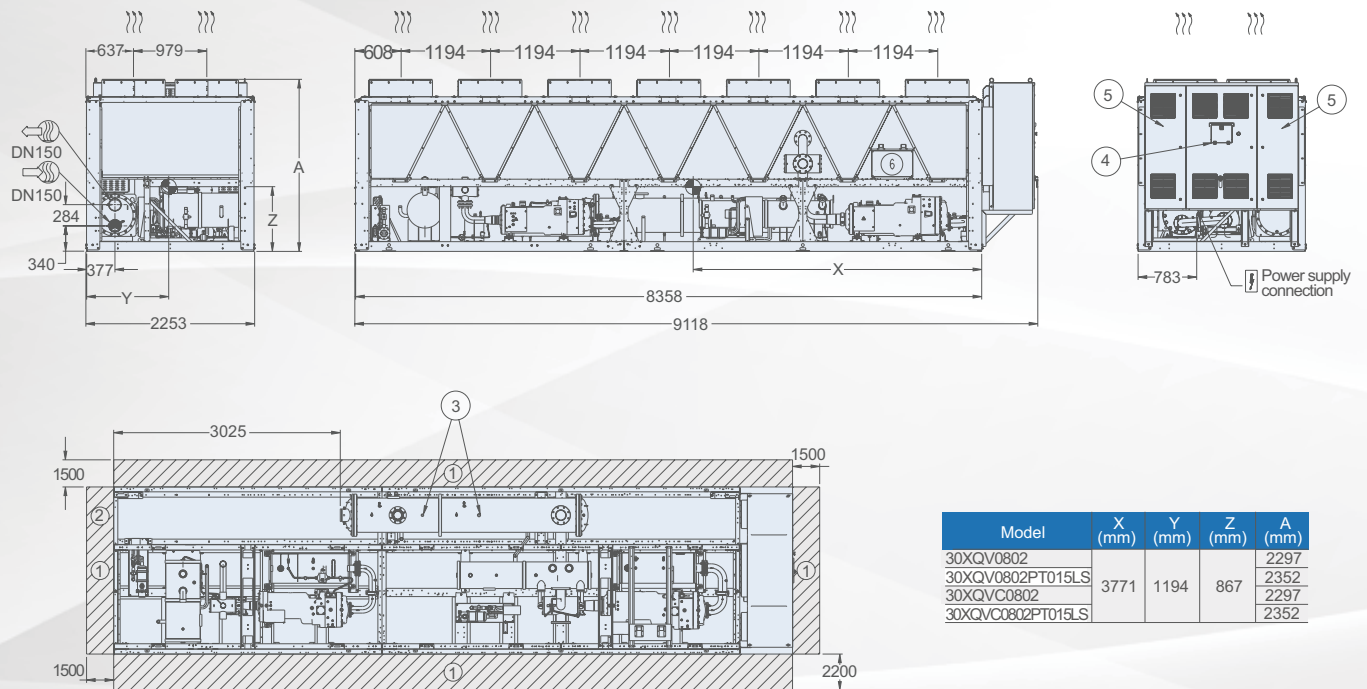


| Model             | X (mm) | Y (mm) | Z (mm) | A (mm) |
|-------------------|--------|--------|--------|--------|
| 30XQV0621         | 3129   | 1205   | 903    | 2297   |
| 30XQVC0621        |        |        |        |        |
| 30XQV0621PT015LS  |        |        |        |        |
| 30XQVC0621PT015LS |        |        |        |        |

