



BLUE STAR



# Refrigeration Systems

## Semi-hermetic Series

(Super Tropicalised)

Packaged for  
power-packed Performance



Blue Star, India's leading refrigeration solutions provider, offers you a wide range of refrigeration units to suit different business needs.

Processed food industry segments like poultry, marine and meat processing require heavy-duty operations, while the ice-cream industry is growing by leaps and bounds and needs large storages at production and distribution points. To tackle these critical temperature requirements, Blue Star brings to you a fully-packaged semi-hermetic refrigeration system.

In all these applications, we understand what you need to succeed: reliability and the assurance of holding temperature maintained within critical limits. These are possible only through well-packaged, well-engineered refrigeration systems with reliable components.

Blue Star's range of condensing units is designed using world-class technology and components. It is created to function efficiently even at high ambient temperatures, assuring you of trouble-free temperature management even during peak summer time. What's more, the range is available in both air cooled and water cooled options to suit different needs.

The new range of air cooled condensing units is robust in construction and uses world-class and highly reliable components. It is designed to enable quick and easy installation.

These units use semi-hermetic reciprocating compressors that offer significantly higher cooling capacity, reliability and flexibility than market standards. They also come with factory-fitted components and are extensively tested for reliability. So you are assured of qualitative system balancing under controlled conditions, which ensures delivery of committed capacities.





## SALIENT FEATURES

- **Air Cooled Condenser**

Tropicalised high ambient air cooled tube and fin condenser, with internally grooved copper tubes, results in increase of heat transfer surface area for better heat transfer. And thus increases the efficiency of the refrigeration system.

- **Condenser Fans**

High quality and reliable axial fans ensure uniform airflow across the heat exchanger, increase COP of the compressor and reduce power consumption. The motor of the condenser fans is equipped with an HP switch to ensure optimum condensing pressure and temperature.

- **Weather-proof Housing**

The condensing unit is mounted on a sturdy base frame and provided with a powder-coated and corrosion-resistant casing.





# WATER COOLED CONDENSING UNITS



Blue Star's water cooled condensing units include a semi-hermetic compressor, water cooled condenser with safety valve connection, service valves, a base frame and vibration absorber installed on the discharge line, in some models. They are of high-efficiency design with spacious dimensions. At the same time, they are compact and generally consume less power. Their shell and tube sheet is made of carbon steel, and the tubes are of copper with integrally finned thick walls.

Water cooled units are generally preferred for cold rooms in hotels and the processed food segment, for reasons of availability of treated water. It is convenient to locate water cooled condensing units even in places without adequate ventilation for condensation.

Water cooled units are capable of delivering consistent performance irrespective of variations in ambient conditions. Moreover, the water side connections allow supply of both mains water and cooling tower water.

## • Shell and Tube Condenser

Water cooled condensers come with internally grooved and externally finned tubes which increase heat transfer area, which in turn needs less refrigerant charge. They are also compact and lightweight. What's more, the circular end covers result in higher flow rate of water and refrigerant inside the Shell and Tube condenser. This increases COP of the compressor and lowers power consumption.



## • Base Frame

Sturdy and robust, the base frame is CNC punched, CNC bent and 4 mm thick with hexagon rivet nuts. This ensures no rusting and a longer product life.

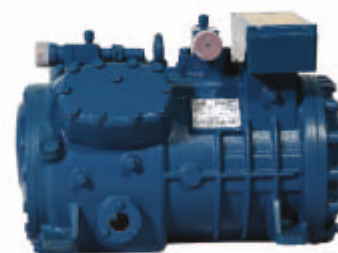
## SALIENT FEATURES



# COMMON FEATURES

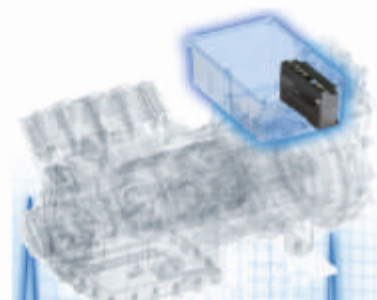
## • Semi-hermetic Compressor

The semi-hermetic compressor is compact, economical, efficient and very easy to maintain. Its removable heads, stator cover, bottom plate and housing cover allow easy access for field repairs. What's more, the compressor is fitted with suction and discharge service valves and is also provided with a crank case heater.



