



CUSTOMIZED PRESSURE 50% UP TO ENERGY SAVING

Screw Air Compressor



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ELANG INDUSTRIAL (SHANGHAI) CO., LTD.

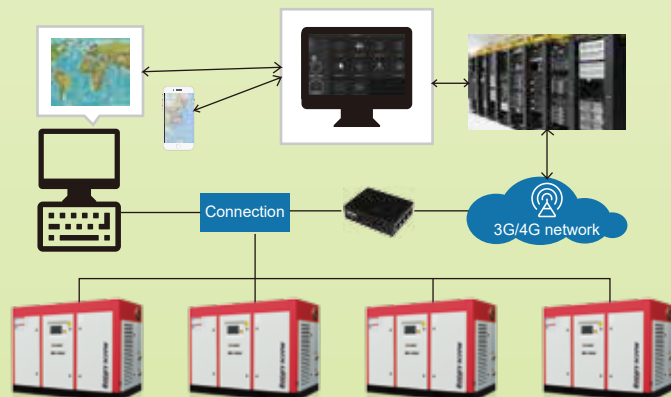
CUSTOMIZED PRESSURE SCREW AIR COMPRESSOR

01 Double frequency control system

- Main motor frequency conversion control:
 1. Eliminate excess pressure to bring the waste of electricity
 2. Constant pressure output: constant pressure control accuracy of $\pm 0.02\text{mpa}$, which is conducive to textile nozzle nozzle, improve product quality;
- Inverter constant temperature fan:
 1. Adjusting the heat automatically according to the temperature inside the machine
 2. Constant cabin temperature provide the best equipment operation
 3. Thermostat output: General thermostat set at about 80°C , so that make the best oil lubrication and avoid high temperature closing down the machine;
- ABB, Siemens Inverter (for option)



- CMC control panel (for option):
 - Support more than 20 languages: such as English, Russian, French, Spanish, German, Arabic, etc;
 - Know the maintenance, fault and other information timely through the mobile phone for local or remote control of the visualization system.



02 Air end: single-stage compression Air end / two-stage compression Air end

- Single-stage compression (1.2-6.5bar)
- Two-stage compression (4-6.5bar)
- Single-stage air end:
 - a wide range of pressure, easy maintenance;
- Two-stage air end:
 - 15-20% more efficiency than single-stage ;
 - Isothermal compression;
 - Reduce the compression ratio, reduce leakage back;



SAVE MORE THAN 50% ENERGY

User-friendly installation, maintenance and care



03 PM High Frequency Motor

- Efficient: the average efficiency is 7% more than that of ordinary motor;
- Eliminate no-load;
- Frequency range 80-150 / 200hz, intelligent vsd;
- Frequency start, small starting current, small grid impact;
- Motor efficiency are IE3, IE4;
- Efficient Weg IE4 (for choose) , ABB, Siemens motors(for choose)



04 Industry custom to increase the oil system, gas system

- Increase oil and gas tank, using imported oil and gas separator, the oil content is less than 2ppm;
- Increase pipeline system to reduce pressure loss
- Effective cooling area, stable operation;



05 Stainless steel piping system

- Simple structure, beautiful appearance
- Corrosion-resistant, long service life
- High strength Stainless steel tube with good ductility ,toughness, and pressure loss

06 Customize the temperature according to the industry

- Temperature for textile industry is designed with 50°C
- Temperature for glass industry is designed with 40°C

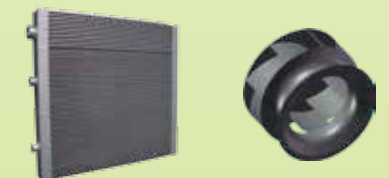
07 Double filtration, double oil filtration

- Double filtering (external inlet filter screen and air filter) : ensure that inlet precision is 1 microns, and avoid impurities to enter; External inlet filter screen is easy to removable and clean;
- Double oil filter: when maintain the machine, do not need to stop, and don't delay production.



08 Customized large cooling system

- Separated cooler: Heat dissipation for gas path and the heat dissipation separation for fuel lines isolate the expansion and condensation caused by temperature difference ;
- Subdivision heat dissipation is more effective and rapid to cool and can not be affected by internal pressure.
- Centrifugal fan, with low noise, and high efficiency for heat dissipation.



