

OIL-INJECTED ROTARY SCREW COMPRESSORS



G 110-250 (110-250 kW / 150-340 hp) /
G 110-160 VSD (110-160 kW / 150-200 hp)

Atlas Copco





RELIABLE TECHNOLOGY IN A ROBUST DESIGN

Atlas Copco has a long, and successful history of designing and building rugged and reliable air compressors. The G 110-250 and G 110-160 VSD air compressors have been designed according to this proud tradition. They incorporate many unique features that help them operate in the harshest conditions. The integrated oil and water separation systems produce high quality air to reduce costly downtime and production delays. G range air compressors are highly efficient, easy to install and maintain, which helps keep your operating costs to an absolute minimum.



Cement industry

RELIABILITY IN A DUSTY ENVIRONMENT

Compressed air is vital for the mining industry, especially underground where other types of energy could lead to an explosion hazard. Applications include dust bag filtration, service air, ventilation air and pneumatic tools. The high quality components used in the G range air compressors help increase the reliability of the units while operating in harsh conditions.

Mining industry

ROBUSTNESS AND RELIABILITY

Compressed air is vital for the mining industry, especially underground where other types of energy could lead to an explosion hazard. Applications include dust bag filtration, service air, ventilation air and pneumatic tools. The high quality components used in the G range air compressors help increase the reliability of the units while operating in harsh conditions.

Power plants

SMOOTH AND COST-EFFECTIVE OPERATION

Power plants run round-the-clock to supply vital energy to industry and consumers. A continuous supply of compressed air is absolutely critical for trouble-free operation. G 110-250 and G 110-160 VSD compressors provide a reliable source of compressed air for applications such as silt blowing and fly ash handling.

General industry

A SAFE AND RELIABLE POWER SOURCE

Many industrial companies use compressed air in their daily operations. Applications include pneumatic tools for cutting, drilling, hammering and grinding; pneumatic actuators and valves; ventilation systems; packing and palleting machinery and conveyor systems. Atlas Copco's G 110-250 and G 110-160 VSD compressors are designed for ultimate performance and reliability.



High reliability

A reliable supply of compressed air is essential to make sure that production runs smoothly and efficiently. High-end features and generous safety margins stand for high reliability and continuous production. Heavy-duty air filters remove dust, maximize the lifetime of parts and ensure reliable operation.

High efficiency

G 110-250 and G 110-160 VSD air compressors are designed to be highly energy efficient. The superior screw element provides the optimum combination of maximum free air delivery and low energy consumption. The state-of-the-art compressor element is powered by high efficiency electric motors, contributing to maximum package efficiency.

Easy installation, use and maintenance

G 110-250 and G 110-160 VSD compressors are truly plug-and-run machines. Installation, operation and maintenance are simple. Complex connections or in-depth technical knowledge are unnecessary. Just put the compressor on a flat floor, connect the power supply and the pipe connections and press the start button to run the compressor.

Assuring your peace of mind

Through continuous investment in our competent, committed and efficient service organization, Atlas Copco ensures superior customer value by maximizing productivity. With a presence in over 180 countries, we offer professional and timely service through interaction and involvement. Uptime is ensured by dedicated technicians and 24/7 availability.

G 110-250: RELIABILITY, EFFICIENCY AND SIMPLICITY

1

High-efficiency motor

- TEFC IP55 motor (Class F insulation B rise) protects against dust and chemicals.
- Long-term stable operation even in harsh environments.

2

Reliable patented air inlet valve

- High efficiency Load No Load control.
- Simple design reduces maintenance costs and increases reliability.

3

Efficient air-oil separation

- Reduction of pressure drops and energy costs.
- Low oil consumption ensures minimal maintenance costs and long compressor lifetime.

4

State-of-the-art screw element

- Atlas Copco designed and patented asymmetric element profile with high quality bearings offering low wear and increased reliability.
- The unique profile design provides industry leading energy efficiency to lower your operating cost.

5

Superior air filtration

- Two-stage dust removal and filtering system with efficiency of up to 99.9% even in heavy-duty environments (particles ≥ 3 micron).
- Protects compressor parts and components, ensures air quality and extends the service life of the overall air system.

6

Easy to install, use and service

- No foundations needed: easy installation.
- Completely integrated, silenced package.
- Easy to transport and simple maintenance.