## • Diagnostic Black Box\*

This compressor also comes with a diagnostic black box which ensures constant monitoring and fast diagnosis. It can be connected to a computer, via USB, to identify the cause of malfunction.



## • Oil Separator

The oil separator allows longer piping distances and enhances system reliability and uptime. It comes with GOMAX-make hose assembly (for oil return line).

\*Available with Q-Series, S-Series and V-Series compressor models only.





### • Liquid Receiver

Good quality liquid receiver (with Rotalock valve) ensures constant flow of refrigerant to the thermostatic expansion valve and thus increases system reliability.

### • GOMAX Flexible Tubes

These tubes eliminate any leakage of the refrigerant during operation and transportation. This improves the life of the product and enhances aesthetics.

### • Vibration Eliminators in the Discharge Line

This is a highly beneficial feature, as it reduces vibration during operation, thereby reducing any chance of leakage of the refrigerant.

### • Sturdy HP/LP Mounting Bracket

3 mm thick and galvanised, the robust bracket is ideal for mounting an HP/LP switch. This helps minimise variations of the pointer, ensuring accurate readings.

### • Brazing

The use of 42% silver brazing rods ensures better protection of joints, pipes, components or controls and minimises refrigerant leakage.

### • Refrigeration Controls

The condensing unit is fitted with HP/LP switches with GOMAX-make hose assembly Filter drier, Sight Glass and Liquid Line Solenoidal valve. While its components are from internationally reputed manufacturers.





## Evaporating Units

Blue Star's evaporators are compact and sleek. The evaporator is housed within the cold storage and occupies minimum space. This allows you to utilise the maximum volume of cold storage.

### Features:



Stainless steel body (SS304) for enhanced durability and strength



Improved air throw for uniform air distribution



Excellent corrosion resistance



External rotor driven fans have low noise levels and conform to IP45 standards



Inner grooved copper tubes for superior heat transfer



Removable side panels for easy service and minimum downtime



4 FPI coil for low temperature units



Defrost heaters within the coil to ensure total defrost



# TECHNICAL SPECIFICATIONS



## Air Cooled - High Temperature

### Outdoor Unit\*\*

High Temperature Semi-hermetic Air cooled Refrigeration System with R404A Refrigerant  
Cooling Capacities @ +4°C Room Temperature & 35°C Ambient Temperature

| Description                       | Units       | RUAHOSH<br>-01014-A106         | RUAHOSH<br>-01514-A157         | RUAHOSH<br>-02014-D211         | RUAHOSH<br>-03014-D313         | RUAHOSH<br>-04014-Q521         | RUAHOSH<br>-06014-Q728         | RUAHOSH<br>-08014-S1242        |
|-----------------------------------|-------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Nominal Capacity                  | Btu/hr      | 10000                          | 15000                          | 20000                          | 30000                          | 40000                          | 60000                          | 80000                          |
| Compressor Type                   | -           | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating |
| Power Supply                      | V / Ph / Hz | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   |
| Fan Motors                        | No.         | 2                              | 2                              | 2                              | 2                              | 2                              | 2                              | 2                              |
| Compressor Qty.                   | No.         | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              |
| No. of Chassis                    | No.         | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              |
| Overall Dimensions<br>(W x D x H) | mm          | 987 x 700 x 506                | 987 x 700 x 506                | 1060 x 760 x 575               | 1420 x 760 x 689               | 1420 x 760 x 689               | 1570 x 830 x 864               | 1570 x 830 x 864               |
| Weight / Unit<br>(Approx.)        | kg          | 94                             | 94                             | 117                            | 121                            | 164                            | 203                            | 246                            |
| Gas Charged                       | -           | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               |

