

## VPLUS, M type

Pursuit of Energy-Saving and Environmental Performance, Well-Qualified, Middle Class

PQ WIDE MODE



- VSD
- Fixed Speed Type
- Air-Cooled
- Water-Cooled
- Built-in Dryer
- Without Dryer

VPLUS Outside View

PQ WIDE MODE



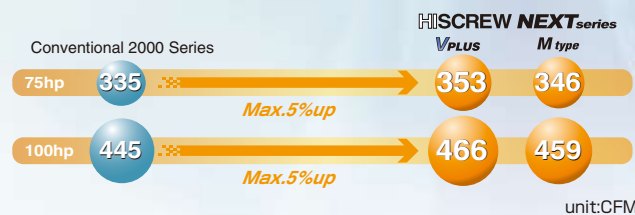
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VPLUS Outside View

### New Air End

New air end loaded with new developed rotor profile

Compared to the conventional 2000 Series, the air capacity is increased by 5% during operation at rated pressure.

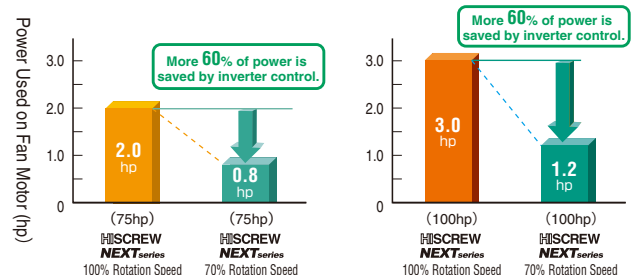


### Cooling Fan\*

\*Loaded on Air-Cooled Type

New developed high-efficiency and energy-saving turbo fan controlled by Inverter.

In case that the need of compressed air is low, the rotation of cooling fan is slowed down automatically to reduce the power consumption. Meanwhile, the noise of blow is also reduced.



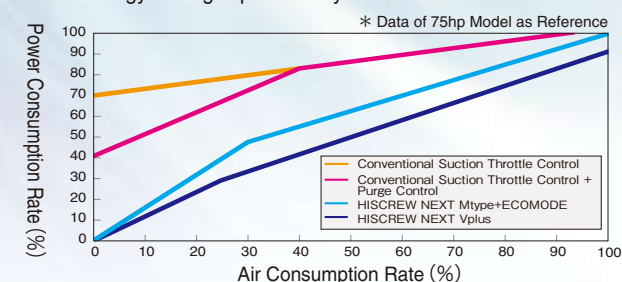
### Energy-Saving

HITACHI will always provide highly-advanced air compressor.

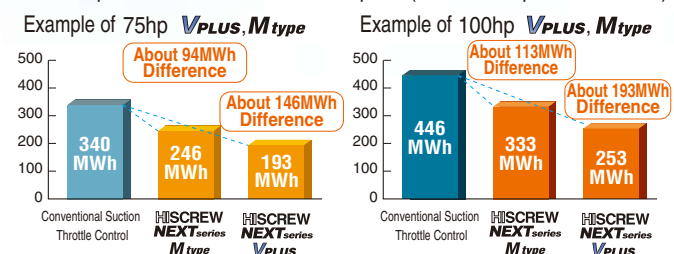
With overwhelming sales record, HISCREW V plus has been improved to a higher level.

Since I type control system (Load/Unload Capacity Control) is loaded as standard on M type, top-class of energy-saving is achieved.

Further energy-saving is possible by the combination of ECOMODE.



● Example of Annual Power Consumption (Air Consumption Rate 50%)



Calculation condition  
 (1) 6,000h/year operation  
 (2) Operation pressure: VPLUS 87psig, M type 102psig, conventional suction throttle control 102psig  
 (3) NOT include the power consumption of auxiliary equipment (cooling fan, or dryer etc.)

### High-Efficiency DCBL Driving System\*

Direct connection of new developed high-efficiency DCBL motor and air end.

For the control of DCBL motor, cascade vector control (in-line form) is loaded.

Therefore, high-efficiency and high-reliability are achieved.

\*Equipped on V plus Model



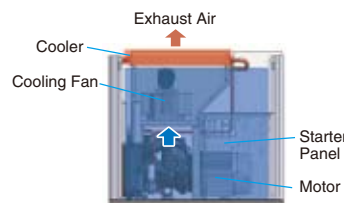
### Standard Response to Ambient Temperature Up To 113°F(Air-Cooled Standard Type)

Continuous running and long maintenance cycle are possible by adoption of new high-performance cooling structure and mandatory ventilation of the inside of the unit by the cooling air flow of the cooler.