■ Comparison between Single-stage Screw Air Compressor and Pressure Customized Screw Air Compressor:

Description	ELANG One stage Compression Air Compressor Data	ELANG Pressure Customized Air Compressor Data	Difference
Model	ERC -330SA	ERC -330SAL	
Rated Power (kw/h)	250	250	
Rated Air Delivery (m³/min)	40.5	63.0	22.5 m³/min
Working Pressure (bar)	8	4	
Total Sets	1	1	
Total Rate Power Consumption (kw/h)	250	250	
Shaft Power	1.2	1.2	
Actual Gas Production 40.5m3/min total power consumption (kw/h)	250*1.2=300	250*1.2*64%=192 (40.5/63.0=64%)	108kw

Statistical Data:

- 1) The total air delivery for 1 set 250KW/H ELANG One-stage Compression Air Compressors: **40.5m³/min**,
Actual Gas Production 40.5 m³/min total power consumption: **300 kw/h**;
- 2) Recommend 1 sets 250KW/H ELANG Energy-saving Low Pressure Air Compressor. Total Air Delivery: **63.0 m³/min**;
Actual Gas Production 40.5 m³/min total power consumption: **192 kw/h**.

Saving Electricity:

- 1.The Electricity Energy-saving Model can save: 300-192=108kw/h
- 2.The ratio: 108/300=36%

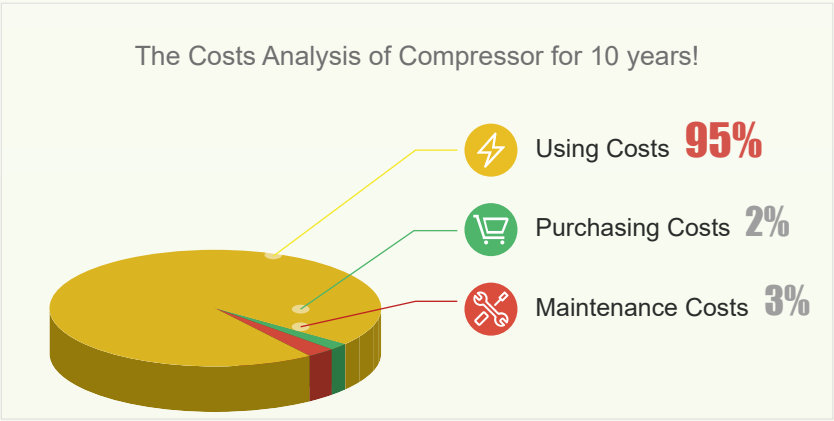
Energy Savings Calculation:

1. Annual equipment usage time by 350 days.
2. Daily working hours by 24 hours.
3. Electricity prices by USD 0.16 per kilowatt.

The Cost Savings For Electricity Per Year:

108*350*24*0.16 = **USD 145152 (Per year)**

From upon data sheet, we can also know the using cost of compressor takes up a great proportion in the total cost:

