HITACHI
Inspire the Next

HITACHI BEBICON®

AIR COMPRESSORS

TANK MOUNT BEBICON

PACKAGE BEBICON

OIL FREE SCROLL AIR COMPRESSORS

VERTICAL

PACKAGE BEBICON

PACKAGE OIL FREE BEBICON

BEBICON
New V-series

OIL FREE BEBICON
GREEN-series

OIL FREE SCROLL AIR COMPRESSOR
SRL-series

TWO MILLION accumulative shipments

High quality and reliability with long history

HITACHI BEBICON®

HITACHI is one of the oldest Japanese air compressor manufactures. BEBICON® debuted in 1946 as HITACHI-small-air-compressor-registration brand.

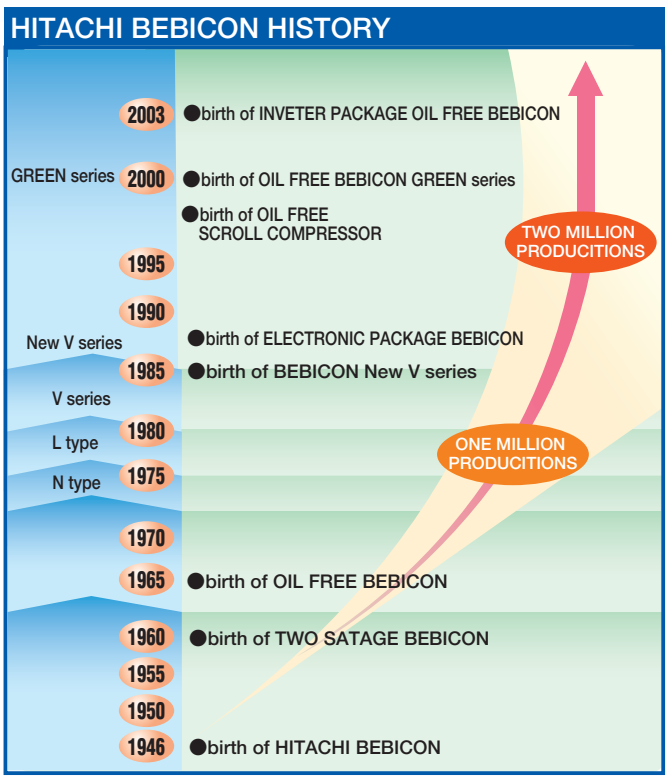
BEBICON® is used in various area of industry, such as engineering and metalworking industry, mining industry and building industry.

HITACHI has achieved one million productions by 1979 and has achieved two million productions by 1994.

HITACHI got oil-free, cabinet type and scroll compressor to market fast. They got a step ahead of the customer need.

Hitachi developed and created INVERTER PACKAGE OIL FREE BEBICON® that meets customer's energy saving need and environmental friendly need just now.

HITACHI hopes that our BEBICON® compressor should satisfy your various need.

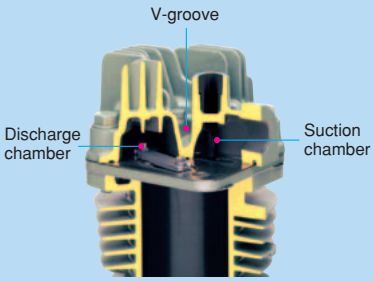


FEATURES

1 HIGH COOLING HEAD

HIGH COOLING HEAD with large aluminum alloy ventilated rib improves heat radiation and air capacity. In addition, V-groove located between discharge and suction chamber reduces the heat transfer from discharge chamber to suction chamber and improves air capacity.

HIGH COOLING HEAD



2 LEAD AIR VALVE

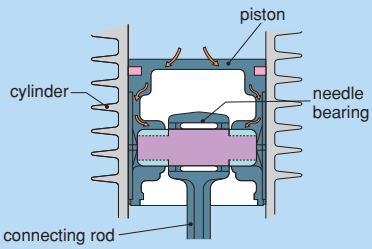
LEAD VALVE of I-shaped-stainless-steel-suction-air valve improves air capacity and improves durability against rusting.