7

Heavy-duty oil filter

- Outstanding oil purification capability ensures a clean compressor oil system.
- Long service intervals and easy access for reduced maintenance costs.

8

Air-water separator (standard)

- Integrated air-water separator efficiently separates condensate.
- Large-sized water outlet avoids risk of clogging and ensures worry-free operation.

MONITORING AND CONTROL: HOW TO GET THE MOST FROM THE LEAST

The Elektronikon® unit controller is specially designed to maximize the performance of your compressors and air treatment equipment under a variety of conditions. Our solutions provide you with key benefits such as increased energy efficiency, lower energy consumption, reduced maintenance times and less stress... less stress for both you and your entire air system.



Intelligence is part of the package

- High resolution color display gives you an easy to understand readout of the equipment's running conditions.
- Clear icons and intuitive navigation provides you fast access to all of the important settings and data.
- Monitoring of the equipment running conditions and maintenance status; bringing this information to your attention when needed.
- Operation of the equipment to deliver specifically and reliably to your compressed air needs.
- Built in remote control and notifications functions provided as standard, including simple to use Ethernet based communication.
- Support for 31 different languages, including character based languages.



Increase production reliability and safeguard air quality

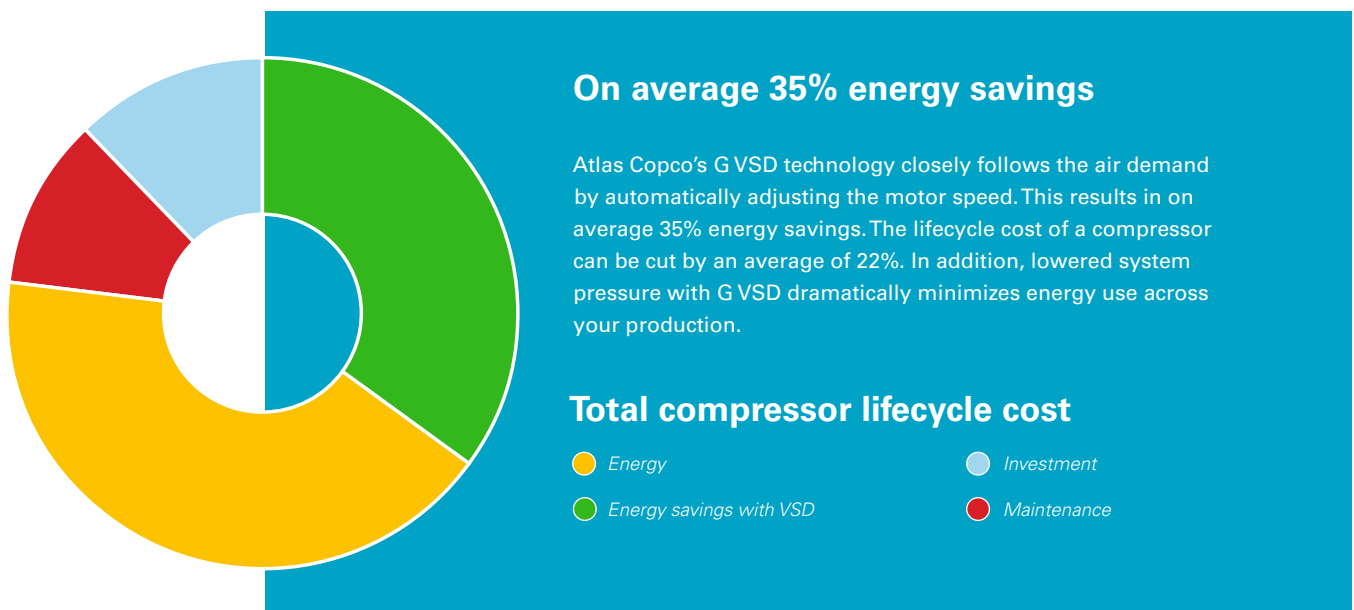
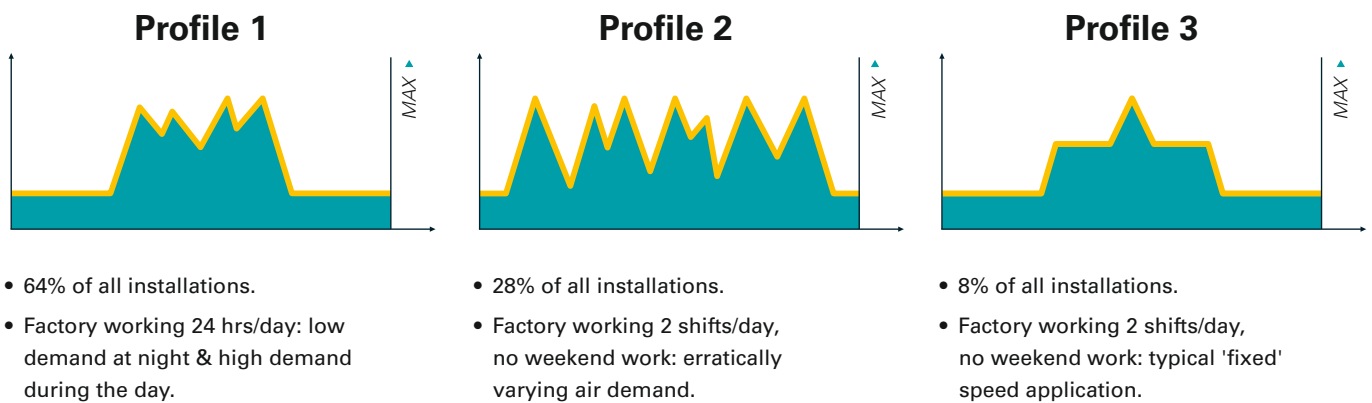
Atlas Copco's air treatment solutions produce clean, dry compressed air to enhance your production system's reliability, avoiding costly downtime and production delays. Our air treatment equipment has been designed and manufactured to the same exacting standards as our compressors to ensure maximum reliability and energy efficiency.

