

# ***OIL-INJECTED ROTARY SCREW COMPRESSORS***



*Atlas Copco*

GA 30+90/GA 37-90 VSD (30-90 kW/40-125 hp)





## **GA**

### **PREMIUM COMPRESSOR**

- High performance Free Air Delivery.
- Premium quality at the lowest initial investment.
- Integrated refrigerant dryer.
- Standard Elektronikon® controller (optional graphic controller).

## **GA+**

### **INDUSTRY-LEADING PERFORMANCE**

- Industry-leading Free Air Delivery.
- Lowest energy consumption for applications with a stable air demand.
- Low noise emission suitable for workplace installation.
- Integrated refrigerant dryer.
- Smart Elektronikon® graphic compressor controller.

## **GA VSD**

### **ULTIMATE ENERGY SAVER**

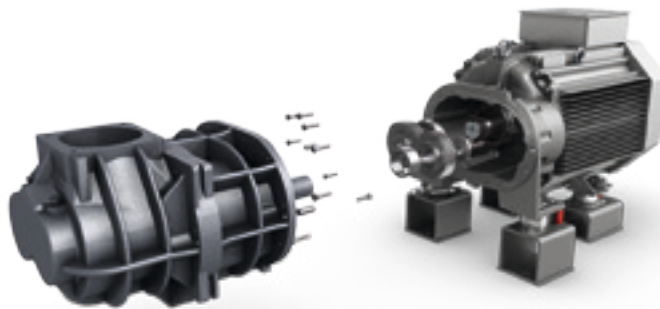
- On average up to 35% energy savings.
- Industry-leading operating turndown range.
- Wide pressure selection: 4-13 bar.
- Start under system pressure, no blow off.
- Integrated refrigerant dryer.
- In-house designed NEOS inverter.
- Smart Elektronikon® graphic compressor controller.

# HIGH RELIABILITY AND SMART ENERGY GA 37+/45+/55+/75+ & GA 55/75/90

1

## Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.



2

## IE3 / NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Designed for continuous operation in harsh environments.

3

## Robust spin-on oil filter

- High-efficiency, removing 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4

## SIL Smart inlet lock system for GA VSD compressors

- Superior designed vacuum and air pressure controlled valve with minimal pressure drop and no springs.
- Smart stop/start which eliminates back-pressure oil vapor.

9

10

1



5

## Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime.
- Removal of nearly 100% condensate by integrated mechanical separator.
- No consumables.
- Eliminates possibility of thermal shocks in coolers.





11

## Integrated highly efficient R410A dryer

- Excellence in air quality.
- 50% reduction in energy consumption compared to traditional dryers.
- Zero ozone depletion.
- Incorporates optional UD<sup>+</sup> filter according to Class 1.4.2.

10

## NEOS drive

- Atlas Copco's in-house designed inverter for GA VSD compressors.
- IP5X protection degree.
- A robust, aluminum enclosure for trouble-free operation in the harshest conditions.
- Fewer components: compact, simple and user-friendly.



9

## Cubicle cooling booster

- Cubicle in overpressure minimizes ingress of conductive dust.
- Electrical components remain cool, enhancing lifetime of components.

8

## Elektronik<sup>®</sup> for remote monitoring

- Integrated smart algorithms reduce system pressure and energy consumption.
- Monitoring features include warning indications, maintenance scheduling and online visualization of machine's condition.

7

## Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.



6

## Electronic no-loss water drain

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronik<sup>®</sup> with warning/alarm features.



# HIGH RELIABILITY AND SMART ENERGY GA 30+ & GA 37/45



1

## Maintenance-free drive system

- 100% maintenance-free; totally enclosed and protected against dirt and dust.
- Suitable for harsh environments.
- High-efficiency drive arrangement; no coupling or slippage losses.
- Standard up to 46°C/115°F and for high ambient version 55°C/131°F.

2

## IE3 / NEMA Premium Efficiency electrical motors

- IP55, insulation Class F, B rise.
- Non-drive side bearing greased for life.
- Oil lubricated drive side bearings.

