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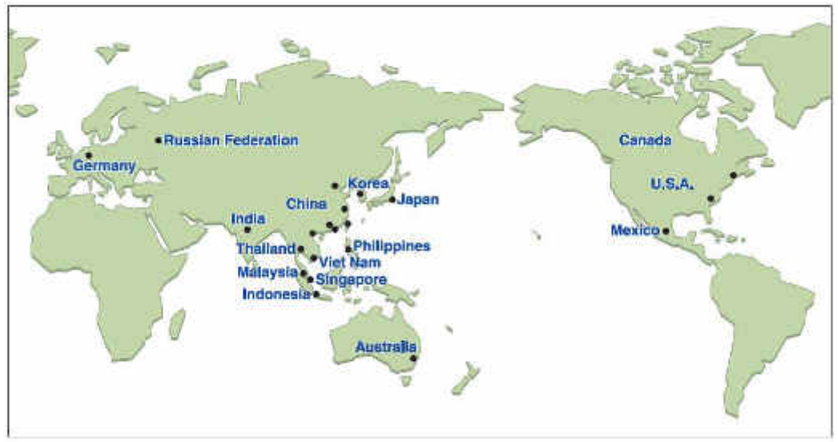

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● For further information,please contact your nearest sales representative.

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Hitachi oil-flooded rotary screw compressor

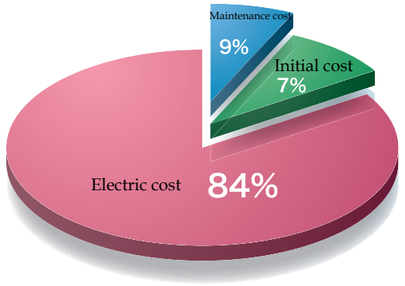
HITACHI
Inspire the Next

HISCREW

NEXT II series 55-160kW catalogue

Electric consumption becomes the biggest part of the compressor's running cost.

The running cost about compressor which has been used for 12 years



The running cost about compressor which has been used for 12 years

Initial cost account for overall cost **7%** (Include compressor fee,installation fee and peripheral device)

Maintenance cost account for overall cost **9%** (Regular maintenance and maintenance fee)

Electric cost account for overall cost **84%**

Calculation condition: Take HITACHI 75KW oil-flooded rotary screw compressor as a example
6,000hr/year,100% load

Hitachi - your trusted air solution provider

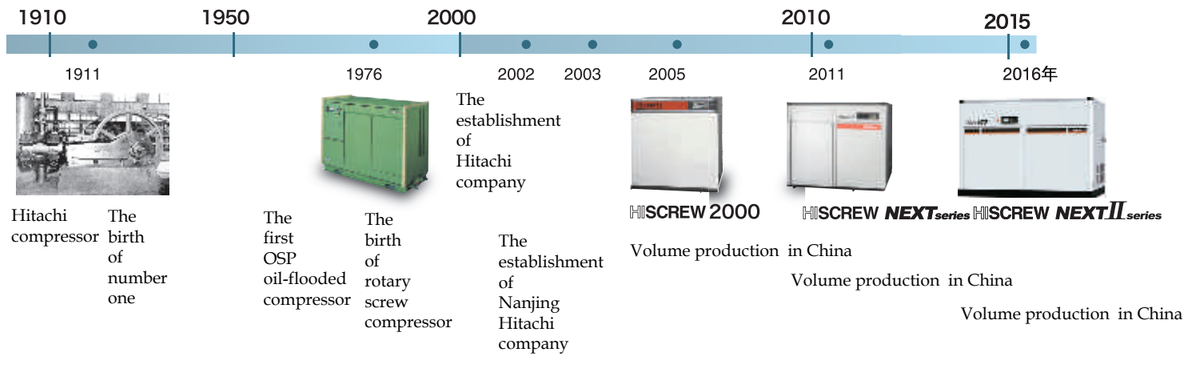
Over 100 years of compressed air experience ,Hitachi has been and continues to be the technology leader via continuous innovation of air compressor technology oriented towards customer value.

