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ATF 8-32

The Advanced Technology Fractionators® (ATF) oxygen modules incorporate proven pressure swing adsorption (PSA) principles into a unique patented design, which allows these systems to be compact, efficient, rugged, and lower in cost. The ATF module offers unparalleled design flexibility and enables applications where on-site/on-board oxygen generation was previously impractical.

A patented single rotary distribution valve built into the ATF module is continuously rotated at low speed by a small motor. The valve is maintenance-free, self-cleaning, insensitive to contamination, and invulnerable to wear. It sequentially directs the flow of compressed air to a group of four sieve beds (adsorption), while at the same time another four beds are purged into the atmosphere though the valve (desorption). The remaining four of the twelve beds are interconnected through the valve to equalize pressure as the sieve beds sequentially transition between adsorption and desorption. The small amplitude pressure swings generated by the ATF's twelve sieve beds eliminate loud noise pulses, eliminate the need for a pressure regulator, and reduce compressor wear.

Features

- Reliable oxygen productio
- Environmentally tolerant design
- Easily integrated
- Constant pneumatic impedance
- Constant delivery pressure

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Typical applications

Medical

- Anesthesia
- · Oxygen therapy
- Veterinary medicine

Manufacturing

- Glass work/blowing
- Brazing/soldering

Environmental

- Ozone (generator) feed gas
- Environmental remediation

Additional

- · Fish farming
- Cosmetic

Certifications and approvals: ISO 13485 latest accepted revision $\,$







Specification

Product characteristics	ATF-8	ATF-12	ATF-15	ATF-23	ATF-25	ATF-32		
Input air requirements								
Flow ¹	65 LPM (2,3 SCFM)	85 LPM (3 SCFM)	91 LPM (3.2 SCFM)	120 LPM (4.2 SCFM)	175 LPM (6.2 SCFM)	175 LPM (6.2 SCFM)		
Pressure	172 kPa (25 psig)	172 kPa (25 psig)	124 kPa (18 psig)	152 kPa (22 psig)	241 kPa (35 psig)	241 kPa (35 psig)		
Performance data								
Product flow ¹	3.8 LPM (8 SCFH)	5.7 LPM (12 SCFH)	7.1 LPM (15 SCFH)	11 LPM (23 SCFH)	12 LPM (25 SCFH)	15 LPM (32 SCFH)		
Oxygen delivery pressure	62 kPa (9 psig)	62 kPa (9 psig)	48 kPa (7 psig)	48 kPa (7 psig)	97 kPa (14 psig)	97 kPa (14 psig)		
Product concentration (nominal)	90-95%	90-95%	90-95%	90-95%	90-95%	90-95%		
Product dew point	-73 °C (-100 °F)	-73 °C (-100 °F)	-73 °C (-100 °F)	-73 °C (-100 °F)	-73 °C (-100 °F)	-73 °C (-100 °F)		
Dimensions (DxH) (nominal)	21 x 32 cm (8 x 13 in)	21 x 32 cm (8 x 13 in)	21 x 51 cm (8 x 20 in)	21 x 51 cm (8 x 20 in)	21 x 51 cm (8 x 20 in)	21 x 51 cm (8 x 20 in)		
Weight	4.4 kg (9.6 lb)	4.5 kg (9.8 lb)	6.7 kg (14.7 lb)	6.7 kg (14.7 lb)	6.8 kg (15 lb)	6.8 kg (15 lb)		
Physical connections								
Compressed air inlet	1/2" ID tubing	1/2" ID tubing	1/2" ID tubing	1/2" ID tubing	1/2" ID tubing	1/2" ID tubing		
Product gas outlet	1/4" ID tubing	1/4" ID tubing	1/4" ID tubing	1/4" ID tubing	1/4" ID tubing	1/4" ID tubing		
Ambient operating conditions	Locate the oxygen concentrator system in a well-ventilated area that is protected from weather elements and remains between 4 $^{\circ}$ C (40 $^{\circ}$ F) and 54 $^{\circ}$ C (130 $^{\circ}$ F) inside room or operating enclosure; -18 $^{\circ}$ C (0 $^{\circ}$ F) and 60 $^{\circ}$ C (140 $^{\circ}$ F) in storage.							
Control power requirements (single phase)	120 V / 208-240 V ~ ±10%, 50/60 Hz, 0.025 A or 208-240 V ~ ±10%, 50 Hz, 0.025 A							
Typical power consumption	3 W	3 W	3 W	3 W	3 W	3 W		
Gear motor	7398 (FMR 1268)/7383	7398 (FMR 1268)	7371 (FMR 1268)/ 7350 (FMR 1250)	7371 (FMR 1231)/ 7350 (FMR 1250)	7350 (FMR 1250)/ 7398 (FMR 1268	7371 (FMR 1231)/ 7350 (FMR 1250)		
Compressed air input requirements	Clean air (oil-less). Maximum temperature of 77 °C (170 °F). Performance rated at 49 °C (120 °F).							
Mounting	Two integral mounting pads provided. Toe clamps (optional). Vertical mounting preferred. Must be isolated from compressor vibration.							