VSD: DRIVING DOWN YOUR ENERGY COSTS

Over 70% of a compressor's life cycle cost is taken up by the energy it consumes. Moreover, the generation of compressed air can account for more than 40% of a plant's total electricity bill. Atlas Copco was the first compressor manufacturer to introduce compressors with integrated Variable Speed Drive (VSD). With over 20 years of design and manufacturing experience our VSD technology have reached new heights of energy savings and reliability. VSD technology reduces energy consumption in systems that have varying air demand patterns. This reduction in energy consumption not only reduces your energy consumption but also your carbon footprint to help protect the environment for generations to come.

Why VSD technology?

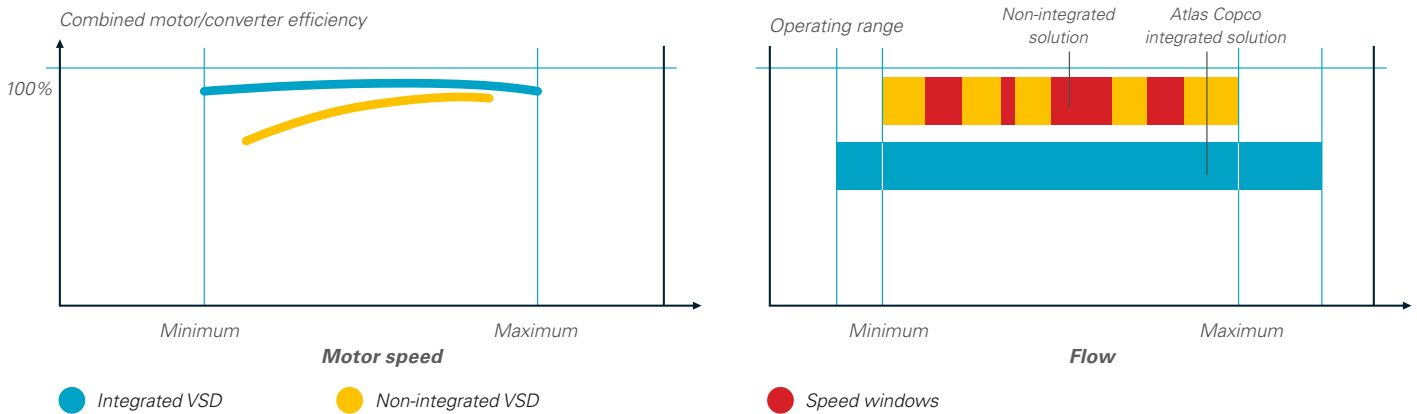
In almost every production environment, air demand fluctuates depending on different factors (time of the day, week or even month). Extensive measurements and studies of compressed air demand profiles show that many compressors have substantial variations in air demand. Only 8% of all installations have a more stable air demand. Tests prove that, even in this case, VSD compressors save energy.



