

# Asia & Oceania

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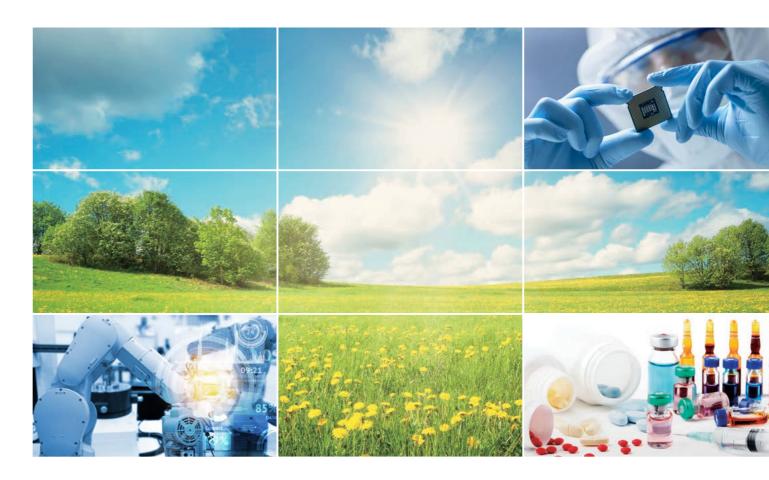
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# HITACHI OIL-FREE SCREW COMPRESSOR



# **OIL FREE SCREW**

# SINGLE STAGE / TWO STAGE





# Hitachi Social Innovation

# - Environment Friendly, High Standard Oil-Free Rotary Screw Compressor (DSP)

Since the first Hitachi air compressor (1911),

Hitachi has become one of the global leading manufacturers in air compressor.

With the concept 'Toward the next 100 years, Contribute to Environment and Energy-Saving',

Hitachi commit ourselves to unstoppable effort in technology innovation.

With high standard reliability, excellent Energy-Saving and various air solutions,

Hitachi will contribute to the industrial growth and development.

# **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".







# Industry Standard in Energy-Saving, Environment Friendly and High Quality - From small to large, Full Line-Up (15-240kW)







# ■OIL FREE SCREW (DSP) Model List

Fixed Speed Type

Model	1	Nominal Output (kW)	15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
	Air-Cooled	Built-in Dryer		•													
Single-Stage		Without Dryer	•	•		•		•									
	Water-Cooled	Without Dryer	•	•		•		•									
	Air-Cooled	Built-in Dryer		•	•	•	•	•	•								
Two Stone	Air-Cooled	Without Dryer		•		•	•	•	•	•	•	•	•	•	•	•	•
Two-Stage	Water-Cooled	Built-in Dryer					•	•	•								
	water-Cooled	Without Dryer					•	•	•	•	•	•	•	•	•	•	

V-type (VSD)

Model	1	Nominal Output (kW)	15	22	30	37	45	55	75	90	100	120	132	145	160	200	240
	Ain On alad	Built-in Dryer		•													
Single-Stage	Air-Cooled	Without Dryer		•		•		•									
	Water-Cooled	Without Dryer				•		•									
	Ain On alad	Built-in Dryer				•		•	•								
Two-Stage	Air-Cooled	Without Dryer				•		•	•		•						
ino otage	Water-Cooled	Built-in Dryer						•	•								
	water-Cooled	Without Dryer															

: NEXTII Series

# High Performance Air-End

# Stainless Steel Rotor

Particular stainless steel, which is superior in corrosion resistance and durability, is applied for rotor with highly accurate grinding. Furthermore, compensated profile, which is optimized for thermal expansion during operation, enables to keep optimal clearance.

# **High Performance Coating**

Patent JP05416072

Hitachi original coating, which can withstand the high temperature of over 300°C, protects the rotors from a decrease in performance (efficiency, air purity, etc.).



# Single-Stage, Air-Cooled (15/22/37/55kW) Single-Stage, Water-Cooled (15/22/37/55kW)



<sup>\*</sup>The above picture shows the internal structure of 55kW Air-Cooled model (V-type).

# Cut Down Overhaul and Initial Cost

# Comparison of cost with the same air capacity level

Because there is only one air-end for DSP Single-Stage model, the initial cost is 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

# Expanded Line-Up (Low Pressure)

# 0.30MPa model is newly added

V-type 0.30MPa and Fixed Speed Model 0.40MPa models are abailable for low pressure application to save the energy.

# **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.



# 0.70MPa SPEC Low Pressure Equipment Powder Transport Air Blow Powder Transport

# **Specifications**

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

[ ]: Indicates model with Dryer integrated.

Item•Uni	t	Model	DSP-15A [R] 6N2 DSP-22A [R] 6N2			A[R]5N2 A[R]6N2	DSP-55A[R]5N2 DSP-55A[R]6N2					
Discharge	e Pressure	MPa	0.70	0.40	0.70	0.40	0.70	0.40	0.70	0.40		
Discharge	e Air Capacity	m³/min	2.0	2.5	3.4	4.0	5.0	5.9	6.4	8.0		
Nominal I	Motor Output	kW	1:	5	2	2	3	7	5	5		
Motor Ty	ре	_				4-Pole TE	FC Motor					
Intake Air	Pressure / Temperature	°C			At	mospheric Press	ure / 0 – 45 [2 – 4	5]				
Discharge	e Temperature	°C				Ambient Tempera	ture +15 or below	1				
Discharge	e Air Pipe Connection	В	Ro	:1			Rc1	-1/2				
Starting N	Method	_	Full Volta	ige Start			Star-Delta	(3 contact)				
Driving M	lethod	_				V-Belt+Ge	ear-Driven					
Oil Quant	tity	L		12 (No	ot filled)			18 (No	ot filled)			
Cooling F	an Motor Output	kW	0.	4		0.	65		0.	9		
Coolant F	Pump Motor Output (50/60Hz)	kW				0.2	/0.3					
	P.D.P	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-		
[Dryer]	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]				1,480]						
Dimensions (W×D×H) mm 1,400×970×1,400 1,830×980×1,580 [2,230×980×1,580]					]							
Sound Le	evel (1.5m from front)	dB(A)	62	63	63	64	66	68	68	70		

# ■ Air-Cooled / Water-Cooled, V-type Model (22–55kW)

Indicates model with Dryer integrated.

