HITACHI OIL-FREE SCREW COMPRESSOR

HITACHI
Inspire the Next

OIL FREE SCREW

SINGLE STAGE / TWO STAGE

Oil-Free Rotary Screw Air Compressor, DSP Series

15–55kW Single-Stage

NEXT II series

MPa: 0.30/0.40/0.70
m^3/min: 2.0 - 8.5

Vtype | Fixed Speed | Air-Cooled | Water-Cooled | With Built-in Dryer | Without Dryer

22–120kW Two-Stage

NEXT II series

MPa: 0.70/0.88/0.93/1.0
m^3/min: 3.2 - 21.0

Vtype | Fixed Speed | Air-Cooled | Water-Cooled | With Built-in Dryer | Without Dryer

132–240kW Two-Stage

NEXT II series

MPa: 0.75/0.93/1.0
m^3/min: 19.0 - 40.5

Vtype | Fixed Speed | Air-Cooled | Water-Cooled | Without Dryer

■OIL FREE SCREW (DSP) Model List

● Fixed Speed Type

Model			Nominal Output (kW) 15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
Single-Stage	Air-Cooled	Built-in Dryer	●	●		●		●									
		Without Dryer	●	●		●		●									
	Water-Cooled	Without Dryer	●	●		●		●									
Two-Stage	Air-Cooled	Built-in Dryer		●	●	●	●	●	●								
		Without Dryer		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Water-Cooled	Built-in Dryer					●	●	●								
		Without Dryer					●	●	●	●	●	●	●	●	●	●	●

● Vtype

Model			Nominal Output (kW) 15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
Single-Stage	Air-Cooled	Built-in Dryer		●		●		●									
		Without Dryer		●		●		●									
	Water-Cooled	Without Dryer				●		●									
Two-Stage	Air-Cooled	Built-in Dryer				●		●	●								
		Without Dryer				●		●	●		●				●		●
	Water-Cooled	Built-in Dryer						●	●								
		Without Dryer						●	●		●				●		●

Structure of High Performance Airend

Stainless Steel Rotor

The rotor material, machined by high-precision grinding, is a special stainless steel that excels in corrosion resistance and durability. In addition, to minimize internal leakage, the rotor is mirror finished to ensure proper clearance, taking thermal expansion during operation into consideration.

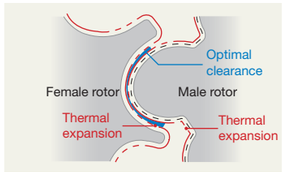
High Performance Rotor Profile

Rotors exposed to discharge temperatures of 300° C or more in single-stage machines and 200°C or more in two-stage machines undergo significant thermal expansion.
Hitachi's own 3D compensation technology is applied to ensure that appropriate clearance is maintained during operation with thermal expansion.

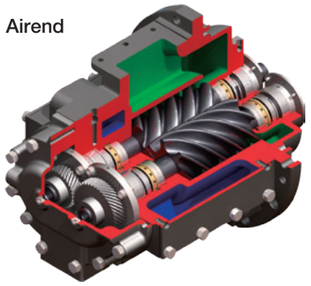
High Performance Coating

Patent JP05416072

The rotor is coated with a solid lubricant to further reduce gaps between rotors and improve performance. This solid lubricant coating has sufficient performance even in harsh environments of over 300°C. Hitachi's unique technology is applied to this coating.



Airend



Shaft Seal To Prevent Oil Leakage

The visco-type seal, designed by Hitachi for oil-free screw compressors, actively repels oil with its internal spiral grooves. The combination of the air seal and visco-type seal prevents oil from entering the compression chamber.

Bearing & Timing Gear

Special ball and roller bearings are used, and jet lubrication is adopted.
In addition, precision-finished timing gears ensure proper clearance between rotors.

DSP NEXT II series Common Features

Premium Air Quality

True Oil-Free Air at Class 0 Level

Test and analysis of condensation of oil in the discharge air of Hitachi Oil-free Screw Compressor (DSP) are implemented by third party (TÜV) based on ISO8573-1 standard. By the test result, oil contained in the discharge air of Hitachi DSP is proved and certified as the highest level of quality air “Class 0”.

Class Zero ISO 8573-1

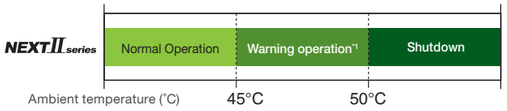
■ ISO 8573-1 : 2010 [–:–:0]

45℃ Reliability at high temperature operation

Vtype Fixed Speed

Stable continuous operation in ambient temperature of 45˚C (Running up to 50˚C)

A new unit structure that minimizes temperature rise inside the compressor enables both continuous operation at an ambient temperature of 45˚C and a long maintenance cycle, with no abnormal shutdown even at 50˚C.



*1:The alarm is displayed when the ambient temperature is over 45˚C.
In addition, the life of lubricating oil and electrical devices will be shortened in the case of long operation over 45˚C.

IPC IPC control (Intelligent Pressure Control)

Vtype Fixed Speed

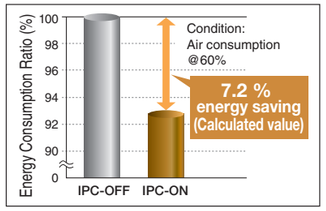
By estimating use point pressure in accordance with air consumption, IPC control decreases discharge pressure during low load operation, which enables energy-saving.

JP patent No.4425768 and others

Example of effect by IPC

Conditions

- Model:DSP-37VATN2
- Control pressure: 0.70MPa
- Use point pressure at full load: 0.55MPa
- Piping pressure loss at full load: 0.15MPa

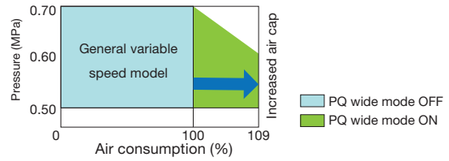


*Use point pressure is changed according to working condition because of predicted control.

PQ PQ wide mode

Vtype

Compared to general variable speed machines, a wider range of operation is possible for both pressure (P) and air volume (Q). Automatic adjustment of the maximum speed allows the amount of air discharged to be increased when the working pressure is reduced.

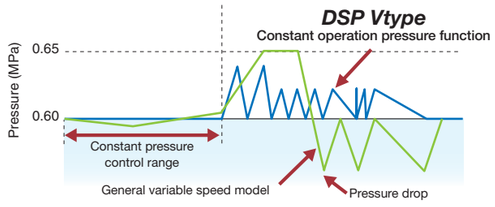


*The above figure is example of 37kW, 0.7MPa model.
Please refer to the specification sheet for the discharge air capacity in each model.