Find out how much you can save

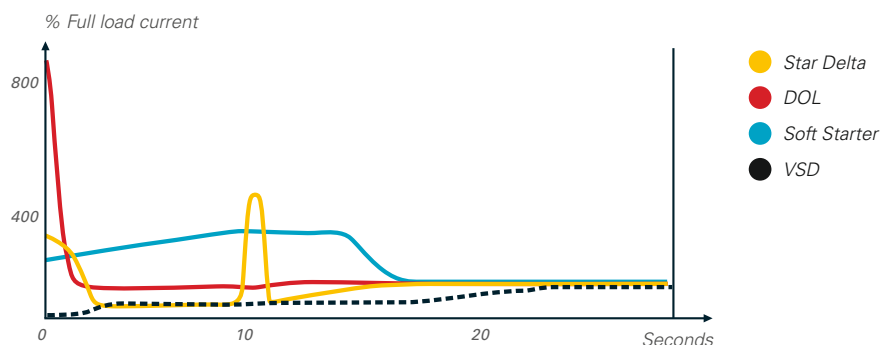
Atlas Copco can help you map the air demand profile of your current compressor installation and indicate potential energy savings with VSD compressors. For more information, please contact your local Atlas Copco representative.

WHAT IS UNIQUE ABOUT THE INTEGRATED ATLAS COPCO G VSD?



- 1 The Elektronikon® controls both the compressor and the integrated converter, ensuring maximum machine safety within parameters.
- 2 Flexible pressure selection from 4 to 13 bar with electronic gearing reduces electricity costs.
- 3 Specific converter and motor design (with protected bearings) for the highest efficiency across the speed range.
- 4 Electric motor specifically designed for low operating speeds with clear attention to motor cooling and compressor cooling requirements.
- 5 All Atlas Copco G VSD compressors are EMC tested and certified. Compressor operation does not influence external sources and vice versa.
- 6 Mechanical enhancements ensure that all components operate below critical vibration levels throughout the entire compressor speed range.
- 7 No 'speed windows' that can jeopardize energy savings or the stability of the net pressure. Turndown capability of the compressor is maximized to 80-85%.
- 8 Net pressure band is maintained within 0.10 bar, 1.5 psi.

No current peaks



OPTIMIZE YOUR SYSTEM

Scope of supply

Air circuit	Air inlet filter and flexibles
	Air intake valve
	Full load/no load regulator
	Long lifetime filtration and separation elements
	Integrated water separator
Oil circuit	Heavy-duty oil filters
	Complete oil circuit system
	Air-oil separator
Cooling circuit	Compressed air aftercooler and oil cooler
	Low noise cooling fan for air-cooled units
	Corrosion resistant coolers for water-cooled units
Electrical components	TEFC IP55 Class F electric motor
	Starters (Star-Delta)
	Pre-mounted electrical cubicles
	Elektronikon® unit controller
Framework	Structural skid with no need for foundations
	Silenced canopy
	Flexible vibration dampers
Mechanical approval	ASME approval
	CE approval
	Other country specific approvals

