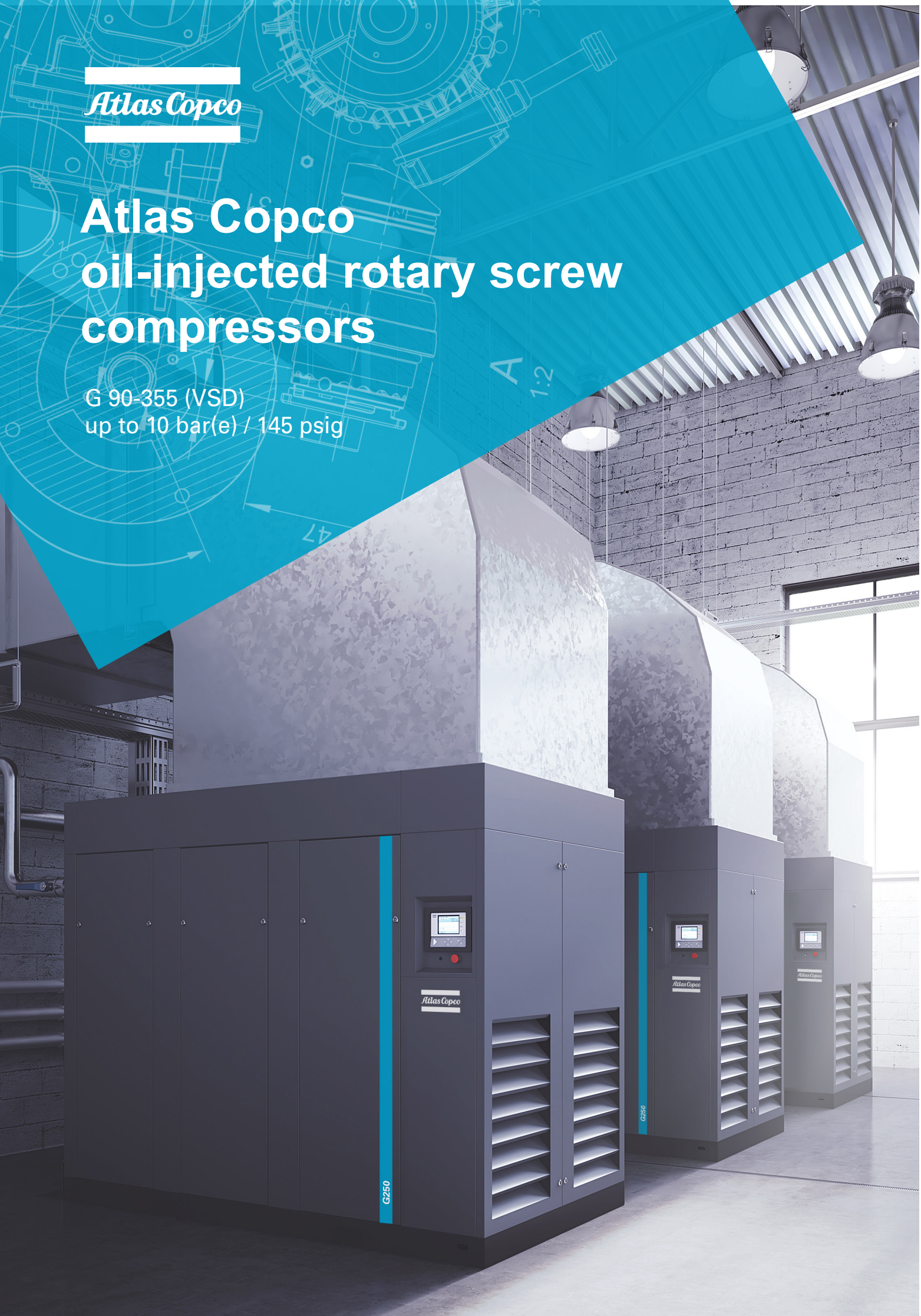
Atlas Copco oil-injected rotary screw compressors

G 90-355 (VSD)
up to 10 bar(e) / 145 psig



G 90-355 (VSD): Reliability, efficiency and simplicity

1

Smaller footprints

- Smaller footprint than all competitors.
- Save more installation space, increase capacity in limited installation space.

