

ZLS direct driven screw air compressor



ZLS10 - ZLS400 regular direct-drive air compressor

ZLS10V - ZLS400V direct-drive variable-frequency air compressor

7.5kw - 315kw



Energy Efficiency Level2

All direct-drive models meet Energy Efficiency Level2

Coupling

The entire series adopt flexible coupling with transmission efficiencies up to 99%.

Motor

The compressors use highly efficient energy-saving motors, which possess large starting torque, and reach the insulation class of F and protection class of IP55.

- It meets the standard of Energy Efficiency Level 2 (China Energy Label)
- Big air end, big bearings and low rotating speed are employed in the design of the screw compressor. All the models adopt one-to-one direct drive, which can reduce failure resources while keeping low rotating speeds and improving main engines' stress condition.
- Direct driven provides high transmission efficiency; imported couplings are reliable and easy for installation; and elastomer is stressed uniformly and serves a long life.
- The time for inlet to close and outlet to open as well as positions of oil nozzle and return opening are designed on the basis of latest research results, and thus rational internal pressure ratio and sufficient oil-air heat exchange are realized.
- Low rotating speed and low noise, thus reducing irritations to people's eardrums and providing effective protection to people's physical health.
- With compact, developed and reliable structure, the entire machine is easy for installation and maintenance.

ZLS direct driven series can equip with built-in special variable frequency drives.

ZLS-V variable frequency air compressor is more energy-saving and environmental friendly.

- ≡ Modularized design easy for maintenance and extension.
- ≡ Built-in Modbus, RS485 and RS232 serial communications to satisfy multiple needs of users.
- ≡ Long service-life design and life detection for important parts.
- ≡ PCB coating to reinforce environmental tolerance.
- ≡ With supreme thermal dissipation design, its operating ambient temperature can be 50°C and the automatic output rating adjustment based on temperature rise condition can ensure the continuous and highly efficient operation of frequency converter.



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Technical Data Sheet

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Model		Mpa	ZLS10/V	ZLS15/V	ZLS20/V	ZLS30/V	ZLS40/V	ZLS50/V	ZLS60/V	ZLS75/V
Max air displacement/ discharge pressure m3/min		0.7	1.4	1.9	2.6	3.95	5.2	6.5	8	10.5
		0.8	1.25	1.8	2.4	3.75	5	6.2	7.5	9.8
		1	1.05	1.5	2.1	3.3	4.6	5.7	7	8.6
		1.25	0.85	1.2	1.8	2.9	4.2	5.2	6	7.6
Working Mode of Cooler			Air cooling/water cooling							
Discharge Temperature		℃	Air cooling < environmental temperature +10℃, water cooling <40℃							
Volume of lubricating oil		L	10	10	10	11	13	18	25	25
Noise		dB(A)	66	66	68	70	70	72	73	73
Motor	Power	KW/HP	7.5/10	11/15	15/20	22/30	30/40	37/50	45/60	55/75
	Rotation Rate	RPM	2900	2930	2930	2935	2940	2940	2945	2950
	Start mode		Direct start		Y-△Start					
	Voltage	V	220V, 380V, 415V, 440V, 460V							
	Frequency	Hz	50HZ, 60HZ							
Dimension	Length	mm	1000	1200	1200	1350	1400	1500	1550	1700
	Width	mm	700	800	800	850	850	900	1000	1150
	Height	mm	1140	1160	1160	1200	1350	1350	1480	1530
Weight		Kg	300	390	390	445	590	700	880	1080
Caliber of Air-vent		inch	1"	1"	1"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"
Caliber of cooling nozzle		inch	/	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
Discharge of cooling water		L/min	/	60	60	80	80	80	200	200

Model		ZLS100/V	ZLS125/V	ZLS150/V	ZLS175/V	ZLS200/V	ZLS250/V	ZLS300/V	ZLS350/V	ZLS400/V
Max air displacement/ discharge pressure m3/min		14.1	16	20.5	24.1	28.3	32.5	38.5	43.8	52
		12.8	15	19	22.9	27	30	35.8	41.4	48
		11.6	13.6	17.2	20.5	24.5	26.8	32.2	37.8	43
		10	12.2	14.8	16.8	20.5	24	28.5	33	39
Working Mode of Cooler		Air cooling/water cooling								
Discharge Temperature		Air cooling < environmental temperature +10℃, water cooling <40℃								
Volume of lubricating oil		60	60	70	94	94	94	185	185	185
Noise		75	75	77	77	79	79	79	80	80
Motor	Power	75/100	90/125	110/150	132/175	160/200	185/250	220/300	250/350	315/400
	Rotation Rate	2965	2965	2970	2970	2970	2970	2980	2980	2980
	Start mode	Y-△Start								
	Voltage	220V, 380V, 415V, 440V, 460V								
	Frequency	50HZ, 60HZ								
Dimension	Length	1850	2050	2260	2750	2750	2750	3800	3800	3800
	Width	1250	1300	1660	1760	1760	1760	2300	2300	2050
	Height	1500	1700	1800	1850	1850	1850	2005	2005	2205
Weight		1410	1580	2230	2560	2890	3000	4400	4610	6000
Caliber of Air-vent		2"	2"	2-1/2"	3"	3"	3"	4"	4"	5"
Caliber of cooling nozzle		1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Discharge of cooling water		200	200	200	300	300	300	400	400	400

Please refer to air displacement parameter of ZLS direct-driven screw air compressor for those of ZLS-V and the starting mode of ZLS-Vis variable frequency starting which is capable of accurate air displacement adjustment based on users' application needs so as to save energy!