#### Long Maintenance Cycle

Continuous Running under Ambient Temperature of 113°F

- Oil Change: 2 years or 12,000hr which comes first
- Capacitor Change: 8 years or 48,000hr which comes first



### Long Cycle, Easy Maintenance

It is easy to carry out the inspection and maintenance, since the parts such as filters are all reachable after removing the front door.

#### Oil Separator

Adoption of Easy-Maintenance, Spin-On Type Oil Separator.



#### Possible of Oil Change Every 2 years

[NEW HISCREW OIL2000], oriented to Air Compressor, with top level of reliability. Oil change cycle is every 2 years\*. The oil change cycle has been extended by reduction of oil consumption.



#### Large Suction Filter

Adoption of Large Cartridge Type Suction Filter. High-Efficiency of Filtration and Extension of Filter Cleaning Interval.



\* In case of running hours under 6,000 hr/year

### STANDARD SPECIFICATIONS

VPLUS (Variable Speed Control Type)

Item	Model	OSP-55VA (R) N	OSP-75VA (R) N	OSP-55VW (R) N	OSP-75VW (R) N
Cooling Method		Air Cooled		Water Cooled	
Motor Nominal Output		75 hp / 55 kW	100 hp / 75 kW	75 hp / 55 kW	100 hp / 75 kW
Rated	Discharge Pressure	102 psig / 0.7 MPa			
	Discharge Capacity	353 CFM / 10.0 m <sup>3</sup> /min	466 CFM / 13.2 m <sup>3</sup> /min	353 CFM / 10.0 m <sup>3</sup> /min	466 CFM / 13.2 m <sup>3</sup> /min
PQ WIDE MODE	Discharge Pressure	87 psig / 0.6 MPa	123 psig / 0.85 MPa	87 psig / 0.6 MPa	123 psig / 0.85 MPa
	Discharge Capacity	371 CFM / 10.5 m <sup>3</sup> /min	318 CFM / 9.0 m <sup>3</sup> /min	491 CFM / 13.9 m <sup>3</sup> /min	420 CFM / 11.9 m <sup>3</sup> /min
Working Range of PQ WIDE MODE		87-123 psig / 0.6-0.85 MPa			
Suction Pressure/Temperature		Atmospheric Pressure-32-113°F (41-113°F) / 0-45°C (5-45°C)		Atmospheric Pressure-32-104°F (41-104°F) / 0-40°C (5-40°C)	
Temperature of Discharge Air		Ambient Temperature +27(18)°F / +15(10)°C or below		Temperature of Cooling Water Inlet +23°F / +13°C or below	
Driving System		Direct Connection of Coupling			
Capacity Control Type		V+I type, V+I+P type			
Starter Type		Soft Start			
Output of Cooling Fan		2 hp / 1.5 kW	3 hp / 2.2 kW	0.14 (0.07×2) hp / 0.1 (0.05×2) kW	0.14 (0.07×2) hp / 0.1 (0.05×2) kW
Lubricating Oil		NEW HISCREW OIL 2000			
Lubricating Oil Filling Amount		7.4 gal / 28 L (Not Filled)	10.3 gal / 39 L (Not Filled)	4.5 gal / 17 L (Not Filled)	5.8 gal / 22 L (Not Filled)
Air Dryer	Outlet Dew Point	50°F / 10°C Under Pressure			
	Refrigerator Nominal Output	3 hp / 2.2 kW	4 hp / 3.0 kW	3 hp / 2.2 kW	4 hp / 3.0 kW
	Coolant Used	R407C			
Discharge Air Pipe Diameter		Rc 2			
External Dimension (WxDxH)		79"×47"×71" / 2,000mm×1,200mm×1,800mm			
Weight		2,690 (2,954) lb / 1,220 (1,340) kg	3,064 (3,395) lb / 1,390 (1,540) kg	2,359 (2,623) lb / 1,070 (1,190) kg	2,734 (3,064) lb / 1,240 (1,390) kg
Noise Level (4.9ft from the front)		64 dB [A]	66 dB [A]	63 dB [A]	65 dB [A]
Recommended Cooling Water		-		90°F / 32°C or below	
(Based on Standard Regulation of Japan Refrigeration and Air Conditioning Industry Association, JRA-GL-02-1994)		-		3.5 CFM / 100 L/min	
Cooling Water Pipe Diameter		Rc 2			

