

# Blast Freezer Systems

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## TECHNICAL SPECIFICATIONS

- It is manufactured with semi-hermetic or screw type compressor and air cooled condenser.
- It has remote control panel.
- It has robust housing according to ambient conditions.
- It is delivered with positive pressure by pumping nitrogen to outside unit.
- All equipments are delivered together with control instruments as being ready to assembly
- It has electrostatic painted galvanized steel cabinet.
- It produces with high efficiency evaporator design according to unit capacity.
- It can be manufactured with ceiling type or ground type evaporator design.

## Equipments in units

- \* It can differ according to unit model
- Phase protection relay(High/Low)
- Thermal / Magnetic circuit breaker
- Contactor (in three-phase models)
- Crankcase heater
- Copper tube aluminium fin condenser
- Liquid receiver, Liquid flow control solenoid
- Dryer
- Sight glass
- Service / Maintenance valve (on the liquid line)
- Pressure switch (Low / High)
- Gas charge valve
- Check valve
- Oil filter, Oil separator, Oil tank, Oil regulator
- Inverter
- Electronic fan speed controller (in frost series)series)



# BLAST FREEZER SERIES

## SEMI HERMETIC R404A

(Evap.Temperature -40°C, Cond.Temperature +40°C)

| Type          | Watt Q | HP P  | KW TP | C.O.P | Comp. Type        | Capacity kg / 24h | Floor Type Evap.  | Ceiling Type Evap. |
|---------------|--------|-------|-------|-------|-------------------|-------------------|-------------------|--------------------|
| OR/FS-450 SZ  | 4.960  | 5,31  | 3,96  | 1,25  | S4T-5.2Y BITZER   | 750               | ORBF 50.21.12     | ORBF-T 63.11.12    |
| OR/FS-500 SZ  | 7.060  | 7,57  | 5,65  | 1,25  | S4N-8.2Y BITZER   | 1.000             | ORBF 50.22.12     | ORBF-T 63.12.12    |
| OR/FS-550 SZ  | 11.330 | 11,38 | 8,49  | 1,33  | S4G-12.2Y BITZER  | 1.500             | ORBF 50.23.12     | ORBF-T 63.21.12    |
| OR/FS-665 SZ  | 16.100 | 15,95 | 11,90 | 1,35  | S6J-16.2Y BITZER  | 2.500             | ORBF 50.42.12     | ORBF-T 63.22.12    |
| OR/FS-675 SZ  | 18.600 | 18,48 | 13,79 | 1,35  | S6H-20.2Y BITZER  | 3.000             | ORBF 63.23.12     | ORBF-T 63.23.12    |
| OR/FS-785 SZ  | 21.300 | 21,24 | 15,85 | 1,34  | S6G-25.2Y BITZER  | 3.500             | ORBF 50.43.12     | ORBF-T 63.32.12    |
| OR/FS-899 SZ  | 25.300 | 25,41 | 18,96 | 1,33  | S6F-30.2Y BITZER  | 4.000             | ORBF 63.41.12(S)  | ORBF-T 63.33.12    |
| OR/FS-1620 SZ | 22.200 | 26,00 | 19,40 | 1,14  | HGZX 7/1620-4 GEA | 3.500             | ORBF 50.43.12     | ORBF-T 63.32.12    |
| OR/FS-1860 SZ | 25.500 | 29,75 | 22,20 | 1,15  | HGZX 7/1860-4 GEA | 4.000             | ORBF 63.41.12 (S) | ORBF-T 63.33.12    |
| OR/FS-2110 SZ | 29.000 | 33,90 | 25,30 | 1,15  | HGZX 7/2110-4 GEA | 5.500             | ORBF 63.42.12     | ORBF-T 63.33.12    |
| OR/FS-575 SZ  | 13.240 | 14,97 | 11,17 | 1,19  | 2S-H1500 DORIN    | 1.750             | ORBF 63.22.12     | ORBF-T 63.22.12    |
| OR/FS-675 SZ  | 18.970 | 21,39 | 15,96 | 1,19  | 2S-H2000 DORIN    | 3.000             | ORBF 63.23.12     | ORBF-T 63.23.12    |
| OR/FS-785 SZ  | 20.460 | 22,15 | 16,53 | 1,24  | 2S-H2500 DORIN    | 3.500             | ORBF 50.43.12     | ORBF-T 63.32.12    |
| OR/FS-899 SZ  | 23.970 | 25,98 | 19,39 | 1,24  | 2S-H3000 DORIN    | 4.000             | ORBF 63.41.12 (S) | ORBF-T 63.33.12    |
| OR/FS-2110 SZ | 26.970 | 28,62 | 21,36 | 1,26  | 2S-H4000 DORIN    | 5.500             | ORBF 63.42.12     | ORBF-T 63.33.12    |
| OR/FS-5000 SZ | 32.680 | 31,18 | 23,27 | 1,40  | 2S-H5000 DORIN    | 6.000             | ORBF 63.42.12     | ORBF-T 63.42.12    |
| OR/FS-6000 SZ | 37.640 | 38,51 | 28,74 | 1,31  | 2S-H6000 DORIN    | 7.000             | ORBF 63.43.12     | ORBF-T 63.43.12    |
| OR/FS-6500 SZ | 40.980 | 42,32 | 31,58 | 1,30  | 2S-H6500 DORIN    | 7.500             | ORBF 63.43.12     | ORBF-T 63.43.12    |

- In order to preserve the products for long term period, they should be frosted until the core temperature reaches -18°C in point of the food safety.
- The blast freezing process makes the products freeze from surface to core by way of sending high speed (5 m/s) cold air (-35°C/-40°C) through the products.
- The blast freezing process should be made as fast as possible.
- The maximum freezing time should be considered according to type of products in point of the food safety.
- The thickness of the products affects the blast freezing period.
- The air velocity affects the blast freezing period.

| Product           | Storage Temperature | Retention Time |
|-------------------|---------------------|----------------|
| Frozen Fish       | -20°C               | 6-12 Month     |
| Frozen Meat       | -18°C               | 4-12 Month     |
| Frozen Chicken    | -18°C               | 12 Month       |
| Butter            | -23°C               | 12-20 Month    |
| Ice cream         | -25/-30°C           | 3-23 Month     |
| Frozen Vegetables | -23°C               | 6-12 Month     |
| Frozen Fruits     | -18°C               | 18-24 Month    |