3

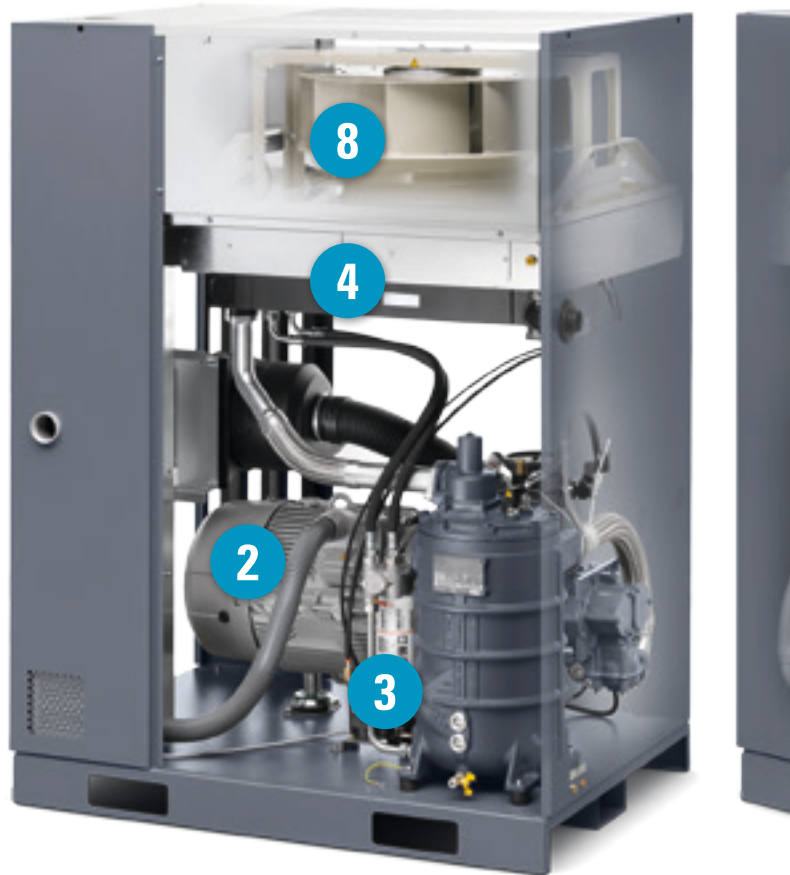
## Robust spin-on oil filter

- High-efficiency, removing 300% smaller particles than a conventional filter.
- Integrated bypass valve with the oil filter.

4

## Separate oversized oil cooler and aftercooler

- Low element outlet temperatures, ensuring long oil lifetime:
  - Removal of nearly 100% condensate by mechanical separator.
  - No consumables.
  - Eliminates possibility of thermal shocks in coolers.





8

### Radial fan

- Low noise level.
- High flows.
- Compact design.

5

### Advanced control & monitoring via Elektronikon®

- Integrated smart algorithms reduce system pressure and energy consumption.
- Monitoring features include warning indications, maintenance scheduling and online visualization of machine's condition.

6

### Heavy-duty air intake filter

- Protects the compressor components by removing 99.9% of dirt particles down to 3 microns.
- Differential inlet pressure for proactive maintenance while minimizing pressure drop.

7

### Electronic no-loss water drain (for + versions)

- Ensures constant removal of condensate.
- Manual integrated bypass for effective condensate removal in case of power failure.
- Integrated with compressor's Elektronikon® with warning/alarm features.



# WHY DRY YOUR COMPRESSED AIR?

Untreated compressed air contains moisture, aerosols and dirt particles that can damage your air system and contaminate your end product, resulting in risk of corrosion and compressed air system leaks. Maintenance costs can far exceed air treatment costs. An air dryer is therefore essential to protect your systems and processes. The GA, GA+ and GA VSD compressors have an integrated dryer option to secure your peace of mind.