2

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.

3

High-efficiency cooler

- Element outlet temperature is optimized, avoid machine shut down due to element high temperature, increase reliability.
- Stainless cooler bundle avoid corrosion for water cooled machine.
- Optimized design reduces maintenance cost and increases reliability.

4

Superior air-oil separation

- Reduction of pressure drops and energy costs.
- Low oil consumption ensures minimal maintenance costs and long compressor lifetime.
- Optimized design of vessel to reduce the oil carry over, increase reliability.

5

High-efficiency motor

- High-efficiency (IE3) motor (Class F insulation) adapted to harshest conditions.
- Long-term stable operation even in harsh environments.

6

Optimal control with the Elektronikon® MK5 & SmartLink

- Clear icons and intuitive navigation provide you with fast access to all of the important settings and data.
- Monitoring of the equipment running conditions and maintenance status..
- SmartLink provides remote monitoring of compressor running status.

Easy to install, use and service

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

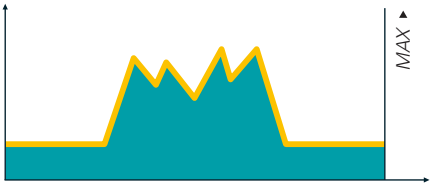
VSD: Driving down your energy costs

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 has 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?

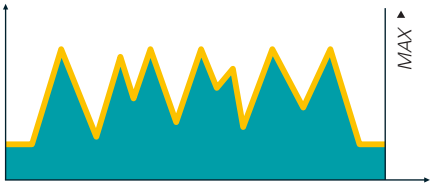
In almost every production environment, air demand fluctuates depending on different factors (time of the day, week or even month). Extensive measurements and studies of compressed air demand profiles show that many compressors have substantial variations in air demand. Only 8% of all installations have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

Profile 1



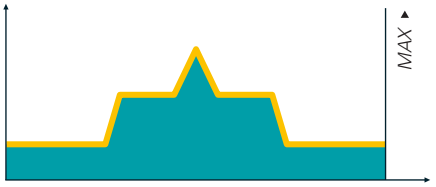
- 64% of all installations.
- Factory working 24 hrs/day: low demand at night & high demand during the day.

Profile 2

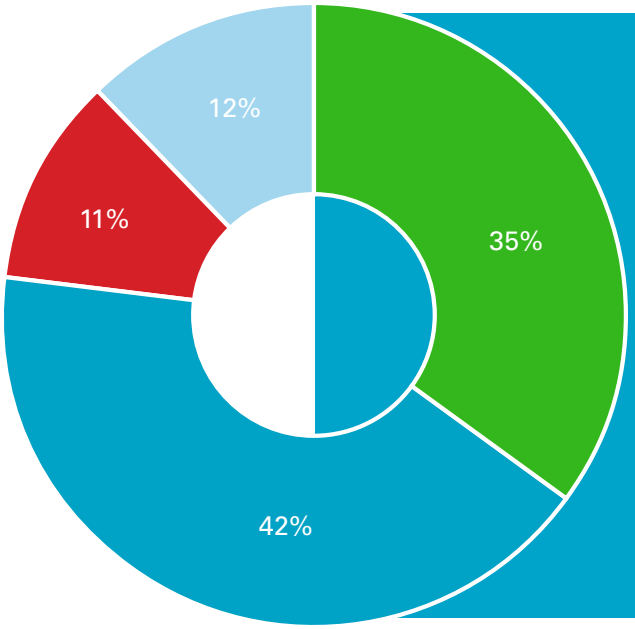


- 28% of all installations.
- Factory working 2 shifts/day, no weekend work: erratically varying air demand.

Profile 3



- 8% of all installations.
- Factory working 2 shifts/day, no weekend work: typical 'fixed' speed application.



On average 35% energy savings

Our G VSD technology closely follows the air demand by automatically adjusting the motor speed. This results in on average 35% energy savings. The lifecycle cost of a compressor can be cut by an average of 22%. In addition, lowered system pressure with G VSD dramatically minimizes energy use across your production.