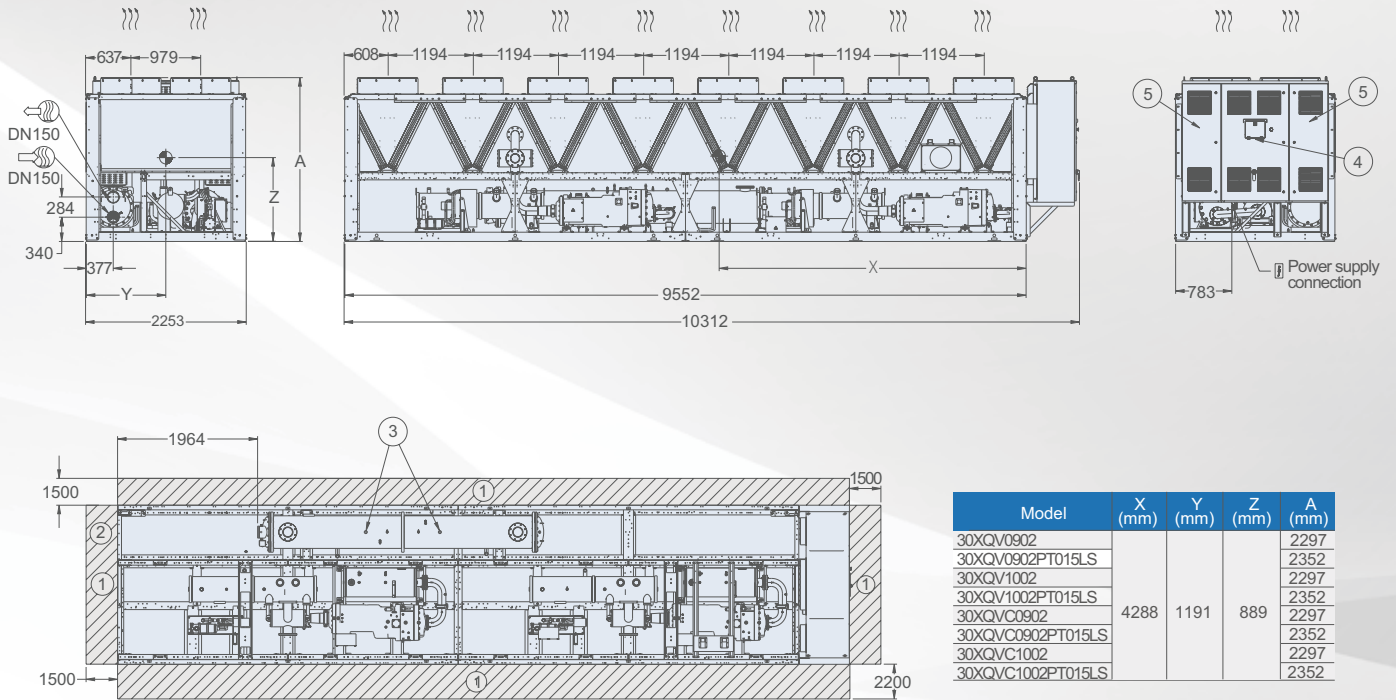
## 30XQVE/XQVEC0751 drawing



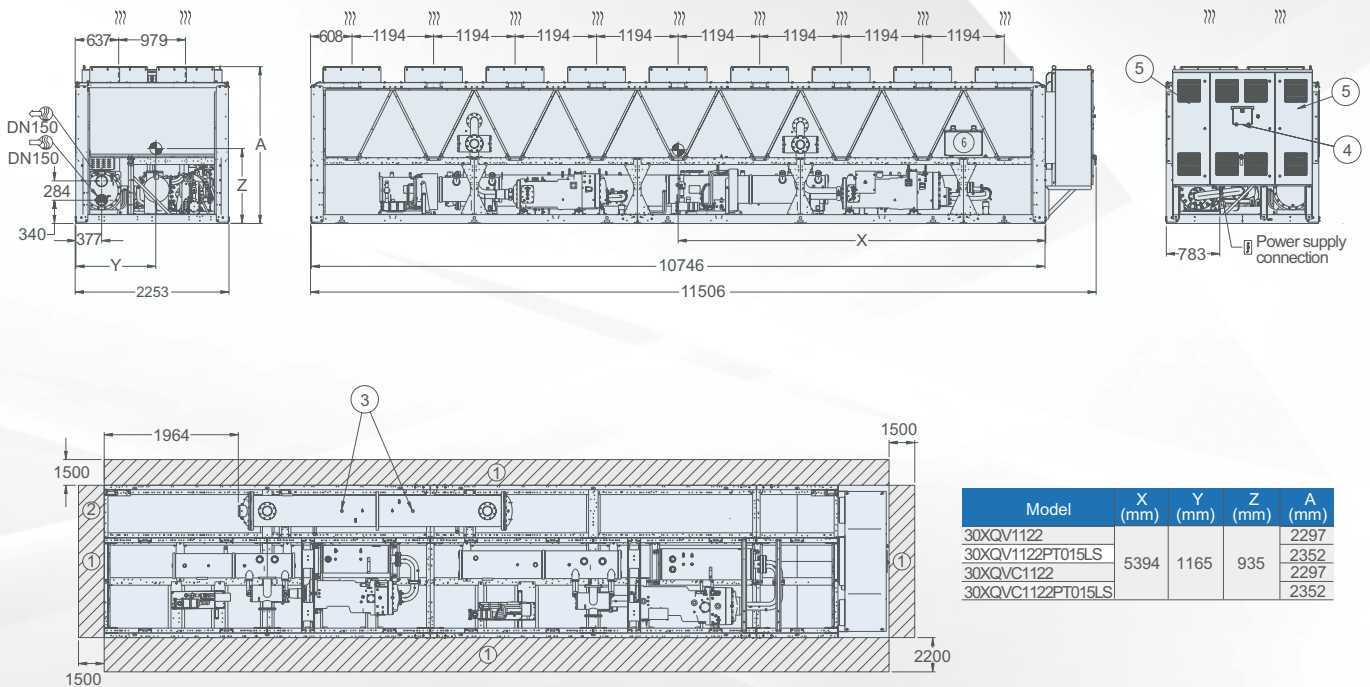
## 30XQVE/XQVEC0802 drawing



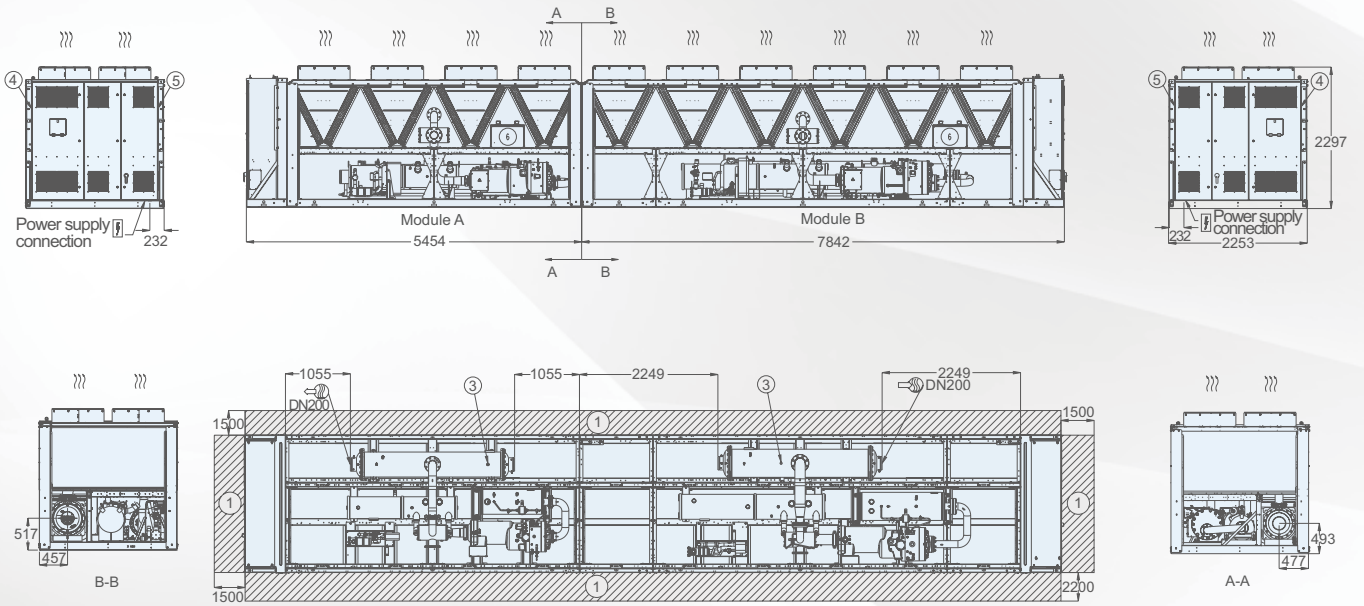