AII-00	oled / Water-Coole	u, v-ty	Je Model	(22-JJKV)	')					[ ]: Indicat	es model with L	ryer integrated
Item·Unit		Model		A[R]5N2 A[R]6N2	DSP-37V		DSP-55V		DSP-37	7VWN2	DSP-58	5VWN2
Cooling Met	thod	_			Air-Co	ooled	•			Water-	Cooled	
Discharge P	ressure	MPa	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30	0.70	0.30
Discharge A	ir Capacity	m³/min	3.4	4.6	5.0	6.7	6.4	8.5	5.0	6.7	6.4	8.5
	Discharge Pressure	MPa	0.60	-	0.60	-	0.60	-	0.60	-	0.60	-
PQ	Discharge Air Capacity	m³/min	3.7	-	5.5	-	7.0	-	5.5	-	7.0	-
WIDEMODE	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 WIDEMO	ODE 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 Mo	tor Output	kW	2	2	3	7	5	5	3	7	5	5
Motor Type		_			4-Pole TE	FC Motor			4-Pole TEFC Motor			
Intake Air Pr	ressure / Temperature	°C		Atmo	spheric Pressu	ıre / 0 – 45 [2	<b>-</b> 45]		Atmospheric Pressure / 0 – 45			5
Discharge To	emperature	°C		Am	bient Tempera	ture +15 or be	elow		Cooling	Cooling Water Temperature +13 or below		
Discharge A	ir Pipe Connection	В			Rc1	-1/2				Rc1	-1/2	
Starting Met	thod	_			Inve	rter				Inve	erter	
Driving Meth	nod	_			V-Belt+Ge	ear-Driven				V-Belt+G	ear-Driven	
Oil Quantity		L	12 (No	t filled)		18 (No	t filled)			14 (No	t filled)	
Cooling Fan	Motor Output	kW		0.	75		0.	9		0	.2	
Cooling Wat	ter Flow Rate	L/min			-	-				8	80	
Cooling Wat	ter Temperature	°C			-	-				32 or	below	
Cooling Wat	ter Pipe Connection	В			-	-				R	c1	
Coolant Pun	np Motor Output (50/60Hz)	kW			0.2/	0.3					-	
[Dryer]	.D.P	°C	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-	[10 (Under Pressure)]	-			-	
R	efrigerator Nominal Output	kW	[1.2]	-	[1.45]	-	[1.45]	-	-			
R	efrigerant	_	[R410A]	-	[R410A]	-	[R410A]	-	-			
Weight		kg	900 [	960]	1,140 [	1,290]	1,270 [	1,420]	1,110 1,240			40
Dimensions	(W×D×H)	mm	1,650×97	70×1,400	1,830	×980×1,580	2,230×980×1,	580]	1,830×980×1,580			
Sound Level	I (1.5m from front)	dB(A)	63	64	66	68	68	70	64	66	64	66

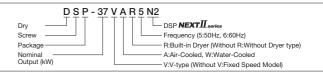
# ■ Water-Cooled, Fixed Speed Model (15-55kW)

Item • Unit	Model		5W5N2 5W6N2		2W5N2 2W6N2		7W5N2 7W6N2	DSP-59 DSP-59	
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 Motor Output	kW	1	5	2	2	3	7	5	5
Motor Type	_				4-Pole TE	FC Motor			
Intake Air Pressure / Temperature	°C		Atmospheric Pressure / 0 – 45						
Discharge Air Temperature	°C		Cooling Water Temperature+13 or below						
Discharge Air Pipe Diameter	В	Re	c1			Rc1	-1/2		
Cooling Water Flow Rate	L/min		5	i0			8	0	
Cooling Water Temperature	°C				35 or	below			
Coolant Water Pipe Diameter	В		Ro	3/4			R	c1	
Starting Method	_	Full Volta	age Start			Star-Delta (	3-contact)		
Driving Method	_				V-Belt+G	ear-Driven			
Lubricating Oil Quantity	L		10 (No	t filled)			14 (No	t filled)	
Cooling Fan Motor Output	kW		0.	05			0	.1	
Weight	kg	770 830 1,030 1,280							80
Dimensions (W×D×H)	mm	n 1,400×970×1,400 1,830×980×1,580							
Sound Level (1.5m from front side)	dB(A)	4) 62 63 63 64 64 66 64						66	

# NOTE:

- 1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.
- P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure.
   P.D.P can be much worse at 0.40MPa or lower discharge pressure.
   P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
- 4. Built-in dryer 0.30MPa model is NOT available.
- Capacity after built-in dryer is decreased by 3%.
- In case of dust-proof or package filter option, maximum ambient temperature is limited up to
   40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature
- Earth leakage circuit breaker is out of supply scope from Hitachi.
- 8. These air compressors are not designed, intended or approved for breathing air applications.

- Pressures are indicated as the gauge pressure.
- Install the air compressor indoors and avoid flammable and corrosive environment, moisture and dust.
- 11. Protruding objects such as discharge pipe are not included in Dimension.
- Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.



# Two-Stage, Air-Cooled (22/37/45/55/75/90/100/120kW)



\*The above picture shows 75kW Air-Cooled model (V-type).

# 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. Patent JP4425768 and others

# **Example of effect by IPC**

■ oAir compressor: DSP-37VATN2 

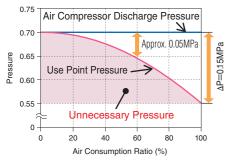
Ocontrol pressure setting: 0.70MPa 

Use point pressure during full load: 0.55MPa Piping pressure loss during full load: 0.15MPa

Graph of pressure change (Theoretical values)

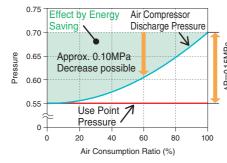
# ① IPC-OFF

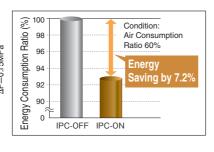
• Control the air compressor discharge pressure at 0.70MPa



# 2 IPC-ON

·Control the use point pressure at 0.55MPa





# **IT Communication Functions**

# **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

\*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).