## Integrated dry air

- Optimized sizing for the compressor, avoiding excessive energy consumption.
- Fit for your application.
- Controlled and monitored by the Elektronikon®.
- Space-saving all-in-one solution with low installation costs.



## Lowest lifecycle costs and peace of mind

- No extra installation costs.
- Saving floor space.
- Use of energy-efficient, environmentally friendly refrigerant R410A reduces operating costs and stands for zero ozone depletion.
- Heat exchanger cross-flow technology with low pressure drop, saving energy and costs.
- Zero waste of compressed air thanks to no-loss condensate drain.
- Advanced control functions ensure dry air under all circumstances and prevent freezing at low load.
- Pressure dew point of 3°C (100% relative humidity at 20°C).

## Integrated purity

The optional UD+ filter and integrated refrigerant air dryer (IFD) efficiently remove moisture, aerosols and dirt particles to protect your investment. The UD+ filter has a 40% lower pressure drop

than the conventional DD+/PD+ filter combination. It saves space and reduces energy costs. Using only 1 single filter it is possible to reach quality class 1.4.2 according to ISO 8573-1:2010.

	ISO quality class*	Dirt particle size	Water pressure dew point**	Oil concentration
Pack compressor	3..4	5 microns	-	3 ppm
Integrated refrigerant dryer	3.4.4	5 microns	-3°C/37°F	3 ppm
DD+	2.4.2	1 micron	-3°C/37°F	0.1 ppm
UD+	1.4.2	0.5 micron	-3°C/37°F	0.1 ppm

\*The table values reflect the maximum limits according to the ISO quality air standard (ISO 8573-1:2010).  
 \*\* Water pressure dew point based on 100% RH at 20°C/68°F.

# OPTIMIZE YOUR SYSTEM

Some applications may need or may benefit from additional options and more refined control/air treatment systems. To meet these needs, Atlas Copco has developed options and easily integrated compatible equipment.

		GA 30*/37/45	GA 37*/45*/55*/75*/55/75/90	GA 37-90 VSD	
Air treatment	Integrated filter kit class 1*	•	•	•	
	Integrated filter kit class 2*	•	•	•	
	Dryer bypass*	-	•	•	
Condensate	OSCi	•	•	•	
	Oil retaining frame	-	•	•	
Protection	Motor space heater	-	-	•	
	Motor space heater + thermistors	-	•	-	
	Water shut-off valve**	-	•	•	
	Phase sequence relay (GA 55-90)	-	•	-	
	Tropical thermostat	•	•	-	
	Freeze protection	-	•	•	
	NEMA 4 cubicle	-	•	-	
	NEMA 4X cubicle	-	•	-	
	Pre-filter	•	•	•	
	Advanced monitoring	-	•	•	
	ANSI flange outlet	•	•	•	
	DIN flange outlet	•	•	•	
	Public works	Rain protection	•	•	-
		Main power isolator switch	-	•	•
		Lifting device	•	•	•
		Oversized motor (except GA 45* & GA 90)	-	•	-
	Communication	ES 100 relays***	-	•	•
Elektronikon® Graphic upgrade (only for GA 37 to GA 75)		•	•	-	
ES4i/ES6i (for Elektronikon® Graphic)		•	•	•	
Digital I/O expansion module		•	•	•	
Oils	Food grade oil	•	•	•	
	Roto - Xtend duty oil (8000 hours)	•	•	•	
General options	Witness performance test	•	•	•	
	Energy recovery	•	•	•	
	Power duct fan	•	•	•	
	Modulating control	-	•	-	
	High-ambient temperature version (HAV 55°C, 131°F)****	•	•	•	
	IT/TT ancillaries	-	-	•	

\*FF units only.

\*\* Water-cooled units.

\*\*\* Includes potential-free contacts: motor running, compressor load/unload.

\*\*\*\* FF units max 50°C, 122°F.