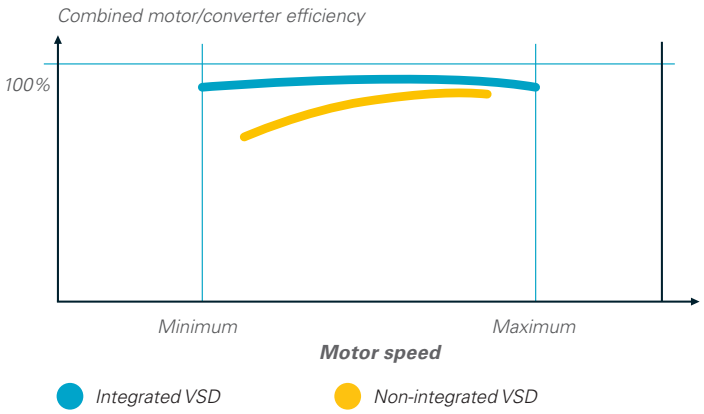
Total compressor lifecycle cost

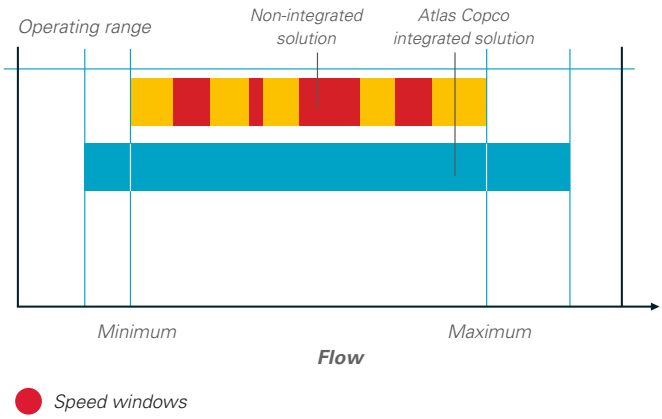
- *Energy*
- *Investment*
- *Energy savings with VSD*
- *Maintenance*

Find out how much you can save

We 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.

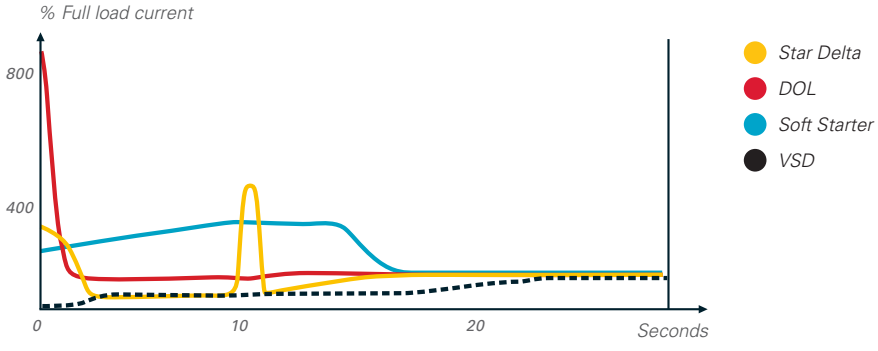
What is unique about the integrated Atlas Copco G VSD?