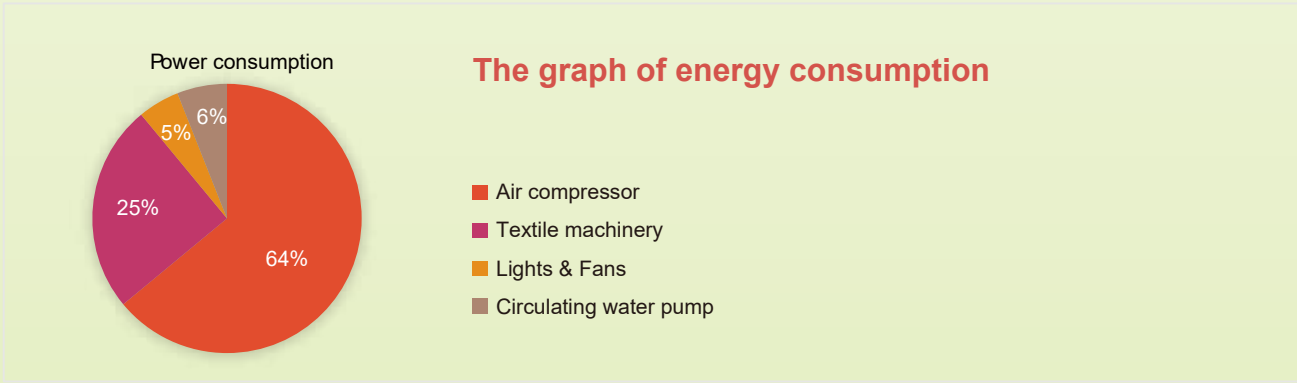


THEREFORE
**HOW TO SAVE THE ELEC-
TRICITY COST IS ALWAYS
THE PRIORITY !**

EXAMPLE

The total number of spinning machines in a user factory is 96 (regardless of the labor cost):

Number of textile machinery	96 units	Power consumption per set≈3kw/h	The total power consumption≈288kw/h
Lights & Fans	Workshop	Whole workshop≈50kw/h	The total power consumption≈50kw/h
Circulating water pump	4 units	Whole workshop≈15kw/h	The total power consumption≈15*4=60kw/h
Air compressor 105m³/min	3 units	Power consumption per set≈200kw/h	The total power consumption≈200*1.2*3=720kw/h
The total power consumption			1118kw/h



The operating cost of the user's 3 air compressor in 10 years (200kw, 7bar, 35m³/min/set, total 3 sets)		
One-time acquisition cost	53000USD /Set	53000*3=159000USD
Operation and maintenance cost (Year=8000hrs)	3000USD per time	3000*3(sets)*2(times)*10(years)=180000USD
Power consumption	SF=1.2	200kw*1.2*3(sets)=720kw/h 720kw*24h*330days*10years=57024000kw
Electricity	Average electricity price 0.16USD/kw/h	57024000kw*0.16=9123840USD
Total		9462840USD

APPLICANT AND INSTALLATION



AIR JET LOOMS



DTY MACHINE



GLASS INDUSTRY



WASTE WATER TREATMENT



SPECIFICATIONS

■ High Efficiency customized pressure Technical Parameters:

Motor Efficiency Class: IE5/IE4/IE3/IE2 as per your required
Type of Driving: Direct Driven

Motor Protection Class: IP23/IP54/IP55 or as per your required
Type of Cooling: Air Cooling/Water Cooling