## 30XQVE/XQVEC0902-1002 drawing



## 30XQVE/XQVEC1122 drawing

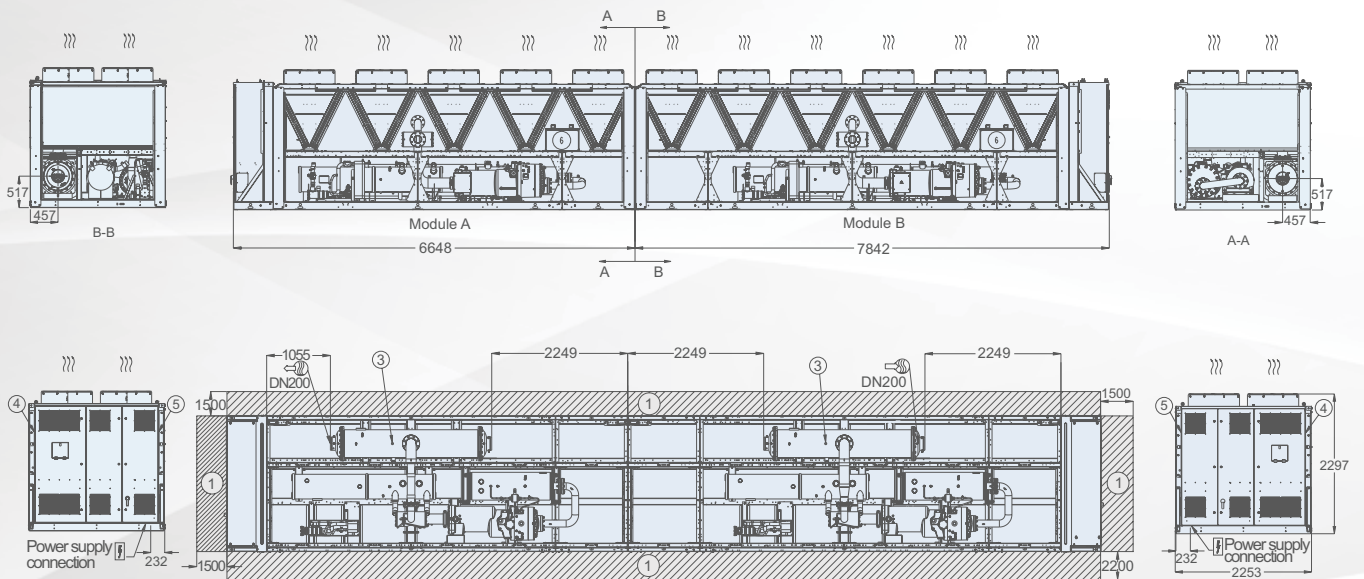


# 30XQVE/XQVEC1250 drawing



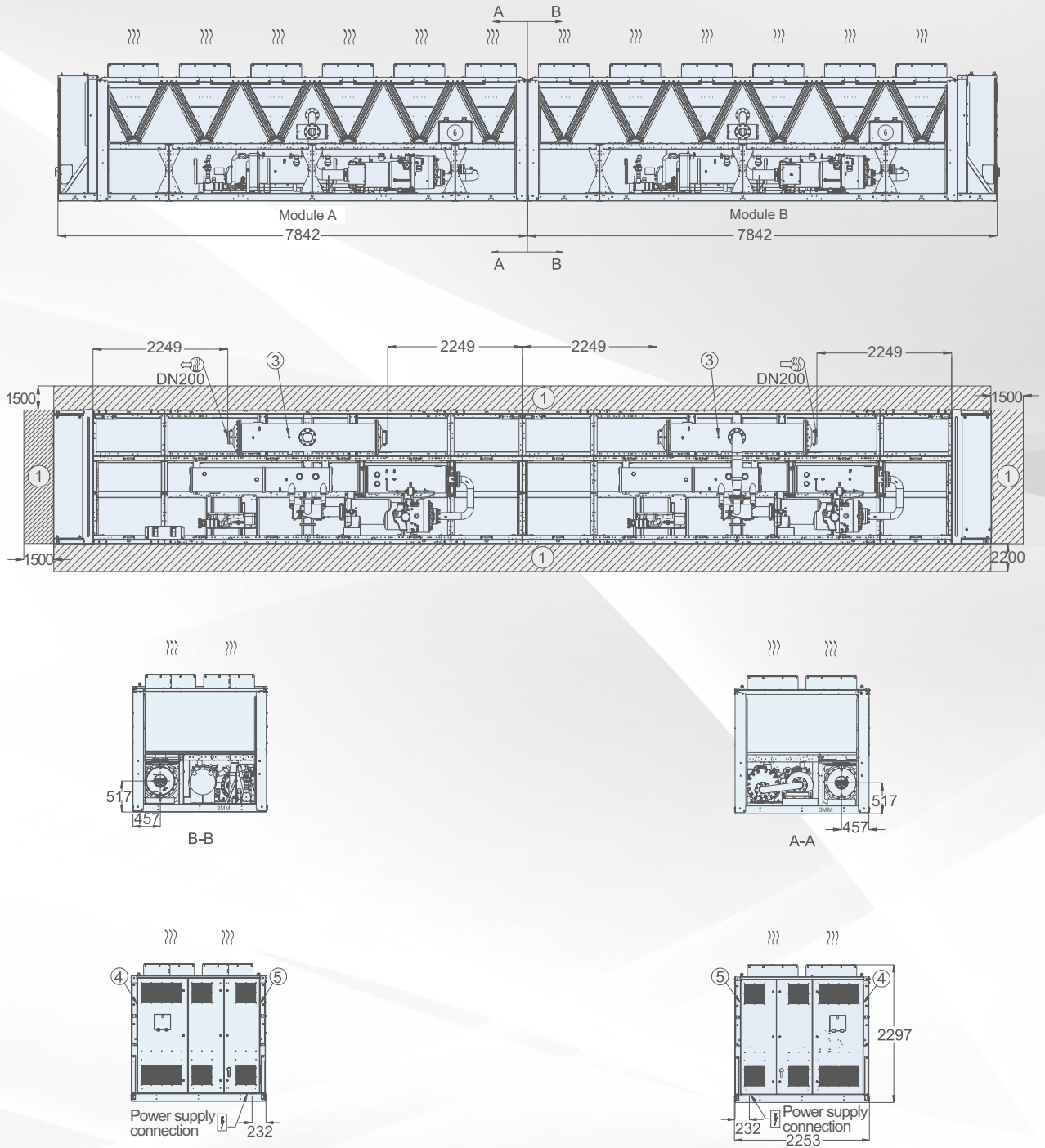
| Model      | Module A     | Module B     |
|------------|--------------|--------------|
| 30XQV1250  | 30XQV050101  | 30XQV075102  |
| 30XQVC1250 | 30XQVC050101 | 30XQVC075102 |