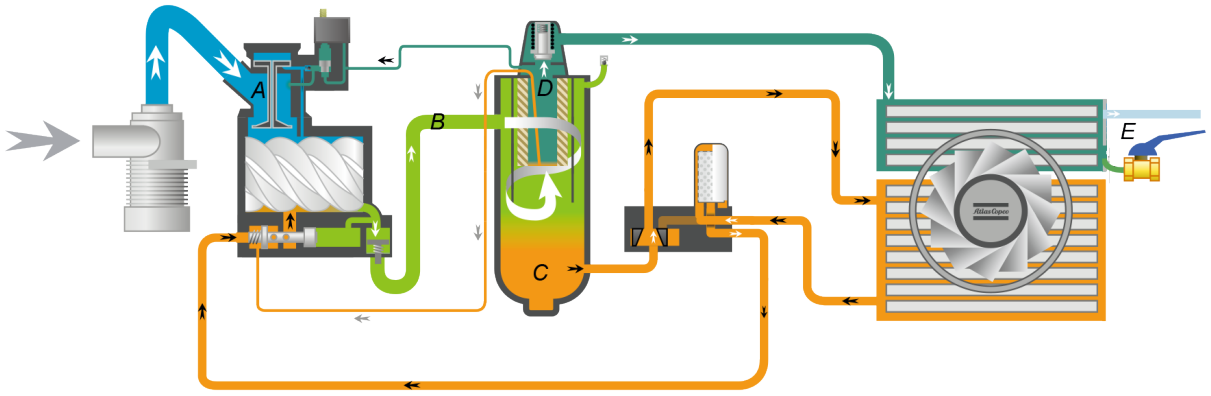
1. The Elektronikon® controls both the compressor and the integrated converter, ensuring maximum machine safety within parameters.
2. Flexible pressure selection from 4 to 10 bar with electronic gearing reduces electricity costs.
3. Specific converter and motor design (with protected bearings) for the 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. FAD range: 30-100%.
8. Net pressure band is maintained within 0.10 bar, 1.5 psi.

No current peaks



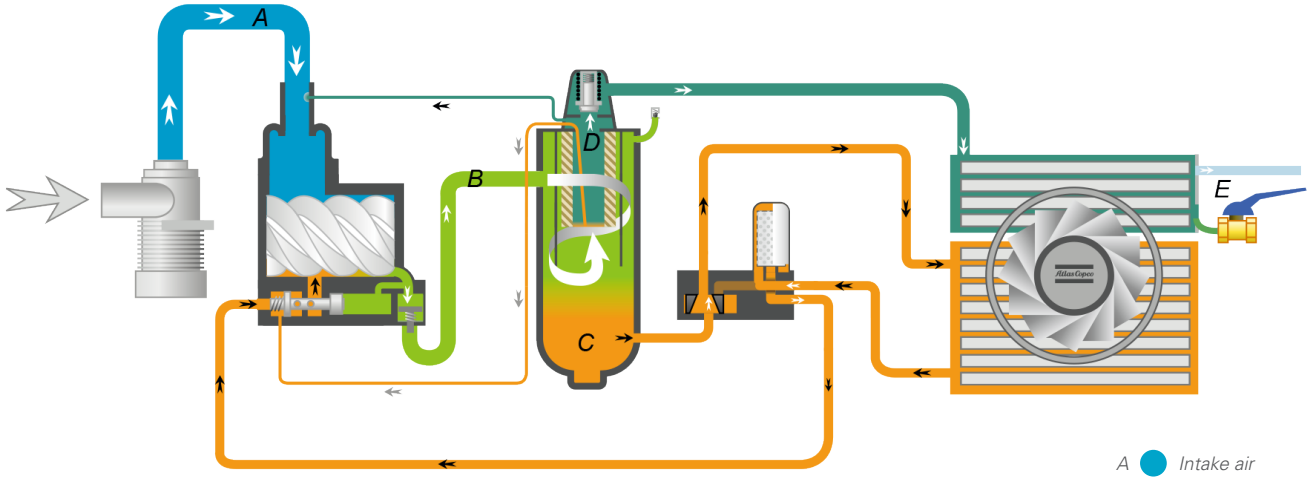
Flow chart

Fixed speed



A Intake air
B Air/oil mixture
C Oil
D Wet compressed air
E Condensate

Variable Speed Drive



A Intake air
B Air/oil mixture
C Oil
D Wet compressed air
E Condensate

Optimize your system

Scope of supply

- Air inlet filter and flexibles
- Air intake valve
- Full load/no load regulator
- Long lifetime filtration and separation elements
- G/DIN connection for 50Hz unit, NPT/ANSI for 60Hz unit
- Heavy-duty oil filters
- Air-oil separator
- Compressed air aftercooler and oil cooler
- ASME/ML/AS1210/MOM approvals
- SmartLink
- Low noise cooling fan for air-cooled units
- Corrosion resistant coolers for water-cooled units
- IE3/GB18613-2012 Level 2 Class F electric motor
- Starters (Star-Delta)
- Pre-mounted electrical cubicles
- Elektronikon® unit controller
- Phase sequency relay
- Separate start and stop signal for MV voltage
- Structural skid with no need for foundations
- Silenced canopy
- Flexible vibration dampers