Top Side

Back Side

3 HEAT CUT PISTON PIN & LEAK CUT PISTON RING

HEAT CUT PISTON PIN of heat-insulating material reduces heat transfer from the piston to the needle bearing and keeps bearing in relatively low temperature and improves the reliability.
LEAK CUT PISTON RING of specially shaped abutment joint reduces air leakage and improves air capacity.



4 BEBICON OIL

BEBICON OIL is high performance oil and specially developed for BEBICON compressors. Please make sure to use BEBICON OIL to save power, to prevent performance degradation and to prevent accident.

Please follow below procedure in selecting BEBICON

- Please select the comeback pressure that is more than 0.2 MPa higher than working pressure.
  [working pressure is more than 0.2 MPa + comeback pressure]
- Please select the air capacity that is more than 10 % larger than actual air consumption.
  [Specification capacity is at maximum pressure and is the converted value at its inlet condition.]
- Please select model in the specification table based on above selected pressure and capacity.
- This catalog shows only standard model specifications.
- Hitachi has three type of control method, pressure switch type, automatic unloader type and electronic control type.
  Please select control method by customer's own application.

Note: Please select frequency, when you order the product.
As oil may emulsify sometimes in case of on-and-off operation in oil lubricated compressor operation, please discuss this issue with distributor.

■Selecting Procedure

① Lubrication type
- general air (oil lubricated compressor)
- oil free air (oil free compressor)

② Pressure (MPa) | Capacity (L/min)
Power (kW)

③ Control method
- pressure switch type
- automatic unloader type
- electronic control type

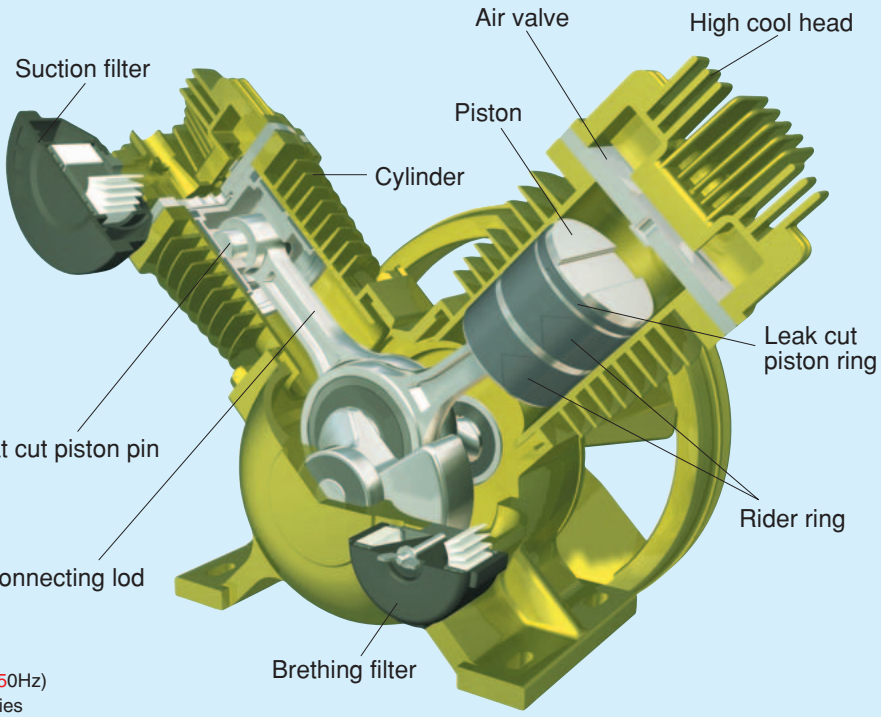
④ Power source
- Voltage, PH, Frequency

⑤ Noise Control Law
- PACKAGE BEBICON (lubricated)
- OIL FREE PACKAGE BEBICON (oil free)
- OIL FREE SCROLL (oil free)

OIL FREE BEBICON (0.75~11kW)

Supplying oil free air steadily
High-pressure air, 0.93MPa, for wider application

