AERIS RANGE

Compressed Air Solutions

Air Compressor & Accessories

MAC

Always here to assist...

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Mzansi Air Compressors (Pty) Ltd.

INTRODUCTION

SUPERIOR AIR SOLUTIONS

A great variety of compressed air solutions, energy-saving, one-stop purchase

Professional technology, standard management practical attitude. Our compressors provide your system with a reliable, energy-efficient and smart solution.

- Oil lubricated Screw Compressor
- PM VSD Screw Compressor
- Two Stage Screw Compressor
- All-in-one Screw Compressor

Reliable system protection, minimal maintenance, maximum uptime

Our range covers air dryers. Increased productivity, reduced operational costs, and increased system protection, practical attitude, quality service

- Refrigerated Air Dryer
- Industrial Adsorption Air Dryer
- Vertical High pressure Air Tank
- High precision Air Filter

Variable Speed Driven compressors.

AERIS-PM RLV SERIES

PRODUCT FEATURE

Innovative

AERIS-PM RLV has revolutionized compressor build and performance. Instead of the normal space-taking coupling design, the new PM design has an upright, compact layout. This saves valuable floor and workspace, eases maintenance access, and reduces the total cost of transportation for customers.

Efficient

AERIS-PM RLV VSD technology helps users save much more power. Especially when the machine delivers only 30%-80% of its full capacity, compared with power-frequency unit, 15%-50% more power could be saved. Compared with regular inverter, 10%-20% more could be saved.

VSD

Reliable

- Low maintenance: fewer components, compact construction.
- Based on the unique combination of proven technology and existing components, the best combination is made through Sunhi-Mach's experience and expertise.

Smart

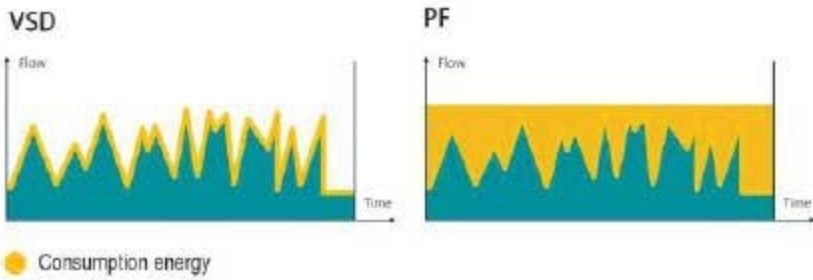
- Easy monitoring and maintenance on touch controller.
- Intuitive operating status.
- No attended working with 24hours.

- Reserve GPO can achieve interlock and diagnostic control multiple compressor sets. This is customization service, details are available on request.

Integrated Permanent Magnet(PM) motor

AERIS-PM RLV Series Variable Speed Drive (VSD) technology closely matches the air demand by automatically adjusting the motor speed.

Combined with the innovative design of the Integrated PM (Permanent Magnet) motor, this results in average energy savings of 50%.



Advanced Inverter control system

It adopts high-performance vector control technology, low-speed and high-torque output, has good dynamic characteristics, super overload capacity, adds user-programmable functions and background monitoring software, and supports extended communication functions.

Reasonable organized electronic components

- Fewer components: compact, simple and user-friendly
- Excellent brands

High-tech control Inverter

- High performance, environmental adaptation
- Simple structure, compact size
- Various protection functions

Wider voltage rate

- Offer a variety of voltage/frequency options

Variable Speed Driven compressors.

AERIS-PM RLV SERIES

PRODUCT FEATURE

Unique design, high quality components and promised quality

1 Larger size radiator

The excellent heat dissipation area and high conduction coefficient make this radiator's heat dissipation quickly, ventilation resistance and heat transfer effect

AERIS-PM RLV SERIES

2

Stable construction

The thickness of metal plates are more than 30% thicker than competitors

3

Efficient gearing

IP55 motor with coupling direct-driven.