Constant operation pressure function

Vtype

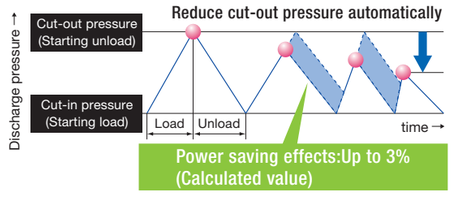
In general, a variable speed compressor requires a higher pressure setting because pressure drops occur during low-load operation or automatic start/stop. Our unique control maintains the set pressure.



ECO-MODE (Energy-saving operation control)

Fixed Speed

Automatically reduces the cut-out pressure according to the load ratio. This eliminates wasteful pressure boosting and realizes energy-saving operation.



User-friendly operation interface

Vtype Fixed Speed

USB Flash Memory Possible for Data Logging

*Necessary to prepare a USB flash memory device (5.5cm or smaller) on user’s side.
*Operation data for one day is approximately 400kB. (For reference)

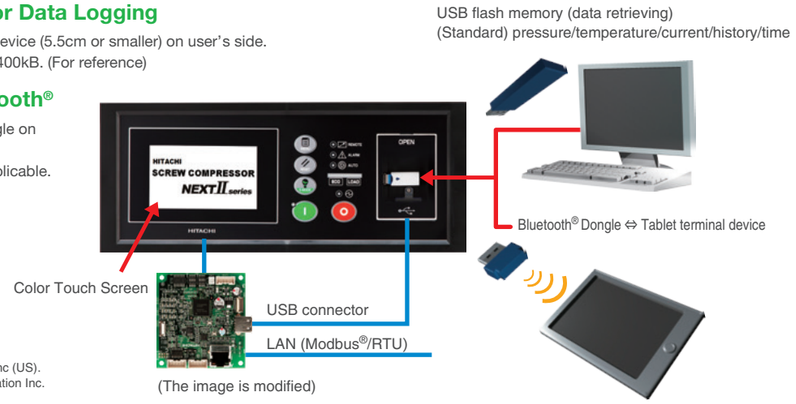
Web Server Function via Bluetooth®

*Necessary to prepare a Bluetooth® USB dongle on your side.
*For setting changes, part of the items are applicable.

Modbus® Communication

Open network serial communication Modbus®/RTU is supported as standard
*Modbus®/TCP support is optional.

・Bluetooth is the registered trademark of Bluetooth SIG, Inc (US).
・Modbus is the registered trademark of Schneider Automation Inc.



(The image is modified)

Long cycle and simple maintenance

Hitachi provides global after-sales service with our high quality spare parts and strong engineering experience.

HITACHI FOOD GRADE ROTARY COMPRESSOR OIL (Option)

Hitachi genuine lubricant used in food industry with high demand for "Food safety", fully complied with "HACCP".

NSF Nonfood Compounds Program Listed H1 NSF-Reg.No. 150658

HITACHI ROTARY COMPRESSOR OIL

Hitachi dedicated mineral oil with high performance and reliability.

Standarded Oil Mist Remover (OMR)

99.99% recovery of oil mist occurred from gear case

Simple package filter (Option)

Cleaning period is shown on touch panel per setting time.

High withstand load type bearing

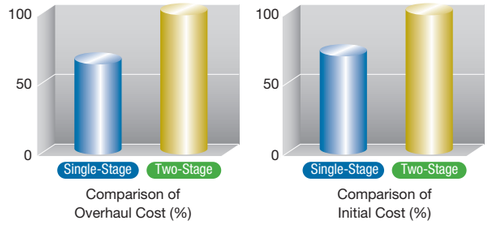
6 years long overhaul period

Single-Stage (15-55kW)

*The above picture shows the internal structure of 55kW Air-Cooled model (Vtype).

Cut Down Overhaul and Initial Cost

DSP single-stage has only one airend inside. It makes its initial cost much lower than two-stage model.
The overhaul cost, which covers the most of maintenance cost, is about 60% of Two-Stage for the same reason.



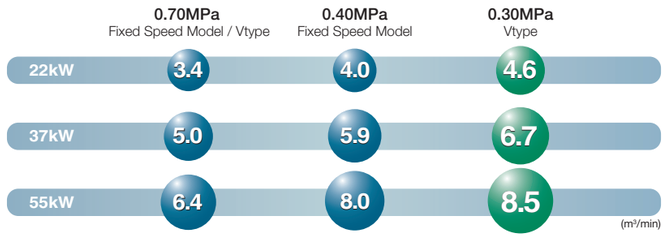
*Example of Hitachi 55kW (Single-Stage) and 45kW (Two-Stage), Without Dryer model (Calculated value)

Low Pressure with Higher Air Capacity

0.30MPa model is newly added

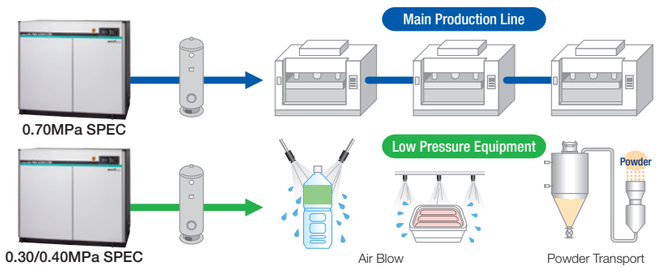
Vtype 0.30MPa and Fixed Speed Model 0.40MPa models are available for low pressure application to save the energy.

Capacity Comparison



Applications

In case that the pressure requirement is higher than blower but lower than standard compressor SPEC, low pressure SPEC DSP can be your solution.



Specifications

Air-Cooled, Fixed Speed Model (15–55kW)

[ ]: Indicates model with Dryer integrated.

Item・Unit		Model	DSP-15A[R]5N2 DSP-15A[R]6N2		DSP-22A[R]5N2 DSP-22A[R]6N2		DSP-37A[R]5N2 DSP-37A[R]6N2		DSP-55A[R]5N2 DSP-55A[R]6N2	
Discharge Pressure		MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40
Discharge Air Capacity		m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0
Nominal Output		kW	15		22		37		55	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃ [2 – 45℃]							
Discharge Air Temperature		℃	Ambient Temperature +15 or below							
Discharge Pipe Diameter		—	Rc1		Rc1-1/2					
Starting Method		—	Direct On-Line		Star-Delta (3 contactors)					
Driving Method		—	4-Pole TEFC Motor with V-Belt + Gear Driving							
Lubricating Oil Capacity		L	12 (Not filled)				18 (Not filled)			
Cooling Fan Motor Output		kW	0.4		0.65				0.9	
Coolant Pump Motor Output (50/60Hz)		kW	0.2/0.3							
[Dryer]	P.D.P	℃	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–
	Refrigerator Nominal Output	kW	[0.5]	–	[1.2]	–	[1.45]	–	[1.45]	–
	Refrigerant	—	[R407C]	–	[R410A]	–	[R410A]	–	[R410A]	–
Weight		kg	770 [800]		850 [910]		1,080 [1,230]		1,330 [1,480]	
Dimensions (W×D×H)		mm	1,400×970×1,400				1,830×980×1,580 [2,230×980×1,580]			
Noise Level (1.5m from front side)		dB(A)	62	63	63	64	66	68	68	70

Air-Cooled / Water-Cooled, Vtype Model (22–55kW)

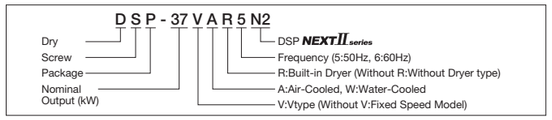
[ ]: Indicates model with Dryer integrated.

