

Hitachi Rotary Screw Compressors

HITACHI
Inspire the Next

HISCREW

NEXT II series (100 /110 /150kW)



HISCREW NEXT II series 100,110kW



VSD

Fixed Speed Type

Air-Cooled

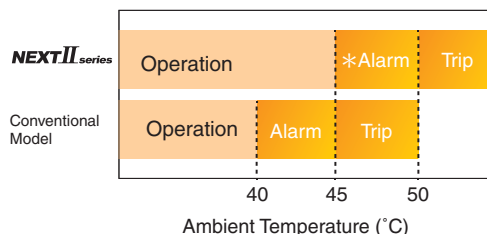
Water-Cooled

Without Dryer

High Reliability & Maintenance Friendly

Up to 50°C

- Standard up to 45°C
- Operation is possible under 50°C



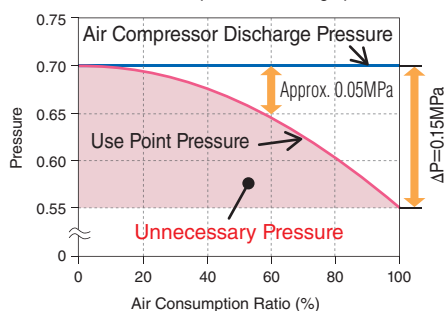
* Ambient temperature alarm will be indicated when ambient temperature is over 45°C.
Continuous operation at higher than 45°C may shorten lifetime of lubricating oil and electric parts.

IPC Control (Intelligent Pressure Control)

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

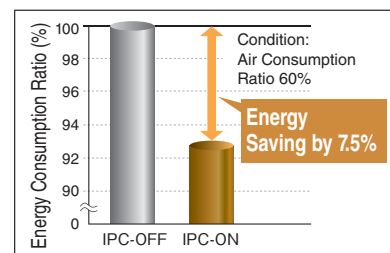
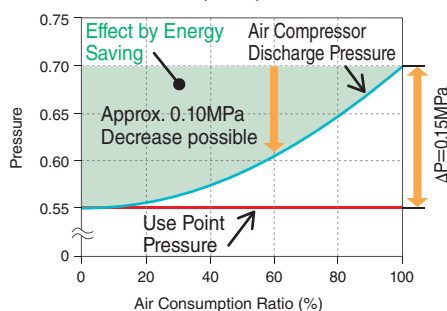
① IPC-OFF

- Control the air compressor discharge pressure at 0.70MPa



② IPC-ON

- Control the use point pressure at 0.55MPa



*The graph of pressure change above shows the theoretical values with piping pressure loss of 0.15MPa at full load.
*Due to estimation control, use point pressure varies in accordance with use conditions.

Standard Specification

Item-Unit		Model	OSP-110VAN2	OSP-110M5AN2 OSP-110M6AN2	OSP-100VWN2	OSP-100M5WN2 OSP-100M6WN2
Cooling Method		—	Air-cooled		Water-Cooled	
Nominal Output		kW	100			
Rated	Discharge Pressure	MPa	0.7	0.7 <0.85><1.0>	0.7	0.7 <0.85>
	Discharge Capacity	m³/min	21.5	21.5 <20.4><17.0>	18.9	19.6 <17.6>
PQ WIDE Mode	Discharge Pressure	MPa	0.6–0.85	—	0.6–0.85	—
	Discharge Capacity	m³/min	19.6–16.8	—	19.6–16.8	—
Intake Air Pressure/Temperature		—	Atmospheric pressure / 0–45°C			
Discharge Temperature		°C	Atmospheric Temperature + 15 or below		Temperature of Cooling Water +13 or below	
Driving Method		—	Gear Drive			
Starting Type		—	Inverter	Star-delta	Inverter	Star-delta
Lubricating Oil		—	HITACHI NEW HISCREW OIL NEXT			
Lubricating Oil Quantity		L	50 (not filled)		37 (not filled)	
Nominal Output of Cooling Fan		kW	1.5×2 (with Inverter Control)		0.05×3	
Discharge Pipe Diameter		B	2-1/2			
Cooling Water	Temperature	°C	—		35 or below	
	Quantity	L/min			150	
Dimension (W×D×H)		mm	2,550×1,500×1,800			
Weight		kg	2,900	2,800	2,900	2,800

Note:

- Capacity is measured according to ISO 1217, Third Edition, Annex C.
- Pressure is indicated as the gauge pressure.
- Temperature of discharge air may vary from different environments.
- Contact the supplier for the dryer and filters selection at PQ WIDEMODE ON.
- Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.
- Earth leakage circuit breaker need to be installed separately for each unit.
- Do NOT use any oil other than "NEW HISCREW OIL NEXT".
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- < > show values of capacity under different discharge pressures.

HISCREW *NEXT II* series 150kW Class

***NEXT II* series 150kW Dual Type include 2 units of 75kW compressor within one package.**

VSD

Fixed Speed Type

Air-Cooled

Water-Cooled

Without Dryer



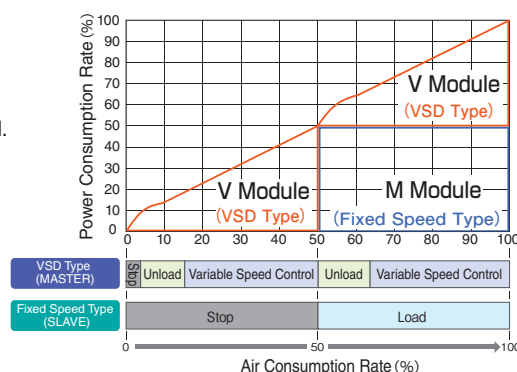
Improvement of Energy-Saving Performance

■ Evolved Energy-Saving feature is possible by loading 2 units of 75kW inside together with V-M combination control in V type.