A STEP AHEAD IN MONITORING AND CONTROLS

The control panel's monitoring features include

- New service for filter system and lubrication oil
- Warning indications, error detection.
- Cooling fan temperature control

Oil & filter system

- High precision filtration, down to 10 micron, to effectively ensure clean lubrication troughout the compressor
- Use high-quality PU rubber material to effectively resist aging, and it is not easy to deform under high temperature and high pressure.
- High thread strength, smooth surface, easier to install.

Air & filter system

- High-efficiency filter paper. High dirt barrier and long service life. Excellent filtration performance.
- The fine filter layer can hold more dust to achieve a stronger filtering effect.

Air Cooling system

- The fan blade is made of high-strength carbon steel, which is not easy to be deformed and fall off.
- High speed, low noise, high volume and warer resistant.

All-in-one integrated Compressor

AERIS

AI1 SERIES

1 Intelligent control panel

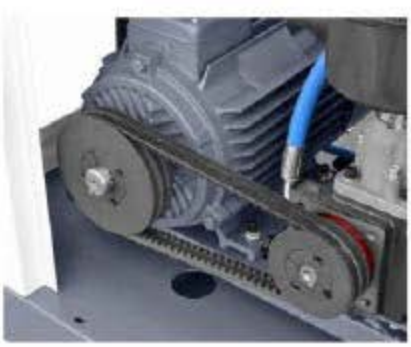
- Touch screen
- On/off power switch
- Emergency switch