Item・Unit		Model	DSP-22VA[R]5N2 DSP-22VA[R]6N2		DSP-37VA[R]5N2 DSP-37VA[R]6N2		DSP-55VA[R]5N2 DSP-55VA[R]6N2		DSP-37VWN2		DSP-55VWN2	
Cooling Method		—	Air-Cooled						Water-Cooled			
Discharge Pressure		MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge Air Capacity		m³/min	3.4	4.6	5.0	6.7	6.4	8.5	5.0	6.7	6.4	8.5
PQ WIDEMODE	Discharge Pressure	MPa	0.60	–	0.60	–	0.60	–	0.60	–	0.60	–
	Discharge Air Capacity	m³/min	3.7	–	5.5	–	7.0	–	5.5	–	7.0	–
	Discharge Pressure	MPa	0.40 [0.50]	–	0.40 [0.50]	–	0.40 [0.50]	–	0.40	–	0.40	–
	Discharge Air Capacity	m³/min	4.3 [4.0]	–	6.4 [6.0]	–	8.2 [7.6]	–	6.4	–	8.2	–
PQ WIDEMODE Range		MPa	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70 [0.50 – 0.70]	–	0.40 – 0.70	–	0.40 – 0.70	–
Nominal Output		kW	22		37		55		37		55	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃ [2 – 45℃]						Atmospheric Pressure / 0 – 45℃			
Discharge Air Temperature		℃	Ambient Temperature +15 or below						Cooling Water Temperature +13 or below			
Discharge Pipe Diameter		—	Rc1-1/2						Rc1-1/2			
Starting Method		—	Inverter						Inverter			
Driving Method		—	4-Pole TEFC Motor with V-Belt + Gear Driving						4-Pole TEFC Motor with V-Belt + Gear Driving			
Lubricating Oil Capacity		L	12 (Not filled)		18 (Not filled)				14 (Not filled)			
Cooling Fan Motor Output		kW	0.65				0.9		0.2			
Cooling Water Flow Rate		L/min	–						80			
Cooling Water Temperature		℃	–						32 or below			
Cooling Water Pipe Diameter		—	–						Rc1			
Coolant Pump Motor Output (50/60Hz)		kW	0.2/0.3						–			
[Dryer]	P.D.P	℃	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	[10 (Under Pressure)]	–	–			
	Refrigerator Nominal Output	kW	[1.2]	–	[1.45]	–	[1.45]	–	–			
	Refrigerant	—	[R410A]	–	[R410A]	–	[R410A]	–	–			
Weight		kg	900 [960]		1,140 [1,290]		1,270 [1,420]		1,110		1,240	
Dimensions (W×D×H)		mm	1,650×970×1,400		1,830×980×1,580 [2,230×980×1,580]				1,830×980×1,580			
Noise Level (1.5m from front side)		dB(A)	63	64	66	68	68	70	64	66	64	66

Water-Cooled, Fixed Speed Model (15-55kW)

Item・Unit	Model	DSP-15W5N2 DSP-15W6N2		DSP-22W5N2 DSP-22W6N2		DSP-37W5N2 DSP-37W6N2		DSP-55W5N2 DSP-55W6N2	
Discharge Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40
Discharge Air Capacity	m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0
Nominal Output	kW	15		22		37		55	
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 – 45℃							
Discharge Air Temperature	℃	Cooling Water Temperature+13 or below							
Discharge Pipe Diameter	—	Rc1		Rc1-1/2					
Cooling Water Flow Rate	L/min	50				80			
Cooling Water Temperature	℃	35 or below							
Cooling Water Pipe Diameter	—	Rc3/4				Rc1			
Starting Method	—	Direct On-Line		Star-Delta (3 contactors)					
Driving Method	—	4-Pole TEFC Motor with V-Belt + Gear Driving							
Lubricating Oil Quantity	L	10 (Not filled)				14 (Not filled)			
Cooling Fan Motor Output	kW	0.05				0.1			
Weight	kg	770		830		1,030		1,280	
Dimensions (W×D×H)	mm	1,400×970×1,400				1,830×980×1,580			
Noise Level (1.5m from front side)	dB(A)	62	63	63	64	64	66	64	66

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 ℃, inlet temperature 45 ℃, and under the rated pressure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
5. Built-in dryer 0.30MPa model is NOT available.
6. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
7. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40℃.
8. Earth leakage breaker is not built in the compressor. Prepare by customer.
9. Do not use the respiratory equipment to suck the compressed air directly.
10. Discharge pressure is gauge pressure.
11. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
12. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
13. Appearance and specifications are subject to change without notice.



Two-Stage (22–120kW)

Specifications

■ Water-Cooled, Fixed Speed / Vtype Model (45-75kW)

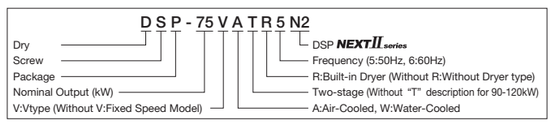
[ ] : Indicates model with Dryer integrated.

Item・Unit		Model	Fixed Speed Model								Vtype Model			
			DSP-45WT [R] 5N2 DSP-45WT [R] 6N2		DSP-55WT [R] 5N2 DSP-55WT [R] 6N2			DSP-75WT [R] 5N2 DSP-75WT [R] 6N2			DSP-55VWT [R] N2		DSP-75VWT [R] N2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0	0.70	0.93	0.70	0.93
Discharge Air Capacity (50Hz/60Hz)		m³/min	7.5/7.9	6.4/6.7	9.4	7.4/7.9	6.4/6.6	13.2	10.7/11.3	9.6/9.7	9.5	8.0	12.9	11.4
Discharge Air Capacity at PQ wide ON of 0.6MPa		m³/min	–								9.8	9.5	13.4	13.0
Nominal Output		kW	45		55			75			55		75	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃ [5 – 45℃]					Atmospheric Pressure / 0 – 45℃ [2 – 45℃]			Atmospheric Pressure / 0 – 45℃ [5 – 45℃]		Atmospheric Pressure / 0 – 45℃ [2 – 45℃]	
Discharge Air Temperature		℃	Cooling Water Temperature +13 or below								Cooling Water Temperature +13 or below			
Discharge Pipe Diameter		—	2 in (Flange)								2 in (Flange)			
Starting Method		—	Star-Delta (3 contactors)								Soft Start			
Driving Method		—	2-Pole TEFC motor with Direct Connection + Gear Driving								6-Pole DCBL Direct Connection + Gear Driving			
Lubricating Oil Capacity		L	15 (Not filled)								15 (Not filled)			
Cooling Fan Motor Output		kW	0.05×2								0.05×2			
Cooling Water Flow Rate		L/min	90					120			90		120	
Cooling Water Temperature		℃	35 or below								35 or below			
Cooling Water Pipe Diameter		—	Rc 1-1/4								Rc 1-1/4			
[Dryer]	P.D.P	℃	[10 (Under Pressure)]			Built-in dryer model is NOT available.		[10 (Under Pressure)]		Built-in dryer model is NOT available.	[10 (Under Pressure)]			
	Refrigerator Nominal Output	kW	[2.2]					[3.0]			[2.2]		[3.0]	
	Refrigerant	—	[R407C]					[R410A]			[R407C]		[R410A]	
Weight		kg	1,580 [1,730]			1,580		1,710 [1,880]		1,710	1,320 [1,470]		1,410 [1,580]	
Dimensions (W×D×H)		mm	2,000×1,300×1,800								2,000×1,300×1,800			
Noise Level (1.5m from front side)		dB(A)	63		63			65	66		63		65	66