Features HIGH PERFORMANCE | DURABLE DESIGN | LONG OVERHAUL CYCLE | OIL LESS STRUCTURE



3.7 OP – 9.5 G 5A

- ASIA
- Frequency (50Hz)
- GREEN Series
- Pressure (0.93MPa [9.5kgf/cm²])
- Pressure Switch
- Oil Free
- Power (3.7 kW)

Specifications (HORIZONTAL TANK MOUNT TYPE)

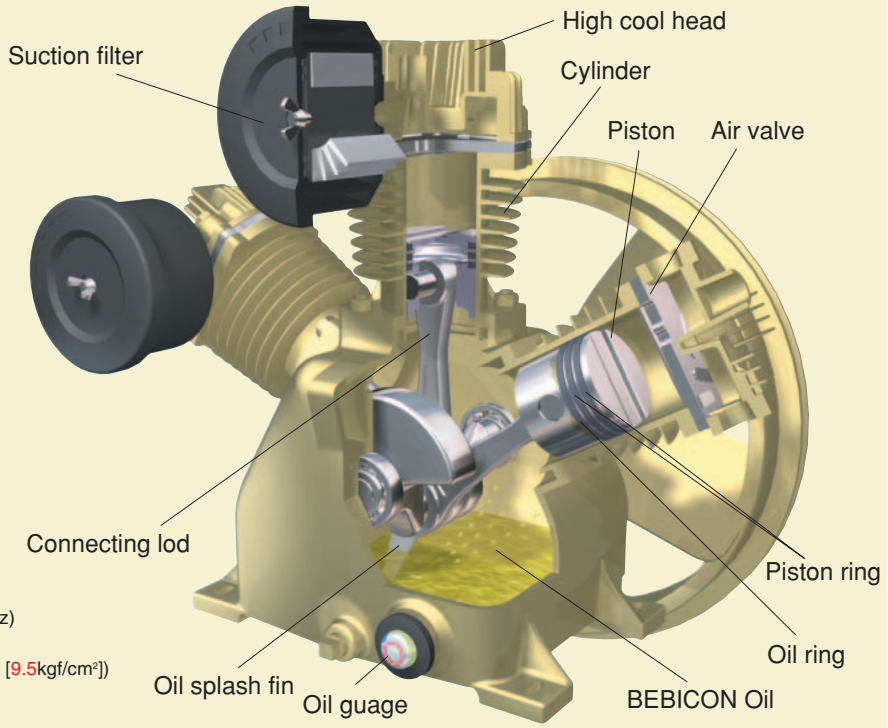
Operation Systems	Motor Output kW	Model	Maximum Pressure MPa	Cylinder Diameter mm × Stroke mm × Number of Cylinders	Compressor Speed min⁻¹	Displacement L/min	Capacity at Maximum Pressure L/min	Air tank Capacity L	Power Source PH	Standard Accessories	External dimensions Width × Depth × Height mm	Weight kg	Noise Level dB [A]
Automatic unloader type	1.5	1.5OU-9.5GS5/6A	0.93	82×60×1	880	278	165	80	1PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover, Silencer Stop valve Air out let 1/4B×1 for 0.75, 1.5 & 2.2 kW, 3/8B×1 for 3.7 & 5.5 kW, 1/4B×1, 3/4B×1 for 7.5 & 11 kW	1,155×393×909	105	71
		1.5OU-9.5G5/6A							3PH			93	
	2.2	2.2OU-9.5GS5/6A		82×60×2	650	412	240	90	1PH		1,283×403×841	139	71
		2.2OU-9.5G5/6A							3PH			122	
	3.7	3.7OU-9.5G5/6A		82×72×2	850	646	405	125	3PH		1,477×424×909	163	74
	5.5	5.5OU-9.5G5/6A		82×72×3	860	981	605	150	3PH		1,518×502×1,011	208	75
	7.5	7.5OU-8.5G5/6A	0.83	105×72×2	1,050	1,309	830	230	3PH		1,690×547×1,158	280	81
	11	11OU-8.5G5/6A		105×72×3	1,030	1,926	1,225	280	3PH		2,028×613×1,220	410	83
Pressure-switch type	0.75	0.75OP-9.5GS5/6A	0.93	60×50×1	980	139	75	80	1PH		1,155×380×850	84	69
		0.75OP-9.5G5/6A							3PH			77	
	1.5	1.5OP-9.5GS5/6A		82×60×1	880	278	165	80	1PH		1,155×393×897	105	71
		1.5OP-9.5G5/6A							3PH			93	
	2.2	2.2OP-9.5GS5/6A		82×60×2	650	412	240	90	1PH		1,283×403×824	139	71
		2.2OP-9.5G5/6A							3PH			122	
	3.7	3.7OP-9.5G5/6A		82×72×2	850	646	405	125	3PH		1,477×424×880	163	74
	5.5	5.5OP-9.5G5/6A		82×72×3	860	981	605	150	3PH		1,518×502×998	208	75
	7.5	7.5OP-8.5G5/6A	0.83	105×72×2	1,050	1,309	830	230	3PH		1,690×547×1,158	280	81
	11	11OP-8.5G5/6A		105×72×3	1,030	1,926	1,225	280	3PH		2,028×613×1,220	410	83