A s a pioneer,specializing in air compressors in Japan,we commit ourselves to unstoppable effort in technology innovation and product development to meet diverse needs of customer.

Hitachi air compressor ranges from 0.1-1300KW in output ,with reciprocating,scroll,screw and turbo in compression form,based on oil-flooded and oil-free customer.

We believe our air compressors with ultimate reliability,supreme energy and various air solution,will contribute to the progress and develop of your business

The development of Hitachi



Ultimate evolution of air compressor – HISCREW NEXT II series

We are proud to introduce HISCREW NEXT Ⅱ series,a new milestone in Hitachi innovation of air compressor technology.

With outstanding reliability,premium efficiency and industry leading performance ,

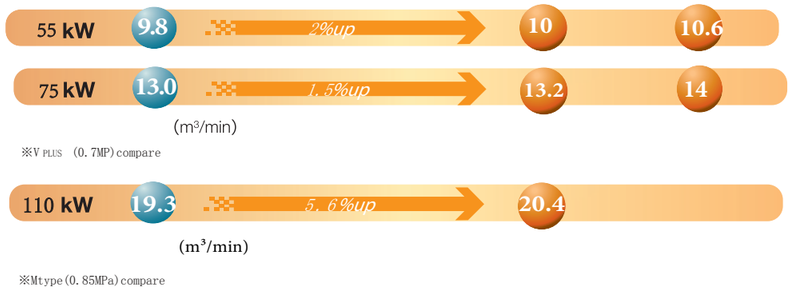
HISCREW NEXT Ⅱ series will undoubtedly match your requirements for air compressors.

New Developed Air -end

Hitachi latest innovation of air-end technology
Rotary screw type air-end with significant improvement of air capacity

Rotor from Hitachi design

HISCREW NEXT II series
PQ wide mode
Set at 0.7MPa



Hitachi DCBL compare to other

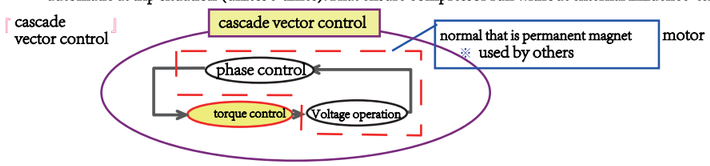
Energy-saving —DCBL MOTOR—

DCBL → Energy-saving

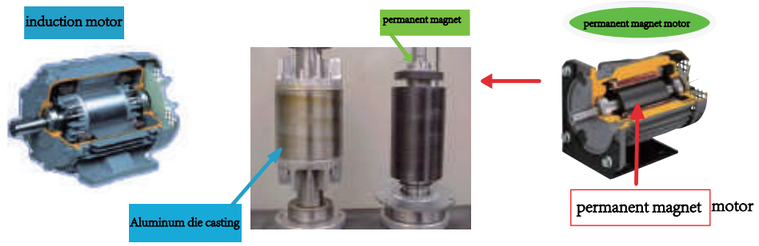
Through independent capacity control to enlarge energy-saving

Vtype DCBL motor is developed by Hitachi ,the air-out pressure is under ±0.01Mpa.Bring about high speed reply, and energy-saving by stable load control system .

- DCBL connect to air-end, DCBL is cascade vector control ,which ensure function and reliability .
- DCBL control can be restarted when trouble happen.DCBL control can give automatic judgment ,and restart automatic at trip situation (unless 3 times).That ensure compressor run without external influence temporary



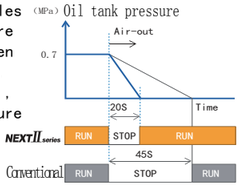
The difference between permanent magnet motor and induction motor



Intelligent control

Rapidly air-out control

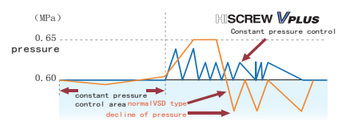
With the development of synthetic oil for compressor,we develop this function in order to reduce the bubbles cause by pressure down.also shorten time for unload, air-out,restart , solve the pressure problem when load increase after shut down.



