

Standard Specification

11–37kW M type

Item Unit	Model	OSP-11M5ANA	OSP-15M5ANA	OSP-18M5ANA	OSP-22M5ANA	OSP-30M5ANA	OSP-37M5ANA
Cooling Method	-	Air Cooled					
Motor Nominal Output	kW	11	15	18	22	30	37
Discharge Pressure	MPa	0.7 [0.85]		0.7 [0.85] <1.0>		0.7 [0.85]	0.7 [0.85] <1.0>
	PSIG	101 [123]		101 [123] <145>		101 [123]	101 [123] <145>
Discharge Capacity	m ³ /min	1.75 [1.6]	2.35 [2.1]	3.4 [3.0]	4.0 [3.7] <3.3>	6.0 [5.4]	7.2 [6.6] <5.8>
	CFM	62 [56]	83 [74]	120 [106]	141 [131] <116>	212 [191]	254 [233] <205>
Suction Pressure/Temperature	-	Atmospheric Pressure / 0 - 40°C					
Temperature of Discharge Air	°C	Ambient Temperature +15 or below					
Driving System	-	4-Pole TEFC Motor with V-Belt Drive					
Starter Type	-	Full Voltage Starting/Star-Delta			Star-Delta		
Lubricating Oil	-	New HISCREW OIL 2000					
Lubricating Oil Filling Amount	L	6	7	10		15	
Discharge Air Pipe Diameter	-	Rc 1			Rc 1 - 1/2		
External Dimension (WxDxH)	mm	930x770x1,250		1,000x1,000x1,500		1,200x1,100x1,650	
Weight	kg	340	350	590		830	
Noise Level	dB[A]	58	61	65		70	

11–37kW V PLUS

Item Unit	Model	OSP-11VANA		OSP-15VANA		OSP-22VANA		OSP-37VANA		
Cooling Method	-	Air Cooled								
Motor Nominal Output	kW	11		15		22		37		
Rated	Discharge Pressure	MPa				0.85				
		PSIG				123				
Discharge Capacity	m ³ /min	1.6		2.1		4.0		6.8		
	CFM	56		74		141		240		
PQ WIDE MODE	Discharge Pressure	MPa	0.7	0.9	0.7	0.9	0.60	0.85	0.60	0.85
		PSIG	101	130	101	130	87	123	87	123
Discharge Capacity	m ³ /min	1.75	1.5	2.35	2.0	4.2	3.5	7.1	6.2	
	CFM	62	53	83	71	148	124	251	219	
Working Range of PQ WIDE MODE	MPa	0.7 - 0.9				0.6 - 0.85				
	PSIG	101 - 130				87 - 123				
Suction Pressure/Temperature	-	Atmospheric Pressure / 0 - 40°C								
Temperature of Discharge Air	°C	Ambient Temperature +15 or below								
Driving System	-	4-Pole TEFC Motor with V-Belt Drive				DCBL Direct Driving				
Starter Type	-	Soft Start								
Lubricating Oil	-	New HISCREW OIL 2000								
Lubricating Oil Filling Amount	L	6	7		10		15			
Discharge Air Pipe Diameter	-	Rc 1				Rc 1 - 1/2				
External Dimension (WxDxH)	mm	930x770x1,250		360		460		630		
Weight	kg	345		360		460		630		
Noise Level	dB[A]	58		61		65		68		

- Capacity is the converted value at its inlet condition. For guaranteed values, contact your nearest dealer or HITACHI local representative offices.
- Pressure is indicated as the gauge pressure.
- Motor output values are indicated as motor nominal outputs.
- Temperature of discharge air may vary in different environments.
- Noise level is measured value at 1.5m in front and 1m height in an anechoic room, under full load operation.
- It may vary in different operation conditions or environments.
- Make sure to install an air receiver tank of sufficient volume.

- For V plus, it is necessary to install an air dryer or filter of larger size when operated pressure is below the pressure range of PQ WIDEMODE. Contact your nearest dealer or HITACHI local representative offices.
- Earth leakage circuit breaker is NOT attached. Prepare it in advance.
- [] () show values of capacity under different discharge pressures.
- Hitachi may make improvements and/or changes in the appearance and/or specifications described in this publication at anytime without notice.
- 1.0MPa model is ONLY available on 22/37kW M type. For details, contact your nearest dealer or HITACHI local representative office.