USB flash memory (data retrieving)



# **Specifications**

# Air-Cooled 22/37kW

		Model			Fixed Spe	ed Model			V-type	Model		
Item•U	nit			T [R] 5N2 T [R] 6N2		T [R] 5N2 T [R] 6N2		.T [R] 5N2 .T [R] 6N2	DSP-37V	AT [R] N2		
Dischar	je Pressure	MPa	0.70	0.88	0.70	0.88	0.70	0.88	0.70	0.88		
Discharg	e 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	mymin			-	-			6.0	5.6		
Nominal	Motor Output	kW	2	2	3	0	3	37	3	37		
Motor Ty	/pe	_			4-Pole	TEFC			6-Pole DC			
Intake A	ir Pressure / Temperature	°C		At	mospheric Pressu	ure / 0 – 45 [2 – 4	5]		Atmospheric Press	sure / 0 – 45 [2 – 45]		
Discharg	ge Temperature	°C			Ambient Tempera	ture +15 or below	/		Ambient Tempera	ture +15 or below		
Dischar	je Pipe Diameter	В			Rc1	-1/2			Rc1	-1/2		
Starting	Method				Star-Delta	(3 contact)			Soft	Start		
Driving I	Method	_		V-I	Belt with Auto Ten	sioner+Gear-Driv	/en		Direct Connection	on + Gear Driven		
Lubricat	ing Oil Filling	L			15 (No	t filled)			15 (No	t filled)		
Output o	of Cooling Fan	kW			1.1 (In	verter)			1.1 (In	verter)		
	P.D.P	$^{\circ}$			[10 (Under	Pressure)]			[10 (Under	Pressure)]		
[Dryer]	Refrigerator Nominal Output	kW			[1.4	45]			[1.	45]		
	Refrigerant			[R410A]					[R4	10A]		
Weight		kg	1,120	[1,180]		1,230 [	1,290]		950 [1	1,010]		
Dimensi	ons (W×D×H)	mm			1,530×1,1	50×1,650			1,530×1,150×1,650			
Noise Le	evel (1.5m from front side)	dB(A)	63	64	65	66	66	67	66	67		

Air-C	Cooled 45/55/75kW										
		Model			Fixed Spe	ed Model					
Item•Un	nit			T [R] 5N2 T [R] 6N2		T [R] 5N2 T [R] 6N2		T [R] 5N2 T [R] 6N2			
Discharge	e Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93			
Discharge	e Air Capacity	m³/min	7.4/7.8	6.2/6.5	9.2	7.2/7.7	13.0	10.5/11.1			
Discharge Ai	ir Capacity at PQ wide ON of 0.6MPa	mymin				-					
Nominal	Motor Output	kW	4	45 55 75							
Motor Ty	pe	_			2-Pole TE	FC Flange					
Intake Air	r Pressure / Temperature	°C		Atmo	spheric Pressi	ure / 0 – 45 [2	- 45]				
Discharge	e Temperature	°C		Amb	oient Tempera	ture +15 or be	elow				
Discharge	e Pipe Diameter	В			2 (Fla	ange)					
Starting I	Method	_	Star-Delta (3 contact)								
Driving N	lethod	_		Di	rect Connection	on + Gear Driv	en				
Lubricatin	ng Oil Filling	L			25 (No	t filled)					
Output of	f Cooling Fan	kW		1.5 (In	verter)		2.2 (In	verter)			
	P.D.P	°C			[10 (Under	Pressure)]					
[Dryer]	Refrigerator Nominal Output	kW		[2	.2]		[3	.0]			
	Refrigerant	_		[R4	10A]		[R40	07C]			
Weight		kg		1,600 [	[1,750]		1,860	[2,030]			
Dimensio	ns (W×D×H)	mm	1 2,000×1,300×1,800 2,250×1,300×1,800								
Noise Le	vel (1.5m from front side)	dB(A)	63	65	63	65	6	8			

# [ ]: Indicates model with Drver integrated.

[ ]: Indicates model with Dryer integrated.

	V-type	Model					
DSP-55V	AT [R] N2	DSP-75\	/AT [R] N2				
0.70	0.93	0.70	0.93				
9.3	7.7	12.6	10.9				
9.6	9.3	13.0 12.6					
5	5	7	5				
	6-Pole	DCBL					
Atmo	ospheric Press	ure / 0 – 45 [2	2–45]				
Aml	pient Tempera	ture +15 or be	elow				
	2 (Fla	ange)					
	Soft	Start					
Di	rect Connection	on + Gear Driv	en				
	25 (No	t filled)					
1.5 (In	verter)	2.2 (In	verter)				
	[10 (Under	Pressure)]					
[2	.2]	[3	.0]				
[R4	10A]	[R40	07C]				
1,340	[1,490]	1,560 [1,730]					
2,000×1,3	800×1,800	2,250×1,3	800×1,800				
63	65	67	68				

# ■ Air-Cooled 90/100/120kW

	Model				V-type	Model				
		DSP-90A	5 [L] MN2	DSP-100A	\5 [L] MN2	DSP-12	0A5MN2	DSP-100	VA5MN2	
Item • Unit		DSP-90A	6 [L] MN2	DSP-100A	A6 [L] MN2	DSP-12	0A6MN2	DSP-100	VA6MN2	
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 Motor Output	kW	9	0	20	100					
Motor Type	_			2-Pole TE	FC Flange			2-Pole TE	FC Flange	
Intake Air Pressure / Temperature	°C			Atmospheric P	ressure / 0 - 45			Atmospheric P	ressure / 0 – 45	
Discharge Temperature	°C			Ambient Tempera	ture +15 or below	V		Ambient Temperature +15 or		
Discharge Pipe Diameter	В			2 (Fl	ange)			2 (Flange)		
Starting Method	_		Star-Delta (3 contact)					Inve	erter	
Driving Method	_			Direct Connection	on + Gear Driven			Direct Connection	on + Gear Driven	
Lubricating Oil Filling	L			26 (No	ot filled)			26 (No	t filled)	
Output of Cooling Fan	kW			1.5	5×2			1.5	5×2	
Weight	kg		2,2	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)	, , , , , , , , , , , , , , , , , , , ,						69 71		

- 1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.