Note: 1. Use the compressor at a place where ambient temperature is 0 to 40 degrees C.
2. The noise level shown are those obtained at a distance of 1.5m from the front of the compressor operating under full load in a reverberation-free room.
3. The capacity of compressed air is the amount of air discharged under the maximum pressure converted in terms air suction (under the atmospheric pressure).
4. These compressor series is not available for direct use of breathing air.

TANK MOUNT BEBICON (0.75~11kW)

High quality with two million accumulative shipments
User-friendly and durable New V Series

Features HIGH PERFORMANCE | HIGH RELIABILITY | COMPACT & LIGHT | EASY TO MAINTAIN



7.5 P – 9.5 V 5 A
- A: ASIA
- 5: Frequency (50/60Hz)
- V: New V Series
- 9.5: Pressure (0.93MPa [9.5kgf/cm²])
- P: Pressure Switch
- 7.5: Power (7.5 kW)

Specifications (HORIZONTAL & VERTICAL TANK MOUNT TYPE)

Tank Type	Operation Systems	Motor Output kW	Model	Maximum Pressure MPa	Cylinder Diameter mm × Stroke mm × Number of Cylinders	Compressor Speed min⁻¹	Displacement L/min	Capacity at Maximum Pressure L/min	Air tank Capacity L	Power Source PH	Standard Accessories	External Dimensions Width × Depth × Height mm	Weight kg	Noise Level dB [A]
Horizontal	Automatic unloader type	0.75	0.75U-9.5VS5/6A 0.75U-9.5V5/6A	0.93	50×65×1	990	126	80	62	1PH 3PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover, Silencer Stop valve Air out let 1/4B×1 for 0.75 & 1.5 kW, 1/4B×2 for 2.2kW, 1/4B×1 & 3/8B×1 for 3.7 & 5.5 kW, 1/4B×1, 3/4B×1 for 7.5 & 11 kW 1B×1 for 15 kW	923×376×818	79	70
		1.5	1.5U-9.5VS5/6A 1.5U-9.5V5/6A		72×65×1	970	257	165	80	1PH 3PH		1,147×380×870	102	72
		2.2	2.2U-9.5VS5/6A 2.2U-9.5V5/6A		72×65×2	730	386	265	90	1PH 3PH		1,275×403×881	134	72
		3.7	3.7U-9.5V5/6A		L) 90×85×1 H) 50×85×1	1,000	541	440	125	3PH		1,477×429×917	158	74
		5.5	5.5U-9.5V5/6A		L) 105×85×1 H) 60×85×1	1,080	795	630	150	3PH		1,518×491×954	203	76
		7.5	7.5U-9.5V5/6A		L) 90×85×2 H) 72×85×1	950	1,027	840	230	3PH		1,690×547×1,095	280	79
		11	11U-9.5V5/6A		L) 105×85×2 H) 82×85×1	1,050	1,546	1,200	250	3PH		1,838×611×1,102	340	83
		15	15U-9.5V5/6A		L) 110×110×2 H) 82×110×1	1,000	2,091	1,650	280	3PH		2,028×734×1,222	462	84
	Pressure-switch type	0.75	0.75P-9.5VS5/6A 0.75P-9.5V5/6A		50×65×1	990	126	80	62	1PH 3PH		923×376×803	79 72	70
		1.5	1.5P-9.5VS5/6A 1.5P-9.5V5/6A		72×65×1	970	257	165	80	1PH 3PH		1,147×380×852	102 90	72
		2.2	2.2P-9.5VS5/6A 2.2P-9.5V5/6A		72×65×2	730	386	265	90	1PH 3PH		1,275×403×882	134 117	72
		3.7	3.7P-9.5V5/6A		L) 90×85×1 H) 50×85×1	1,000	541	440	125	3PH		1,477×429×890	158	74
		5.5	5.5P-9.5V5/6A		L) 105×85×1 H) 60×85×1	1,080	795	630	150	3PH		1,518×491×925	203	76
		7.5	7.5P-9.5V5/6A		L) 90×85×2 H) 72×85×1	950	1,027	840	230	3PH		1,690×547×1,090	280	79
		11	11P-9.5V5/6A		L) 105×85×2 H) 82×85×1	1,050	1,546	1,200	250	3PH		1,838×611×1,097	340	83
Vertical		3.7	3.7P-12.5 (14) V5/6A	1.23 (1.37)	L) 90×85×1 H) 50×85×1	900	487	400	300	3PH	Pressure gauge, Safety valve, Hose joint, V-belt, Belt cover, Silencer Stop valve 3/4B×1	957×590×1,732	260	75
		5.5	5.5P-12.5 (14) V5/6A		L) 105×85×1 H) 60×85×1	970	714	550	300	3PH		1,025×611×1,734	317	76
		7.5	7.5P-12.5 (14) V5/6A		L) 90×85×2 H) 72×85×1	900	973	760	300	3PH		1,102×634×1,814	363	80