■ Water-Cooled, Fixed Speed / Vtype Model (90-120kW)

Item・Unit		Model	Fixed Speed Model						Vtype Model	
			DSP-90W5 [L] MN2 DSP-90W6 [L] MN2		DSP-100W5 [L] MN2 DSP-100W6 [L] MN2		DSP-120W5MN2 DSP-120W6MN2		DSP-100VW5MN2 DSP-100VW6MN2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity		m³/min	16.8	14.0	18.3	15.6	21.0	17.6	18.3	15.6
Nominal Output		kW	90		100		120		100	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃						Atmospheric Pressure / 0 – 45℃	
Discharge Air Temperature		℃	Cooling Water Temperature +13 or below						Cooling Water Temperature +13 or below	
Discharge Pipe Diameter		—	2 in (Flange)						2 in (Flange)	
Starting Method		—	Star-Delta (3 contactors)						Inverter	
Driving Method		—	2-Pole TEFC motor with Direct Connection + Gear Driving						2-Pole TEFC motor with Direct Connection + Gear Driving	
Lubricating Oil Capacity		L	16 (Not filled)						16 (Not filled)	
Cooling Fan Motor Output		kW	0.05×3 [0.2×2]				0.05×3		0.2×2	
Cooling Water Flow Rate		L/min	160				180		160	
Cooling Water Temperature		℃	35 or below						35 or below	
Cooling Water Pipe Diameter		—	Rc 1-1/2						Rc 1-1/2	
Weight		kg	2,050				2,230		2,200	
Dimensions (W×D×H)		mm	2,150×1,520×1,825						2,150×1,520×1,825	
Noise Level (1.5m from front side)		dB(A)	66	68	67	69	69	70	67	69

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 ℃, inlet temperature 45 ℃, and under the rated pressure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
5. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40℃.
7. Earth leakage breaker is not built in the compressor. Prepare by customer.
8. Do not use the respiratory equipment to suck the compressed air directly.
9. Discharge pressure is gauge pressure.
10. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
11. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
12. Appearance and specifications are subject to change without notice.



Specifications

■ Air-Cooled, Fixed Speed / Vtype Model (22-37kW)

[ ] : Indicates model with Dryer integrated.

Item・Unit		Model	Fixed Speed Model						Vtype Model	
			DSP-22AT [R] 5N2 DSP-22AT [R] 6N2		DSP-30AT [R] 5N2 DSP-30AT [R] 6N2		DSP-37AT [R] 5N2 DSP-37AT [R] 6N2		DSP-37VAT [R] N2	
Discharge Pressure		MPa	0.70	0.88	0.70	0.88	0.70	0.88	0.70	0.88
Discharge Air Capacity		m³/min	3.7	3.2	4.7	4.0	5.6	4.7	5.5	4.6
Discharge Air Capacity at PQ wide ON of 0.6MPa		m³/min	–						6.0	5.6
Nominal Output		kW	22		30		37		37	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃ [2 – 45℃]						Atmospheric Pressure / 0 – 45℃ [2 – 45℃]	
Discharge Air Temperature		℃	Ambient Temperature +15 or below						Ambient Temperature +15 or below	
Discharge Pipe Diameter		—	Rc1-1/2						Rc1-1/2	
Starting Method		—	Star-Delta (3 contactors)						Soft Start	
Driving Method		—	4-Pole TEFC Motor with V-Belt + Gear Driving						DCBL Direct Connection + Gear Driving	
Lubricating Oil Capacity		L	15 (Not filled)						15 (Not filled)	
Cooling Fan Motor Output		kW	1.1 (Inverter)						1.1 (Inverter)	
[Dryer]	P.D.P	℃	[10 (Under Pressure)]						[10 (Under Pressure)]	
	Refrigerator Nominal Output	kW	[1.45]						[1.45]	
	Refrigerant	—	[R410A]						[R410A]	
Weight		kg	1,120 [1,180]		1,230 [1,290]				950 [1,010]	
Dimensions (W×D×H)		mm	1,530×1,150×1,650						1,530×1,150×1,650	
Noise Level (1.5m from front side)		dB(A)	63	64	65	66	66	67	66	67

■ Air-Cooled, Fixed Speed / Vtype Model (45-75kW)

[ ] : Indicates model with Dryer integrated.

Item・Unit		Model	Fixed Speed Model								Vtype Model			
			DSP-45AT [R] 5N2 DSP-45AT [R] 6N2			DSP-55AT [R] 5N2 DSP-55AT [R] 6N2		DSP-75AT [R] 5N2 DSP-75AT [R] 6N2			DSP-55VAT [R] N2		DSP-75VAT [R] N2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	1.0	0.70	0.93	1.0	0.70	0.93	0.70	0.93
Discharge Air Capacity		m³/min	7.4/7.8	6.2/6.5	9.2	7.2/7.7	5.9/6.2	13.0	10.5/11.1	9.1	9.3	7.7	12.6	10.9
Discharge Air Capacity at PQ wide ON of 0.6MPa		m³/min	–								9.6	9.3	13.0	12.6
Nominal Output		kW	45		55			75			55		75	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃ [5 – 45℃]					Atmospheric Pressure / 0 – 45℃ [2 – 45℃]			Atmospheric Pressure / 0 – 45℃ [5 – 45℃]		Atmospheric Pressure / 0 – 45℃ [2 – 45℃]	
Discharge Air Temperature		℃	Ambient Temperature +15 or below								Ambient Temperature +15 or below			
Discharge Pipe Diameter		—	2 in (Flange)								2 in (Flange)			
Starting Method		—	Star-Delta (3 contactors)								Soft Start			
Driving Method		—	2-Pole TEFC motor with Direct Connection + Gear Driving								DCBL Direct Connection + Gear Driving			
Lubricating Oil Capacity		L	25 (Not filled)								25 (Not filled)			
Cooling Fan Motor Output		kW	1.5 (Inverter)					2.2 (Inverter)			1.5 (Inverter)		2.2 (Inverter)	
[Dryer]	P.D.P	℃	[10 (Under Pressure)]				Built-in dryer model is NOT available.	[10 (Under Pressure)]		Built-in dryer model is NOT available.	[10 (Under Pressure)]			
	Refrigerator Nominal Output	kW	[2.2]					[3.0]			[2.2]		[3.0]	
	Refrigerant	—	[R407C]					[R410A]			[R407C]		[R410A]	
Weight		kg	1,600 [1,750]				1,600	1,860 [2,030]		1,860	1,340 [1,490]		1,560 [1,730]	
Dimensions (W×D×H)		mm	2,000×1,300×1,800					2,250×1,300×1,800			2,000×1,300×1,800		2,250×1,300×1,800	
Noise Level (1.5m from front side)		dB(A)	63	65	63	65		68			63	65	67	68