ADDITIONAL FEATURES & OPTIONS

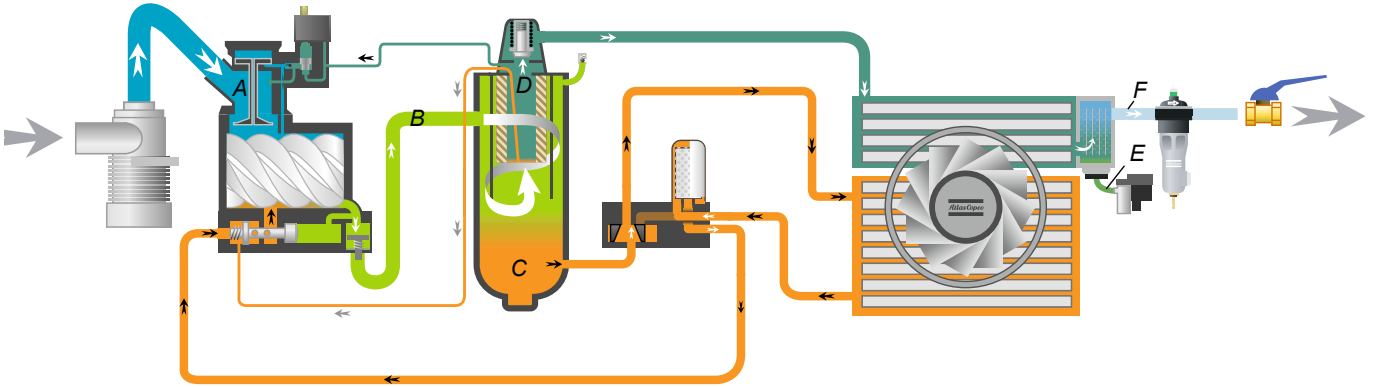
	G 110-160	G 200-250
Phase sequence relay	•	•
PT1000 the main motor windings and bearings	•	•
Anti-condensation heater in the main motor	•	•
Roto X-tend fluid 8000 h oil	✓	•
NPT/ANSI connections	-	•
Anchor pads	-	•
Performance test certificate	•	•
Witness performance test	•	•
Seaworthy packaging	•	•
Energy recovery	•	•
SPM monitoring	-	•
Electronic condensate drain	-	•

* Please consult Atlas Copco for performances and applications of options.

✓: Standard •: Optional -: Not available

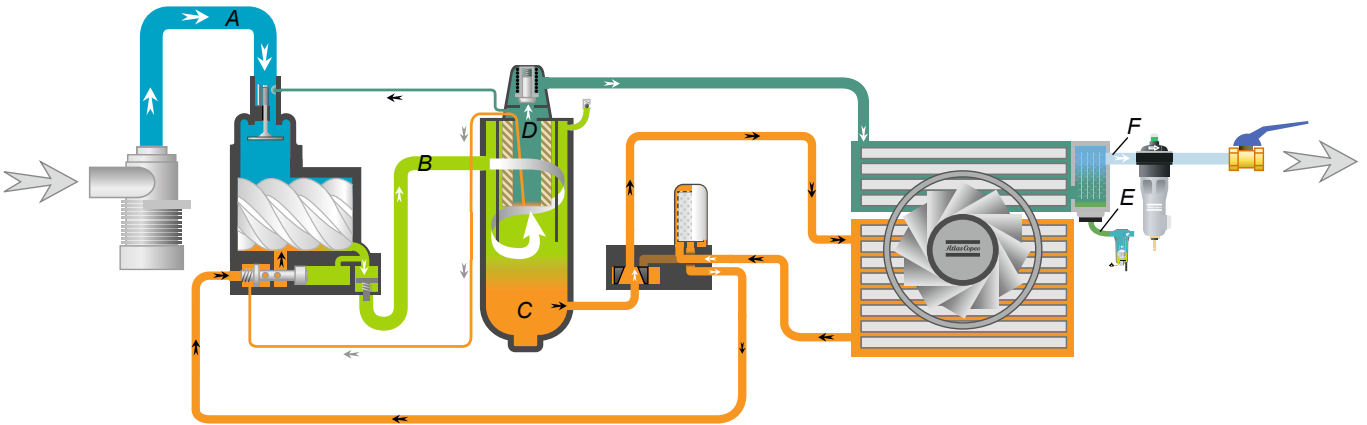
FLOW CHART

Fixed speed



- A ● Intake air
- B ● Air/oil mixture
- C ● Oil
- D ● Wet compressed air
- E ● Condensate
- F ● Dried compressed air

Variable Speed Drive: G VSD



- A ● Intake air
- B ● Air/oil mixture
- C ● Oil
- D ● Wet compressed air
- E ● Condensate
- F ● Dried compressed air