Constant pressure control

VPLUS

Hitachi Vplus original control logic possible to hold the discharge pressure at setting level during operation at low load. No higher pressure setting in advance neded.



Long term maintenance cycle & easy maintenance

Dust cover for compressor

Dust cover set at entrance, according to setting time, Display panel reveal clean information.

Oil-separator

Use Spin-on type oil-separator. Because increase the measure of oil-separator, the separate function will be stable.

Large suction filter

Large suction filter with revolving filter and filter, which can significant filter out impurity in air

Lead compressor future
Hitachi highly recommend
energy-saving and IT communication function

NEXT II series

High reliability

standard up to 45 ℃ (operation is possible under 50 ℃)

Redesign air cooling compressor's structure,which shorten the pressure loss and improve cooling effect. Use high-performance cooling motor to improve work performance. Compressor can run stable under 45 ℃ high temperature .
Improve the capability of water cooling compressor's oil cooler and after cooler. Water cooling compressor standard up to 45 ℃

※ Ambient temperature alarm will be indicated when ambient temperature is over 45 ℃ . continuous operation at higher than 45 ℃ may shorten lifetime of lubricating oil and electric parts

55 **-75kW 8 years 110-160kW 6 years** maintenance

Combine high load bearing and high performance lubricating oil filter system ,that allows compressor maintenance cycle last to 6~8 years

※ condition :yearly running time under 6000 hr,1MPa is 4years

New oil

New developed oil [NEW HISCREW OIL NEXT] has heat resistant and inhibit bubbles. The rapidly bleed system can shorten restart time .Same with conventional model oil change every 2years

※ condition :yearly running time under 6000 hr

IPC control (intelligent pressure control)

VPLUS Mtype

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

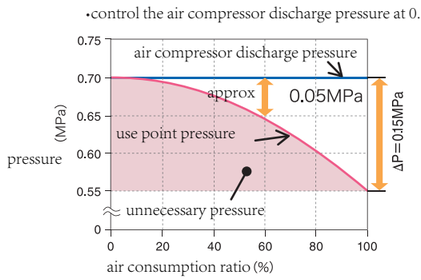
Patent JP : 4425768

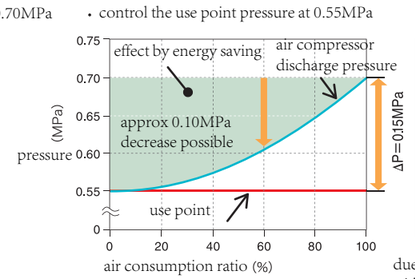
■ Example of effect by IPC

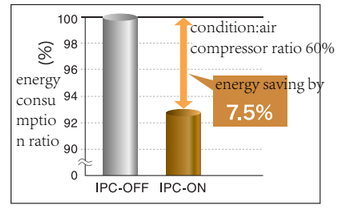
Conditions *Air compressor:OSP-160VAN2 *Control pressure setting:0.70MPa *Use point pressure during full load:0.55MPa
*Piping pressure loss during full load:0.15MPa

Graph of pressure change (Theoretical values)

① IPC-OFF (conventional inverter control model) ② IPC-ON(next Ⅱ series)







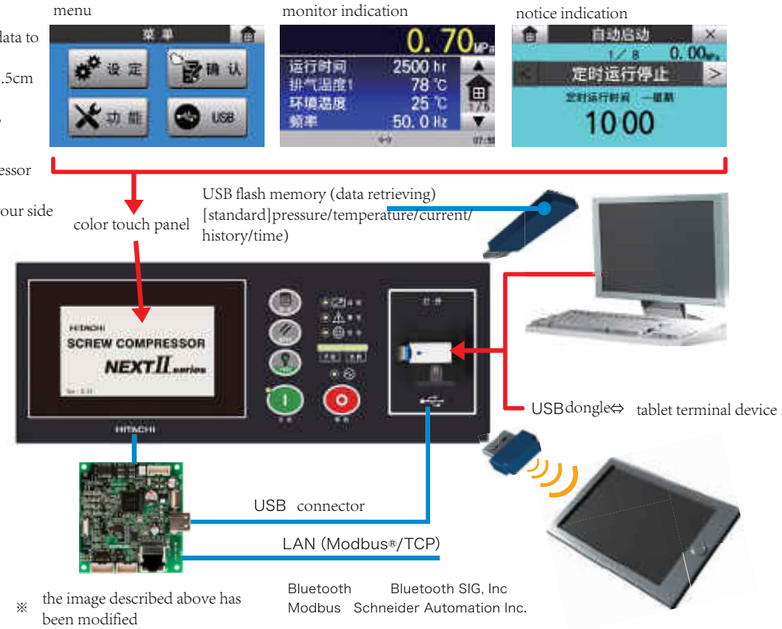
due to estimation control,use point pressure varies in accordance with use conditions
constant speed compressor IPC range is air ration's 50%