■ Air-Cooled, Fixed Speed / Vtype Model (90-120kW)

Item・Unit		Model	Fixed Speed Model						Vtype Model	
			DSP-90A5 [L] MN2 DSP-90A6 [L] MN2		DSP-100A5 [L] MN2 DSP-100A6 [L] MN2		DSP-120A5MN2 DSP-120A6MN2		DSP-100VA5MN2 DSP-100VA6MN2	
Discharge Pressure		MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93
Discharge Air Capacity		m³/min	16.6	13.9	18.0	15.4	20.5	17.3	18.0	15.4
Nominal Output		kW	90		100		120		100	
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 – 45℃						Atmospheric Pressure / 0 – 45℃	
Discharge Air Temperature		℃	Ambient Temperature +15 or below						Ambient Temperature +15 or below	
Discharge Pipe Diameter		—	2 in (Flange)						2 in (Flange)	
Starting Method		—	Star-Delta (3 contactors)						Inverter	
Driving Method		—	2-Pole TEFC motor with Direct Connection + Gear Driving						2-Pole TEFC motor with Direct Connection + Gear Driving	
Lubricating Oil Capacity		L	26 (Not filled)						26 (Not filled)	
Cooling Fan Motor Output		kW	1.5×2						1.5×2	
Weight		kg	2,200				2,380		2,300	
Dimensions (W×D×H)		mm	2,150×1,520×1,975						2,150×1,520×1,975	
Noise Level (1.5m from front side)		dB(A)	68	70	69	71	72	73	69	71

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value. It could increase by approx. 2dB when PQ WIDEMODE is ON.
4. P. D. P (Pressure Dew Point) of a built-in dryer model is measured in ambient temperature 30 ℃, inlet temperature 45 ℃, and under the rated pressure. For the built-in dryer model, P. D. P drops at lower operating pressure. When the PQ wide mode is ON and the pressure is 0.7 MPa or less, the outlet P. D. P increases by approx. 3°C at 0.6MPa.
5. Discharged air capacity of a built-in dryer model decreases by approximately 3% when drain condenses.
6. In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40℃.
7. Earth leakage breaker is not built in the compressor. Prepare by customer.
8. Do not use the respiratory equipment to suck the compressed air directly.
9. Discharge pressure is gauge pressure.
10. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
11. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
12. Appearance and specifications are subject to change without notice.

Two-Stage (132-240kW)

*The above picture shows the internal structure of 240kW Water-Cooled model (Vtype).

High Capacity by Equipping New NEXTII series Airend

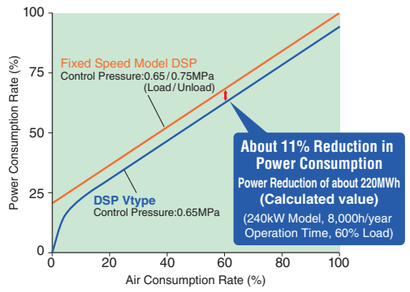
Low Noise Low Vibration

Compact Design by Optimized Layout of Components

High Discharge Pressure Available (up to 1.0MPa)

Energy-Saving (Vtype)

Further Energy-Saving is achieved by DSP NEXTII series with Built-in Inverter.



*Compared to conventional Load/Unload Control Type, lower pressure setting is possible due to the stable pressure control. (Calculated value)

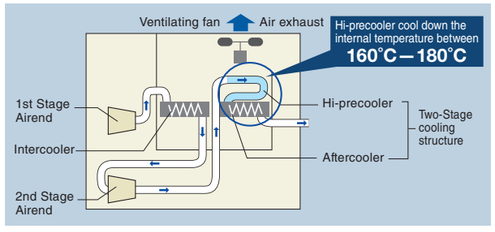
High Reliability and Easy Maintenance

Totally enclosed flange motor is standard

New totally enclosed flange motor is applied to improve reliability.
Motor shaft in direct connection without coupling enables easy maintenance work.

Hi-precooler system (Air-Cooled models)

Hi-precooler system reduces temperature of extremely hot air to aftercooler and Two-Stage cooling structure improves reliability.



High Discharge Pressure Available

1.0MPa is available with high reliability.

Maintenance Friendly

DSP series provides easy accessibility for inspection and maintenance.

Specifications

■ Air-Cooled, Fixed Speed Model (132-240kW)

Item・Unit	Model	DSP-132A5N2 / DSP-132A6N2			DSP-145A5N2 / DSP-145A6N2			DSP-160A5N2 / DSP-160A6N2			DSP-200A5N2 / DSP-200A6N2			DSP-240A5N2 / DSP-240A6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m^3/min	22.5	20.0	19.0	25.0	21.4	20.0	27.5	23.9	22.5	37.0	32.2	30.0	40.0	35.0	32.5
Nominal Output	kW	132			145			160			200			240		
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C														
Discharge Air Temperature	°C	Ambient Temperature+15 or below														
Discharge Air Pipe Diameter	—	2-1/2 in (Flange)									3 in (Flange)					
Starting Method	—	Star-Delta (3 contactors)														
Driving Method	—	4-Pole TEFC motor with Direct Connection + Gear Driving														
Lubricating Oil Capacity	L	50 (Not filled)									60 (Not filled)					
Cooling Fan Motor Output	kW	4.4 (1.1×4)									6.0 (1.5×4)					
Weight	kg	3,860						3,960			5,000					
Dimensions (W×D×H)	mm	2,900×1,700×1,925									3,200×1,890×1,950					
Noise Level (1.5m from front side)	dB(A)	73	74		74	75		74	75		76	77		77	78	

■ Water-Cooled, Fixed Speed Model (132-240kW)