  3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure.
- P.D.P can be much worse at 0.60MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
- Capacity after built-in dryer is decreased by 3%.
   In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature +18 degree C or less.
- 6. Earth leakage circuit breaker is out of supply scope from Hitachi.
- 7. These air compressors are not designed, intended or approved for breathing air applications.
- 8. Pressures are indicated as the gauge pressure. 9. Install the air compressor indoors and avoid flammable and corrosive environment, moisture
- 10. Protruding objects such as discharge pipe are not included in Dimension
- 11. Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

# Two-Stage, Water-Cooled (45/55/75/90/100/120kW)



# **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. Patent JP4425768 and others

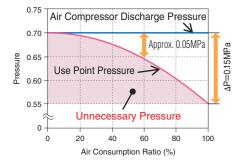
# **Example of effect by IPC**

• Air compressor: DSP-37VATN2 • Control pressure setting: 0.70MPa • Use point pressure during full load: 0.55MPa Piping pressure loss during full load: 0.15MPa

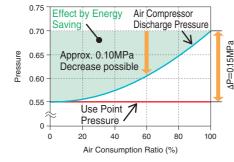
Graph of pressure change (Theoretical values)

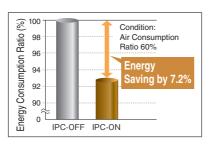
# ① IPC-OFF

• Control the air compressor discharge pressure at 0.70MPa



·Control the use point pressure at 0.55MPa





\*Due to estimation control, use point pressure varies in accordance with use conditions.

# **IT Communication Functions**

# **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

\*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).

USB flash memory (data retrieving)



# **Specifications**

# ■ Water-Cooled 45/55/75kW

		Model			Fixed Spe	ed Model				V-type	Model	
			DSP-45W	T [R]5N2	DSP-55W	T [R]5N2	DSP-75W	/T [R] 5N2	DSD-55V	WT [R]N2	DSP-75	
Item•U	nit		DSP-45W	T [R]6N2	DSP-55W	T [R]6N2	DSP-75W	/T [R] 6N2	D3F-33V	WI [N]IVZ	D3F-7.	
Discharg	e Pressure	MPa	0.70	0.93	0.70	0.93	0.70	0.93	0.70	0.93	0.70	
Discharg	e Air Capacity (50Hz/60Hz)	24 .	7.5/7.9	6.4/6.7	9.4	7.4/7.9	13.2	10.7/11.3	9.5	8.0	12.9	
Discharge A	ir Capacity at PQ wide ON of 0.6MPa	m³/min				-	•		9.8	9.5	13.4	
Nominal	Motor Output	kW	4	5	5	5	7	5	5	5		
Motor Ty	ре	_			2-Pole TE	FC Flange				6-Pole	DCBL	
Intake Ai	r Pressure / Temperature	_		Atmo	spheric Pressu	ure / 0 – 45 [2	- 45]		Atmo	spheric Press	ure / 0 – 45	
Discharg	e Temperature	°C		Coolin	g Water Temp	erature +13 or	below		Coolin	erature +13		
Discharg	e Pipe Diameter	В			2 (Fla	ange)				2 (Fl	ange)	
Starting	Method	_			Star-Delta	(3 contact)				Soft	Start	
Driving N	Method	_		Di	rect Connection	n + Gear Driv	en		Di	rect Connection	on + Gear D	
Lubricati	ng Oil Filling	L			15 (No	t filled)				15 (No	t filled)	
Output o	f Cooling Fan	kW			0.0	5×2				0.0	5×2	
Cooling	Water Capacity	L/min		9	10		1:	20	9	0		
Cooling	Water Temperature	°C			35 or	below				35 or	below	
Cooling	Water Pipe Diame	В			Rc 1	-1/4				Rc 1	1-1/4	
	P.D.P	°C			[10 (Under	Pressure)]				[10 (Under	Pressure)]	
[Dryer]	Refrigerator Nominal Output	kW		[2	.2]		[3	.0]	[2	.2]		
	Refrigerant	_		[R4	10A]		[R4	07C]	[R4	10A]	[F	
Weight		kg		1,580	[1,730]		1,710	[1,880]	1,320	[1,470]	1,41	
Dimensio	ons (W×D×H)	mm			2,000×1,3	800×1,800			2,000×1,300×1,8			
Noise Le	vel (1.5m from front side)	dB(A)	6	3	6	3	65	66	6	3	65	
			00 00 00									

# [ ]: Indicates model with Dryer integrated.

V-type Model										
	V-type	Model								
DSP-55V\	WT [R] N2	DSP-75V\	WT [R]N2							
0.70	0.93	0.70	0.93							
9.5	8.0	12.9	11.4							
9.8	9.5	13.4	13.0							
5	5	75								
	6-Pole	DCBL								
Atmos	Atmospheric Pressure / 0 – 45 [2 – 45]									
Cooling	Cooling Water Temperature +13 or below									
	Cooling Water Temperature +13 or below 2 (Flange)									
	Soft	Start								
Dir	ect Connection	on + Gear Driv	en							
	15 (No	t filled)								
	0.0	5×2								
9	0	12	20							
	35 or	below								
	Rc 1	-1/4								
	[10 (Under Pressure)]									
[2.	[2.2] [3.0]									
[R410A] [R407C]										
1,320 [	1,470]	1,410 [	1,580]							
	0.70 9.5 9.8 5 Atmos Cooling Dia 9	DSP-55WWT [R] N2  0.70	0.70							