IT communication function

■ **USB flash memory possible for data logging**
Exporting USB data in CSV format,customers use data to explore energy-saving solutions
*necessary to prepare a USB flash memory device(5.5cm or smaller)on user's side
*operation data for one day is approximately 400kB

■ **Web server function via bluetooth**
Customers use tablet computers to confirm compressor operation and change settings.
*necessary to prepare a bluetooth USB dongle on your side
*for setting changes,part of the items are applicable

■ **Modbus**
Open network serial communication Modbus/ RTU is supported as standard
*Modus/TCP support is optional



※ the image described above has been modified

Bluetooth Bluetooth SIG, Inc
Modbus Schneider Automation Inc.

Multi-function touch panel

■ Various function available

main function

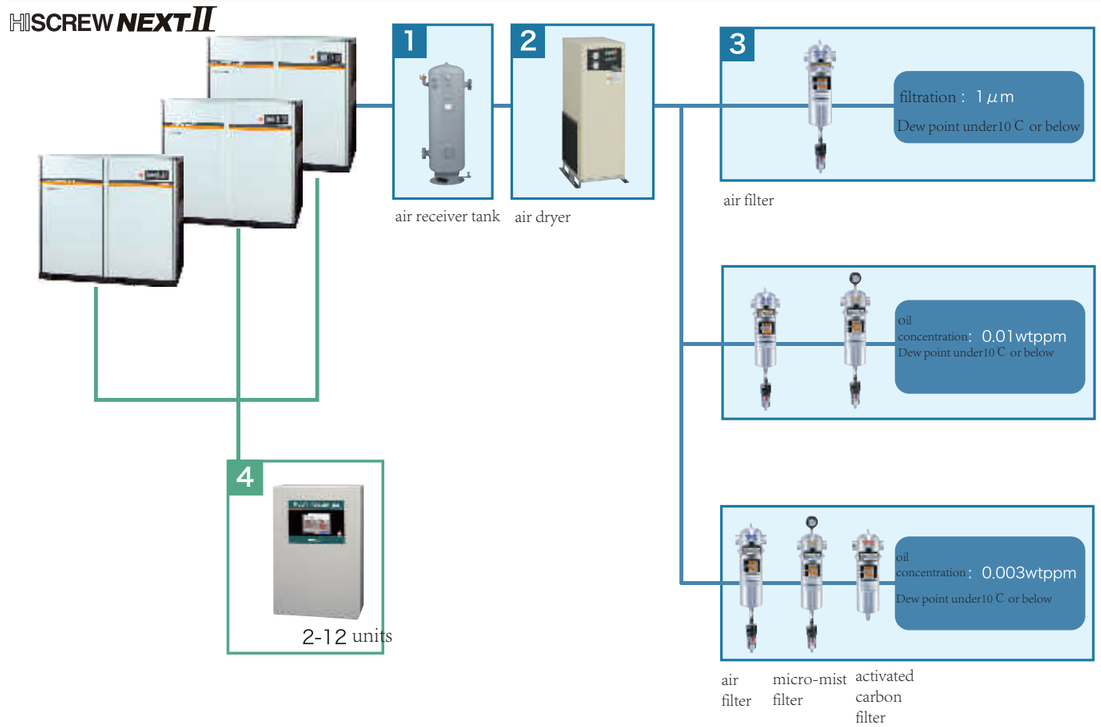
energy-saving operation/schedule operation(weekly time)/instantaneous power interruption restart function/alternate operation(option)/auto operation/ communication function/web serve function/store/load of setting/maintenance time notification

■ Operation data storage function

Pressure, temperature,electric current, running time, alarm record and other running data can be saved and verified from the operation panel on the spot.