Model	Working Pressure		Air Delivery		Power	Transmission method	Dimenions (mm)			Outlet Pipe Diameter	Weight kg
	bar	psi	m3/min	cfm			L	W	H		
ERC-30SAL	2	29	8.6	304	22/30	Direct Driven	1450	1000	1465	DN65	950
ERC-40SAL			10.7	378	30/40		1480	900	1330	DN65	950
ERC-50SAL			12	424	37/50		1850	1200	1650	DN65	1100
ERC-60SAL			16	565	45/60		2000	1350	1970	DN80	1200
ERC-75SAL			20	706	55/75		2460	1510	1970	DN80	1950
ERC-100SAL			28	989	75/100		2610	1600	1900	DN100	2150
ERC-120SAL			34.6	1222	90/120		2610	1600	1900	DN125	3500
ERC-150SAL			44.3	1564	110/150		2610	1600	1900	DN125	3500
ERC-175SAL			48.2	1702	132/175		3580	2230	2410	DN200	4500
ERC-30SAL	3	43.5	5.9	208	22/30	Direct Driven	1450	1000	1465	DN65	950
ERC-40SAL			9	318	30/40		1480	900	1330	DN65	950
ERC-50SAL			11	388	37/50		1850	1200	1650	DN65	1100
ERC-60SAL			12.5	441	45/60		2000	1350	1970	DN80	1200
ERC-75SAL			17	600	55/75		2460	1510	1970	DN80	1950
ERC-100SAL			21	742	75/100		2610	1600	1900	DN100	2150
ERC-120SA/WL			28.5	1006	90/120		2610	1600	1900	DN125	3500
ERC-150SA/WL			35	1236	110/150		2610	1600	1900	DN125	3500
ERC-175SA/WL			45	1589	132/175		3580	2230	2410	DN200	4500
ERC-200SA/WL			49.5	1748	160/200		3380	2280	2420	DN125	4500
ERC-250SA/WL			52.5	1854	185/250		6100	4000	2100	DN150	6100
ERC-270SA/WL			58	2048	200/270		3900	2150	2280	DN200	7500
ERC-300SA/WL			63	2225	220/300		4600	2300	2400	DN200	8100
ERC-330SA/WL			73.8	2606	250/330		5000	2350	2400	DN200	8400
ERC-375SA/WL			78.5	2772	280/375		5500	2590	2800	DN200	9000
ERC-420SA/WL			85.5	3019	315/420		5500	2590	2800	DN200	9500
ERC-500SA/WL			113.5	4008	400/500		7000	2700	3000	DN250	10000
ERC-25SAL	4	58	4.5	159	18.5/25	Belt Driven	1200	850	1280	DN50	665
			4.2	148		Direct Driven	1300	850	1150		665
ERC-30SA/WL			5.7	201	22/30	Belt Driven	1380	850	1150	DN65	710
ERC-40SA/WL			7.4	261	30/40	Belt Driven	1380	850	1150	DN65	1060
			7.5	265		Direct Driven	1380	850	1150		1060
ERC-50SAL			9.2	325	37/50	Belt Driven	1650	1100	1540	DN65	1060
			8.5	300		Direct Driven	1850	1200	1650		1060
ERC-60SA/WL			11.6	410	45/60	Belt Driven	1650	1250	1540	DN65	1750
			11.0	388		Direct Driven	2000	1350	1650		1750
ERC-75SA/WL			14.0	494	55/75	Direct Driven	2300	1450	1690	DN80	2030
ERC-100SA/WL			18.5	653	75/100		2350	1400	1710	DN100	3030
ERC-120SA/WL			21.5	759	90/120		2545	1600	1900	DN125	3320
ERC-150SA/WL			30.0	1059	110/150		2650	1550	1920	DN125	3780
ERC-175SA/WL			35.5	1254	132/175		3150	1950	2020	DN200	4930
ERC-200SA/WL			42.0	1483	160/200		3400	1950	2020	DN150	5450
ERC-250SA/WL			47.5	1677	185/250		4000	2000	2100	DN150	6100
ERC-270SA/WL			52.0	1836	200/270		3900	2150	2280	DN200	7500
ERC-300SA/WL			54.0	1907	220/300		4600	2300	2400	DN200	8100
ERC-330SA/WL			63.0	1907	250/330		5000	2350	2400	DN200	8400
ERC-375SA/WL			68.0	2401	280/375		5500	2590	2800	DN200	9000
ERC-420SA/WL			78.5	2772	315/420		5500	2590	2800	DN200	9500
ERC-470SA/WL			85.5	3019	355/470		6500	2700	3000	DN200	10000
ERC-500SA/WL			95.0	3354	400/500		7000	2700	3000	DN200	10000
ERC-550SA/WL			95.0	3354	400/550		7000	2700	3000	DN250	10000

Certification: CE/ISO9001/TUV/UL/SGS/ASME
Voltage: 380V/3PH/50HZ/60HZ 220V/3PH/50HZ/60HZ 400V/3PH/50HZ/60HZ 440V/3PH/50HZ/60HZ 415V/3PH/50HZ/60HZ 230V/3PH/50HZ/60HZ

■ Permanent Magnet customized pressure Technical Parameters:

Motor Efficiency Class: IE5/IE4/IE3/IE2 as per your required

Motor Protection Class: IP23/IP54/IP55 or as per your required

Type of Driving: Direct Driven

Type of Cooling: Air Cooling/Water Cooling

Model	Working Pressure		Air Delivery		Power		Dimenions (mm)			Outlet Pipe Diameter	Weight kg
	bar	psi	m3/min	cfm	kw	hp	L	W	H		
ERC-30SAL PM	2	29	2.3-8.6	81-304	22	30	1450	1000	1465	DN65	950
ERC-40SAL PM			2.8-10.7	99-378	30	40	1480	900	1330	DN65	950
ERC-50SAL PM			3.2-12	113-424	37	50	1850	1200	1650	DN65	1100
ERC-60SAL PM			4.2-16	148-424	45	60	2000	1350	1970	DN80	1200
ERC-75SAL PM			5.2-20	184-706	55	75	2460	1510	1970	DN80	1950
ERC-100SAL PM			7.1-28	251-989	75	100	2610	1600	1900	DN100	2150
ERC-120SAL PM			8.8-34.6	311-1222	90	120	2610	1600	1900	DN125	3500
ERC-150SAL PM			12-44.3	424-1564	110	150	2610	1600	1900	DN125	3500
ERC-175SAL PM			12.2-48.2	431-1702	132	175	3580	2230	2410	DN200	4500
ERC-30SAL PM	3	43.5	1.5-5.9	53-208	22	30	1450	1000	1465	DN65	950
ERC-40SAL PM			2.25-9	79-318	30	40	1480	900	1330	DN65	950
ERC-50SAL PM			2.8-11	99-388	37	50	1850	1200	1650	DN65	1100
ERC-60SAL PM			3.2-12.5	148-441	45	60	2000	1350	1970	DN80	1200
ERC-75SAL PM			4.3-17	152-600	55	75	2460	1510	1970	DN80	1950
ERC-100SAL PM			5.3-21	187-742	75	100	2610	1600	1900	DN100	2150
ERC-120SAL PM			7.2-28.5	254-1006	90	120	2610	1600	1900	DN125	3500
ERC-150SAL PM			8.8-35	311-1236	110	150	2610	1600	1900	DN125	3500
ERC-175SAL PM			11.4-45	403-1589	132	175	3580	2230	2410	DN200	4500
ERC-200SAL PM			12.5-49.5	441-1748	160	200	3380	2280	2420	DN125	4500

Certification: CE/ISO9001/TUV/UL/SGS/ASME

Voltage: 380V/3PH/50HZ/60HZ 220V/3PH/50HZ/60HZ 400V/3PH/50HZ/60HZ 440V/3PH/50HZ/60HZ 415V/3PH/50HZ/60HZ 230V/3PH/50HZ/60HZ

■ High Efficiency / PM VSD Motor Two Stage Compression customized pressure Technical Parameters:

Motor Efficiency Class: IE5/IE4/IE3/IE2 as per your required

Motor Protection Class: IP23/IP54/IP55 or as per your required

Type of Driving: Direct Driven

Type of Cooling: Air Cooling/Water Cooling

Model	Power		Working Pressure		Air Delivery		Dimenions (mm)			Outlet Pipe Diameter	Weight kg
	kw	hp	bar	psi	m3/min	cfm	L	W	H		
ERC-30AL-II PM	22	30	4.5	65.3	1.4~5.6	39~198	1480	900	1330	G11/4	1000
			5.5	79.8	1.3~5.2	46~184					
			6.5	94.3	1.2~4.6	42~162					
ERC-40AL-II PM	30	40	4.5	65.3	1.8~7.3	64~258	1650	1000	1365	G2	1200
			5.5	79.8	1.7~6.9	60~244					
			6.5	94.3	1.5~6.2	53~219					