# ■ Water-Cooled 90/100/120kW

	Model			Fixed Spe	ed Model			V-type	Model	
		DSP-90W	/5 [L] MN2	DSP-100V	V5 [L] MN2	DSP-120	DW5MN2	DSP-100	VW5MN2	
Item · Unit		DSP-90W	6 [L] MN2	DSP-100V	V6 [L] MN2	DSP-12	DW6MN2	DSP-100	VW6MN2	
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 Motor Output	kW	9	0	10	00	12	20	100		
Motor Type	_				2-Pole TEFC Flange					
Intake Air Pressure / Temperature	_				Atmospheric P	ressure / 0 – 45				
Discharge Temperature	°C		Co	oling Water Temp	erature +13 or be	low		Cooling Water Temperature +13 or		
Discharge Pipe Diameter	В			2 (Fla	ange)			2 (Flange)		
Starting Method	_			Star-Delta	(3 contact)			Inve	erter	
Driving Method	_	Direct Connection + Gear Driven					Direct Connection	on + Gear Driven		
Lubricating Oil Filling	L			16 (No	t filled)			16 (No	t filled)	
Cooling Water Capacity	L/min		1	60		1	80	1	60	
Cooling Water Temperature	°C			35 or	below			35 or	below	
Cooling Water Pipe Diame	В			Rc 1	-1/2			Rc 1	I-1/2	
Weight	kg	2,050 2,230							200	
Dimensions (W×D×H)	mm	2,150×1,520×1,825 2,150×1,520×1,825							520×1,825	
Noise Level (1.5m from front side)	dB(A)	66	68	67	69	69	70	67 69		

- 1. Capacity is measured according to ISO 1217, fourth edition, Annex C.
- 2. Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or nments. Sound level may be increased by 2dB when PQ WIDEMODE is ON.
- 3. P.D.P is measured at 30 degree C of intake air temperature and rated discharge pressure. P.D.P can be much worse at 0.60MPa or lower discharge pressure. P.D.P can be 13 degree C at 0.60MPa of discharge pressure PQ WIDEMODE ON.
- 5. In case of dust-proof or package filter option, maximum ambient temperature is limited up to
- 6. Earth leakage circuit breaker is out of supply scope from Hitachi.
- 7. These air compressors are not designed, intended or approved for breathing air applications.
- 8. Pressures are indicated as the gauge pressure
- 9. Install the air compressor indoors and avoid flammable and corrosive environment, moisture
- 10. Protruding objects such as discharge pipe are not included in Dimension
- described in this publication at anytime without notice.

# Two-Stage, Water-Cooled (132/145/160/200/240kW) Two-Stage, Air-Cooled (132/145/160/200/240kW)

Air-End (1st Stage)

Oil Mist Remover (OMR)

Gear Case

Air-End (2nd Stage)

TEFC Motor

Oil Cooler

High Capacity by Equipping New **NEXTI** Series Air-End

Low Noise Low Vibration

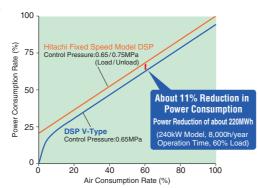
\*The above picture shows the internal structure of 240kW Water-Cooled model (V-type).

Compact Design by Optimized Layout of Components

High Discharge Pressure Available (up to 1.0MPa)

# Energy-Saving (V-type)

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.

# 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.

# High precooler system (Air-Cooled models)

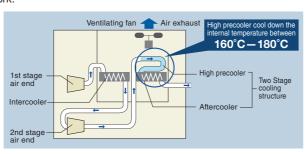
High precooler system reduces temperature of extremely hot air to aftercooler and Two-Stage cooling structure improves reliability.

# **High Discharge Pressure Available**

1.0MPa is available with high reliability.

# **Maintenance Friendly**

DSP series provides easy accessibility for inspection and maintenance.



# **Specifications**

# ■ Water-Cooled, V-type Model (160/240kW)

	Model		DSP-160VW5N2		DSP-240VW5N2					
Item·Unit			DSP-160VW6N2			DSP-240VW6N2				
Discharge Pressure	MPa	0.75	0.93	1.0	0.75	0.93	1.0			
Discharge Air Capacity	m³/min	28.5	24.8	23.2	40.5	35.0	32.5			
Nominal Motor Output	kW		160 240							
Motor Type	_		4-Pole TEFC Flange Motor							
Intake Air Pressure / Temperature	℃		Atmospheric Pressure / 0 - 45							
Discharge Air Temperature	℃		Cooling Water Temperature+13 or below							
Discharge Air Pipe Diameter	В	2-1/2 (Flange) 3 (Flange)								
Starting Method	_		Inverter							
Driving Method	_			Direct Connection Wit	h Motor+Gear-Driven					
Cooling Water Flow Rate	L/min		240			330				
Cooling Water Temperature	℃			35 or	below					
Coolant Water Pipe Diameter	В			Re	02					
Lubricating Oil Quantity	L		40 (Not filled)			50 (Not filled)				
Cooling Fan Motor Output	kW			0	.4					
Weight	kg	3,960 4,900								
Dimensions (W×D×H)	mm	2,500×1,600×1,925 2,800×1,800×1,950								
Sound Level (1.5m from front side)	dB(A)		70	71						

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

	Model	DS	SP-132A5	N2	DS	SP-145A5	N2	DS	SP-160A5	N2	DS	SP-200A5	N2	DSP-240A5N2			
Item·Unit		DS	SP-132A6	N2	DS	SP-145A6	N2	DS	SP-160A6	N2	DS	SP-200A6	N2	DS	SP-240A6	N2	
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	m³/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 Motor Output	kW		132			145			160			200		240			
Motor Type	_		4-Pole TEFC Flange Motor														
Intake Air Pressure / Temperature	°C		Atmospheric Pressure / 0 - 45														
Discharge Air Temperature	°C		Ambient Temperature+15 or below														
Discharge Air Pipe Diameter	В	2-1/2 (Flange) 3 (Flange)															
Starting Method	_							Star-D	elta (3-co	ntact)							
Driving Method	_						Direct (	Connectio	n With Mo	tor+Gear	-Driven						
Lubricating Oil Quantity	L				5	0 (Not fille	d)						60 (No	ot filled)			
Cooling Fan Motor Output	kW				4	.4 (1.1×4	1)						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							
Sound Level (1.5m from front side)	dB(A)	73	7	4	74	7	'5	74	7	5	76 77 77			7	'8		