### Indoor Unit\*\*

| Blue Star Indoor Unit             |         | Cooling Capacities @ +4°C Room Temperature & 35°C Ambient Temperature |                  |                  |                  |                  |                  |                  |
|-----------------------------------|---------|-----------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Description / Model               | Units   | RUAHI-1014                                                            | RUAHI-1514       | RUAHI-2014       | RUAHI-3014-N     | RUAHI-4014-N     | RUAHI-6014-N     | RUAHI-8014-N     |
| Nominal Capacity                  | Btu/hr  | 10,000                                                                | 15,000           | 20,000           | 30,000           | 40,000           | 60,000           | 80,000           |
| Power Supply                      | V/Ph/Hz | 230/1/50                                                              | 230/1/50         | 230/1/50         | 230/1/50         | 230/1/50         | 415/3/50         | 415/3/50         |
| Airflow                           | CFM     | 1,600                                                                 | 2,400            | 3,200            | 4,500            | 5,200            | 12,000           | 11,700           |
| Air Throw                         | Feet    | 12                                                                    | 12               | 12               | 25               | 40               | 45               | 45               |
| No. of Circuits                   | Nos.    | 1                                                                     | 1                | 1                | 1                | 1                | 1                | 1                |
| Overall Dimensions<br>(W x D x H) | mm      | 1245 x 480 x 450                                                      | 1780 x 480 x 450 | 2210 x 480 x 450 | 1710 x 645 x 720 | 1710 x 645 x 720 | 2140 x 840 x 925 | 2140 x 840 x 925 |
| Dry Weight                        | kgs     | 25                                                                    | 35               | 45               | 72               | 82               | 140              | 150              |

## Air Cooled - Low Temperature

### Outdoor Unit\*\*

**Low Temperature Semi-hermetic Air cooled Refrigeration System with R404A Refrigerant**  
**Cooling Capacities @ -23°C Room Temperature & 35°C Ambient Temperature**

| Description                         | Units   | RUALOSH<br>-00614-B210      | RUALOSH<br>-00914-D213      | RUALOSH<br>-01214-D318      | RUALOSH<br>-01814-Q528      | RUALOSH<br>-02414-Q736      | RUALOSH<br>-03014-S842      | RUALOSH<br>04014-S1556      | RUALOSH<br>05014-V1571      | RUALOSH<br>05514-V2084      |
|-------------------------------------|---------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Nominal Capacity                    | Btu/hr  | 6000                        | 9000                        | 12000                       | 18000                       | 24000                       | 30000                       | 40000                       | 50000                       | 55000                       |
| Compressor Type                     | -       | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating | Semi-hermetic Reciprocating |
| Power Supply                        | V/PH/Hz | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                | 400 / 3 / 50                |
| Fan Motors                          | No.     | 2                           | 2                           | 2                           | 2                           | 2                           | 2                           | 2                           | 2                           | 4                           |
| Compressor Quantity                 | No.     | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           |
| No. of Chassis                      | No.     | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           | 1                           |
| Overall Dimensions (W x D x H)      | mm      | 987 x 700 x 506             | 1060 x 760 x 575            | 1060 x 760 x 575            | 1420 x 760 x 689            | 1570 x 830 x 864            | 1570 x 830 x 864            | 1570 x 830 x 864            | 1570 x 940 x 890            | 1420 x 950 x 1315           |
| Weight /Unit <sup>5</sup> (Approx.) | kg      | 98                          | 117                         | 121                         | 164                         | 203                         | 241                         | 256                         | 290                         | 320                         |
| Gas Charged                         | -       | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            | Nitrogen Charged            |

<sup>5</sup>Without Housing.