Air compressor system

Example of compressed air system



1 Air receiver tank

In order to exert the energy saving effect of compressor,Hitachi recommend to choose the air receiver tank with the following volume.

Air receiver tank volume list

model type / (kW)	Mtype STANDARD	Mtype ECOMODE	VPLUS
55	1.24	1.24	0.70
75	1.24	2.26	1.24
110	2.26	4.0	4.0
132	4.0	8.0	4.0
160	4.0	8.0	4.0

2 Air dryer

- Dry air of higher quality
- A rich line-up for your choice

3 Line filter

- Various types of filter(air filter,micro-filter,activated carbon filter)

4 Multi-unit control panel(multi roller EX)

- Energy-savinf
- Easy-to-read LCD touch panel equipped

Note:for detailed information of above auxiliary equipment,contact your nearest dealer or Hitachi local representative offices.

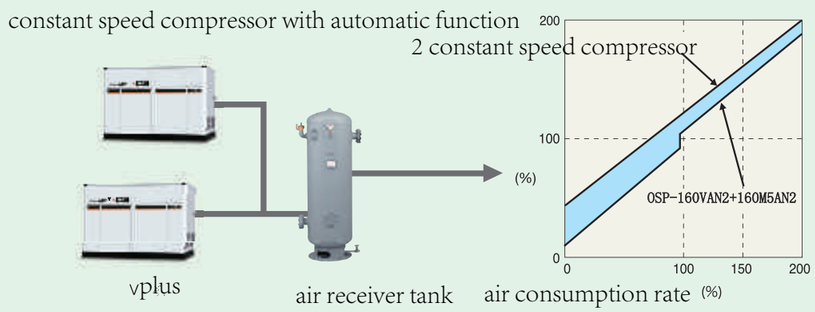
Vplus's energy-saving solutions

Energy-saving solutions

To respond to the change in air demand,connect Vplus and Mtype ,Hitachi provide three patterns of system structure to help you acquire energy-saving.

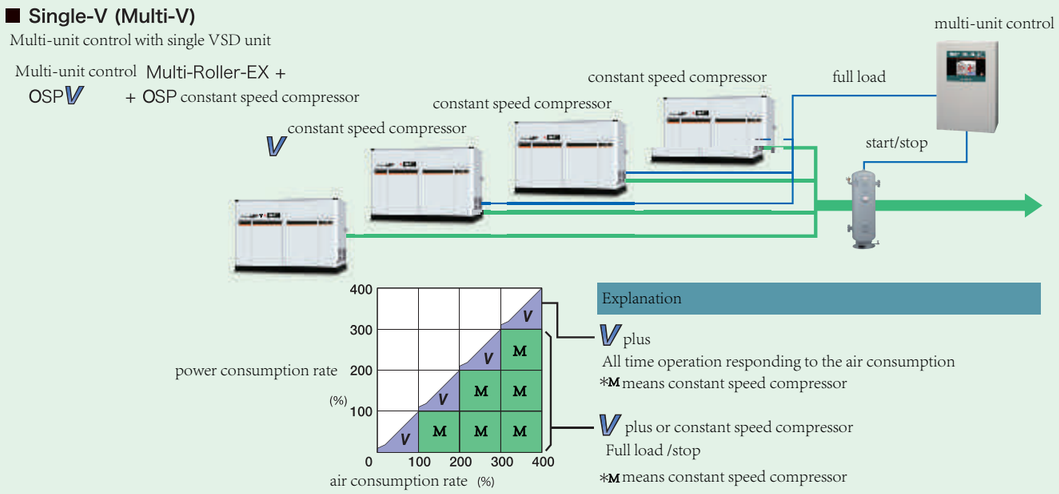
do not need control panel to realize energy saving	need control panel to realize energy saving	need control panel and multiple Vplus to realize energy saving
V-M	**Single-V**	**Multi-V**
need 1 Vplus and less than 2 constant speed compressor	connect 1 Vplus and multiple constant speed compressor by using multiple control panel	average Vplus's running time to achieve energy-saving effect