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

	Model	DS	P-132W5	N2	DS	P-145W5	N2	DS	P-160W5	N2	DS	P-200W5	N2	DSP-240W5N2		
Item · Unit		DS	P-132W6	N2	DS	P-145W6	N2	DS	P-160W6	N2	DS	P-200W6	N2	DS	P-240W6	N2
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	m³/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 Motor Output	kW		132			145			160			200			240	
Motor Type	_							4-Pole T	EFC Flanç	ge Motor						
Intake Air Pressure / Temperature	℃		Atmospheric Pressure / 0 - 45													
Discharge Air Temperature	℃		Cooling Water Temperature + 13 or below													
Discharge Air Pipe Diameter	В			2-1/2 (Flange) 3 (Flange)												
Starting Method	_							Star-D	elta (3-co	ntact)						
Driving Method	_						Direct (	Connectio	n With Mo	tor+Gear	-Driven					
Cooling Water Flow Rate	L/min		200			210			240			300			330	
Cooling Water Temperature	℃				3	35 or belov	v						35 or	below		
Coolant Water Pipe Diameter	В					Rc2							Ro	2		
Lubricating Oil Quantity	L				4	0 (Not fille	d)						50 (No	t filled)		
Cooling Fan Motor Output	kW								0.4							
Weight	kg					3,760							4,6	600		
Dimensions (W×D×H)	mm		2,500×1,600×1,925 2,800×1,800×1,950													
Sound Level (1.5m from front side)	dB(A)	68	6	9	69	7	0	69	7	0	69	7	0	70	7	1

# IOTE:

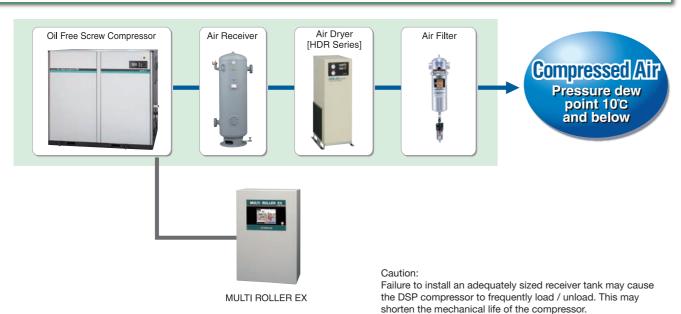
- Capacity is measured according to ISO 1217, fourth edition, Annex C.
   Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under
- Sound level is the equivalent value at 1.5m in front and 1m height in an anechoic room, under full load operation with no auto drain function. It may vary in different operation conditions or environments.
- In case of dust-proof or package filter option, maximum ambient temperature is limited up to 40 degree C, and discharge air temperature of air-cooled models is atmospheric temperature +18 degree C or less.
- 4. Earth leakage circuit breaker is out of supply scope from Hitachi

- 5. These air compressors are not designed, intended or approved for breathing air applications
- 6. Pressures are indicated as the gauge pressure.7. Install the air compressor indoors and avoid flammable and corrosive environ
- 8. Rear duct (200mm depth) and other protruding objects such as a discharge pipe are not
- included in dimension.

  9. Hitachi may make improvements and / or changes in the appearance and / or specifications
- Hitachi may make improvements and / or changes in the appearance and / or specifications described in this publication at anytime without notice.

# **Auxiliary Equipment & Options**

# Oil Free Screw Compressed Air System



# **Control Panel**

# **Multi Unit Controller** (MULTI ROLLER EX)

- Designed for Hitachi Air Compressor
- Efficient Control of Multiple Units
- Energy-Saving
- Various Functions Available



# **Alternate Operation Controller** (Dual Roller III)

- Designed for Hitachi Air Compressor
- Efficient Control of 2 Units
- Energy-Saving



# **Standard Specification**

Iter	m Model	Unit	MR 26-4	MR 26-8	MR 26-12						
Pov	wer Supply	_	Single-phase AC100/200V (Common)								
Fre	quency	_	50/60Hz (Common)								
Cor	ntrolled Unit	-   4   8   12									
	Discharge Pressure	MPa	0 -	0 - 1 (Digital Indication)							
Input	Control	_	Answer (Operation), Failure								
_	External	_	Start, Stop, Forced Start-up, Remote								
Output	Control	_	Run, S	top, Load, PID Co	mmand						
Out	External	_	S	tart, Shutdown, Au	to						
Con	trolled Discharge Pressure	_	Minir	num ±0.001MPa s	etting						
Din	nensions (W×D×H)	mm	400×200×600 500×200×900 500×200×1,200								
We	ight	kg	19	32	37						

# **Standard Specification**

J	•	LIO	Standard Specification											
Ite	Model	Unit	SD	R-3										
Pov	ver Supply	_	AC100V (— [Possible for AC200V b	10%+10%) by switching connector]										
Pov	ver Supply Frequency	_	AC100 to 240V±10% 50/60Hz [Single-phase											
Coı	ntrollable Number of Units	_	2											
	Frequency × 2	mA	4 – 20	(250Ω)										
	Remote-Set [Remote] × 2	_	0											
Input	Run [Operation] × 2	_	Connection using the											
드	Failure [Shut down] × 2	_	voltage is applied [Power supply DC24V]											
	ElectricPulse • Extra ×2	_	Optional	terminals										
	Run × 2	_	1500ms w/out voltage	"a"contact										
but	Stop × 2	_	Pulse AC250V0.3A	"b"contact										
Output	Load/Unload Command × 2	_	Dry contact	"c"contact										
	Status × 2		AC250V0.3A	"a"contact										
Pre	ssure Detection		Built-in pressure s	ensor [0 - 1 MPa]										
Ор	eration Method	_		[pressure/failure] , P/GAP] , Schedule										
Sta	ndard Function	Initial pump-up operation, Err. history, IPS restart, Remote operation												
Din	nensions (W×D×H)	mm	300×160×400											
We	ight	kg	1	0										

# HITACHI ROTARY COMPRESSOR OIL

# **HITACHI Genuine Lubricating Oil designed** for Hitachi Rotary Screw Compressor

# **Features**

- Originally Designed for Hitachi Rotary Screw Compressor
- High Performance
- High Reliability



# **Specifications**

Item	Unit	Content
ISO Viscosity Grade	_	32
Density @15°C	kg/L	0.86
Viscosity @40°C	mm²/s	32.6
Viscosity Index		102
Flash Point	℃	> 200
Content	L	20
Package		Plastic Container Tank
Weight	kg	About 18
Evahanga Cuala		HISCREW: 3,000 operating hours or 1 year which comes earlier
Exchange Cycle		DSP: Every half year

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

# HITACHI FOOD GRADE ROTARY COMPRESSOR OIL

# **HITACHI Genuine Lubricating Oil for Hitachi Air Compressor Used in Food Industry**

# **Features**

- Comply with the international hygiene control method for food safety, HACCP\*1
- Consist of ONLY prescript substances specified by the US FDA\*2
- Approved and registered as H1 grade\*4 by the US NSF International\*3
- Applicable for both HITACHI Rotary Screw Compressor (HISCREW/DSP)
- \*1 Hazard Analysis Critical Control Point \*2 Food and Drug Administration
- \*3 National Sanitation Foundation International
  \*4 The OIL can be used in places where it can make occasional contact with foods.
- The materials must be prescript substances regulated in the US Food and Drug Law: FDA21 CFR178.3570.