Item・Unit	Model	DSP-132W5N2 / DSP-132W6N2			DSP-145W5N2 / DSP-145W6N2			DSP-160W5N2 / DSP-160W6N2			DSP-200W5N2 / DSP-200W6N2			DSP-240W5N2 / DSP-240W6N2		
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity	m^3/min	23.4	20.7	19.6	26.0	22.2	20.6	28.5	24.8	23.2	37.0	32.2	30.0	40.5	35.0	32.5
Nominal Output	kW	132			145			160			200			240		
Intake Air Pressure / Temperature	—	Atmospheric Pressure / 0 - 45°C														
Discharge Air Temperature	°C	Cooling Water Temperature+13 or below														
Discharge Air Pipe Diameter	—	2-1/2 in (Flange)									3 in (Flange)					
Starting Method	—	Star-Delta (3 contactors)														
Driving Method	—	4-Pole TEFC motor with Direct Connection + Gear Driving														
Cooling Water Flow Rate	L/min	200			210			240			300			330		
Cooling Water Temperature	°C	35 or below									35 or below					
Cooling Water Pipe Diameter	—	Rp2														
Lubricating Oil Capacity	L	40 (Not filled)									50 (Not filled)					
Cooling Fan Motor Output	kW	0.4														
Weight	kg	3,760									4,600					
Dimensions (W×D×H)	mm	2,500×1,600×1,925									2,800×1,800×1,950					
Noise Level (1.5m from front side)	dB(A)	68	69		69	70		69	70		69	70		70	71	

■ Air-Cooled / Water-Cooled, Vtype Model (160-240kW)

Item・Unit		Model	DSP-160VA5N2 / DSP-160VA6N2			DSP-240VA5N2 / DSP-240VA6N2			DSP-160VW5N2 / DSP-160VW6N2			DSP-240VW5N2 / DSP-240VW6N2		
Discharge Pressure		MPa	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0	0.75	0.93	1.0
Discharge Air Capacity		m^3/min	27.5	24.8	22.5	40.0	35.0	32.5	28.5	24.8	23.2	40.5	35.0	32.5
Nominal Output		kW	160			240			160			240		
Intake Air Pressure / Temperature		—	Atmospheric Pressure / 0 - 45°C											
Discharge Air Temperature		°C	Ambient temperature+15 or below						Cooling Water Temperature+13 or below					
Discharge Air Pipe Diameter		—	2-1/2 in (Flange)			3 in (Flange)			2-1/2 in (Flange)			3 in (Flange)		
Starting Method		—	Inverter											
Driving Method		—	4-Pole TEFC motor with Direct Connection + Gear Driving											
Cooling Water Flow Rate		L/min	—			—			240			330		
Cooling Water Temperature		°C	—						35 or below					
Cooling Water Pipe Diameter		—	—						Rp2					
Lubricating Oil Capacity		L	50 (Not filled)			60 (Not filled)			40 (Not filled)			50 (Not filled)		
Cooling Fan Motor Output		kW	4.4 (1.1 × 4)			6.0 (1.5 × 4)			0.4					
Weight	Compressor	kg	3,960			5,000			3,960			4,900		
	Inverter Panel	kg	400			540			—			—		
Dimensions (W×D×H)	Compressor	mm	2,900×1,700×1,925			3,200×1,880×1,950			2,500×1,600×1,925			2,800×1,800×1,950		
	Inverter Panel	mm	690×1,175×1,760			810×1,360×1,760			—			—		
Noise Level (1.5m from front side)		dB(A)	74	75		77	78		70			71		

NOTE:
1. Capacity is measured according to ISO 1217, Annex C.
2. Nominal output is a numerical value for the rough compressor capacity. Refer to installation drawings when you plan the compressor shaft power, installed motor output, and power supply equipment.
3. Noise level is the converted value in an anechoic room measured under the condition that at full load running operation at 1.5m in front and 1m in height, the timing of the closure of cooler drain automatic discharge valve. It could be larger depending on the actual installation and its environment.It is not a guaranteed value.
4. Earth leakage breaker is not built in the compressor. Prepare by customer.
5. Do not use the respiratory equipment to suck the compressed air directly.
6. Discharge pressure is gauge pressure.
7. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
8. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
9. Appearance and specifications are subject to change without notice.
10. The inverter panel for air-cooled Vtype is placed separately.

Auxiliary Equipment

Air Dryer

HDR series

HFC Refrigerant
R407C・R410A

HDR-22AG1

HFC Refrigerant
R407C

HDR-150AX

Specifications

Item・Unit \ Model		HDR-7.5AX2	HDR-15AG1	HDR-22AG1	HDR-37AG1	HDR-55AX	HDR-75AX	HDR-100AX
Capacity (Note 1) 50/60Hz	m³/min	1.3/1.4	3.0/3.4	4.9/5.4	7.9/8.4	10.8/11.3	15.0/15.7	19.0/20.0
Max. Inlet Pressure of Compressed Air	MPa	0.3 – 0.97	0.3 – 1.0			0.4 – 0.97		
Max. Inlet Temperature of Compressed Air	℃	80						
Ambient Temperature	℃	5 – 40	2 – 45			5 – 40		
Dew Point of Outlet Air	℃	10 Under Pressure						
Cooling Method of Condenser	—	Air-Cooled						
Refrigerant Control Device	—	Capillary Tube		Ejector				
Capacity Control Device	—	Hot Gas Bypass Valve						
Refrigerant Used	—	R407C	R410A			R407C		
Charged Quantity	g	250	450	680	1,000		1,650	2,000
Finish Color	—	Ivory	Gray			Ivory		
Pipe Diameter	—	Rc 1		Rc 1-1/2			Rc 2	Rc 2-1/2
Dimensions (W×D×H)	mm	303×603×720	303×633×840	356×543×1,067	356×543×1,274	356×903×1,274	356×903×1,489	406×1,400×1,380
Weight	kg	43	60	84	107	135	170	280
Accessories	—	Auto Drain Trap, Drain Valve, Foundation Bolts						

NOTE:
1. The capacity values above are measured at an ambient temperature of 30℃, inlet temperature of 45℃, inlet pressure of 0.70MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Item・Unit \ Model		HDR-120WX	HDR-150WX	HDR-190WX	HDR-240WX	HDR-300WX	HDR-380WX	HDR-120AX	HDR-150AX	HDR-190AX	HDR-240AX	HDR-300AX	HDR-380AX
Capacity (Note 1) 50/60Hz	m³/min	21/25	27/31	35/41	42/49	51/60	64/75	20/23	25/30	32/38	38/45	47/55	59/69
Max. Inlet Pressure of Compressed Air	MPa	0.30 – 0.97				0.30 – 0.93		0.30 – 0.97				0.30 – 0.93	
Max. Inlet Temperature of Compressed Air	℃	60											
Ambient Temperature	℃	2 – 40											
Dew Point of Outlet Air	℃	10 Under Pressure											
Cooling Method of Condenser	—	Water-Cooled						Air-Cooled					
Refrigerant Control Device	—	Capillary Tube											
Capacity Control Device	—	Hot Gas Bypass Valve											
Refrigerant Used	—	R407C											
Charged Quantity	g	1,900	2,000	2,700	3,400	4,000	4,000	2,200	3,600	3,500	4,400	5,000	6,000
Finish Color	—	Ivory											
Cooling Water Quantity	m³/h	2.5/2.9	2.7/3.0	3.0/3.2	3.6/3.8	3.4/4.0	4.3/5.0	—					
Cooling Water Pipe Diameter	—	Rp 3/4			Rp 1	Rc 1-1/2		—					
Pipe Diameter	—	2-1/2 in (Flange)	3 in (Flange)		4 in (Flange)	5 in (Flange)		2-1/2 in (Flange)	3 in (Flange)		4 in (Flange)	5 in (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	238	346	344	534	792	872	258	372	370	557	792	872
Accessories	—	Auto Drain Trap, Drain Valve											