TECHNICAL SPECIFICATIONS G 110-250

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Noise level (2)	Weight (shipping mass)	
	Standard		Pack / Full Feature			kW	kW	dB(A)	Standard	
	bar(e)	psig	l/s	m ³ /min	cfm				kg	lbs
50 Hz										
G 110 - 7.5	7.5	109	334	20.0	708	110	150	75	3000	6614
G 110 - 8.5	8.5	123	313	18.8	662	110	150	75	3000	6614
G 110 - 10	10.0	145	284	17.0	603	110	150	75	3000	6614
G 110 - 14	14.0	203	231	13.9	488	110	150	75	3000	6614
G 132 - 7.5	7.5	109	401	24.1	850	132	175	75	3830	8444
G 132 - 8.5	8.5	123	381	22.9	807	132	175	75	3830	8444
G 132 - 10	10.0	145	350	21.0	741	132	175	75	3830	8444
G 132 - 14	14.0	203	280	16.8	592	132	175	75	3830	8444
G 160 - 7.5	7.5	109	506	30.4	1072	160	215	75	3830	8444
G 160 - 8.5	8.5	123	482	28.9	1022	160	215	75	3830	8444
G 160 - 10	10.0	145	446	26.8	945	160	215	75	3830	8444
G 160 - 14	14.0	203	361	21.7	764	160	215	75	3830	8444
G 200 - 7.5	7.5	109	592	35.5	1254	200	270	77	5405	11916
G 200 - 8.5	8.5	123	545	32.7	1155	200	270	77	5405	11916
G 200 - 10	10.0	145	513	30.8	1087	200	270	77	5405	11916
G 250 - 7.5	7.5	109	681	40.9	1443	250	335	77	5695	12555
G 250 - 8.5	8.5	123	667	40.0	1413	250	335	77	5695	12555
G 250 - 10	10.0	145	626	37.7	1326	250	335	77	5695	12555
60 Hz										
G 110 - 100	7.4	107	350	21.0	742	110	150	75	3000	6614
G 110 -125	9.1	132	320	19.2	678	110	150	75	3000	6614
G 110 - 150	10.9	158	287	17.2	608	110	150	75	3000	6614
G 110 - 200	14	203	246	14.8	521	110	150	75	3000	6614
G 132 - 100	7.4	107	404	24.2	856	132	175	75	3830	8444
G 132 -125	9.1	132	369	22.1	782	132	175	75	3830	8444
G 132 - 150	10.9	158	337	20.2	714	132	175	75	3830	8444
G 132 - 200	14	203	282	16.9	598	132	175	75	3830	8444
G 160 - 100	7.4	107	477	28.6	1010	150	200	75	3830	8444
G 160 -125	9.1	132	439	26.3	930	150	200	75	3830	8444
G 160 - 150	10.9	158	397	23.8	841	150	200	75	3830	8444
G 160 - 200	14	203	336	20.1	712	150	200	75	3830	8444
G 200 - 100	7.4	107	586	35.2	1242	185	250	78	5405	11916
G 200 -125	9.1	132	525	31.5	1112	185	250	78	5405	11916
G 200 - 150	10.9	158	483	29.0	1023	185	250	78	5405	11916
G 250 - 100	7.4	107	650	39.0	1377	225	300	78	5635	12423
G 250 -125	9.1	132	616	37.0	1305	225	300	78	5635	12423
G 250 - 150	10.9	158	569	34.1	1206	225	300	78	5635	12423

(1) Unit performance : Measured according to ISO1217

(2) Noise level : Measured according to ISO 2151:2004 using ISO 9614/2

Reference conditions:

- Absolute inlet pressure 1 bar (14,5psi)
- Intake air temperature 20°C (68°F)
- Cooling medium temperature 20°C (68°F)

FAD is measured at the following working pressures:

- 7.5 bar variants at 7 bar
- 8.5 bar variants at 8 bar
- 10 bar variants at 9.5 bar
- 14 bar variants at 13.5 bar
- 75 psi variants at 73 psi
- 100 psi variants at 100 psi
- 125 psi variants at 125 psi
- 150 psi variants at 150 psi

DIMENSIONS

TYPE	Air-cooled / water-cooled					
	L		W		H	
	mm	inch	mm	inch	mm	inch
G 110	2779	109	1720	68	2010	79
G 132-160	2779	109	2005	79	2010	79
G 200-250	3386	133	2120	84	2400	95