# 30XQVE/XQVEC1370 drawing



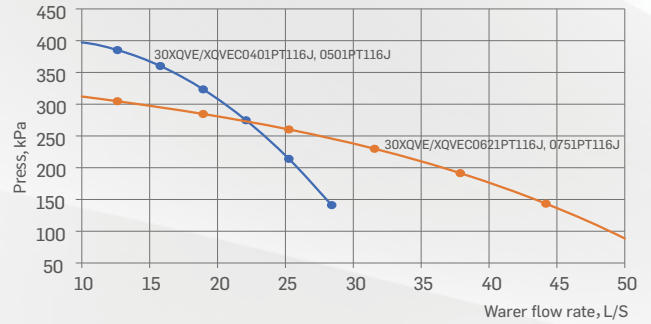
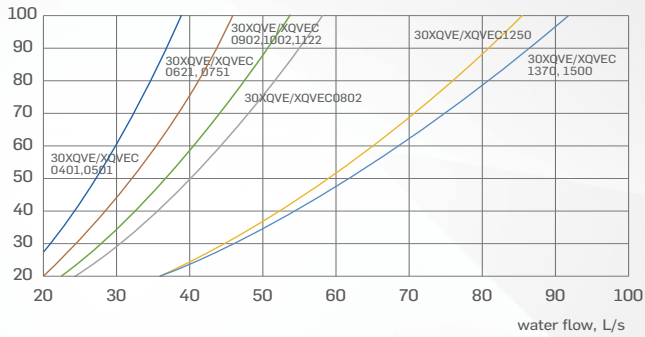
| Model      | Module A     | Module B     |
|------------|--------------|--------------|
| 30XQV1370  | 30XQV062101  | 30XQV075102  |
| 30XQVC1370 | 30XQVC062101 | 30XQVC075102 |

# 30XQVE/XQVEC1500 drawing

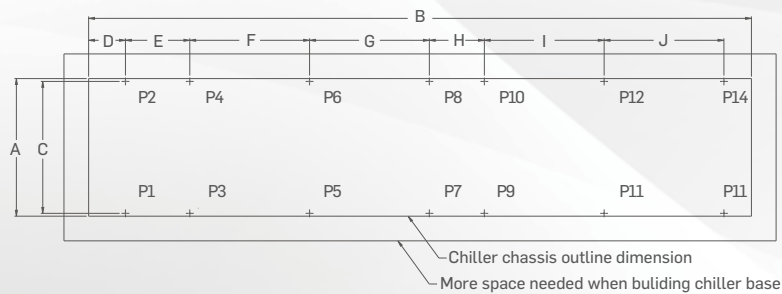


| Model      | Module A     | Module B     |
|------------|--------------|--------------|
| 30XQV1500  | 30XQV075101  | 30XQV075102  |
| 30XQVC1500 | 30XQVC075101 | 30XQVC075102 |