• : Optional - : Not available

## Integrated Energy Recovery

As much as 90% of the electrical energy used by a compressed air solution is converted into heat. Using Atlas Copco's integrated energy recovery systems, it is feasible to recover up to 75% of that power input as hot air or hot water without any influence

on the compressor's performance. Through efficient usage of the recovered energy, you bring about important energy cost savings and obtain a high return on investment.



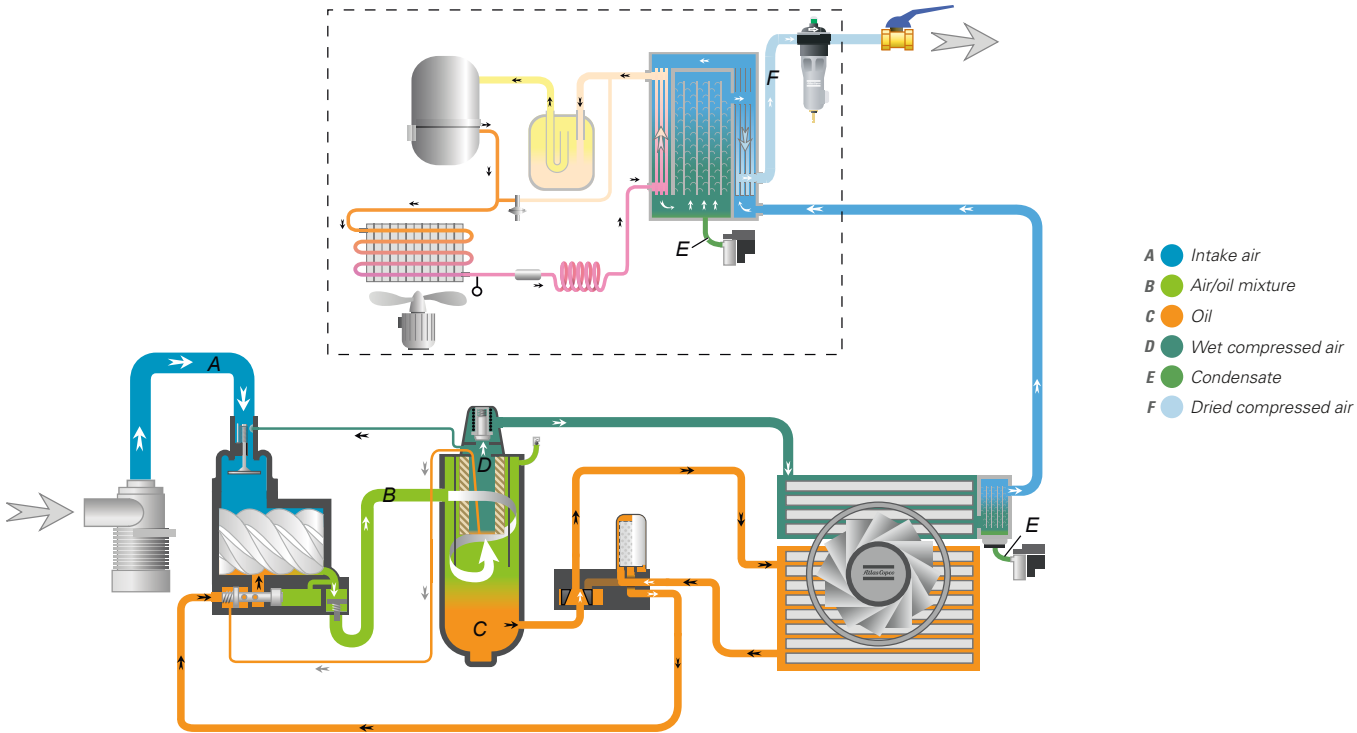
### Energy Recovery applications

- Auxiliary or main heating of warehouses, workshops etc.
- Industrial process heating.
- Water heating for laundries, industrial cleaning and sanitary facilities.
- Canteens and large kitchens.
- Food industry.
- Chemical and pharmaceutical industries.
- Drying processes.