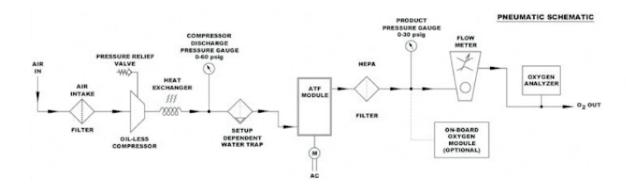
 $^{^{1}}$ LPM (Liters per minute) gas measured at 1 atmosphere and 21 $^{\circ}$ C / SCF (Standard cubic foot) gas measured at 1 atmosphere and 70 $^{\circ}$ F

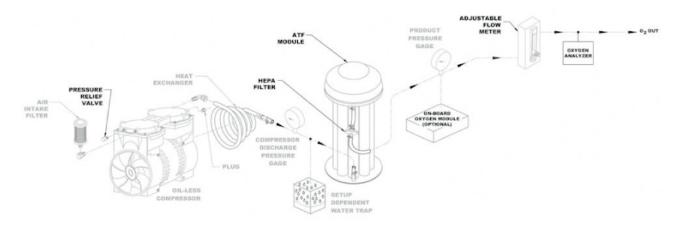


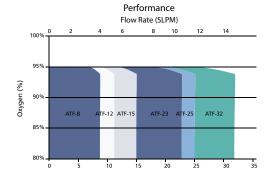


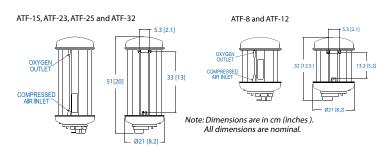


System installation guide















Ordering information

Model	Part no	Description	Compressor part no	Motor	Compressor max. pressure ¹	RPM	НР	Power consumption	Net weight	
ATF-8	1265V	120 V / 208-240 V ~ ±10%, 50/60 Hz	7329	115 V, 60 Hz, 1Ø	207 kPa (30 psig)	1660	1/3	0.4 kW	6 kg (13 lb)	
	7465V	208-240 V ~ ±10%, 50 Hz	7330	220 V, 50 Hz, 1Ø	207 kPa (30 psig)	1430	1/3	0.4 kW	8 kg (17 lb)	
TF-12	3586V	120 V / 208-240 V ~ ±10%, 50/60 Hz	1313 1314	115 V, 60 Hz, 1Ø 220 V, 50 Hz, 1Ø	207 kPa (30 psig)	1650 1425	1/3	0.5 kW	7 kg (16 lb) 6 kg (14 lb)	
ATF-15	1242V	120 V / 208-240 V ~ ±10%, 50/60 Hz	1313	115 V, 60 Hz, 1Ø	207 kPa (30 psig)	1650	1/3	0.5 kW	7 kg (16 lb)	
	1498V	208-240 V ~ ±10%, 50 Hz	1314	220 V, 50 Hz, 1Ø	207 kPa (30 psig)	1425	1/3	0.5 kW	6 kg (14 lb)	
ATF-23	3161V	120 V / 208-240 V ~ ±10%, 60 Hz	7317	115 V, 60 Hz, 1Ø	207 kPa (30 psig)	1680	1/3	0.5 kW	7 kg (15 lb)	
	3239V	208-240 V ~ ±10%, 50 Hz	3299	220 V, 50 Hz, 1Ø	207 kPa (30 psig)	1400	2/3	0.6 kW	7 kg (15 lb)	
ATF-25 ²	1280V	120 V / 208-240 V ~ ±10%, 50/60 Hz	1243 7495 7497	115 V, 60 Hz, 1Ø 115 V, 60 Hz, 1Ø 220 V, 60 Hz, 1Ø	310 kPa (45 psig) 250 kPa (36 psig) 250 kPa (36 psig)	1700 1700 1700	1 1.75 1.75	1 kW 1.3 kW 1.3 kW	18 kg (39 lb 18 kg (40 lb 18 kg (40 lb	
	4140V	208-240 V ~ ±10%, 50 Hz	1244 7396	220 V, 60/50 Hz, 1Ø 220 V, 50 Hz, 1Ø	310 kPa (45 psig)	1700/1425 1400	1	1 kW 1.1 kW	18 kg (39 lb 18 kg (40 lb	
ATF-32	3328V	120 V / 208-240 V ~ ±10%, 60 Hz	1243 7495 7497	115 V, 60 Hz, 1Ø 115 V, 60 Hz, 1Ø 220 V, 60 Hz, 1Ø	310 kPa (45 psig) 250 kPa (36 psig) 250 kPa (36 psig)	1700 1700 1700	1 1.75 1.75	1 kW 1.3 kW 1.3 kW	18 kg (39 lb 18 kg (40 lb 18 kg (40 lb	
	4104V	208-240 V ~ ±10%, 50 Hz	1244 7396	220 V, 60/50 Hz, 1Ø 220 V, 50Hz, 1Ø	310 kPa (45 psig)	1700/1425 1400	1	1 kW	18 kg (39 lb 18 kg (40 lb	