# Water Side heat exchanger pressure drop curve and pump curve (only for single circuit)

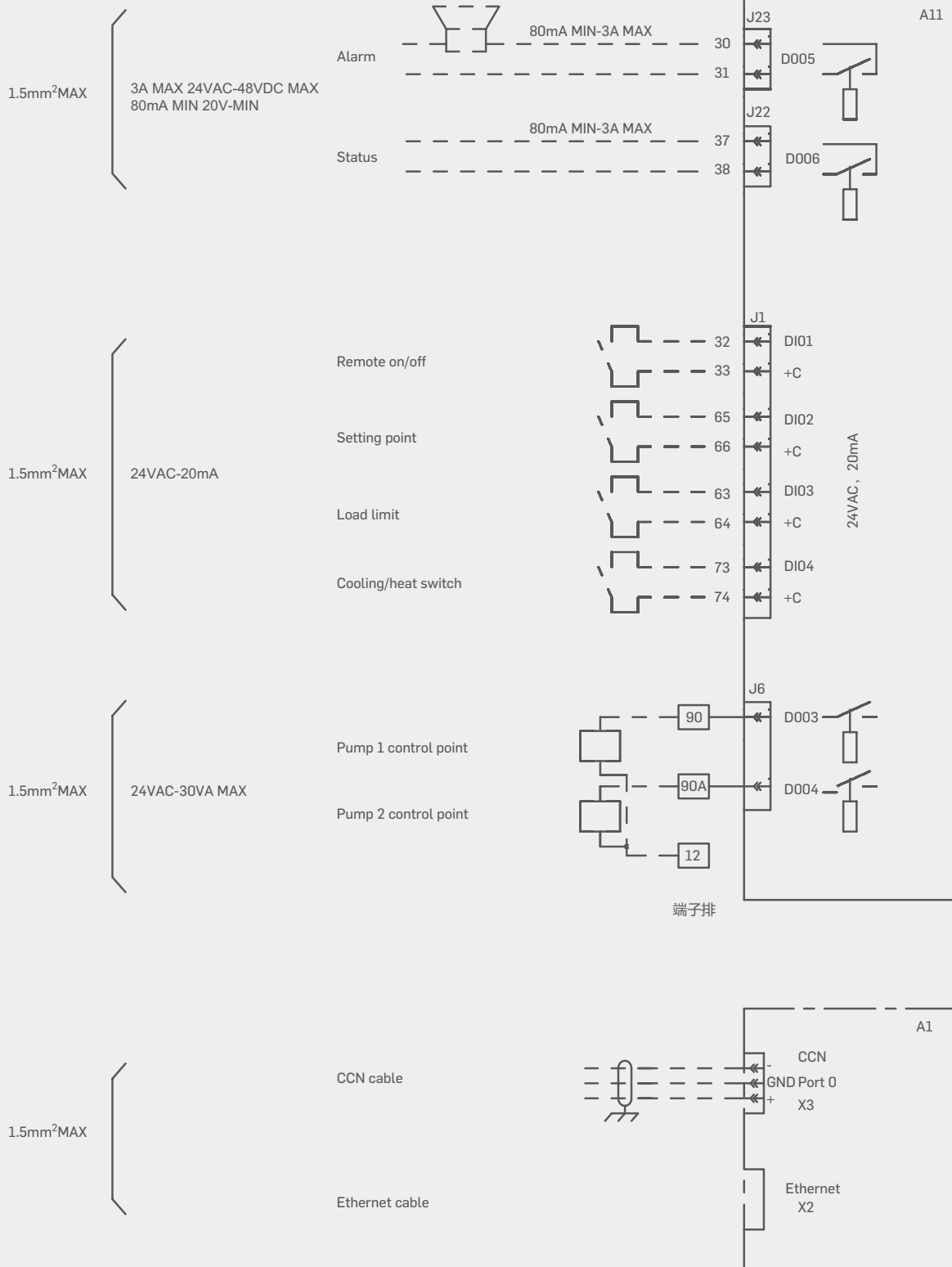


## 30XQVE weight distribution



| Model                     | Dimensions mm |       |      |     |      |      |      |      |      |      | Weight distribution kg |     |      |      |      |      |      |      |      |      |      |      |      |     | Operating weight kg |
|---------------------------|---------------|-------|------|-----|------|------|------|------|------|------|------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|-----|---------------------|
|                           | A             | B     | C    | D   | E    | F    | G    | H    | I    | J    | P1                     | P2  | P3   | P4   | P5   | P6   | P7   | P8   | P9   | P10  | P11  | P12  | P13  | P14 |                     |
| 30XQVE/XQVEC0401          | 2231          | 5432  | 2139 | 446 | 1942 | 1942 | 824  |      |      |      | 751                    | 600 | 794  | 634  | 836  | 668  | 854  | 682  |      |      |      |      |      |     | 5819                |
| 30XQVE/XQVEC0401PT015     | 2231          | 5432  | 2139 | 446 | 1942 | 1942 | 824  |      |      |      | 793                    | 634 | 837  | 669  | 881  | 704  | 900  | 719  |      |      |      |      |      |     | 6137                |
| 30XQVE/XQVEC0401PT116J    | 2231          | 6626  | 2139 | 597 | 1043 | 1942 | 1942 | 824  |      |      | 500                    | 453 | 556  | 503  | 660  | 597  | 763  | 690  | 807  | 730  |      |      |      |     | 6259                |
| 30XQVE/XQVEC0501          | 2231          | 5432  | 2139 | 446 | 1942 | 1942 | 824  |      |      |      | 783                    | 631 | 821  | 661  | 859  | 692  | 875  | 705  |      |      |      |      |      |     | 6027                |
| 30XQVE/XQVEC1250 Module A | 2231          | 5432  | 2139 | 278 | 824  | 1942 | 1942 |      |      |      | 696                    | 577 | 746  | 619  | 866  | 719  | 986  | 818  |      |      |      |      |      |     | 6027                |
| 30XQVE/XQVEC0501PT015     | 2231          | 5432  | 2139 | 446 | 1942 | 1942 | 824  |      |      |      | 825                    | 664 | 865  | 696  | 904  | 728  | 921  | 742  |      |      |      |      |      |     | 6345                |
| 30XQVE/XQVEC0501PT116J    | 2231          | 6626  | 2139 | 597 | 1043 | 1942 | 1942 | 824  |      |      | 521                    | 473 | 576  | 523  | 680  | 618  | 784  | 712  | 828  | 752  |      |      |      |     | 6467                |