TECHNICAL SPECIFICATIONS

G 110, G 132 & G 160 VSD (50 Hz)

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Noise level (2)	Weight (shipping mass)	
	Standard		Pack / Full Feature			kW	hp		Standard	
	bar(e)	psig	l/s	m³/min	cfm			kg	lbs	
G 110 VSD - 8.5	4	58	331	19.9	701	110	150	77	3608	7954
	7	102	329	19.7	697	110	150	77	3608	7954
	8	116	315	18.9	667	110	150	77	3608	7954
G 110 VSD - 14	8	116	311	18.7	659	110	150	77	3608	7954
	9.5	138	291	17.5	617	110	150	77	3608	7954
	13.5	196	230	13.8	487	110	150	77	3608	7954
G 132 VSD - 8.5	4	58	418	25.0	886	132	177	77	4068	8968
	7	102	418	25.0	886	132	177	77	4068	8968
	8	116	398	23.8	843	132	177	77	4068	8968
G 132 VSD - 14	8	116	398	23.8	843	132	177	77	4068	8968
	9.5	138	367	22.0	778	132	177	77	4068	8968
	13.5	196	285	17.1	604	132	177	77	4068	8968
G 160 VSD - 8.5	4	58	494	29.6	1047	160	215	77	4068	8968
	7	102	493	29.5	1044	160	215	77	4068	8968
	8	116	473	28.3	1002	160	215	77	4068	8968
G 160 VSD - 14	8	116	495	29.6	1049	160	215	77	4068	8968
	9.5	138	441	26.4	934	160	215	77	4068	8968
		196	355	21.3	752	160	215	77	4068	8968

TECHNICAL SPECIFICATIONS

G 110, G 132 & G 160 VSD (60 Hz)

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Noise level (2)	Weight (shipping mass)	
	Standard		Pack / Full Feature			kW	hp		Standard	
	bar(e)	psig	l/s	m³/min	cfm			kg	lbs	
G 110 VSD - 8.5	4	58	331	19.9	701	110	150	77	3608	7954
	6.9	100	329	19.7	697	110	150	77	3608	7954
	8.6	125	304	18.2	644	110	150	77	3608	7954
G 110 VSD - 14	6	87	331	19.9	701	110	150	77	3608	7954
	10.4	151	277	16.6	587	110	150	77	3608	7954
	13.8	200	224	13.4	475	110	150	77	3608	7954
G 132 VSD - 8.5	4	58	418	25.0	886	132	177	77	4068	8968
	6.9	100	418	25.0	886	132	177	77	4068	8968
	8.6	125	388	23.2	822	132	177	77	4068	8968
G 132 VSD - 14	6	87	418	25.0	886	132	177	77	4068	8968
	10.4	151	349	20.9	739	132	177	77	4068	8968
	13.8	200	272	16.3	576	132	177	77	4068	8968
G 160 VSD - 8.5	4	58	494	29.6	1047	160	215	77	4068	8968
	6.9	100	492	29.5	1042	160	215	77	4068	8968
	8.6	125	461	27.7	977	160	215	77	4068	8968
G 160 VSD - 14	6	87	495	29.6	1049	160	215	77	4068	8968
	10.4	151	423	25.4	896	160	215	77	4068	8968
	13.8	200	344	20.1	729	160	215	77	4068	8968

(1) Unit performance : Measured according to ISO1217

(2) Noise level : Measured according to ISO 2151:2004 using ISO 9614/2

Maximum working pressures for G VSD:

For 50 Hz : 8.5 bar and 14 bar

For 60 Hz : 9.1 bar and 13.8 bar

Reference conditions:

- Absolute inlet pressure 1 bar (14.5 psi)

- Intake air temperature 20°C (68°F)

- Cooling medium temperature 20°C (68°F)

DIMENSIONS

TYPE	Air-cooled / water-cooled					
	L		W		H	
	mm	inch	mm	inch	mm	inch
G 110 VSD	2953	116	1720	68	2010	79
G 132-160 VSD	2953	116	2005	79	2010	79

COMMITTED TO SUSTAINABLE PRODUCTIVITY

We stand by our responsibilities towards our customers, towards the environment and the people around us. We make performance stand the test of time. This is what we call – Sustainable Productivity.