Model	Power		Working Pressure		Air Delivery		Dimenions (mm)			Outlet Pipe Diameter	Weight kg
	kw	hp	bar	psi	m3/min	cfm	L	W	H		
ERC-50AL-II PM	37	50	4.5	65.3	2.5~10.0	88~353	1650	1000	1365	DN65	1350
			5.5	79.8	2.2~9.0	78~318					
			6.5	94.3	2.0~8.0	71~282					
ERC-60AL-II PM	45	60	4.5	65.3	3.0~11.8	106~417	2100	1250	1700	DN65	1500
			5.5	79.8	2.8~11.0	99~388					
			6.5	94.3	2.3~9.2	81~325					
ERC-75AL-II PM	55	75	4.5	65.3	3.8~15.0	134~530	2300	1355	1900	DN65	1850
			5.5	79.8	3.4~13.6	120~480					
			6.5	94.3	3.0~12.0	106~424					
ERC-100AL-II PM	75	100	4.5	65.3	4.8~19.5	169~689	2300	1355	1900	DN80	2350
			5.5	79.8	4.6~18.2	162~643					
			6.5	94.3	4.25~17.0	150~600					
ERC-120AL-II PM	90	120	4.5	65.3	6.2~25.1	219~862	2760	1510	1950	DN100	3200
			5.5	79.8	5.8~23.0	205~812					
			6.5	94.3	5.2~21.0	184~742					
ERC-150AL-II PM	110	150	4.5	65.3	7.5~29.8	265~1052	2760	1510	1950	DN100	3200
			5.5	79.8	6.4~27.5	226~971					
			6.5	94.3	6.2~25.0	219~883					
ERC-175AL-II PM	132	175	4.5	65.3	8.8~35.0	311~1236	3360	2180	2230	DN125	4650
			5.5	79.8	8.1~32.5	286~1148					
			6.5	94.3	6.2~29.5	219~1042					
ERC-200AL-II PM	160	200	4.5	65.3	10.8~43.5	381~1536	3360	2180	2230	DN125	4650
			5.5	79.8	10.1~40.5	357~1430					
			6.5	94.3	9.5~37.6	335~1328					
ERC-250AL-II VSD	185	250	4.5	65.3	12.0~47.8	424~1660	3550	2250	2350	DN150	5500
			5.5	79.8	11.1~44.5	392~1571					
			6.5	94.3	10.3~41.5	364~1465					
ERC-270AL-II VSD	200	270	4.5	65.3	13.1~52.5	463~1857	3550	2250	2350	DN150	5500
			5.5	79.8	12.2~49.0	430~1730					
			6.5	94.3	11.3~45.6	399~1610					
ERC-330AL-II VSD	250	330	4.5	65.3	16.5~66.3	583~2340	3550	2250	2350	DN200	6500
			5.5	79.8	15.2~61.0	537~2154					
			6.5	94.3	14.1~56.5	498~1995					

Certification: CE/ISO9001/TUV/UL/SGS/ASME

Voltage: 380V/3PH/50HZ/60HZ 220V/3PH/50HZ/60HZ 400V/3PH/50HZ/60HZ 440V/3PH/50HZ/60HZ 415V/3PH/50HZ/60HZ 230V/3PH/50HZ/60HZ

■ High Efficiency Two Stage Screw Compressor Technical Data

Motor Efficiency Class: IE5/IE4/IE3/IE2 as per your required
Type of Driving: Direct Driven

Motor Protection Class: IP23/IP54/IP55 or as per your required
Type of Cooling: Air Cooling/Water Cooling

Model	Working Pressure		Air Delivery		Motor Power	Dimension (mm)			Weight	Outlet pipe diameter
	Psig	bar	cfm	m3/min		L	W	H		
ERC-20SA-II	100.0	7.0	109.5	3.1	15/20	1500	950	1300	1250	1 1/2
	116.0	8.0	106.0	3.0						
	145.0	10.0	102.4	2.9						
	181.0	13.0	95.3	2.7						
ERC-25SA-II	100.0	7.0	127.1	3.6	18.5/25	1500	950	1300	1300	1.5
	116.0	8.0	123.6	3.5						
	145.0	10.0	106.0	3						
	181.0	13.0	99.0	2.8						
ERC-30SA-II	100.0	7.0	155.4	4.4	22/30	1480	900	1330	950	G 1-1/4
	116.0	8.0	151.8	4.3						
	145.0	10.0	127.0	3.6						
	181.0	13.0	120.0	3.4						
ERC-40SA-II	100.0	7.0	233.0	6.6	30/40	1650	1100	1400	1100	G 1-1/2
	116.0	8.0	222.5	6.3						
	145.0	10.0	173.0	4.9						
	181.0	13.0	148.3	4.2						
ERC-50SA-II	100.0	7.0	254.2	7.2	37/50	1650	1100	1365	1100	G 1-1/2
	116.0	8.0	250.7	7.1						
	145.0	10.0	204.8	5.8						
	181.0	13.0	190.7	5.4						
ERC-60SA-II	100.0	7.0	360.2	10.2	45/60	2160	1310	1700	1850	G 2"
	116.0	8.0	342.5	9.7						
	145.0	10.0	275.4	7.8						
	181.0	13.0	229.5	6.5						
ERC-75SA-II	100.0	7.0	445.0	12.6	55/75	2100	1250	1700	1800	G 2"
	116.0	8.0	441.4	12.5						
	145.0	10.0	349.6	9.9						
	181.0	13.0	335.4	9.5						
ERC-100SA-II	100.0	7.0	561.5	15.9	75/100	2300	1350	1900	3100	DN50
	116.0	8.0	554.4	15.7						
	145.0	10.0	437.8	12.4						
	181.0	13.0	346.0	9.8						
ERC-120SA-II	100.0	7.0	688.5	19.5	90/120	2760	1510	1950	3200	DN65
	116.0	8.0	678.0	19.2						
	145.0	10.0	547.3	15.5						
	181.0	13.0	437.8	12.4						
ERC-150SA-II	100.0	7.0	840.0	23.8	110/150	2760	1510	1950	3200	DN65
	116.0	8.0	819.2	23.2						
	145.0	10.0	674.4	19.1						
	181.0	13.0	547.3	15.5						