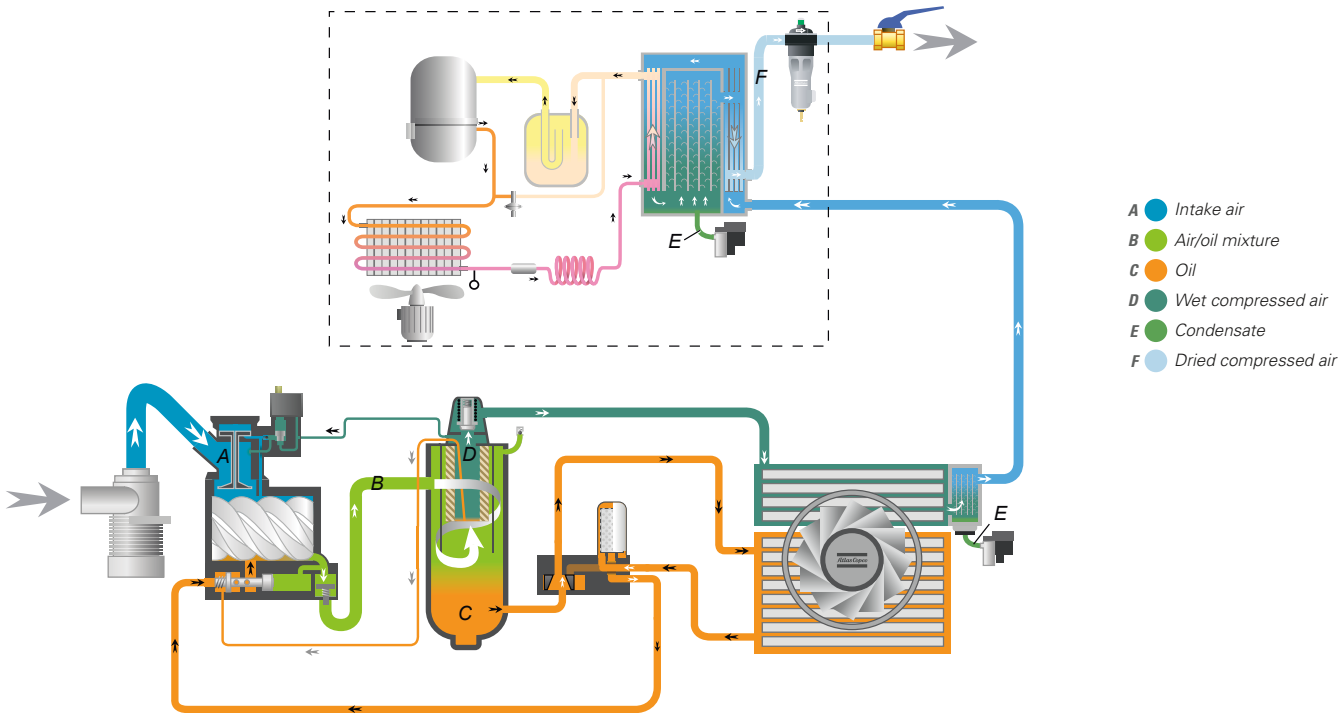


# FLOW CHARTS

## Variable Speed Drive: GA VSD



## Fixed speed: GA+ & GA



# TECHNICAL SPECIFICATIONS

## GA 30<sup>+</sup>-90 (50 HZ VERSIONS)

COMPRESSOR TYPE	Pressure variant	Max. working pressure WorkPlace		Capacity FAD*			Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
		bar(e)	psig	l/s	m <sup>3</sup> /hr	cfm	kW	hp		kg	lbs	kg	lbs
GA 30 <sup>+</sup>	7.5	7.5	109	99	357	210	30	50	65	626	1380	796	1755
	8.5	8.5	123	91	327	193	30	50	65	626	1380	796	1755
	10	10	145	82	294	173	30	50	65	626	1380	796	1755
	13	13	189	71	254	150	30	50	65	626	1380	796	1755
GA 37	7.5	7.5	109	116	419	247	37	60	67	683	1506	853	1881
	8.5	8.5	123	108	390	229	37	60	67	683	1506	853	1881
	10	10	145	102	367	216	37	60	67	683	1506	853	1881
	13	13	189	89	319	188	37	60	67	683	1506	853	1881
GA 37 <sup>+</sup>	7.5	7.5	109	122	438	258	37	50	65	902	1989	987	2176
	8.5	8.5	123	118	426	250	37	50	65	902	1989	987	2176
	10	10	145	102	366	216	37	50	65	902	1989	987	2176
	13	13	189	85	306	180	37	50	65	902	1989	987	2176
GA 45	7.5	7.5	109	137	493	290	45	75	68	692	1526	900	1984
	8.5	8.5	123	129	464	273	45	75	68	692	1526	900	1984
	10	10	145	119	428	252	45	75	68	692	1526	900	1984
	13	13	189	104	373	220	45	75	68	692	1526	900	1984
GA 45 <sup>+</sup>	7.5	7.5	109	149	534	315	45	60	66	970	2138	1060	2337
	8.5	8.5	123	139	498	295	45	60	66	970	2138	1060	2337
	10	10	145	128	462	270	45	60	66	970	2138	1060	2337
	13	13	189	106	384	225	45	60	66	970	2138	1060	2337
GA 55	7.5	7.5	109	169	612	359	55	75	69	1229	2709	1329	2930
	8.5	8.5	123	159	570	336	55	75	69	1229	2709	1329	2930