■ V-M combination



■ Single-V (Multi-V)

Multi-unit control with single VSD unit



Explanation

V plus
All time operation responding to the air consumption
*M means constant speed compressor

V plus or constant speed compressor
Full load /stop
*M means constant speed compressor

Standard specification sheet (Vtype)

55-75kW VPLUS NEXTII series

item\model			OSP-55VAN2	OSP-75VAN2	OSP-55VWN2	OSP-75VWN2
cooling method		-	air cooled		water cooled	
motor nominal output		kW	55	75	55	75
rated	discharge pressure	Mpa	0.7			
	discharge capacity	m^3/min	10.1	13.1	10.1	13.3
PQ wide mode	discharge pressure	Mpa	0.6~0.85			
	discharge capacity	m^3/min	10.6~9.1	14.0~12.0	10.6~9.1	14.0~12.0
suction pressure temperature		-	atmospheric pressure 0-45℃			
temperature of discharge air		℃	ambient temperature +15 or below		cooling water temperature +13 or below	
driving system		-	coupling connection			
starter type		-	soft start			
lubricating oil		-	NEW HISCREW OIL NEXT			
lubricating oil fillinf amount		L	26 (filled)	36 (filled)	17 (filled)	24 (filled)
output of cooling fan		kW	1.5 inverter control	2.2 inverter control	0.05×2	
discharge air pipe diameter		-	Rc2			
external dimension(WXDXH)		mm	2000×1200×1800			
weight		kg	1230	1405	1070	1240
air receiver tank volume		m^3	0.7 or over	1.24 or over	0.7 or over	1.24 or over
cooling water		℃	-		35 or below	
		L/min	-		100	125
cooling water pipe diameter		-	-		Rc2	
noise (1.5m)		dB(A)	64	66	63	65

110-160kW VPLUS NEXTII series

item\model			OSP-110VAN2		OSP-160VAN2	OSP-110VWN2		OSP-160VWN2
cooling method		-	air cooled			water cooled		
motor nominal output		kW	110		160	110		160
rated	discharge pressure	Mpa	0.7					
	discharge capacity	m^3/min	21.5		29.5	21.5		29.5
PQ wide mode	discharge pressure	Mpa	0.6	0.85	0.95	0.6	0.85	0.95
	discharge capacity	m^3/min	22.5	19.3	25.2	22.5	19.3	25.2
suction pressure temperature		-	atmospheric pressure 0-45℃					
temperature of discharge air		℃	ambient temperature +15 or below			cooling water temperature +13 or below		
driving system		-	gear drive					
starter type		-	soft start					
lubricating oil		-	NEW HISCREW OIL NEXT					
lubricating oil fillinf amount		L	50		115	37		70
output of cooling fan		kW	1.5×2 inverter control		4.0×2 inverter control	0.05×3		0.2
discharge air pipe diameter		-	2-1/2B		3B	2-1/2B		3B
external dimension(WXDXH)		mm	2550×1500×1800		2700×2000×1890	2550×1500×1800		2700×2000×1890
weight		kg	2900		3900	2800		3750
air receiver tank volume		℃	4.0 or over			4.0 or over		
cooling water	temperature	-	-			35		
	flow	L/min				182		
cooling water pipe diameter		-				Rc2		
noise (1.5m)		dB(A)	75		79	72		72

1. Capacity is the converted value at its inlet condition. For guaranteed values, contact your nearest dealer or Hitachi local representative offices.
2. Pressure is indicated as the gauge pressure.
3. Temperature of discharge air may vary from different environments.
4. For Vplus, when PQ wide mode is ON, may need larger dryer, filter. For more information, contact your nearest dealer or Hitachi local representative offices.
5. please use air receiver tank which is recommended, For Mtype (constant speed compressor) to maximize (ECOMODE) energy efficiency, use air receiver tank which is recommended,