2 Electric cabinet

- Star-delta starting
- Phase sequence protection
- Low-voltage protection

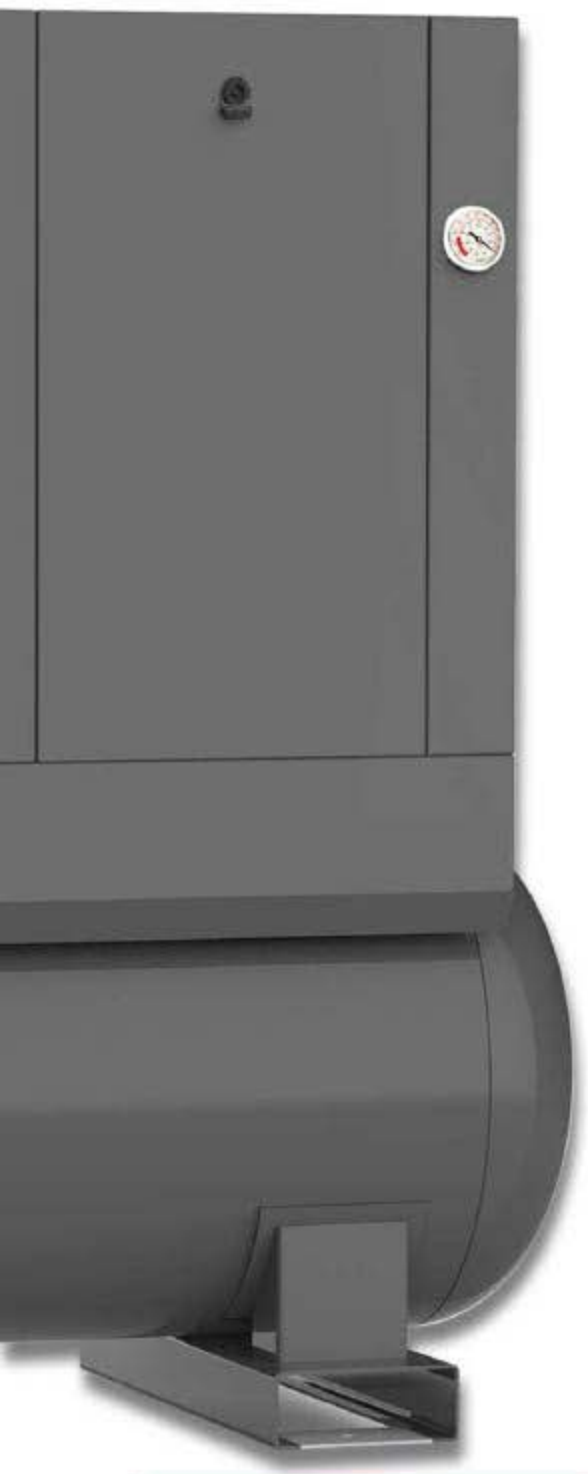
3 Transmission

- Belt-driven
- IP55 motor
- Germany technology air end



4 Air tank

- 16bar max pressure
- Horizontal design
- Equipped with forklift slots



Integrated quality air dryer

Our Engnrs has revolutionized the all-in-one compressor's software, the integrated dryer avoids condensation and corrosion in the network.
Compared with the traditional compressed air system, the new design achieves

- one-stop operation,
- saving space
- erase the trouble to build a specialized room for air system.

Electronic drain

Additional energy savings with the dryer's no-loss electronic drain.

Integrated fine filters

Optional filters can be added to obtain air quality up to class 1 level (<0.01ppm).

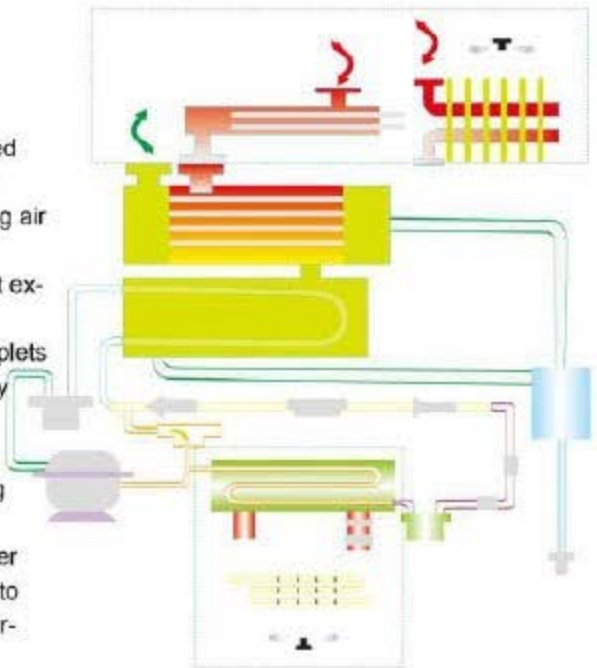
Refrigerant compressor

- Use of energy-efficient refrigerant R134a reduces operating costs.
- Environmentally friendly characteristics.
- Pressure dew point of 2℃

Refrigerant gauge

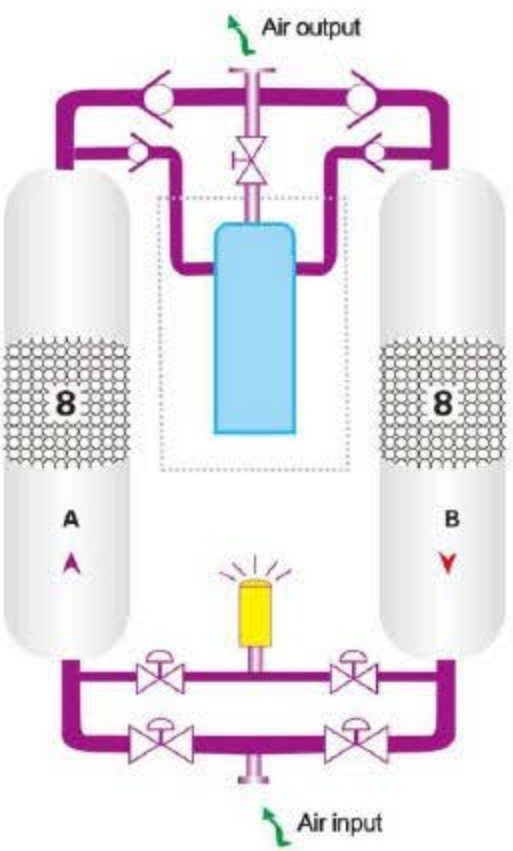
The condition of refrigerant is easy to see through point position

