

HDR Series

HITACHI Air Dryer

Provides high quality dry compressed air with high performance.



HDR-22AX



HDR-300AX

Full Line Up

- Wide range of the products (18 types) from 2.5m³/min to 69m³/min to cover 300kW class compressors.
- Less space for installation area (Maximum 42% less space than conventional models).
- Maximum 17% of air capacity improvement for small and medium models.

Various Functions

- Remote control function
- Equipped with failure indication light
- IPI (Instantaneous Power Interruption) auto restart function (HDR-15AX to 75AX and HDR-100AE).
- Alarm indication light with LED bar chart, instructing the condition of high pressure in refrigeration cycle (HDR-15AX to 75AX and HDR-100AE).

High Performance and Longer Service Life

- Dew Point is 10°C under pressure condition with 45°C intake air and 30°C ambient temperature (HDR-15AX to 75AX and HDR-100AE).
- Adopted heat exchanger with all stainless steel plate, minimizing the pressure loss.
- Accomplished pressure loss below 1/3 (compared with conventional models) to supply perfect air flow (HDR-15AX to HDR-75AX).
- Longer performance and durability by using stainless steel plate to avoid rust and internal corrosion.
- Cooling air intake filter is standard accessories for air cooled models (Optional for HDR-120AX, 150AX and 190AX).

Environmental Friendly

- Energy saving with capacity control system of refrigerating cycle.
- HFC refrigerant R407C is adopted as Zero-Ozone depleting coefficient refrigerant.

STANDARD SPECIFICATIONS

Small and Medium Capacity Models (HDR-15AX to 75AX and HDR-100AE)

| Item | | HDR-15AX | | HDR-22AX | | HDR-37AX | | HDR-56AX | | HDR-75AX | | HDR-100AE | | | | | | | |
|---------------------------------------|---------------------|--|---------|----------|---------------------------|----------|---------|---------------|---------|----------|---------------------|-----------|---------------------------------------|---------------|--|--|-----------------|--|--|
| Frequency | Hz | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | | | | | | |
| Capacity (NOTE) | m ³ /min | 2.5 | 2.9 | 4.0 | 4.3 | 6.8 | 7.4 | 10.8 | 11.3 | 15.0 | 15.7 | 16.8 | 17.6 | | | | | | |
| Output of Applicable Air Compressor | kW | 15 | | 22 | | 37 | | 55 | | 75 | | 100 | | | | | | | |
| Max.compressed air pressure, inlet | MPa | 0.97 | | | | | | | | | | | | | | | | | |
| Max.compressed air temperature, inlet | °C | 80 | | | | | | | | | | 60 | | | | | | | |
| Ambient Temperature | °C | 5 to 40 | | | | | | | | | | | | | | | | | |
| Dew Point | °C | 10 or less under press., Ambient Temp., 30°C | | | | | | | | | | | | | | | | | |
| Supply Voltage (3 phase) | V | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | | | | | | |
| Output Rating | kW | 0.5 | | 1.1 | | 1.1 | | 2.2 | | 3.0 | | 4.6 | 5.7 | | | | | | |
| Rated Amps. | A | 1.2/1.0 | 2.1/1.0 | 2.7/2.3 | 4.6/2.3 | 2.7/2.3 | 4.6/2.3 | 5.5/4.7 | 9.3/4.7 | 7.4/6.3 | 12.4/6.2 | 8.8/8.0 | 17.1/8.6 | | | | | | |
| Condenser Cooling Method | - | Air-Cooled by Cooling Fan | | | | | | | | | | | | | | | | | |
| Capacity Control System | - | Ejector | | | | | | | | | | | Capillary Tube (Hot gas bypass valve) | | | | | | |
| Refrigerant | - | R407C | | | | | | | | | | | | | | | | | |
| Finish color | - | Ivory | | | | | | | | | | | | | | | | | |
| Air Pipe Connection | - | Rc1 (Female Thread) | | | Rc1 - 1/2 (Female Thread) | | | | | | Rc2 (Female Thread) | | 2 Flange (inch) | | | | | | |
| Dimensions (W×D×H) | mm | 303×603×720 | | | 356×513×1,067 | | | 356×513×1,247 | | | 356×903×1,247 | | | 356×903×1,489 | | | 491×1,323×1,164 | | |
| Weight | kg | 50 (46) | | | 76 (74) | | | 89 (87) | | | 140 (135) | | | 176 (170) | | | 250 (245) | | |
| Accessories | - | Drain Trap / Stop Valve | | | | | | | | | | | | | | | | | |

NOTE : The air capacity is based on the ambient operating temperature of 30°C, the intake air temperature of 40°C, the intake air pressure of 0.69Mpa, and the pressure dew point of 10°C.
The weight, indicated in (), is 220V class.