	10	10	145	148	534	313	55	75	69	1229	2709	1329	2930
	13	13	189	126	456	267	55	75	69	1229	2709	1329	2930
GA 55 <sup>+</sup>	7.5	7.5	109	184	666	390	55	75	66	1358	2994	1458	3214
	8.5	8.5	123	174	624	369	55	75	66	1358	2994	1458	3214
	10	10	145	156	570	331	55	75	66	1358	2994	1458	3214
GA 75	7.5	7.5	109	226	810	478	75	100	73	1259	2776	1379	3040
	8.5	8.5	123	209	756	444	75	100	73	1259	2776	1379	3040
	10	10	145	189	684	401	75	100	73	1259	2776	1379	3040
	13	13	189	162	582	344	75	100	73	1259	2776	1379	3040
GA 75 <sup>+</sup>	7.5	7.5	109	248	894	526	75	100	68	1413	3115	1533	3380
	8.5	8.5	123	235	846	497	75	100	68	1413	3115	1533	3380
	10	10	145	210	756	445	75	100	68	1413	3115	1533	3380
	13	13	189	177	636	375	75	100	68	1413	3115	1533	3380
GA 90	7.5	7.5	109	281	1014	596	90	125	73	1425	3142	1545	3406
	8.5	8.5	123	275	990	582	90	125	73	1425	3142	1545	3406
	10	10	145	250	900	529	90	125	73	1425	3142	1545	3406
	13	13	189	216	780	458	90	125	73	1425	3142	1545	3406

\* Unit performance measured according to ISO 1217, Annex C, Edition 4:2009.

**Reference conditions:**

- ▶ Absolute inlet pressure 1 bar (14.5 psi)
- ▶ Intake air temperature 20°C, 68°F

**FAD is measured at the following working pressures:**

- ▶ 7.5 bar versions at 7 bar
- ▶ 8.5 bar versions at 8 bar
- ▶ 10 bar versions at 9.5 bar
- ▶ 13 bar versions at 12.5 bar

\*\* A-weighted emission sound pressure level at the work station, Lp WSA (re 20 µPa) dB (with uncertainty 3 dB).

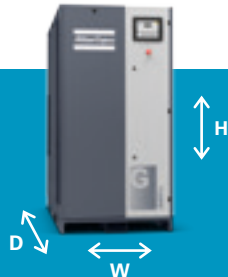
Values determined according to noise level test code ISO 2151 and noise measurement standard ISO 9614.