Note: 1. Use the compressor at a place where ambient temperature is 0 to 40 degrees C.
2. The noise level shown are those obtained at a distance of 1.5m from the front of the compressor operating under full load in a reverberation-free room.
3. The capacity of compressed air is the amount of air discharged under the maximum pressure converted in terms air suction (under the atmospheric pressure).
4. These compressor series is not available for direct use of breathing air.

PACKAGE BEBICON (0.75~15kW)

Sound proof cabinet with small foot print

PBD-2.2MA5/6 PBD-5.5MA5/6 POD-3.7MA5/6 POD-7.5VD

Features(M/Vtype)

Energy saving with pressure setting

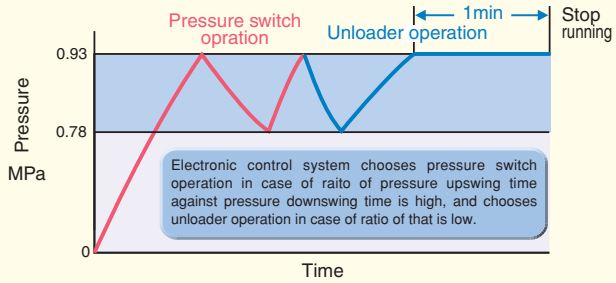
The most efficient way to save energy is to put maximum pressure close to working pressure. 'X' control system of M-type compressor changes the maximum pressure easily with touch button.

Model	Max. Press.	Comeback Press.	Min. Press. Range	Press. Step
PB(D)-1.5~11MA PO(D)-1.5~5.5MA	0.93MPa	0.55MPa*	0.10MPa* (standard:0.15MPa)	0.01MPa step
PO(D)-7.5~15M(A)	0.85MPa			

* If comeback pressure is set less than 0.58 MPa, some parts needs to be replaced to special one. Please consult with distributor in such a case.
* If pressure range, between comeback press and stopping pressure, is less than 0.14 MPa, please install reserver air tank whose volume is more than 230 L.

Electronic control system follows customer air consumption

'X' control system of M-type compressor calculates rate of pressure upswing time and downswing time to measure air consumption and select either pressure switch control operation or unloader control operation automatically to save energy.