Options

- Performance test certificate
- Witness performance test
- Seaworthy packing

Dimensions

TYPE	Dimensions (Air-cooled)					
	L		W		H	
	mm	inch	mm	inch	mm	inch
G 90-132(VSD)	1900	75	1200	47	2000	79
G 160 (VSD)	2800	110	1600	63	2000	79
G 200 - 250 (VSD)	2800	110	1600	63	2300	91
G 280 (VSD)	3300	130	1750	69	2400	94

TYPE	Dimensions (Water-cooled)					
	L		W		H	
	mm	inch	mm	inch	mm	inch
G 90-132 (VSD)	1900	75	1200	47	2000	79
G 160 - 250 (VSD)	2800	110	1600	63	2000	79
G 280-355 (VSD)	3300	130	1750	69	2000	79

Technical data 50 Hz

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Air Outlet Size	Weight (shipping mass)	
	Standard		Pack						Standard	
	bar(e)	psig	l/s	m^3/min	cfm	kW	HP		kg	lbs
50 Hz										
G 90-7.5	7.5	109	294	17.6	623	90	125	G2-1/2''	1900	4189
G 90-8.5	8.5	123	270	16.2	571	90	125	G2-1/2''	1900	4189
G 90-10	10	145	254	15.3	539	90	125	G2-1/2''	1900	4189
G 110-7.5	7.5	109	335	20.1	710	110	150	G2-1/2''	2000	4409
G 110-8.5	8.5	123	314	18.8	664	110	150	G2-1/2''	2000	4409
G 110-10	10	145	290	17.4	614	110	150	G2-1/2''	2000	4409
G 132-7.5	7.5	109	404	24.2	855	132	175	G2-1/2''	2100	4630
G 132-8.5	8.5	123	383	23.0	811	132	175	G2-1/2''	2100	4630
G 132-10	10	145	344	20.7	729	132	175	G2-1/2''	2100	4630
G 160-7.5	7.5	109	502	30.1	1064	160	215	DN100	3245	7154
G 160-8.5	8.5	123	479	28.7	1015	160	215	DN100	3245	7154
G 160-10	10	145	446	26.7	944	160	215	DN100	3245	7154
G 200-7.5	7.5	109	610	36.6	1292	200	268	DN100	3625	7992
G 200-8.5	8.5	123	566	33.9	1198	200	268	DN100	3625	7992
G 200-10	10	145	515	30.9	1091	200	268	DN100	3625	7992
G 250-7.5	7.5	109	730	43.8	1547	250	335	DN100	3865	8521
G 250-8.5	8.5	123	704	42.2	1490	250	335	DN100	3865	8521
G 250-10	10	145	646	38.8	1369	250	335	DN100	3865	8521
G 280-7.5	7.5	109	890	53.4	1886	280	375	DN125	4826	10639
G 280-8.5	8.5	123	844	50.6	1788	280	375	DN125	4826	10639
G 280-10	10	145	785	47.1	1662	280	375	DN125	4826	10639
G 315-7.5	7.5	109	1049	62.9	2221	315	422	DN125	4926	10860
G 315-8.5	8.5	123	1002	60.1	2123	315	422	DN125	4926	10860
G 315-10	10	145	916	55.0	1940	315	422	DN125	4926	10860
G 355-7.5	7.5	109	1140	68.4	2415	355	476	DN125	5226	11521
G 355-8.5	8.5	123	1093	65.6	2315	355	476	DN125	5226	11521
G 355-10	10	145	1000	60.0	2119	355	476	DN125	5226	11521

(1) Unit performance : Measured according to ISO1217
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 9.5bar*