# **Specifications**

Item	Unit	Content
ISO Viscosity Grade	_	32
Color Phase	_	Colorless and Transparent
Density @15°C	kg/L	0.84
Viscosity @40°C	mm²/s	32.8
Flash Point	°C	200
Pour Point	°C	-50
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
Retroill		(new oil 20L can) for 30 minutes x twice then refill with new oil
Package	_	Plastic Container Tank
Weight	kg	About 18

- 1. Compliance Standard / Law: NSF H1 approval No. 138329 and FDA21 CFR178.3570
- 2. For retrofitting from conventional mineral oil to HITACHI FOOD GRADE DSP OIL, contact your nearest Hitachi authorized distributor / dealer

# Auxiliary Equipment

# Hitachi Air Dryer

# Hitachi Air Dryer HDR (Medium Size) series





# **Specifications**

Item+Unit	Model	HDR-7.5AXI	HDR-15AXI	HDR-22AXII	HDR-37AXII	HDR-55AX	HDR-75AX	HDR-100AX		
Capacity (Note 1) 50/60Hz	m³/min	1.3/1.4	2.5/2.9	4.0/4.3	6.8/7.4	10.8/11.3	15.0/15.7	19.0/20.0		
Max. Inlet Pressure of Compressed Air	MPa		0.30	- 0.97			0.40 - 0.97			
Max. Inlet Temperature of Compressed Air	°C				80					
Ambient Temperature	°C				5 – 40					
Dew Point of Outlet Air	°C	10 Under Pressure								
Cooling Method of Condenser	_	Air-Cooled								
Refrigerant Control Device	_	Ejector								
Capacity Control Device	_			Н	lot Gas Bypass Valv	re				
Refrigerant Used	_				R407C					
Charged Quantity	g	250	380	600	1,0	000	1,650	2,000		
Finish Color	_			Ivor	y (Munsell No. 5Y8.	5/1)				
Pipe Diameter	В	Ro	1		Rc 1-1/2		Rc 2	Rc 2-1/2		
Dimensions (W×D×H)	mm	303×60	03×720	356×513×1,067	356×513×1,274	356×903×1,274	356×903×1,489	406×1,400×1,380		
Weight	kg	44	46	74	87	135	170	280		
Accessories	_			Auto	Drain Trap, Drain \	/alve				

- NOTE:

  1. The capacity values above are measured at an ambient temperature of 30°C, inlet temperature of 45°C, inlet pressure of 0.70MPa.

  2. Dew point gets worse if operated at pressure below the range of operation pressure.

  3. The dimensions do NOT include protruding objects.

  4. In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

# Hitachi Air Dryer HDR (Large Size) series





# **Specifications**

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									- 0.93	
Max. Inlet Temperature of Compressed Air	°C		60										
Ambient Temperature	°C		2 – 40										
Dew Point of Outlet Air	°C		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	_						R40	07C					
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	_					lv	ory (Munsell	No. 5Y8.5/	1)				
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			-			
Pipe Diameter	В	2.1/2*	3	*	4*	5	j*	2.1/2*	3	}*	4*	5	*
Dimensions (W×D×H)	mm	672×1,260 ×1,276	950X1 290X1 332   7 1 2 020X1 100X1 650   7 1 950X1 290X1 332   7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								00×1,650		
Weight	kg	238	346	344	534	792	872	258	372	370	557	792	872
Accessories	_					Aı	uto Drain Tra	ap, Drain Val	ve				

# \* JIS 10K Flange

- 1. The capacity values above are measured at an ambient temperature of 32°C, inlet temperature of 40°C, inlet pressure of 0.69MPa.

- Dew point gets worse if operated at pressure below the range of operation pressure.
   The dimensions do NOT include protruding objects.
   In case of having solid objects such as rust in the inlet air flow, install a pre-filter on the inlet of dryer.