| 30XQVE/XQVEC0621          | 2231          | 6626  | 2139 | 446 | 1942 | 1942 | 1043 | 975  |      |      | 696                    | 589 | 726  | 614  | 757  | 640  | 773  | 654  | 789  | 667  |      |      |      |     | 6905                |
| 30XQVE/XQVEC1370 Module A | 2231          | 6626  | 2139 | 278 | 824  | 1942 | 1942 | 1043 |      |      | 615                    | 551 | 648  | 581  | 727  | 651  | 805  | 721  | 847  | 759  |      |      |      |     | 6905                |
| 30XQVE/XQVEC0621PT015     | 2231          | 6626  | 2139 | 446 | 1942 | 1942 | 1043 | 975  |      |      | 736                    | 622 | 768  | 649  | 800  | 677  | 818  | 691  | 843  | 705  |      |      |      |     | 7309                |
| 30XQVE/XQVEC0621PT116J    | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 567                    | 543 | 590  | 565  | 633  | 606  | 675  | 648  | 698  | 670  | 720  | 690  |      |     | 7605                |
| 30XQVE/XQVEC0751          | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 558                    | 473 | 586  | 497  | 638  | 541  | 690  | 584  | 718  | 608  | 744  | 630  |      |     | 7267                |
| 30XQVE/XQVEC1250 Module B | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 558                    | 473 | 586  | 497  | 638  | 541  | 690  | 584  | 718  | 608  | 744  | 630  |      |     | 7267                |
| 30XQVE/XQVEC1370 Module B | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 558                    | 473 | 586  | 497  | 638  | 541  | 690  | 584  | 718  | 608  | 744  | 630  |      |     | 7267                |
| 30XQVE/XQVEC1500 Module B | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 558                    | 473 | 586  | 497  | 638  | 541  | 690  | 584  | 718  | 608  | 744  | 630  |      |     | 7267                |
| 30XQVE/XQVEC1500 Module A | 2231          | 7820  | 2139 | 278 | 975  | 1043 | 1942 | 1942 | 1043 |      | 502                    | 450 | 542  | 486  | 585  | 525  | 666  | 597  | 747  | 669  | 790  | 708  |      |     | 7267                |
| 30XQVE/XQVEC0751PT015     | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 589                    | 499 | 618  | 524  | 673  | 570  | 727  | 616  | 757  | 641  | 784  | 664  |      |     | 7662                |
| 30XQVE/XQVEC0751PT116J    | 2231          | 7820  | 2139 | 597 | 1043 | 1942 | 1942 | 1043 | 975  |      | 595                    | 572 | 613  | 589  | 646  | 621  | 680  | 653  | 698  | 670  | 714  | 686  |      |     | 7737                |
| 30XQVE/XQVEC0802          | 2231          | 8538  | 2139 | 446 | 1942 | 1942 | 892  | 2690 |      |      | 909                    | 785 | 993  | 857  | 1077 | 930  | 1116 | 963  | 1181 | 1019 |      |      |      |     | 9830                |