Technical data 50 Hz VSD

TYPE		Maximum working pressure		Capacity FAD (1)			Installed motor power		Air Outlet Size	Weight (shipping mass)	
		Standard		Pack							
		bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
50 Hz											
G 110 VSD-10	Minimum	4	58	77-335	4.6-20.1	163-710	110	150	G2-1/2''	2100	4630
G 110 VSD-10		7	102	77-334	4.6-20.1	163-708	110	150	G2-1/2''	2100	4630
G 110 VSD-10		8	116	76-317	4.6-19	161-672	110	150	G2-1/2''	2100	4630
G 110 VSD-10	Maximum	10	138	76-287	4.5-17.2	160-607	110	150	G2-1/2''	2100	4630
G 132 VSD-10	Minimum	4	58	110-398	6.6-23.9	233-843	132	175	G2-1/2''	2200	4850
G 132 VSD-10		7	102	109-397	6.6-23.8	231-842	132	175	G2-1/2''	2200	4850
G 132 VSD-10		8	116	108-378	6.5-22.7	230-800	132	175	G2-1/2''	2200	4850
G 132 VSD-10	Maximum	10	138	108-342	6.5-20.5	229-724	132	175	G2-1/2''	2200	4850
G 160 VSD-10	Minimum	4	58	135-502	8.1-30.1	285-1062	160	215	DN100	3415	7529
G 160 VSD-10		7	102	134-501	8.1-30.1	285-1062	160	215	DN100	3415	7529
G 160 VSD-10		8	116	134-479	8-28.7	283-1014	160	215	DN100	3415	7529
G 160 VSD-10	Maximum	10	138	131-429	7.9-25.8	278-910	160	215	DN100	3415	7529
G 200 VSD-10	Minimum	4	58	176-590	10.6-35.4	374-1249	200	268	DN100	3830	8444
G 200 VSD-10		7	102	176-589	10.5-35.3	372-1248	200	268	DN100	3830	8444
G 200 VSD-10		8	116	175-562	10.5-33.7	370-1190	200	268	DN100	3830	8444
G 200 VSD-10	Maximum	10	138	172-507	10.3-30.4	364-1073	200	268	DN100	3830	8444
G 250 VSD-10	Minimum	4	58	184-698	11-41.9	389-1479	250	335	DN100	4075	8984
G 250 VSD-10		7	102	183-698	11-41.9	387-1478	250	335	DN100	4075	8984
G 250 VSD-10		8	116	182-667	10.9-40	385-1413	250	335	DN100	4075	8984
G 250 VSD-10	Maximum	10	138	179-604	10.7-36.3	379-1280	250	335	DN100	4075	8984
G 280 VSD-10	Minimum	4	58	278-831	16.7-49.9	589-1761	280	375	DN100	5212	11490
G 280 VSD-10		7	102	277-828	16.6-49.7	587-1754	280	375	DN100	5212	11490
G 280 VSD-10		8	116	275-788	16.5-47.3	583-1670	280	375	DN100	5212	11490
G 280 VSD-10	Maximum	10	138	271-709	16.2-42.6	574-1503	280	375	DN100	5212	11490

(1) Unit performance : Measured according to ISO1217
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 9.5bar*