NOTE:
1. The capacity values above are measured at an ambient temperature of 32℃, inlet temperature of 40℃, inlet pressure of 0.69MPa.
2. Dew point gets worse if operated at pressure below the range of operation pressure.
3. Dimensions do not include the pipes and protruding parts. Refer to the drawing for more details.
4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

Multi Unit Controller

MULTI ROLLER *G series*

- Efficient Control of Multiple Units
- Energy-Saving
- Various Functions Available

Standard Specification

Item \ Model		MRG-4E	MRG-8E	MRG-NE
Ambient	Usage place	Indoor (Dust-proof wall-mounted type)		
	Temperature	0-40 deg-C		
Power supply		1-ph. AC85 to 240V 50/60Hz		
Controllable compressors	Max. connectable Units	12 compressors		
	Connectable contacts (internal of above)	4	8	0 (comm. only)
Touch panel		7" wide color LCD		
Control function		Initial air charge, Selection of preceding machine, Rotary operation, Tum-back operation (only for fixed speed machine), PID control, Pressure prediction control, 2nd-pressure, Weekly operation, Forced changeover, Restart at power off, Interlock/Individual operation changeover, Central operation, Forced start Long stop, Operation control of auxiliary machine (dryer, pump)(excl. MRG-N), Lead-lag operation		
Input	Discharge pressure	0–1MPa (digital display)		
	Control	Operation answer, Fault		–
	Remote	Remote operation, Remote stop, Forced start, (Flow volume (option *1))		
Output	Control	Run, Stop, Load command, PID command		–
	Remote	In operation, Remote selection, Low pressure, Fault sum-up		
Communication specification		RS485 (2-wire) half-duplex asynchronous, 9600bps multi-drop		
Communication contents		Run, Stop, Load, Operation answer, Fault, etc.		
Set width of control discharge press.		Min. ±0.001 MPa settable		
Power supply capacity		40W or less	50W or less	30W or less
Dimensions W×D×H (mm)		400×250×600	500×250×900	400×250×400
Weight		25kg	37kg	13kg
Painted color		Cream		

NOTE:
*1) Use flow volume sensor, which is commercially available
2) Dimensions excludes joint portion and protrude portion
3) Appearance, display design and/or specification may change without notice

Line Filter

Air Filter*1

Micron Mist Filter*2

Activated Carbon Filter*3

Specifications

	Item \ Model			7.5BX	11BX	15G1	22G1	37G1	55B	75B	100B	125C	160C	200C	240B
Common	Air Condition	Capacity (converted to the atmospheric pressure)	m³/min	1.2	1.8	2.7	5.2	8.6	10.6	13.8	20	27.6	32	40	50
		Inlet Air Temperature	℃	32											
		Inlet Air Pressure	MPa	0.69		0.7			0.69						
	Use Condition	Applicable Fluid	—	Compressed Air											
		Max. Pressure	MPa	1.57			1.0		0.97						
	Connecting Pipe Diameter		—	Rc3/4	Rc1		Rc1-1/2			Rc2		2-1/2 in FF (Flange)	3 in FF (Flange)		4 in FF (Flange)
Air Filter	Item \ Model			HAF-7.5BX	HAF-11BX	HAF-15G1	HAF-22G1	HAF-37G1	HAF-55B	HAF-75B	HAF-100B	HAF-125C	HAF-160C	HAF-200C	HAF-240B
	Use Condition	Inlet Air Temperature Range	℃	5 – 60											
		Ambient Temperature Range	℃	2 – 60											
	Filtration Rating		μm	1*1											
	Filtration Efficiency		%	99.999											
	Pressure Drop (Loss)	Initial	MPa	0.005 or below											
		Element Exchange	MPa	0.07											
	Dimension (Max. Diameter×Length)		mm	92×237	130×290.5		170×588	170×673	170×718	173x811	173x968	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Outlet Diameter		—	Rc1/4			Hose nipple for Φ5.7 ～ 6.0 inner diameter tube*4								
	Weight		kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
Micron Mist Filter	Item \ Model			HMF-7.5BX	HMF-11BX	HMF-15G1	HMF-22G1	HMF-37G1	HMF-55B	HMF-75B	HMF-100B	HMF-125C	HMF-160C	HMF-200C	HMF-240B
	Use Condition	Inlet Air Temperature Range	℃	5 – 60											
		Ambient Temperature Range	℃	2 – 60											
	Density of Oil in the Discharge Air		wtppm	0.01*2											
	Pressure Drop (Loss)	Initial	MPa	0.01											
		Element Exchange	MPa	0.07											
	Dimension (Max. Diameter×Length)		mm	92×237	130×364		170x660	170x745	170x791	173x884	173x1,041	590×1,511	590×1,511	590×1,511	640×1,735
	Drain Outlet Diameter		—	Rc1/4			Hose nipple for Φ5.7 ～ 6.0 inner diameter tube*4								
	Weight		kg	1	2	2.1	3.2	3.5	3.7	4.3	6	41	43	43	73
Activated Carbon Filter	Item \ Model			HKF-7.5BX	HKF-11BX	HKF-15G1	HKF-22G1	HKF-37G1	HKF-55B	HKF-75B	HKF-100B	HKF-125C	HKF-160C	HKF-200C	HKF-240B
	Use Condition	Inlet Air Temperature Range	℃	5 – 60											
		Ambient Temperature Range	℃	2 – 60											
	Density of Oil in the Discharge Air		wtppm	0.003*3											
	Pressure Drop (Loss)		MPa	0.009											
	Dimension (Max. Diameter×Length)		mm	92×232	130×281.5		160×362	170×447	170×498	173×591	173×748	590×1,511	590×1,511	590×1,511	640×1,735
	Weight		kg	1	2		3.2	3.5	3.7	4.3	6	41	43	43	73

●Make sure to install an air dryer before the filter.
*1 The density of oil in the inlet air is 3wtppm.
*2 According to "Test methods for oil aerosol content" of ISO8573-2, the density of oil in the inlet air is 3wtppm.
*3 According to "Test methods for oil aerosol content" of ISO8573-2, the density of oil in the inlet air is 0.01wtppm.
*4 Can be replaced with Rc1/4 using optional DT adapter(Parts number:59047640).