	1312 / 1317	· · · ·								
	1345 / 1368	Pressure relief valve, 345 kPa (50 psig) / pressure relief valve, 241 kPa (35 psig)								
	9009	Economy heat exchanger								
	9015 / 9017	Heat exchanger with fan, 120 V, 60 Hz / heat exchanger with fan, 220 V, 50/60 Hz								
ccesso-	9114	Flowmeter, dual-scale 2-20 SCFH/1-10 LPM								
ries (contact factory)	9116 / 9124	Flowmeter 2-25 LPM / Flowmeter 5-50 SCFH								
	9125	Pressure switch								
	9132	Filter, general purpose water separator								
	9135	Continuous oxygen concentration monitor								
	9150	Toe clamps								
	9155 / 9160	Compressed air hose ½" ID / oxygen product hose ¼" ID								
Shipping information		ATF-8	ATF-1	2 ATF-15	ATF-23	A	ΓF-25	ATF-	32	
Class		92.5	92.5	92.5	92.5 92.5		92.5	92.5		







Ordering information

Commodity classification number	8421.39.8040	8421.39.8040	8421.39.8040	8421.39.8040	8421.39.8040	8421.39.8040
Dimensions (W x D x H)		28 x 28 x 40 cm (11 x 11 x 16 in)		28 x 28 x 59 cm (11 x 11 x 23 in)	28 x 28 x 59 cm (11 x 11 x 23 in)	28 x 28 x 59 cm (11 x 11 x 23 in)
Gross weight	5 kg (11 lb)	5 kg (11 lb)	8 kg (17 lb)	8 kg (17 lb)	8 kg (17 lb)	8 kg (17 lb)

An unprotected or inadequately ventilated environment, or improper control power may cause damage to the oxygen generator not covered under warranty.





¹The maximum compressor pressure is a characteristic of the compressor and is higher than the air input pressure specification for the ATF modules.

²The ATF-25 and ATF-32 will achieve the specified oxygen flow and pressure when supplied with the specified air flow and pressure. Larger compressors are available to achieve slightly higher oxygen pressures. This technical data is presented as a basis for ATF and compressor selection only. Compressor performance is based upon nominal units tested with ATFs under lab conditions. All performance ratings based on an ambient temperature up to 38 °C (100 °F), up to 304.8 meters (1,000 feet) elevation, and 80% relative humidity.