Digital Display

Easy to see diagonal Digital Display

To display both air pressure and accumulated operating hours

Oil lubricated type

To display oil replacement timing

Oil free type

To display overhaul timing

*Please make sure to overhaul products at every 8,000 hours (at every 10,000 hours in 7.5~15 kW). Overhaul timing is displayed 500 hours before actual overhaul hours.

- **Small foot print with built-in air dryer**
- **Coordinated control of compressor and air dryer**
- **Energy saving with air dryer start and stop control**
- **Input-output signals**

- Operational input
- Remote selector
- BR-1 Selector
- Operation answer
- Warning

(Overhaul warning for oil free type,
Oil level warning for oil lubricated type)
General Error
(Compressor warning,
Air dryer high pressure warning,
compressor trip,
air dryer trip, inverter trip)

INVERTER PACKAGE OIL FREE BEBICON(5.5~11kW)

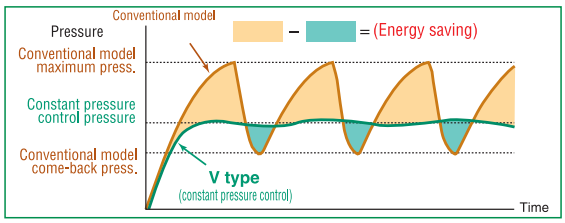
Energy saving and clean air supply with inverter control oil free compressor

POD-15V

Energy saving with constant pressure control

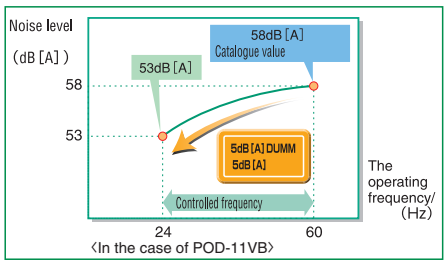
Constant pressure control operation saves a lot of energy, as it can supply air at minimum required pressure.

Inverter controls motor speed and keeps the pressure within plus or minus 0.03MPa of setting pressure.



Sophisticated operating sound with inverter

Inverter soft start reduce the starting noise. Low speed operation sound is 5 db[A] less than normal speed operation sound.



Package BEBICON

Lubrication type	Series Name	Motor output kW	Model	Maximum Discharge Pressure MPa	On-off control pressure MPa	Capacity at Maximum Pressure L/min	Outlet air dew point	Motor start system	Control method	Air Outlet	Air tank Capacity	External dimensions Width×Depth×Height mm	Weight kg	Noise level dB[A]
Oil	Pressure switch type	0.75	PB-0.75PSC5/6	0.93	0.74~0.93	80	Without air dryer	Fullvoltage start	Pressure switch	1/4B (8A) provided with stop valve	30	702×537×911	93	52
			PB-0.75PC5/6										85	
	M type	1.5	PB-1.5MA5/6		0.78~0.93	165		Full-voltage start (with restart load reducing device)	Semiconductor + microcomputer	3/8B (10A) provided with stop valve	20	826×638×944	132	53
		2.2	PB-2.2MA5/6			265							151	
		3.7	PB-3.7MA5/6			440						926×710×1,024	190	56
		5.5	PB-5.5MA5/6			630				1/2B (15A) provided with stop valve	32	1,008×816×1,215	277	56
		7.5	PB-7.5M5/6			840							310	56
		11	PB-11M5/6			1,200						1,175×975×1,463	420	59
Oil Less (Dry)	Pressure switch type	0.75	PO-0.75PGS5/6	0.93	0.78~0.93	75				1/4B (8A) provided with stop valve	30	707×537×911	111	52
			PO-0.75PG5/6										103	
	M type	1.5	PO-1.5MA5/6			165				3/8B (10A) provided with stop valve	20	826×638×944	136	55
		2.2	PO-2.2MA5/6			240							154	
		3.7	PO-3.7MA5/6			405						926×710×1,024	185	57
		5.5	PO-5.5MA5/6			605				1/2B (15A) provided with stop valve	32	1,008×816×1,215	278	58
		7.5	PO-7.5MA5/6	0.85	0.70~0.85	875							309	59
		11	PO-11MA5/6			1,280						1,175×975×1,463	444	62
		15	PO-15M5/6			1,700				1 (25A) provided with stop valve		1,176×975×1,463	470	66