### Indoor Unit\*\*

#### Blue Star Indoor Unit

**Cooling Capacities @ -23°C Room Temperature & 35°C Ambient Temperature**

| Description / Model        | Units   | RUAL00614-I-N    | RUAL00914-I-N    | RUAL01214-I-N    | RUAL01814-I-N    | RUAL02414-I-N    |
|----------------------------|---------|------------------|------------------|------------------|------------------|------------------|
| Nominal Capacity           | Btu/Hr  | 6,000            | 9,000            | 12,000           | 18,000           | 24,000           |
| Power Supply               | V/Ph/Hz | 415/3/50         | 415/3/50         | 415/3/50         | 415/3/50         | 415/3/50         |
| Airflow                    | CFM     | 1600             | 2400             | 3200             | 5500             | 11700            |
| Air Trow                   | feet    | 12               | 12               | 12               | 40               | 45               |
| Overall Dimensions (WxDxH) | mm      | 1250 x 480 x 440 | 1780 x 480 x 440 | 2210 x 480 x 440 | 1710 x 645 x 720 | 2140 x 840 x 925 |
| Dry Weight                 | kgs     | 37               | 45               | 58               | 89               | 135              |



# Water Cooled - Low Temperature

## Outdoor Unit\*\*

Low Temperature Semi-hermetic Water cooled Refrigeration System with R404A Refrigerant  
Cooling Capacities @ -23°C Room Temperature & 40°C Condensing Temperature

| Description                    | Units   | RUWLOSH<br>-00614-B159         | RUWLOSH<br>-00914-D213         | RUWLOSH<br>-01214-D318         | RUWLOSH<br>-01814-Q525         | RUWLOSH<br>-02414-Q533         | RUWLOSH<br>-03014-S842         | RUWLOSH<br>-04014-S2056        | RUWLOSH<br>-05014-V1571        |
|--------------------------------|---------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Nominal Capacity               | Btu/hr  | 6000                           | 9000                           | 12000                          | 18000                          | 24000                          | 30000                          | 40000                          | 50000                          |
| Compressor Type                | -       | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating |
| Power Supply                   | V/Ph/Hz | 415/3/50                       | 415/3/50                       | 415/3/50                       | 415/3/50                       | 415/3/50                       | 415/3/50                       | 415/3/50                       | 415/3/50                       |
| Compressor Qty.                | No.     | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              |
| No. of Chassis                 | No.     | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              |
| Overall Dimensions (W x D x H) | mm      | 950 x 500 x 650                | 950 x 500 x 650                | 950 x 500 x 675                | 950 x 500 x 700                | 1200 x 550 x 725               | 1200 x 550 x 800               | 1510 x 650 x 825               | 1510 x 700 x 900               |
| Weight / Unit (Approx.)        | kg      | 105                            | 112                            | 137                            | 170                            | 175                            | 215                            | 285                            | 315                            |
| Gas Charged                    | -       | Nitrogen<br>Charged            | Nitrogen<br>Charged            | Nitrogen<br>Charged            | Nitrogen<br>Charged            | Nitrogen<br>Charged            | Nitrogen<br>Charged            | Nitrogen<br>Charged            | Nitrogen<br>Charged            |

## Indoor Unit\*\*

Blue Star Indoor Unit  
Cooling Capacities @ -23°C Room Temperature & 35°C Ambient Temperature

| Description / Model        | Units   | RUAL00614-I-N    | RUAL00914-I-N    | RUAL01214-I-N    | RUAL01814-I-N    | RUAL02414-I-N    |
|----------------------------|---------|------------------|------------------|------------------|------------------|------------------|
| Nominal Capacity           | Btu/Hr  | 6,000            | 9,000            | 12,000           | 18,000           | 24,000           |
| Power Supply               | V/Ph/Hz | 415/3/50         | 415/3/50         | 415/3/50         | 415/3/50         | 415/3/50         |
| Airflow                    | CFM     | 1600             | 2400             | 3200             | 5500             | 11700            |
| Air Trow                   | feet    | 12               | 12               | 12               | 40               | 45               |
| Overall Dimensions (WxDxH) | mm      | 1250 x 480 x 440 | 1780 x 480 x 440 | 2210 x 480 x 440 | 1710 x 645 x 720 | 2140 x 840 x 925 |
| Dry Weight                 | kgs     | 37               | 45               | 58               | 89               | 135              |