Refrigerant Dryers



Refrigerant dryers are the most commonly used type of compressed air dryers.
They consist of a heat exchanger and freon compressor. The compressed air from the compressor first passes the air-to-air heat exchanger. In this phase, the incoming air is pre-cooled by the outgoing air and the outgoing air is heated.
In the second phase, the compressed air is passing the air-to-Freon heat exchanger and the compressed air cooled down again.
At low-temperature levels, the moisture is condensed, the free water droplets are collected and removed by the drain, at this point, the relative humidity of the compressed air still is at 100%.
In the next step, the compressed air is heated with the incoming air, the increase in temperature assures that the relative humidity of the outgoing air is dropping below 50%.
Refrigerant dryers are used in compressed air systems to avoid free water and corrosion in the system, a relative humidity of below 50% is enough to achieve this. Refrigerant dryers are available in a water-cooled and an air-cooled variant.

Adsorption Dryers



Adsorption dryers are used when the compressed air application requires a pressure dew point below 0°C. In most cases, the dryers consist of two pressure vessels next to each other. Both vessels are filled with desiccant.
The compressed air is passing through one vessel while the moisture from the air is adsorbed by the beads. After a certain amount of moisture has been captured, the beads are saturated. At this point, the air is guided to the second vessel. While the compressed air is passing through the second vessel, the first vessel is regenerated. When the second vessel is saturated, the air is guided again through the first vessel and the regeneration of the second vessel starts.
There are two major techniques to regenerate the desiccant beads.
1. Cold regeneration
With this type of dryer, a small portion of the dried compressed air is expanded to atmospheric pressure and sent over the saturated vessel of desiccant. The expansion of the dried compressed air to atmospheric pressure makes the air much dryer. The moister goes from the desiccant into the dried air and is transported to the atmosphere. The limited regeneration energy causes very short cycle times, the design is simple and reliable and the purchase price is low.
2. Heating the saturated desiccant beads
By heating the beads, the moisture is released from the beads. An airflow transports the moisture away from the saturated vessel. The heat regenerated adsorption dryers are available in several executions.

TECHNICAL SPECIFICATIONS

RLV 4 KW to 75 KW (Variable speed drive)

Type	Cooling mode	Drive method	Air delivery m³/min			Motor power		Noise level dB	Air capacity control method	Connection outlet size	Dimensions			Weight Kgs
			8bar	10bar	12bar	KW	HP				Length mm	Width mm	Height mm	
RLV 4	Air cooling	Coupling	0.6	0.4	0.3	4	5	60±2	PM VSD	G1/2"	750	600	820	175
RLV 5.5	Air cooling	Coupling	0.8	0.6	0.5	5.5	7	60±2	PM VSD	G1/2"	750	600	820	175
RLV 7.5	Air cooling	Coupling	1.1	0.9	0.8	7.5	10	60±2	PM VSD	G1/2"	810	610	845	180
RLV 11	Air cooling	Coupling	1.5	1.3	1.1	11	15	62±2	PM VSD	G3/4"	1170	730	998	225
RLV 15	Air cooling	Coupling	2.3	2.1	1.9	15	20	62±2	PM VSD	G3/4"	1170	730	998	240
RLV 22	Air cooling	Coupling	3.6	3.2	2.7	22	30	64±2	PM VSD	G1"	1300	850	1155	447
RLV 30	Air cooling	Coupling	5.0	4.5	4.0	30	40	64±2	PM VSD	G1-1/2"	1500	1000	1300	452
RLV 37	Air cooling	Coupling	6.2	5.6	5.0	37	50	66±2	PM VSD	G1-1/2"	1500	1000	1300	532
RLV 55	Air cooling	Coupling	9.2	8.5	7.6	55	75	68±2	PM VSD	G2"	1780	1180	1500	1185
RLV 75	Air cooling	Coupling	12.6	11.2	10.0	75	100	68±2	PM VSD	G2"	1780	1180	1500	1250