Capacity Control

Type of Control	Characteristics	Comparison/effect	Type of Model		
U type (suction throttle valve)*	Discharge air capacity is controlled by nonstep control of open ratio of the suction throttle valve.	Pressure fluctuation → small Energy saving → small	M type	—	—
I type (air purge)	Discharge air capacity is controlled by 0% or 100% open of the suction throttle valve. For low load ratio operation, shaft power input is reduced by decreasing the pressure inside the oil tank/case.	Comparing to U type Pressure fluctuation → big Energy saving → big	M type	V type	V plus
P type (motor auto start/stop)	Discharge air capacity is controlled by automatic motor stop and restart according to pressure settings.	Comparing to I type Pressure fluctuation → big Energy saving → big	M type	V type	V plus
V type (variable speed control)	Discharge air capacity is controlled by variable motor rotation speed according to the pressure settings.	Pressure fluctuation → very small Energy saving → maximum	—	V type	V plus
PQ Wide Mode	Wide range of capacity setting is available for each pressure. Air capacity can be increased by max. 5% for low pressure setting.	Pressure fluctuation → very small Energy saving → maximum	—	—	V plus

* U type is Optional for 22kW and 37kW models.

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

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HITACHI OIL-FLOODED Screw Compressors

HITACHI
Inspire the Next

HISCREW *NEXTseries*



HISCREW NEXT series. Combining outstanding energy savings with low environmental impact.

Bringing exciting new innovations to our renowned HISCREW range, Hitachi introduces the **NEXT series** of Compressors - providing the world's top class screw Air Compressors for every customer and industrial application.

Low Pressure Drop Design

By installing large-size suction filter and oil separator, **energy-saving is maximized** by minimizing the energy loss due to internal pressure loss.

Long Cycle, Easy Maintenance

Inspection and maintenance is easy with parts such as filters or check-valve easily reached after removing the front door.

Overhaul Cycle of air end – 8 years

Overhaul cycle of air end is every 8 years, due to a combination of high-performance bearing and high-precision oil filtration system.

Spin On Type Oil Separator with easy maintenance

The Spin-On Type Oil Separator makes maintenance simple, the oil contained in the discharge air is reduced to 0.002cc/m³ level.* (**37kW M Type: 0.005 cc/m³)

Oil change every 2 years* (*Where operation is 6,000 hours per year).

Large Suction Filter



Simple Operation

Instrumental panels are easy to see and simple to operate. It's possible to switch between ECOMODE, PQ WIDE MODE, and Remote Control with the instrument panel. Quick troubleshooting is easy using information on the monitor.

One-Touch to Change Pressure Setting

Easy to change pressure setting on the instrumental panel to achieve Energy-Saving.

Instantaneous Power Interruption (IPI) Restart Function as Standard Equipment

Automatic restart is available after instantaneous power interruption.

(Standard for V plus and M type)

Cascade Vector Control Logic* by HITACHI Original Technology

PID Control delivers quick response and high reliability.



All the control logics of the **VPLUS** Variable Speed Control are exclusively developed by Hitachi. With the control system of the discharge pressure at a scale of ±0.01MPa, quick response, excellent load following capacity and high reliability are achieved. *22/37kW

High Grade Option

High Grade (HG) Option

- Provides energy saving functions such as Schedule Operation, Lead-Lag, and Dual Control.
 - Enables checking of operation conditions and various settings on the LCD monitor.
- (*Applicable for 22kW or 37kW M type or V type ONLY.)



VPLUS (Variable Speed Control System)

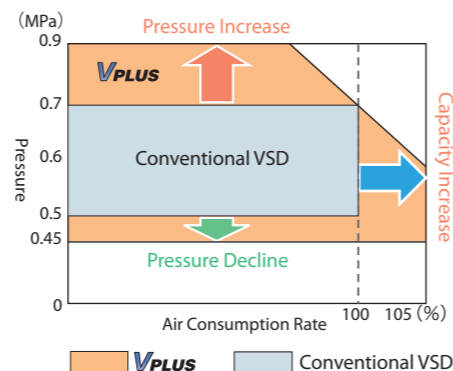
NEXT Generation VPLUS Variable Speed Control (VSD) avoids unnecessary power consumption, saving energy and reducing running costs!

PQ WIDE MODE to Enlarge the Applicable Range (JP No. 3516108 and others, Japan Regional Award)

By automatically adjusting the maximum rotation speed of the compressor, PQ WIDE MODE enables an increase in the Discharge Air Capacity when the pressure drops. Compared to conventional VSD, NEXT Generation VPlus Compressors operate at a wider range of Pressure (P) and Air Capacity (Q).