Package BEBICON with built-in air dryer

Lubrication type	Series Name	Motor output kW	Model	Maximum Discharge Pressure MPa	On-off control pressure MPa	Capacity at Maximum Pressure L/min	Outlet air dew point	Motor start system	Control method	Air Outlet	Air tank Capacity	External dimensions Width×Depth×Height mm	Weight kg	Noise level dB[A]
Oil	Pressure switch type	0.75	PBD-0.75PSF5/6	0.93	0.74~0.93	80	Less than 10℃ under pressure	Fullvoltage start	Pressure switch	1/4B (8A) provided with stop valve	30	716×537×1,137	115	52
			PBD-0.75PF5/6										107	
	M type	1.5	PBD-1.5MA5/6		0.79~0.93	165		Full-voltage start (with restart load reducing device)	Semiconductor + microcomputer	3/8B (10A) provided with stop valve	20	826×638×1,194	159	53
		2.2	PBD-2.2MA5/6			265							178	
		3.7	PBD-3.7MA5/6			440						926×710×1,224	220	56
		5.5	PBD-5.5MA5/6			630				1/2B (15A) provided with stop valve	32	961×816×1,492	316	56
		7.5	PBD-7.5MA5/6			840							351	
		11	PBD-11M5/6			1,200						1,455×981×1,463	480	59
Oil Less (Dry)	Pressure switch type	0.75	POD-0.75PSF5/6	0.93	0.78~0.93	75				1/4B (8A) provided with stop valve	30	716×537×1,137	133	52
			POD-0.75PF5/6										125	
	M type	1.5	POD-1.5MA5/6			165				3/8B (10A) provided with stop valve	20	826×638×1,194	163	55
		2.2	POD-2.2MA5/6			240							181	
		3.7	POD-3.7MA5/6			405						926×710×1,224	216	57
		5.5	POD-5.5MA5/6			605	Under 15℃			1/2B (15A) provided with stop valve	32	961×816×1,492	317	58
		7.5	POD-7.5MB5/6	0.85	0.70~0.85	875	Less than 10℃ under pressure					944×816×1,492	348	59
		11	POD-11MA5/6			1,280						1,445×975×1,463	519	62
		15	POD-15M5/6			1,700				1 (25A) provided with stop valve		1,483×975×1,463	560	66

Specifications

Lubrication type	Motor output kW	Model	Maximum Discharge Pressure MPa	Capacity @ Initial setting L/min	Range of discharge pressure setting MPa	Discharge air dew point degree C	Motor start system	Pressure Indication	Air Outlet	Air tank Capacity L	Required minimum air tank capacity option L	External dimensions Width×Depth×Height mm	Weight kg	Noise level dB[A]
Oil Less (Dry)	5.5	POD-5.5VB	0.93	625 @ 0.83MPa	0.60~0.88	5~15 under pressure	Inverter	Digital gauge (LED)	1/2B(15A) provided with stop valve (rubber hose ID: 12mm)	32	150	961 ×816 ×1,492	329	58
	7.5	POD-7.5VD	0.85	905@ 0.75MPa	0.60~0.80							944× 816×1,492	361	59
	11	POD-11VB		1,325@ 0.75MPa							230	1,445×975×1,463	536	62
	15	POD-15V		1,750@ 0.75MPa					1B(25A) provided with stop valve			1,682×975×1,463	591	66

Notes:1. Use the compressor at a place where ambient temperature is 5℃ to 40℃.
2. The noise levels shown are those obtained at a distance of 1.5 m from the front of the compressor operating under full load in a reverberation-free room.
3. When the air dryer is operated at the same time,with compressor the noise level becomes 1 to 2 dB higher than the value shown.
4. The amount of air discharged from the air dryer is about 3% to 5% smaller than the amount of air discharged from the compressor due to the precipitation of drain.
5. Package Oil-Free BEBICON is unavailable in Singapore,Malaysia and China due to their pressure vessel regulations. Hitachi has tank less model in some product.
6. If air demand is small, capacity is decreased up to 40% from above specified value, when constant-pressure control' is selected. If tank pressure is increased even the 40% of full load, motor stops running at maximum discharge pressure.
7. In case of 11kW model, dryer is supplied as horizontal model.
8. V-type compressor requires additional air tank whose volume is bigger than above specified value.
9. 15kW compressor requires additional air tank whose volume is bigger than 230 L.