Pressure dew point of integrated refrigerant dryer at reference conditions: 2°C to 3°C, 36°F to 37°F.



**GA 30<sup>+</sup>/37/45 PACK**

Width 890 mm, 51.5"  
Depth 1,310 mm, 35.0"  
Height 1,790 mm, 70.5"



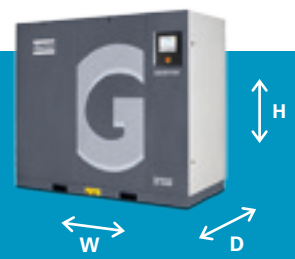
**GA 30<sup>+</sup>/37/45 FULL FEATURE**

Width 890 mm, 71.6"  
Depth 1,810 mm, 35.0"  
Height 1,790 mm, 70.5"



**GA 37/45 VSD 37<sup>+</sup>/45<sup>+</sup>**

Width 1,766 mm, 69.5"  
Depth 970 mm, 38.2"  
Height 1,800 mm, 70.9"



**GA 55/75/90 VSD 55<sup>+</sup>/75<sup>+</sup>/55/75/90**

Width 2,248 mm, 88.5"  
Depth 1,080 mm, 42.5"  
Height 1,955 mm, 76.9"

# TECHNICAL SPECIFICATIONS

## GA 30<sup>+</sup>-90 (60 HZ VERSIONS)

COMPRESSOR TYPE	Pressure variant	Max. working pressure WorkPlace		Capacity FAD*			Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
		bar(e)	psig	l/s	m <sup>3</sup> /hr	cfm	kW	hp		kg	lbs	kg	lbs
GA 30 <sup>+</sup>	100	7.4	107	100	360	212	30	40	65	817	1801	898	1980
	125	9.1	132	91	326	192	30	40	65	817	1801	898	1980
	150	10.8	157	82	296	174	30	40	65	817	1801	898	1980
	175	12.5	181	75	269	158	30	40	65	817	1801	898	1980
GA 37	100	7.4	107	116	418	246	37	50	69	905	1995	820	1808
	125	9.1	132	108	389	229	37	50	69	905	1995	820	1808
	150	10.8	157	96	347	204	37	50	69	905	1995	820	1808
	175	12.5	181	87	314	185	37	50	69	905	1995	820	1808
GA 37 <sup>+</sup>	100	7.4	107	120	433	255	37	50	65	905	1995	987	2176
	125	9.1	132	111	398	234	37	50	65	905	1995	987	2176
	150	10.8	157	100	361	212	37	50	65	905	1995	987	2176
	175	12.5	181	91	327	192	37	50	65	905	1995	987	2176
GA 45	100	7.4	107	139	500	294	45	60	72	894	1971	979	2158
	125	9.1	132	128	461	271	45	60	72	894	1971	979	2158
	150	10.8	157	118	425	250	45	60	72	894	1971	979	2158
	175	12.5	181	105	378	222	45	60	72	894	1971	979	2158
GA 45 <sup>+</sup>	100	7.4	107	146	527	310	45	60	66	970	2138	1060	2337
	125	9.1	132	134	483	284	45	60	66	970	2138	1060	2337
	150	10.8	157	126	453	266	45	60	66	970	2138	1060	2337
	175	12.5	181	111	401	236	45	60	66	970	2138	1060	2337
GA 55	100	7.4	107	174	627	369	55	75	69	1229	2709	1329	2930
	125	9.1	132	154	556	327	55	75	69	1229	2709	1329	2930
	150	10.8	157	142	510	300	55	75	69	1229	2709	1329	2930
	175	12.5	181	128	462	272	55	75	69	1229	2709	1329	2930
GA 55 <sup>+</sup>	100	7.4	107	184	663	390	55	75	67	1358	2994	1458	3214
	125	9.1	132	166	598	352	55	75	67	1358	2994	1458	3214
	150	10.8	157	141	508	299	55	75	67	1358	2994	1458	3214
	175	12.5	181	128	462	272	55	75	69	1229	2709	1329	2930
GA 75	100	7.4	107	229	825	485	75	100	73	1259	2776	1359	2996
	125	9.1	132	200	721	424	75	100	73	1259	2776	1359	2996
	150	10.8	157	189	681	401	75	100	73	1259	2776	1359	2996
	175	12.5	181	169	608	358	75	100	73	1259	2776	1359	2996
GA 75 <sup>+</sup>	100	7.4	107	248	892	525	75	100	69	1413	3115	1533	3380
	125	9.1	132	227	818	481	75	100	69	1413	3115	1533	3380
	150	10.8	157	204	735	433	75	100	69	1413	3115	1533	3380
	175	12.5	181	182	653	385	75	100	69	1413	3115	1533	3380
GA 90	100	7.4	107	289	1042	613	90	125	74	1425	3142	1545	3406
	125	9.1	132	267	960	565	90	125	74	1425	3142	1545	3406
	150	10.8	157	250	900	530	90	125	74	1425	3142	1545	3406
	175	12.5	181	228	822	484	90	125	74	1425	3142	1545	3406