| 30XQVE/XQVEC0802PT015     | 2231          | 8538  | 2139 | 446 | 1942 | 1942 | 892  | 2690 |      |      | 1111                   | 959 | 1214 | 1048 | 1317 | 1137 | 1364 | 1177 | 1443 | 1246 |      |      |      |     | 12016               |
| 30XQVE/XQVEC0902          | 2231          | 9552  | 2139 | 446 | 1942 | 1942 | 892  | 1942 | 1942 |      | 815                    | 708 | 863  | 748  | 908  | 788  | 930  | 807  | 976  | 847  | 1022 | 888  |      |     | 10300               |
| 30XQVE/XQVEC0902PT015     | 2231          | 9552  | 2139 | 446 | 1942 | 1942 | 892  | 1942 | 1942 |      | 1002                   | 869 | 1059 | 919  | 1116 | 969  | 1142 | 991  | 1199 | 1041 | 1255 | 1090 |      |     | 12652               |
| 30XQVE/XQVEC1002          | 2231          | 9552  | 2139 | 446 | 1942 | 1942 | 892  | 1942 | 1942 |      | 826                    | 717 | 873  | 758  | 920  | 798  | 941  | 817  | 988  | 858  | 1035 | 899  |      |     | 10430               |
| 30XQVE/XQVEC1002PT015     | 2231          | 9552  | 2139 | 446 | 1942 | 1942 | 892  | 1942 | 1942 |      | 1052                   | 913 | 1112 | 965  | 1172 | 1017 | 1199 | 1041 | 1259 | 1093 | 1319 | 1146 |      |     | 13288               |
| 30XQVE/XQVEC1122          | 2231          | 10746 | 2139 | 597 | 1043 | 1942 | 1942 | 892  | 1942 | 1942 | 867                    | 791 | 866  | 789  | 865  | 789  | 864  | 787  | 863  | 787  | 862  | 786  | 861  | 783 | 11560               |
| 30XQVE/XQVEC1122PT015     | 2231          | 10746 | 2139 | 597 | 1043 | 1942 | 1942 | 892  | 1942 | 1942 | 1050                   | 958 | 1049 | 956  | 1048 | 955  | 1046 | 953  | 1045 | 953  | 1044 | 952  | 1042 | 950 | 14001               |

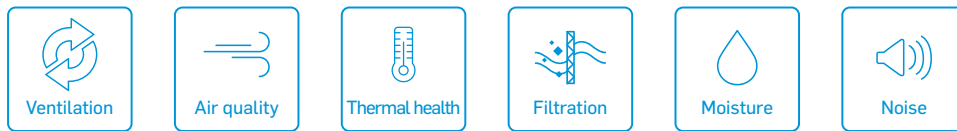
# Jobsite electric drawing



# HEALTHY BUILDINGS

As the inventors of modern air conditioning and a world leader in HVAC, refrigeration, and fire and security, solutions, Carrier has a legacy of creating safe and comfortable buildings. Our Healthy Buildings Program builds on that legacy through in-depth expertise and a holistic suite of healthy building technologies and services .to address the immediate pandemic concerns and long into the future.

**6 of 9 foundations of healthy building are related closely to air conditioning system.**



Primary support for the study came from Carrier.

MacNaughton P, Allen J, Satish U, Laurent J, Flanigan S, Vallarino J, Coull B, Spengler. 2016. The Impact of Working in a Green Certified Building on Cognitive Function and Health. Building and Environment DOI: 10.1016/j.buildenv.2016.11.041



[www.carrier.com](http://www.carrier.com)