OIL FREE SCROLL AIR COMPRESSOR
(1.5~5.5kW)

State of art silent operation

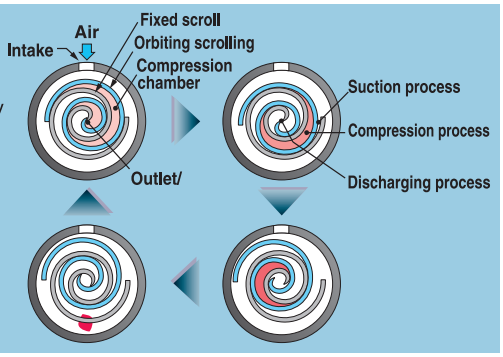
SRL-5.5M　　SRL-5.5DMA

SRL – 5.5 D MA 5

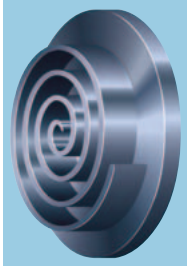
- Frequency (50/60Hz)
- Series Name(MA type)
- Built-in Air Dryer
- Power (5.5 kW)
- OIL FREE SCROLL

Scroll compression principle

1. Compressor sucks air through air inlet located at outer scroll.
2. Compression chamber goes smaller with rotary movement and trapped air is compressed.
3. Compression chamber becomes minimum volume at the center of the scroll and air is pumped out through air outlet located at the center of scroll.
4. These, suction, compression & discharging, process is repeated continuously.



Long maintenance cycle with long life consumable parts.



Compressor head replacement at every 10,000 hours or 4 years whichever comes earlier.

Low noise level

●Noise level is only 45dB[A] that is like in the library (1.5kW)

Low vibration

●For example: Pencil at top roof keeps standing.

Specifications

Air dryer	Operating method	Motor output kW	Model	Compressor: Maximum Pressure MPa	Compressor: On-off control press. MPa	Compressor: Capacity at Maximum Pressure L/min	Motor: Motor type	Motor: Power Source PH	Outlet air dew point ℃	ambient temperature ℃	Starting method	Air outlet	Air tank capacity L	External dimensions Width X Depth XHeight mm	Weight kg	Noise level dB[A]
Built-in air dryer	Pressure switch	1.5	SRL-1.5DMA5/6	0.85	0.65 ~0.85	160	TFO-K 4P	3 PH	Less than 15℃ under pressure	5~40	Direct	Hose air outlet screw size 3/8B(10A) ×1	18	650×650×1,030	157	45
		2.2	SRL-2.2DMA5/6			240									164	46
		3.7	SRL-3.7DMA5/6			400	TFO-KK 4P						24	750×715×1,120	215	47
		5.5	SRL-5.5DMA5/6			600								750×715×1,220	241	50
Without air dryer		1.5	SRL-1.5M5/6			160	TFO-K 4P		Without air dryer	0~40			18	650×650×880	132	45
		2.2	SRL-2.2M5/6			240									139	46
		3.7	SRL-3.7M5/6A			400	TFO-KK 4P						24	750×715×1,020	207	47
		5.5	SRL-5.5M5/6A			600								750×715×1,020	219	50

Note
1. Capacity is expressed as converted value in suction condition at maximum pressure.
2. Noise level is the value at 1.5 m in front and 1 m height in an anechoic room.
3. External dimensions include the box panels only and don't include valve, pipe and etc.
4. Without freeze at any parts of compressor.

Pressure unit conversion table

MPa	0.49	0.54	0.59	0.65	0.69	0.70	0.74	0.78	0.83	0.85	0.88	0.93	1.23
kgf/cm²	5	5.5	6	6.6	7	7.1	7.5	8	8.5	8.7	9	9.5	12.5

Hitachi Industrial Equipment Systems Co., Ltd.

For further information, please contact your nearest sales representative.

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