## Water Cooled - High Temperature

### Outdoor Unit\*\*

| High Temperature Semi-hermetic Water cooled Refrigeration System with R404A Refrigerant |             |                                |                                |                                |                                |                                |                                |                                |
|-----------------------------------------------------------------------------------------|-------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Cooling Capacities @ +4 °C Room Temperature & 40°C Condensing Temperature               |             |                                |                                |                                |                                |                                |                                |                                |
| Description                                                                             | Units       | RUWHOSH<br>-01014-A075         | RUWHOSH<br>-01514-A157         | RUWHOSH<br>-02014-B159         | RUWHOSH<br>-03014-D313         | RUWHOSH<br>-04014-D416         | RUWHOSH<br>-06014-Q728         | RUWHOSH<br>-08014-Q733         |
| Nominal Capacity                                                                        | Btu/hr      | 10000                          | 15000                          | 20000                          | 30000                          | 40000                          | 60000                          | 80000                          |
| Compressor Type                                                                         | -           | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating | Semi-hermetic<br>Reciprocating |
| Power Supply                                                                            | V / Ph / Hz | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   | 400 / 3 / 50                   |
| Compressor Qty.                                                                         | No.         | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              |
| No. of Chassis                                                                          | No.         | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              | 1                              |
| Overall Dimensions<br>(W x D x H)                                                       | mm          | 950 x 450 x 600                | 950 x 500 x 620                | 950 x 500 x 650                | 950 x 500 x 675                | 950 x 500 x 675                | 1200 x 550 x 725               | 1200 x 550 x 750               |
| Weight / Unit<br>(Approx.)                                                              | kg          | 100                            | 105                            | 105                            | 137                            | 142                            | 175                            | 180                            |
| Gas Charged                                                                             | -           | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               | Nitrogen Charged               |

### Indoor Unit\*\*

| Blue Star Indoor Unit             |         | Cooling Capacities @ +4°C Room Temperature & 35°C Ambient Temperature |                  |                  |                  |                  |                  |                  |
|-----------------------------------|---------|-----------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Description / Model               | Units   | RUAHI-1014                                                            | RUAHI-1514       | RUAHI-2014       | RUAHI-3014-N     | RUAHI-4014-N     | RUAHI-6014-N     | RUAHI-8014-N     |
| Nominal Capacity                  | Btu/hr  | 10,000                                                                | 15,000           | 20,000           | 30,000           | 40,000           | 60,000           | 80,000           |
| Power Supply                      | V/Ph/Hz | 230/1/50                                                              | 230/1/50         | 230/1/50         | 230/1/50         | 230/1/50         | 415/3/50         | 415/3/50         |
| Airflow                           | CFM     | 1,600                                                                 | 2,400            | 3,200            | 4,500            | 5,200            | 12,000           | 11,700           |
| Air Throw                         | Feet    | 12                                                                    | 12               | 12               | 25               | 40               | 45               | 45               |
| No. of Circuits                   | Nos.    | 1                                                                     | 1                | 1                | 1                | 1                | 1                | 1                |
| Overall Dimensions<br>(W x D x H) | mm      | 1245 x 480 x 450                                                      | 1780 x 480 x 450 | 2210 x 480 x 450 | 1710 x 645 x 720 | 1710 x 645 x 720 | 2140 x 840 x 925 | 2140 x 840 x 925 |
| Dry Weight                        | kgs     | 25                                                                    | 35               | 45               | 72               | 82               | 140              | 150              |

\*\*NOTE: Capacity rating based on Standard: EN13215.  
Capacity tolerance as per standard norms.

\*\*NOTE: Specifications are subject to change without prior notice.  
Refrigeration capacity based on standard rated conditions.



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or SMS 'COOL' to 57575



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Blue Star products comply with RoHS regulations as per E-Waste (Management & Handling) Rules, 2016. For disposal of E Waste, kindly visit our website [www.bluestarindia.com](http://www.bluestarindia.com) or call our customer care 1800 209 1177 (Toll Free) or 1860 266 6666.