### Mtype (Fixed Speed Type)

Item	Model	OSP-55M6A (R) N	OSP-75M6A (R) N	OSP-55M6W (R) N	OSP-75M6W (R) N
Cooling Method		Air Cooled		Water Cooled	
Motor Nominal Output		75 hp / 55 kW	100 hp / 75 kW	75 hp / 55 kW	100 hp / 75 kW
Rated	Discharge Pressure	102 <123> psig / 0.7 <0.85> MPa			
	Discharge Capacity	346 <311> CFM / 9.8 <8.8> m <sup>3</sup> /min	459 <413> CFM / 13.0 <11.7> m <sup>3</sup> /min	346 <311> CFM / 9.8 <8.8> m <sup>3</sup> /min	459 <413> CFM / 13.0 <11.7> m <sup>3</sup> /min
Suction Pressure/Temperature		Atmospheric Pressure-32-113°F (41-113°F) / 0-45°C (5-45°C)		Atmospheric Pressure-32-104°F (41-104°F) / 0-40°C (5-40°C)	
Temperature of Discharge Air		Ambient Temperature +27°F / 15°C or below		Temperature of Cooling Water Inlet +23°F / 13°C or below	
Driving System		Gear Driving			
Capacity Control Type		I type, I+P type (U type as Option)			
Starter Type		Star-Delta			
Output of Cooling Fan		2 hp / 1.5 kW	3 hp / 2.2 kW	0.14 (0.07×2) hp / 0.1 (0.05×2) kW	0.14 (0.07×2) hp / 0.1 (0.05×2) kW
Lubricating Oil		NEW HISCREW OIL 2000			
Lubricating Oil Filling Amount		7.7 gal / 29 L (Not Filled)	10.6 gal / 40 L (Not Filled)	4.5 gal / 17 L (Not Filled)	5.8 gal / 22 L (Not Filled)
Air Dryer	Outlet Dew Point	50°F / 10°C Under Pressure			
	Refrigerator Nominal Output	3 hp / 2.2 kW	4 hp / 3.0 kW	3 hp / 2.2 kW	4 hp / 3.0 kW
	Coolant Used	R407C			
Discharge Air Pipe Diameter		Rc 2			
External Dimension (WxDxH)		79"×47"×71" / 2,000mm×1,200mm×1,800mm			
Weight		3,064 (3,329) lb / 1,390 (1,510) kg	3,704 (4,034) lb / 1,680 (1,830) kg	2,734 (2,998) lb / 1,240 (1,360) kg	3,373 (3,704) lb / 1,530 (1,680) kg
Noise Level (4.9ft from the front)		65 dB [A]	67 dB [A]	64 dB [A]	66 dB [A]
Recommended Cooling Water		-		90°F / 32°C or below	
(Based on Standard Regulation of Japan Refrigeration and Air Conditioning Industry Association, JRA-GL-02-1994)		-		3.5 CFM / 100 L/min	
Cooling Water Pipe Diameter		Rc 2			

Notes:

- 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.
- Noise level is measured value at 4.9ft in front and 3.3ft height in an anechoic room, under full load operation. It may vary in different operation conditions or environments. For V plus type, 3 dB [A] is increased when PQ WIDEMODE is ON.
- Temperature of discharge air may vary in different environments.
- Dew point of outlet air of built-in dryer models is under 86°F of ambient temperature, 113°F of inlet air temperature and rated pressure. Dew point of Built-in Dryer gets much worse if operation pressure is under 58 psig. When operation pressure is below the rated pressure under PQ WIDEMODE, the dew point of built-in dryer increases. The dew point increase by 5°F, when the discharge pressure is 87 psig.
- It is necessary to install an air dryer or filter of larger size when operated pressure is below the pressure range of PQ WIDEMODE for V plus. Contact your nearest dealer or HITACHI local representative offices.
- Air capacity of Built-in Dryer may decrease by Max. 3% when drain condensates.
- U type control is available as option on M type. Fixed U type control is not possible on M type model.
- Earth leakage circuit breaker is NOT attached. Prepare it in advance.
- It is necessary to install an air receiver tank of enough volume.
- ( ) indicates the values of Built-in Dryer type.
- < > shows values of capacity under different discharge pressure.

Line-Up  
Type  
Instruction  
Specification  
In Common  
NEXT series  
10-20hp  
(7.5-15kW)  
NEXT series  
30-50hp  
(22-37kW)  
NEXT series  
75-100hp  
(55-75kW)  
NEXT series  
30-100hp  
(22-75kW)  
Option  
2000 series  
135hp  
(100kW)  
2000 series  
Dual type  
200hp  
(150kW)  
2-stage  
200-300hp  
(150-240kW)  
V-M  
Combination  
System  
Precaution