Large Capacity Models (HDR-120AX/WX to HDR-380AX/WX)

| Item | | HDR-120AX | | HDR-150AX | | HDR-190AX | | HDR-240AX | | HDR-300AX | | HDR-380AX | | HDR-120WX | | HDR-150WX | | HDR-190WX | | HDR-240WX | | HDR-300WX | | HDR-380WX | | | | | | | | | |
|---------------------------------------|---------------------|--|----------|-----------|----------|-----------------|-----------|-----------|----------|-----------------|-----------|-----------|-----------|-------------------|---------|-----------|----------|-----------------|----------|-----------|----------|-----------------|----------|-----------|-----------|-----------------|--|--|--|-------------------|--|--|--|
| Frequency | Hz | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | 50 | 60 | | | | | | | | |
| Capacity (NOTE) | m ³ /min | 20 | 23 | 25 | 30 | 32 | 38 | 38 | 45 | 47 | 55 | 59 | 69 | 21 | 25 | 27 | 31 | 35 | 41 | 42 | 49 | 51 | 60 | 64 | 75 | | | | | | | | |
| Output of Applicable Air Compressor | kW | - | | 150 | | 190 | | 240 | | - | | - | | - | | 150 | | 190 | | 240 | | - | | - | | | | | | | | | |
| Max.compressed air pressure, inlet | MPa | 0.97 | | | | | | 0.93 | | | | | | 0.97 | | | | | | 0.93 | | | | | | | | | | | | | |
| Max.compressed air temperature, inlet | °C | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambient Temperature | °C | 2 to 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dew Point | °C | 10 or less under press., Ambient Temp., 32°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Voltage (3 phase) | V | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | 380/415 | 220/440 | | | | | | | | |
| Output Rating | kW | 2.9 | 3.8/3.6 | 3.7 | 4.8/4.7 | 5.6 | 6.6/6.5 | 4.6 | 5.7/5.6 | 5.9 | 6.8/6.8 | 8.6 | 10.1/10.0 | 2.1 | 2.6/2.5 | 3.1 | 3.8/3.7 | 4.6 | 5.3/5.2 | 3.5 | 4.4/4.3 | 5.1 | 5.7/5.7 | 6.5 | 7.6/7.5 | | | | | | | | |
| Rated Amps. | A | 6.1/5.6 | 12.6/6.3 | 7.7/7.1 | 15.9/8.0 | 10.6/9.7 | 20.3/10.2 | 9.4/8.6 | 19.1/9.6 | 10.5/9.6 | 21.2/10.8 | 13.9/12.7 | 28.9/14.5 | 4.5/4.1 | 8.9/4.5 | 6.3/5.7 | 12.1/6.1 | 7.9/7.3 | 15.4/7.7 | 7.8/7.1 | 14.9/7.5 | 9.3/8.5 | 18.4/9.2 | 11.8/10.8 | 24.5/12.3 | | | | | | | | |
| Condenser Cooling Method | - | Air-Cooled by Cooling Fan | | | | | | | | | | | | Water-Cooled | | | | | | | | | | | | | | | | | | | |
| Capacity Control System | - | Capillary Tube (Hot gas bypass valve) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Refrigerant | - | R407C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Finish color | - | Ivory | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air Pipe Connection | inch | 2 1/2 Flange | | 3 Flange | | | | 4 Flange | | 5 Flange | | | | 2 1/2 Flange | | 3 Flange | | | | 4 Flange | | 5 Flange | | | | | | | | | | | |
| Dimensions (W×D×H) | mm | 672×1,260×1,276 | | | | 950×1,290×1,332 | | | | 1,969×905×1,583 | | | | 2,020×1,100×1,650 | | | | 672×1,260×1,276 | | | | 950×1,290×1,332 | | | | 1,969×905×1,583 | | | | 2,020×1,100×1,650 | | | |
| Weight | kg | 258 | | 372 | | 370 | | 557 | | 792 | | 872 | | 238 | | 346 | | 344 | | 534 | | 792 | | 872 | | | | | | | | | |
| Accessories | - | Drain Trap / Stop Valve | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTE : The capacity is based on the ambient operating temperature of 32°C, the inlet air temperature of 40°C, the inlet air pressure of 0.69 MPa, and the pressure dew point of 10°C.

Specifications in this catalog are subject to change with or without notice, as Hitachi continues to develop the latest technologies and products for its customers.

 **Hitachi Industrial Equipment Systems Co., Ltd.**

For further information, please contact your nearest sales representative.

Prior to operation of the Hitachi HDR air dryer, ensure that all operators read and understand the INSTRUCTION MANUAL completely, thereby operating it safely and properly.