# Line Filter

# Air Filter\*1

# Micron Mist Filter\*2



# **Activated Carbon Filter\*3**



# **Specifications**

Sp	Culloa	1110113															
	Item		Model	7.5BX	11BX	15BX	22B	37B	55B	75B	100B	125C	160C	200C	240B		
	Air Condition	Capacity (converted to theambient pressure)	m³/min	1.2	1.8	2.4	3.9	6.6	10.6	13.8	20	27.6	32	40	50		
ē		Inlet Air Temperature	°C														
Common		Inlet Air Pressure	MPa						0.0	69							
ŏ	Use	Applicable Fluid	_						Compre	ssed Air							
	Condition	Max. Pressure	MPa		1.57						0.97						
	Connectir	ng Pipe Diameter	B (A)	Rc3/4 (20)	Rc1	(25)	Rc1 (25)	Rc1 <sub>1/2</sub> (40)	Rc1 <sub>1/2</sub> (40)	Rc2 (50)	Rc2 (50)	2 1/2* (65)	3* (80)	3* (80)	4* (100)		
	Item		Model	HAF-7.5BX	HAF-11BX	HAF-15BX	HAF-22B	HAF-37B	HAF-55B	HAF-75B	HAF-100B	HAF-125C	HAF-160C	HAF-200C	HAF-240B		
	Use	Inlet Air Temperature Range	°C				'		5 –	60				'			
	Condition	Ambient Temperature Range	°C						2 -	60							
_	Filtration	Rating	μm						1	¢1							
Filter	Filtration	Efficiency	%						99.9	999							
Air	Pressure	Initial	MPa						0.005 o	r below							
4		Element Exchange	MPa						0.0	07							
	Dimension	(Max. Diameter×Length)	mm	92×237	130×	290.5	160×509	170×591	170×699	173×792	173×949	590×1,511	590×1,511	590×1,511	640×1,735		
	Drain Out	let Diameter	B (A)						Rc1/	4 (8)	I.			1			
	Weight		kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73		
	Item		Model	HMF-7.5BX	HMF-11BX	HMF-15BX	HMF-22B	HMF-37B	HMF-55B	HMF-75B	HMF-100B	HMF-125C	HMF-160C	HMF-200C	HMF-240B		
	Use	Inlet Air Temperature Range	°C						5 –	60							
-	Condition	Ambient Temperature Range	°C						2 –	60							
Filter	Density of	f Oil in the Discharge Air	wtppm						0.0	1*2							
	Pressure	Initial	MPa						0.0	01							
Micron Mist	Drop (Loss)	Element Exchange	MPa						0.0	07							
icro	Dimension	(Max. Diameter×Length)	mm	92×237	130:	×364	160×582	170×664	170×772	173×865	173×1,022	590×1,511	590×1,511	590×1,511	640×1,735		
Σ	Drain Out	let Diameter	B (A)						Rc1/	4 (8)							
	Weight		kg	1	2	2.1	3	3.3	3.7	4.3	6	41	43	43	73		
	Item		Model	HKF-7.5BX	HKF-11BX	HKF-15BX	HKF-22B	HKF-37B	HKF-55B	HKF-75B	HKF-100B	HKF-125C	HKF-160C	HKF-200C	HKF-240B		
Iter	Use	Inlet Air Temperature Range	°C						5 –	60							
iΞ	Condition	Ambient Temperature Range	°C						2 –	60							
arbo	Density of	Oil in the Discharge Air	wtppm						0.00	)3* <sup>3</sup>							
Activated Carbon Filter	Pressure	Drop (Loss)	MPa						0.0	107							
9	Dimoneion	(Max. Diameter×Length)	mm	92×232	130×	281.5	160×308	170×390	170×498	173×591	173×748	590×1,511	590×1,511	590×1,511	640×1,735		
Vat	Dillicipion	(															

- \* JIS 10K Flange
- 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.

# Systems and Options

# Energy Saving from Various Combinations V-type based Systems

# Proposal for Energy-Saving

Three proposal systems responding to various requirements Combination V-type with Fixed Speed Model achieves

Energy saving operation without external controller

# V-M Combination System

Energy saving operation by one V-type and maximum two Fixed Speed Model

Energy saving operation with external controller

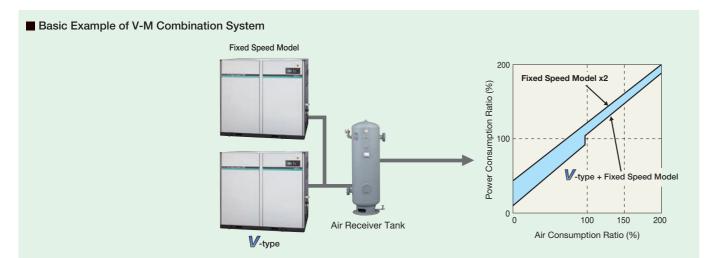
# Single-V System

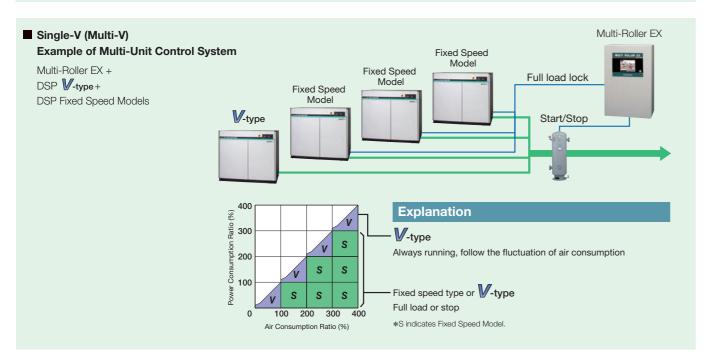
Energy saving operation by one V-type and more than one Fixed Speed Model with multi-unit controller.

Energy saving operation by more than one V-type with multi-unit controller

# Multi-V System

Energy saving operation and averaging V-type operating hour





# **Options**

			DSP <b>NE</b>	XTII series		
	Single	-Stage	Two-	Stage	Two	o-Stage
	V-type (VSD)	Fixed Speed Model	V-type (VSD)	Fixed Speed Model	V-type (VSD)	Fixed Speed Model
Nominal Output (kW)	22 — 55	15 — 55	37 — 100	22 — 120	160/240	132 — 240
					( v = 20	
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 EX)	•	•	•	•	•	•
Alternate Operation (with Dual Roller)	•	•	•	•	•	•
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:

- st1 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 Dual Roller is necessary.
- \*2 In case of V-M Combination, modification on the Fixed Speed Model is not necessary \*3 For other options, contact your nearest dealer or Hitachi local representative office.

# ! Safety Precautions

# ■ Regarding compressor application

- The compressor described in this catalog utilizes only air as a gas. Absolutely avoid using it for compression of a gas other than air
   — this could result in a fire hazard or damage to the equipment.
- $\ensuremath{\bullet}$  Never use compressed air for human breathing.

# ■ Regarding installation site

- Install this compressor indoors. Avoid using it at a place susceptible to moisture such as precipitation or vapors this could result in a fire hazard, electric shock, rusting or shortened life of parts.
- There should be no explosive or flammable gas (acetylene, propane, etc.), organic solvent, explosive powder or flame used near the compressor otherwise there is a fire hazard.
- Avoid using the compressor at a palace where there is corrosive gas such as ammonia, acid, salt sulfurous acid gas, etc.
   this could result in rusting, shortened life, or damage to the equipment.

# Regarding usage

- Before use, be sure to read the instruction manual thoroughly for correct use of the compressor.
- Absolutely avoid modifying the compressor or its components—this could result in damage or malfunction.