Air Capacity at PQ WIDE MODE

11-15kW					22-37kW								
Model	11kW - 15kW				Model	22kW - 37kW							
Discharge Pressure	MPa	0.5	0.6	0.7	0.85	0.9	Discharge Pressure	MPa	0.45	0.50	0.60	0.70	0.85
	PSIG	72	87	101	123	130		PSIG	65	72	87	101	123
Discharge Capacity	Model	11kW				Model	22kW						
	m ³ /m	1.75	1.75	1.75	1.6	1.5	m ³ /m	4.2	4.2	4.2	4.0	3.5	
	CFM	62	62	62	56	53	CFM	148	148	148	141	124	
Discharge Capacity	Model	15kW				Model	37kW						
	m ³ /m	2.35	2.35	2.35	2.1	2.0	m ³ /m	7.1	7.1	7.1	6.8	6.2	
	CFM	83	83	83	74	71	CFM	251	251	251	240	219	



M type (Fixed Speed Control)

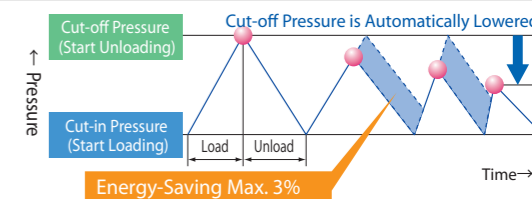
M type Fixed Rotation Speed Control with Auto Start/Stop delivers excellent energy savings!

With I type Control System (Load/Unload Capacity Control) standard on **M type** terrific energy savings can be achieved. Further energy-saving is possible with the combination of ECOMODE.

ECOMODE

ECOMODE - 'Energy-Saving Control Mode' is equipped as standard.

Responding to the Compressor load rate, the cut-off pressure is automatically lowered. Energy saving is produced by reducing unnecessary operation to increase pressure.



Cooling Fan (Air Cooled Type)

High-Efficiency, Energy-Saving Turbo Fan

Our high-efficiency, energy-saving Turbo Fan is a new development. Compared to conventional fans, it produces a 40% increase in energy-saving.



Automatic Belt Tensioner - 22kW & 37kW M type

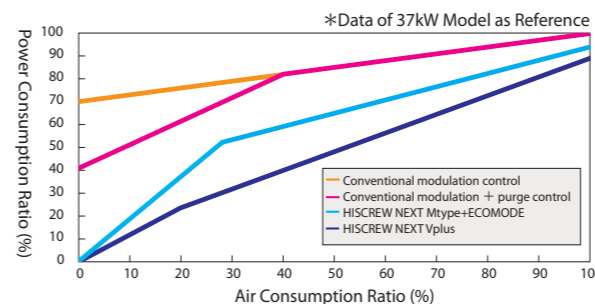
Our newly developed Automatic Belt Tensioner is standard equipment

Belt tension is automatically adjusted depending on the condition of operation, so belt slip is effectively avoided. Our highly durable V-Belt delivers high reliability.



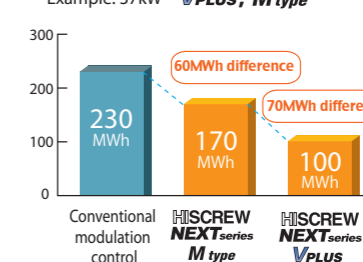
Energy Saving

Bringing more innovative technology to the renowned **HISCREW VPLUS** achieves Hitachi's goal of providing the world's top class Air Compressors.



Example of Annual Power Consumption (Air Consumption Ratio 40%)

Example: 37kW **VPLUS**, **M type**



Calculation Condition
 • 6,000 hr/year operation. (at ECOMODE for M-type)
 • Pressure(at compressor outlet)
VPLUS : 0.6MPa, (87 PSIG)
M type : 0.7MPa, (101 PSIG)
 Conventional Model: 0.7MPa
 • Power consumption of auxiliary devices (cooling fan, dryer etc.) is NOT included.

V-M Combination System

If 2 or 3 compressors are necessary, Hitachi's **V-M Combination System** is your best choice - dividing 1 compressor into 2.

Single-V System and Multi-V System

Besides V-M Combination System, energy saving is also delivered with combinations such as Single-V Multi-Unit Control System, or Multi-V Multi-Unit Control System.

Example: Effect of V-M Combination System

- Energy consumption is similar to **VPLUS** 75kW.
- About 25% of the initial investment can be saved.
- Power consumption is reduced by 39% or 164MWh/year, when the air consumption rate is 60% at pressure of 0.6MPa.

*Calculation condition: 6,000h/year running