HITACHI ROTARY COMPRESSOR OIL

Specifications

Item	Unit	Content
ISO Viscosity Grade	—	32
Density @15℃	kg/L	0.86
Viscosity @40℃	mm²/s	32.6
Viscosity Index	—	102
Flash Point	℃	> 200
Content	L	20
Package	—	Plastic Container Tank
Weight	kg	About 18
Exchange Cycle	—	Every half year

NOTE: Do NOT use this oil on the compressor which requires synthetic lubricating oil.

HITACHI FOOD GRADE ROTARY COMPRESSOR OIL

NSF
Nonfood Compounds Program Listed H1 NSF-Reg.No. 150658

Specifications

Item	Unit	Content
ISO Viscosity Grade	—	32
Color Phase	—	Colorless and Transparent
Density @15℃	kg/L	0.84
Viscosity @40℃	mm²/s	32.8
Flash Point	℃	200 or higher
Pour Point	℃	-50 or lower
Content	L	20
Exchange Cycle	—	8,000 operating hours or 1 year which comes earlier
Retrofit	—	Flushing running operation with the exclusive flushing use oil (new oil 20L can) for 30 minutes × twice then refill with new oil
Package	—	Plastic Container Tank
Weight	kg	About 18

NOTE:
1. Compliance Standard / Law: NSF H1 registration No. 150658 and FDA21 CFR178.3570
2. For retrofitting from conventional mineral oil to HITACHI FOOD GRADE DSP OIL, contact your nearest Hitachi sales representative.

Systems and Options

Energy-saving Combinations

3 ways to maximize energy-saving effect

Energy saving operation without external controller

V-M Combination System

Energy saving operation by one Vtype and maximum two Fixed Speed Model

Energy saving operation with external controller

Single-V System

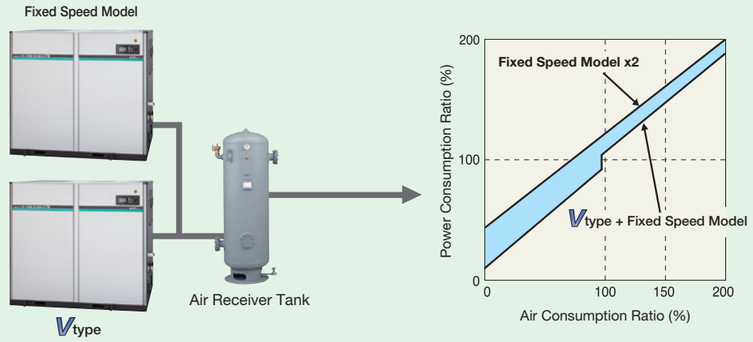
Energy saving operation by one Vtype and multiple Fixed Speed Model with multi-unit controller.

Energy saving operation with multiple Vtype model and external controller

Multi-V System

Energy saving operation by multiple Vtype to average Vtype operation hour

■ Basic Example of V-M Combination System

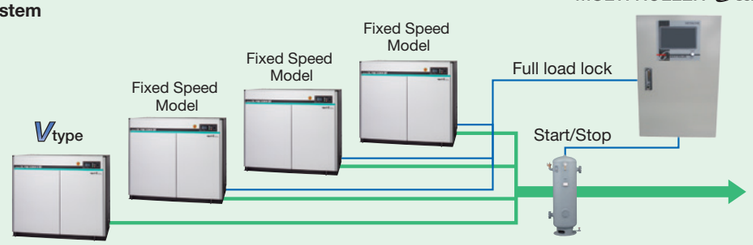


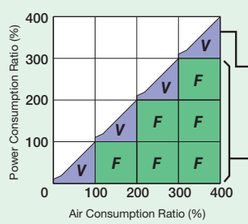
■ **Single-V / Multi-V**
Example of Multi-Unit Control System

MULTI ROLLER *G series*

DSP *V*type +

DSP Fixed Speed Models





Explanation

*V*type
Always running, follow the fluctuation of air consumption

Fixed speed type or *V*type
Full load or stop

*F indicates Fixed Speed Model.

Options

	DSP NEXT II series					
	Single-Stage		Two-Stage		Two-Stage	
	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model	Vtype	Fixed Speed Model
Nominal Output (kW)	22 – 55	15 – 55	37 – 100	22 – 120	160/240	132 – 240
						
Oil Mist Remover (OMR)	Standard	Standard	Standard	Standard	Standard	Standard
Instantaneous Power Interruption (IPI) Restart	Standard	Standard	Standard	Standard	Standard	Standard
Multi-unit Control (with MULTI ROLLER *G series*)	●	●	●	●	●	●
Alternate Operation (with MULTI ROLLER *G series*)	●	●	●	●	●	●
Alternate Operation*1	●	●	●	●	●	●
AUTO Operation	Standard	Standard	Standard	Standard	Standard	Standard
V-M Combination	●	—*2	●	—*2	●	—*2
Modbus®/TCP	●	●	●	●	●	●
Package Filter	●	●	●	●	●	●
Dust Filter	●	●	●	●	—	—
Specified Color of Sound-Proof Cover	●	●	●	●	●	●
Food Grade Oil	●	●	●	●	●	●

NOTE:
*1 Alternate Operation is possible between same models or models of the same series.
In case of alternate operation between models of different series, connection and control by MULTI ROLLER *G series* is necessary.
*2 In case of V-M Combination, modification on the Fixed Speed Model is not necessary.
· For other options, contact your nearest dealer or Hitachi local representative office.

⚠ Safety Precautions

■**What compressors are used for**
- The compressors listed in this catalog can only compress air. Never use them to compress gases other than air. Doing so may cause fire, damage, etc.
- The compressors cannot be used for respiratory equipment for breathing compressed air.

■**Installation location**
- Install the compressors indoors. Do not use the compressors in a place where it is exposed to moisture such as rain or steam. Doing so may cause fire, electric shock, rusting, or decrease in product life.
- Use the products in a location where there are no explosive or flammable gases (acetylene, propane gas, etc.), organic solvents, explosive dust, or fire nearby. Failure to do so may result in fire or accident.
- Do not use the products in locations where corrosive gases such as ammonia, acid, iron, sulfurous acid gas, etc. are present. It may cause rusting, decrease in product life, or damage.

■**Terms of use**
- Please read the "Instruction Manual" carefully before use and use the products correctly.
- Never modify the products or its parts. Doing so may cause damage or malfunction.

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Products described in this catalog may differ from different countries or regions. Contact your nearest Hitachi sales representative for details.
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Hitachi Industrial Equipment Systems Co., Ltd.

For details, please visit our website.
https://www.hitachi-ies.co.jp/english/

or further information,
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ISO14001
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Hitachi Screw Compressor is manufactured at a factory approved by Environmental Standard (ISO 14001) and Quality Standard (ISO9001) of International Organization for Standardization.

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