Standard specification sheet (Mtype)

55-75kW Mtype NEXTII series

item\model			OSP-55M5AN2			OSP-75M5AN2			OSP-55M5WN2			OSP-75M5WN2		
cooling method		-	air cooled						water cooled					
motor nominal output		kW	55			75			55			75		
rated	discharge pressure	Mpa	0.7	0.85	1.0	0.7	0.85	1.0	0.7	0.85	1.0	0.7	0.85	1.0
	discharge capacity	m^3/min	10.0	9.0	8.3	13.2	11.9	10.9	10.0	9.0	8.3	13.2	11.9	10.9
PQ wide mode	discharge pressure	Mpa	-			-			-			-		
	discharge capacity	m^3/min	-			-			-			-		
suction pressure temperature		-	atmospheric pressure 0-45℃											
temperature of discharge air		℃	ambient temperature +15 or below						cooling water temperature +13 or below					
driving system			gear drive											
starter type		-	star-delta											
lubricating oil		-	New HISCREW OIL NEXT											
lubricating oil fillinf amount		L	27 (filled)			38 (filled)			17 (filled)			24 (filled)		
output of cooling fan		kW	1.5 inverter control			2.2 inverter control			0.05×2					
discharge air pipe diameter		-	Rc2											
external dimension(WXDXH)		mm	2000×1200×1800											
weight		kg	1520			1800			1360			1640		
air receiver tank volume		m^3	1.24 or over			1.24 or over			1.24 or over			1.24 or over		
cooling water		℃	-						35 or below					
		L/min							100			125		
cooling water pipe diameter		-							Rc2					
noise (1.5m)		dB(A)	65			67			64			66		

110-160kW Mtype NEXTII series

item\model			OSP-110M5AN2	OSP-132M5AN2	OSP-160M5AN2	OSP-110M5WN2	OSP-132M5WN2	OSP-160M5WN2
cooling method		-	air cooled			water cooled		
motor nominal output		kW	110	132	160	110	132	160
motor type		-	4enclosed external fan motor					
rated	discharge pressure	Mpa	0.75 (0.85) [1.0]			0.75 (0.85) [1.0]		
	discharge capacity	m^3/min	21.5 (20.4) [17.0]	25.5 (23.3) [21.0]	29.5 (27.2) [24.5]	21.5 (20.4) [17.0]	25.5 (23.3) [21.0]	29.5 (27.2) [24.5]
suction pressure temperature		-	atmospheric pressure 0-45℃					
temperature of discharge air		℃	ambient temperature +15 or below			cooling water temperature +13 or below		
driving system		-	star-delta					
starter type		-	gear drive					
lubricating oil		-	New HISCREW OIL NEXT					
lubricating oil fillinf amount		L	50	105	115	37	65	70
output of cooling fan		kW	1.5×2 inverter control	4.0×2 inverter control		0.05×3	0.2	
discharge air pipe diameter		-	2-1/2B	3B		2-1/2B	3B	
external dimension(WXDXH)		mm	2550×1500×1800	2700×1800×1890		2550×1500×1800	2700×1800×1890	
weight		kg	2800	3450	3600	2700	3300	3420
air receiver tank volume		m^3	2.0 or over	4.0 or over		2.0 or over	4.0 or over	
cooling water	temperature	-	-			35		
	flow	L/min				180		
cooling water pipe diameter		-				Rc2		
noise (1.5m)		dB(A)	75	77	79	72	72	72

6. client have to prepare breaker
7. Grounding must be used separately.
8. Please use NEW HISCREW OIL NEXT, don't use others
9. If the imbalance rate of input voltage exceeds 1%, or the power supply capacity is more than 10 times of the motor power and more than 500KVA, an AC reactor should be installed between the power supply and the compressor when the rated load is running.
10. Use the air compressor at indoor where no explosion, corrosion gas, low temperature, less dust .
11. Specificaations and outside view are subject to change without notice.
12. Noise level is measured value at 1.5m in front and 1m height in a anechoic room. under full load operation. It may vary in different operation conditions or environments.