Technical data 60 Hz

TYPE	Maximum working pressure		Capacity FAD (1)			Installed motor power		Air Outlet Size	Weight (shipping mass)	
	Standard		Pack						Standard	
	bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
60 Hz										
G 90-7.5	7.5	109	298	17.9	632	90	125	NPT 2-1/2''	1900	4189
G 90-8.5	8.5	123	269	16.1	569	90	125	NPT 2-1/2''	1900	4189
G 90-10	10	145	254	15.2	537	90	125	NPT 2-1/2''	1900	4189
G 110-7.5	7.5	109	332	19.9	704	110	150	NPT 2-1/2''	2000	4409
G 110-8.5	8.5	123	313	18.8	664	110	150	NPT 2-1/2''	2000	4409
G 110-10	10	145	288	17.3	610	110	150	NPT 2-1/2''	2000	4409
G 132-7.5	7.5	109	403	24.2	853	132	175	NPT 2-1/2''	2100	4630
G 132-8.5	8.5	123	383	23.0	811	132	175	NPT 2-1/2''	2100	4630
G 132-10	10	145	346	20.8	733	132	175	NPT 2-1/2''	2100	4630
G 160-7.5	7.5	109	508	30.1	1064	160	215	ANSI 4"	3445	7595
G 160-8.5	8.5	123	471	28.7	1015	160	215	ANSI 4"	3445	7595
G 160-10	10	145	426	26.7	944	160	215	ANSI 4"	3445	7595
G 200-7.5	7.5	109	620	36.6	1292	200	268	ANSI 4"	3545	7815
G 200-8.5	8.5	123	565	33.9	1198	200	268	ANSI 4"	3545	7815
G 200-10	10	145	517	30.9	1091	200	268	ANSI 4"	3545	7815
G 250-7.5	7.5	109	729	43.8	1547	250	335	ANSI 4"	3865	8521
G 250-8.5	8.5	123	704	42.2	1490	250	335	ANSI 4"	3865	8521
G 250-10	10	145	617	38.8	1369	250	335	ANSI 4"	3865	8521

(1) Unit performance : Measured according to ISO1217
Reference conditions:
- Absolute inlet pressure 1 bar (14,5psi)
- Intake air temperature 20°C (68°F)
- Cooling medium temperature 20°C (68°F)

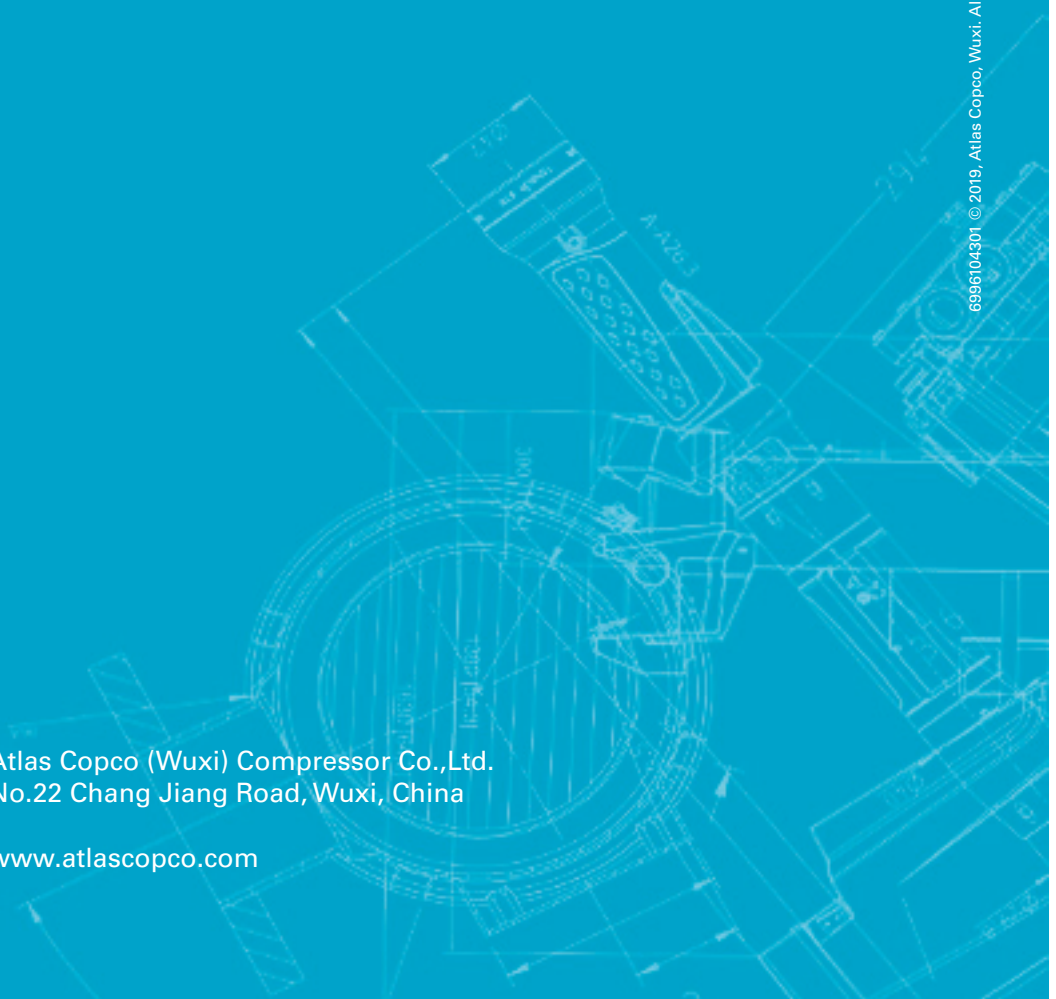
FAD is measured at the following working pressures:
- *7.5 bar variants at 7 bar*
- *8.5 bar variants at 8 bar*
- *10 bar variants at 9.5bar*