Please refer to the footnotes, reference conditions and FAD details of the 50 Hz versions.

# TECHNICAL SPECIFICATIONS

## GA 37-90 VSD (50/60 HZ VERSIONS)

COMPRESSOR TYPE	Working pressure		Capacity FAD*						Installed motor power		Noise level**	Weight WorkPlace		Weight WorkPlace Full Feature	
			l/s		m <sup>3</sup> /hr		cfm								
	bar(e)	psig	min	max	min	max	min	max	kW	hp	dB(A)	kg	lbs	kg	lbs
GA 37 VSD	4	58	26.0	124	94	7.4	55	263	37	50	66/67	1042	2297	1127	2485
	7	102	26.0	123	93	7.4	55	260	37	50	66/67	1042	2297	1127	2485
	10	145	25.8	107	93	6.4	55	226	37	50	66/67	1042	2297	1127	2485
	13	189	40.3	87	145	5.2	85	185	37	50	66/67	1042	2297	1127	2485
GA 45 VSD	4	58	26.0	146	94	8.8	55	310	45	60	69/72	1100	2425	1190	2624
	7	102	26.0	145	93	8.7	55	307	45	60	69/72	1100	2425	1190	2624
	10	145	25.8	128	93	7.7	55	271	45	60	69/72	1100	2425	1190	2624
	13	189	40.3	107	145	6.4	85	226	45	60	69/72	1100	2425	1190	2624
GA 55 VSD	4	58	32.4	197	116	11.8	69	418	55	75	69/72	1380	3042	1480	3263
	7	102	26.0	175	94	10.5	55	371	55	75	69/72	1380	3042	1480	3263
	10	145	25.4	155	92	9.3	54	328	55	75	69/72	1380	3042	1480	3263
	13	189	37.0	129	133	7.7	78	273	55	75	69/72	1380	3042	1480	3263
GA 75 VSD	4	58	37.8	250	136	15.0	80	529	75	100	69/70	1534	3382	1654	3646
	7	102	37.4	250	135	15.0	79	530	75	100	69/70	1534	3382	1654	3646
	10	145	48.1	219	173	13.2	102	465	75	100	69/70	1534	3382	1654	3646
	13	189	58.3	182	210	10.9	124	386	75	100	69/70	1534	3382	1654	3646
GA 90 VSD	4	58	37.0	293	133	17.6	78	621	90	125	73/74	1534	3382	1654	3646
	7	102	39.4	292	142	17.5	84	619	90	125	73/74	1534	3382	1654	3646
	10	145	48.3	257	174	15.4	102	545	90	125	73/74	1534	3382	1654	3646
	13	189	59.4	214	214	12.9	126	454	90	125	73/74	1534	3382	1654	3646

\* Unit performance measured according to ISO 1217, Annex E, Edition 4:2009. Maximum working pressure for VSD machines: 13 bar(e) (188 psig).