Air flow was tested based on GB3853.
Recommended parameter on VSD for freq of motor is 30%-100%.
All listed specifications above are of 380V/50HZ voltage, other voltage spec should be referred to us.
Compressor applying to extreme temperature, moisture, dust environment should be referred to us in advance.
Compressor for laser cutting machine with 15bar, 16bar max pressure can be customized.

RL 4 KW to 250 KW. (Fixed Speed).

Type	Cooling mode	Drive method	Air delivery m³/min			Motor power		Noise level dB	Air capacity control method	Connection outlet size	Dimensions			Weight Kgs
			8bar	10bar	12bar	KW	HP				Length mm	Width mm	Height mm	
RL 4	Air cooling	Belt	0.6	0.6	0.4	4	5	65±2	Fixed Speed	G3/4"	750	600	820	135
RL 5.5	Air cooling	Belt	0.8	0.8	0.6	5.5	7	65±2	Fixed Speed	G3/4"	750	600	820	145
RL 7.5	Air cooling	Belt	1.0	0.9	0.8	7.5	10	68±2	Fixed Speed/ VSD	G3/4"	910	640	795	195
RL 11	Air cooling	Coupling	1.5	1.3	1.1	11	15	68±2	Fixed Speed/ VSD	G3/4"	1170	730	1000	310
RL 15	Air cooling	Coupling	2.3	2.1	1.9	15	20	68±2	Fixed Speed/ VSD	G3/4"	1170	730	1000	350
RL 18.5	Air cooling	Coupling	2.85	2.7	2.4	18.5	25	72±2	Fixed Speed/ VSD	G3/4"	1170	730	1000	380
RL 22	Air cooling	Coupling	3.6	3.2	2.7	22	30	72±2	Fixed Speed/ VSD	G1"	1250	800	1120	420
RL 30	Air cooling	Coupling	5.0	4.5	4.0	30	40	76±2	Fixed Speed/ VSD	G1-1/2"	1500	1000	1300	500
RL 37	Air cooling	Coupling	6.2	5.6	5.0	37	50	76±2	Fixed Speed/ VSD	G1-1/2"	1500	1000	1300	580
RL 55	Air cooling	Coupling	9.2	8.5	7.6	55	75	79±2	Fixed Speed/ VSD	G2"	1780	1180	1500	1350
RL 75	Air cooling	Coupling	12.5	11.1	10	75	100	79±2	Fixed Speed/ VSD	G2"	1780	1180	1500	1500
RL 90	Air cooling	Coupling	15	13.8	12.3	90	120	82±2	Fixed Speed/ VSD	G1-1/2"	2000	1250	1680	1750
RL 110	Air cooling	Coupling	19.8	17.4	14.8	110	150	82±2	Fixed Speed/ VSD	G1-1/2"	2500	1470	1840	1950
RL 132	Air cooling	Coupling	23.2	20.5	17.4	132	175	82±2	Fixed Speed/ VSD	DN80"	2500	1470	1840	2200
RL 160	Air cooling	Coupling	27.2	24.2	21.1	160	200	85±2	Fixed Speed/ VSD	DN100"	2650	1670	1984	3400
RL 185	Air cooling	Coupling	29.4	26.4	23.8	185	250	85±2	Fixed Speed/ VSD	DN100"	2650	1670	1984	3600
RL 220	Air cooling	Coupling	38.1	30.0	27.5	220	300	85±2	Fixed Speed/ VSD	DN80"	3100	2100	2000	4000
RL 250	Air cooling	Coupling	42.0	38.2	38.2	250	350	85±2	Fixed Speed/ VSD	DN80"	3100	2100	2000	4200

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Compressor for laser cutting machine with 15bar, 16bar max pressure can be customized.