VSD type with inverter as MASTER is preferred during operation.

In case of increase in used air, the operation of Fixed Speed Type will be triggered.

The change of load can be balanced by the revolution control of VSD type.



New Developed Air-End

Large capacity and high efficiency thanks to the improvement of rotor profile and optimization of oil lubricating method.

Automatic Switch-Over of Operation in case of Trouble

In case that operation of one compressor stops due to trouble, the total operation continues by automatically switching over to the other.

Maintenance Friendly

- Overhaul cycle is every 8 years. (2 years longer than the conventional model)
- Package filter on the suction port is standard.

High Reliability

- Standard up to 45°C
- Operation is possible under 50°C

Standard Specification

Item-Unit		Model	OSP-150V5ADN2 OSP-150V6ADN2	OSP-150M5ADN2 OSP-150M6ADN2	OSP-150V5WDN2 OSP-150V6WDN2	OSP-150M5WDN2 OSP-150M6WDN2
Cooling Method		—	Air-cooled		Water-Cooled	
Nominal Output		kW	150 (75×2)			
Rated	Discharge Pressure	MPa	0.7 <0.85>			
	Discharge Capacity	m³/min	26.5 <23.9>	26.4 <23.8>	26.5 <23.9>	26.4 <23.8>
Intake Air Pressure/Temperature		—	Atmospheric pressure / 0–45°C			
Discharge Temperature		°C	Atmospheric Temperature + 15 or below		Temperature of Cooling Water +13 or below	
Driving Method		—	V module: coupling M module: Gear Drive	Gear Drive	V module: coupling M module: Gear Drive	Gear Drive
Starting Type		—	V module: Inverter soft start M module: Star-delta	Star-delta	V module: Inverter soft start M module: Star-delta	Star-delta
Lubricating Oil		—	HITACHI NEW HISCREW OIL NEXT			
Lubricating Oil Quantity		L	79 (not filled)	80 (not filled)	52 (not filled)	52 (not filled)
Nominal Output of Cooling Fan		kW	2.2×2 (with Inverter Control)		0.05×4	
Discharge Pipe Diameter		B	3			
Cooling Water	Temperature	°C	—		35 or below	
	Quantity	L/min			250	
Dimension (W×D×H)		mm	2,350×1,850×1,900			
Weight		kg	3.300	3.650	2.970	3.320

Note:

1. Capacity is measured according to ISO 1217, Third Edition, Annex C.
2. Pressure is indicated as the gauge pressure.
3. Temperature of discharge air may vary from different environments.
4. Install the proper size air receiver tank and the earth leakage circuit breaker which are out of scope of supply from Hitachi.

5. Earth leakage circuit breaker need to be installed separately for each unit.

6. Do NOT use any oil other than "NEW HISCREW OIL NEXT".

7. Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.

8. < > show values of capacity under different discharge pressures.

Multi-Function Touch Panel

Significant Improvement of User-friendly

Various Functions Available

Operation Data Logging



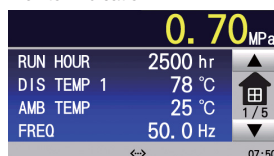
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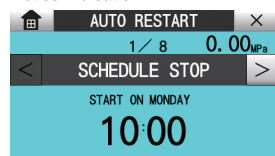
Main Functions

- ① E-MODE
- ② Schedule Operation (Weekly Timer)
- ③ Instantaneous Power Interruption (IPI) Restart Function
- ④ Alternate Operation (Option)
- ⑤ Multi-unit Control (Option)
- ⑥ AUTO Operation
- ⑦ Communication Function
- ⑧ Web Server Function
- ⑨ Display/Store of Operation Data
- ⑩ Store/Load of Settings
- ⑪ Maintenance Time Notification
- ⑫ Operation Data Memory, Display in Graph
- ⑬ Display of Shutdown and Alarm History

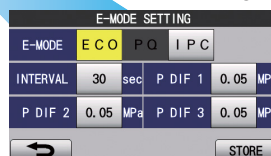
Monitor Indication



Notice Indication



E-MODE



IT Communication Functions

USB Flash Memory Possible for Data Logging

*Necessary to prepare a USB flash memory device (5.5 cm 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

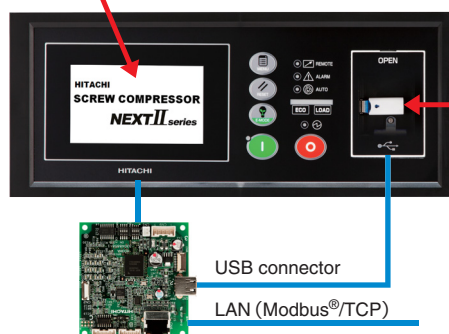
Open network serial communication Modbus®/RTU is supported as standard

*Modbus®/TCP support is optional.

USB flash memory (data retrieving)

(Standard) pressure/temperature/current/history/time

Color Touch Panel



*The image described above has been modified.



Bluetooth® Dongle ⇄ Tablet terminal device



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

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Hitachi Industrial Equipment Systems Co., Ltd.

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