Technical data 60 Hz VSD

TYPE		Maximum working pressure		Capacity FAD (1)			Installed motor power		Air Outlet Size	Weight (shipping mass)	
		Standard		Pack							
		bar(e)	psig	l/s	m³/min	cfm	kW	HP		kg	lbs
60 Hz											
G 110 VSD - 10	Minimum	4	58	81-335	4.9-20.1	172-710	110	150	NPT 2-1/2''	2100	4630
G 110 VSD - 10		7	102	77-335	4.6-20.1	163-710	110	150	NPT 2-1/2''	2100	4630
G 110 VSD - 10		8	116	76-313	4.6-18.8	161-664	110	150	NPT 2-1/2''	2100	4630
G 110 VSD - 10	Maximum	10	138	76-290	4.5-17.4	160-614	110	150	NPT 2-1/2''	2100	4630
G 132 VSD - 10	Minimum	4	58	114-399	6.8-23.9	241-845	132	175	NPT 2-1/2''	2200	4850
G 132 VSD - 10		7	102	109-399	6.6-23.9	231-844	132	175	NPT 2-1/2''	2200	4850
G 132 VSD - 10		8	116	108-383	6.5-23	230-811	132	175	NPT 2-1/2''	2200	4850
G 132 VSD - 10	Maximum	10	138	108-347	6.5-20.8	229-736	132	175	NPT 2-1/2''	2200	4850
G 160 VSD - 10	Minimum	4	58	135-502	8.1-30.1	285-1062	160	215	ANSI 4"	3615	7970
G 160 VSD - 10		7	102	134-502	8.1-30.1	285-1064	160	215	ANSI 4"	3615	7970
G 160 VSD - 10		8	116	134-478	8-28.7	283-1013	160	215	ANSI 4"	3615	7970
G 160 VSD - 10	Maximum	10	138	132-442	7.9-26.5	279-936	160	215	ANSI 4"	3615	7970
G 200 VSD - 10	Minimum	4	58	176-590	10.6-35.4	374-1249	200	268	ANSI 4"	3750	8267
G 200 VSD - 10		7	102	176-589	10.5-35.3	372-1248	200	268	ANSI 4"	3750	8267
G 200 VSD - 10		8	116	175-562	10.5-33.7	370-1191	200	268	ANSI 4"	3750	8267
G 200 VSD - 10	Maximum	10	138	173-520	10.4-31.2	366-1102	200	268	ANSI 4"	3750	8267
G 250 VSD - 10	Minimum	4	58	184-698	11-41.9	389-1479	250	335	ANSI 4"	4075	8984
G 250 VSD - 10		7	102	183-698	11-41.9	387-1479	250	335	ANSI 4"	4075	8984
G 250 VSD - 10		8	116	182-667	10.9-40	385-1413	250	335	ANSI 4"	4075	8984
G 250 VSD - 10	Maximum	10	138	180-620	10.8-37.2	381-1314	250	335	ANSI 4"	4075	8984

(1) Unit performance : Measured according to ISO1217
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 9.5bar*



Atlas Copco (Wuxi) Compressor Co.,Ltd.
No.22 Chang Jiang Road, Wuxi, China

www.atlascopco.com