AERS AI1 4 KW to 15 KW

Type	Dryer type	Drive method	Air delivery m³/min			Motor power		Air tank L	Dew point of air dryer	Connection outlet size	Dimensions			Weight Kgs
			8bar	10bar	12bar	KW	HP				Length mm	Width mm	Height mm	
AI1 4	AD-10A	Belt	0.6	0.6	0.4	4	5	300	2-10℃	G3/4"	1577	650	1452	390
AI1 5.5	AD-10A	Belt	0.8	0.8	0.6	5.5	7	300	2-10℃	G3/4"	1577	650	1452	395
AI1 7.5	AD-10A	Belt	1.0	0.9	0.8	7.5	10	300	2-10℃	G3/4"	1577	650	1585	435
AI1 11	AD-20A	Belt	1.5	1.3	1.1	11	15	500	2-10℃	G3/4"	1850	740	1785	610
AI1 15	AD-20A	Belt	2.3	2.1	1.9	15	20	500	2-10℃	G3/4"	1850	740	1785	630

Air flow was tested based on GB3853.
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Compressor for laser cutting machine with 15bar, 16bar max pressure can be customized.

AD Range Refrigerant Air Dryers

Type	Cooling capacity	Power supply	Compressor power Kw	Fan power Kw	Connection inlet size	Dimensions			Weight Kgs
						Length mm	Width mm	Height mm	
AD-10A	1.3	220V/50HZ	0.58	60	DN25	700	420	710	60
AD-20A	2.5	220V/50HZ	0.73	90	DN25	750	450	760	73
AD-30A	3.6	220V/50HZ	0.9	90	DN40	800	480	840	100
AD-50A	5.2	220V/50HZ	1.2	90	DN40	800	480	840	105
AD-75A	7.0	220V/50HZ	1.6	120	DN40	1000	550	960	135
AD-100A	8.5	220V/50HZ	1.9	180	DN50	1000	550	960	155
AD-125A	13	220V/50HZ	2.4	120x2	DN50	1200	650	1030	240
AD-150A	17	380V/50HZ	3.8	180x2	DN65	1450	750	1180	320
AD-200A	23	380V/50HZ	4.7	180x2	DN65	1450	750	1180	430
AD-250A	27	380V/50HZ	5.0	180x2	DN80	1600	750	1390	480
AD-300A	33	380V/50HZ	5.5	120x4	DN80	1600	750	1390	580
AD-400A	45	380V/50HZ	7.5	180x4	DN100	2100	1000	1400	740

ADSORPTION DRYER

Type	Cooling capacity	Connection inlet&outlet size	Dimensions			Weight Kgs
			Length mm	Width mm	Height mm	
DAD-10A	1.3	DN25	700	420	710	130
DAD-20A	2.5	DN25	750	450	760	180
DAD-30A	3.6	DN40	800	480	840	265
DAD-75A	7.0	DN40	800	480	840	480
DAD-100A	11	DN40	1000	550	960	750
DAD-125A	13	DN50	1000	550	960	890
DAD-150A	17	DN50	1200	650	1030	1050
DAD-200A	22	DN65	1450	750	1180	1260
DAD-250A	27	DN65	1450	750	1180	1420
DAD-300A	33	DN80	1600	750	1390	1660
DAD-400A	43	DN80	1600	750	1390	2380
DAD-500A	55	DN100	2100	1000	1400	2650

MZANSI AIR COMPRESSORS (PTY) LTD.

MAC

Aways here to assist...

Mzansi Air Compressors (Pty) Ltd.
Reg. No.: 2022/654658/07
Unit 1, On Fourth Business Park,
29b Fourth street, Brentwoodpark,
Benoni, 1501.

https://www.macair.co.za/