

## VARIABLE FREQUENCY BELT SCREW AIR COMPRESSOR



### **Introduction**

Every model has a corresponding frequency conversion compressor, which controls the air delivery by changing the rotational speed of motor, making the air output and electricity consumption smoothly vary the air supply decreases and so does the electricity consumption for energy conservation. For capacity ranging from 2 to 60m<sup>3</sup>/min and discharge pressure from 0.5-1.3Mpa. There are corresponding models available to customers with different requirements.

In addition to that frequency conversion air compressors have the same good quality as other ERC model, the quality frequency converter will further better the result of energy conservation. With the help of the PID regulator disposed in frequency converter, it can start up smoothly, causes little impact on the power grid and generates great low-frequency start moment of current vector control and small running current. When the air use decreases, the compressors enter the sleeping status, saving considerable energy. Moreover, digital to analog conversion is highly accurate and the integration design features few fault points.

### **Life of compressor air end:**

Rotors are asymmetric in profile and backed up by ball bearings and roller bearings and operate at a low speed. Helical gears can produce axial force to kill some acting force, which reduces the load of the bearing of compressor air end. Thereby low in abrasion and maintenance and repair expenses and the compressor air end being long in service life.

### **More reliable operation:**

With frequency conversion soft start reduce in-rush starting current, reduce wear on electrical switch gears and motor windings. Also maintain less power during starting and stopping of motors and increase protection to motors. Also reduce peak demand and improve power factor.

### **In the case of rated power license setting desired pressure at discretion, and maintaining constant pressure at discretion, and maintaining constant pressure:**

User to choose any delivery pressure between 4-13bar without any gears or belt change. When the use of air increases the unit increases air output through automatic acceleration of rotational speed to avoid a falling pressure and ensure volume at constant pressure. When the use of air decreases, the unit reduces air output by automatically lowering the rotational speed to avoid pressure increase and ensure continued air supply constant pressure.

### **Efficiency and energy conservation:**

Thanks to the variable-speed control technology, the capacity of compressors can be perfectly combined with the air use of users, which downright avoid the unloading power loss. In intermittent air use, the minimized load of soft start eliminates the starting frequency of the peak current and further smooth start can reduce the power supply, equipment costs as well as the impact on the network power.

Model	Air delivery /Working pressure				Motor	Cooling air volume	Cooling water volume	connect pipe diam.	Weight	Dimension(mm)		
	m <sup>3</sup> /min/bar				KW					m <sup>3</sup> /min	Kg	L
ERC-15SA	0.68-1.7/7	0.64-1.65/8	0.56-1.5/10	0.48-1.3/12.5	11	50		1"	460	1150	700	1180
ERC-20SA	0.96-2.4/7	0.88-2.2/8	0.84-2.1/10	0.68-1.8/12.5	15	50		1"	460	1150	700	1180
ERC-25SA	1.24-3.1/7	1.16-2.9/8	1.08-2.7/10	0.88-2.3/12.5	18.5	110		1"	645	1200	850	1280
ERC-30SA	1.52-3.8/7	1.4-3.6/8	1.28-3.2/10	1.08-2.5/12.5	22	110		1"	655	1200	850	1280
ERC-30SW	1.52-3.8/7	1.4-3.6/8	1.28-3.2/10	1.08-2.5/12.5	22		14.5	1"	655	1200	850	1280
ERC-40SA	2.08-5.3/7	2.0-5.0/8	1.72-4.3/10	1.48-3.6/12.5	30	145		1 1/4"	925	1250	900	1360
ERC-40SW	2.08-5.3/7	2.0-5.0/8	1.72-4.3/10	1.48-3.6/12.5	30		20	1 1/4"	925	1250	900	1360
ERC-50SA	2.56-6.6/7	2.4-6.2/8	2.2-5.7/10	1.84-4.6/12.5	37	145		1 1/4"	1110	1450	1000	1465
ERC-50SW	2.56-6.6/7	2.4-6.2/8	2.2-5.7/10	1.84-4.6/12.5	37		25	1 1/4"	1110	1450	1000	1465
ERC-60SA	3.2-8.0/7	3.08-7.7/8	2.6-6.9/10	2.16-6.0/12.5	45	185		1 1/2"	1210	1500	1000	1480
ERC-60SW	3.2-8.0/7	3.08-7.7/8	2.6-6.9/10	2.16-6.0/12.5	45		30	1 1/2"	1210	1500	1000	1480
ERC-75SA	4.2-10.5/7	3.92-9.8/8	3.4-8.7/10	2.84-7.3/12.5	55	220		2"	1810	2100	1320	1700
ERC-75SW	4.2-10.5/7	3.92-9.8/8	3.4-8.7/10	2.84-7.3/12.5	55		39.9	2"	1810	2100	1320	1700
ERC-100SA	5.4-13.6/7	5.16-13.0/8	4.4-11.3/10	3.7-10.1/12.5	75	250		2"	1900	2100	1320	1700
ERC-100SW	5.4-13.6/7	5.16-13.0/8	4.4-11.3/10	3.7-10.1/12.5	75		51	2"	1900	2100	1320	1700
ERC-120SA	6.4-16.2/7	6.16-15.4/8	5.6-13.2/10	4.6-11.2/12.5	90	270		2"	2190	2100	1320	1700
ERC-120SW	6.4-16.2/7	6.16-15.4/8	5.6-13.2/10	4.6-11.2/12.5	90		61	2"	2190	2100	1320	1700

Voltage V/ HZ /PH : 380/50/3 220/60/3 440/50/3 etc or Two kinds of voltage reverse According to customer inquiry