Certification: CE/ISO9001/TUV/UL/SGS/ASME
Voltage: 380V/3PH/50HZ/60HZ 220V/3PH/50HZ/60HZ 400V/3PH/50HZ/60HZ 440V/3PH/50HZ/60HZ 415V/3PH/50HZ/60HZ 230V/3PH/50HZ/60HZ

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Motor Efficiency Class: IE5/IE4/IE3/IE2 as per your required
Type of Driving: Direct Driven

Motor Protection Class: IP23/IP54/IP55 or as per your required
Type of Cooling: Air Cooling/Water Cooling

Model	Working Pressure		Air Delivery		Motor Power	Dimension (mm)			Weight	Outlet pipe diameter
	Psig	bar	cfm	m3/min		L	W	H		
ERC-175SA-II	100.0	7.0	1066.4	30.2	132/175	3360	1910	2200	4200	DN100
	116.0	8.0	1002.8	28.4						
	145.0	10.0	819.2	23.2						
	181.0	13.0	674.4	19.1						
ERC-200SA-II	100.0	7.0	1190.0	33.7	160/200	3360	1910	2200	4200	DN100
	116.0	8.0	1182.9	33.5						
	145.0	10.0	1002.8	28.4						
	181.0	13.0	819.2	23.2						
ERC-250SA-II	100.0	7.0	1486.6	42.1	185/250	3400	2000	2200	4500	DN100
	116.0	8.0	1366.5	38.7						
	145.0	10.0	1182.9	33.5						
	181.0	13.0	1002.8	28.4						
ERC-275SA-II	100.0	7.0	1585.4	44.9	200/275	3450	1930	2250	6400	DN100
	116.0	8.0	1493.6	42.3						
	145.0	10.0	1366.5	38.7						
	181.0	13.0	1182.9	33.5						
ERC-300SA-II	100.0	7.0	1698.4	48.1	220/300	3450	1930	2250	6400	DN100
	116.0	8.0	1564.2	44.3						
	145.0	10.0	1437.1	40.7						
	181.0	13.0	1366.5	38.7						
ERC-330SA-II	100.0	7.0	1956.2	55.4	250/330	3450	2200	2250	8400	DN125
	116.0	8.0	1818.5	51.5						
	145.0	10.0	1528.9	43.3						
	181.0	13.0	1419.5	40.2						
ERC-375SA-II	100.0	7.0	2122.1	60.1	280/375	3450	2200	2250	8400	DN125
	116.0	8.0	2002.1	56.7						
	145.0	10.0	1638.4	46.4						
	181.0	13.0	1511.3	42.8						
ERC-420SA-II	100.0	7.0			315/420	3450	2200	2250	8600	DN125
	116.0	8.0	2185.7	61.9						
	145.0	10.0	1984.4	56.2						
	181.0	13.0	1638.4	46.4						

Certification: CE/ISO9001/TUV/UL/SGS/ASME
Voltage: 380V/3PH/50HZ/60HZ 220V/3PH/50HZ/60HZ 400V/3PH/50HZ/60HZ 440V/3PH/50HZ/60HZ 415V/3PH/50HZ/60HZ 230V/3PH/50HZ/60HZ