

This document gives a complete list of technical data with some detailed explanations of the main systems, subsystems and performance of our generators, in order to support local sales documentation, tenders or even technical doubts.

While every effort has been made to ensure that the information in this manual is correct Atlas Copco does not assume responsibility for possible errors. Atlas Copco reserves the right to make changes without prior notice.



## Standard Model Scope

Applying insights gained from industrial customers, rental companies, public utilities and other end users QAS generators are designed to withstand the most demanding on-site conditions and environments.

Considering their impressive performance at full capacity, the QAS line of generators includes excellent features for noise reduction and environmental protection.

QAS generators are purpose built for quick, easy and safe transport and on-site handling. Built to last, a QAS generator will provide years of dependable service for your electrical power generation needs.

All members of the widely appreciated QAS family are intelligent multi-task units managing to power a wide range of electrical equipment in different applications.

Their superior component configuration offers a wide range of control modules, electrical settings and mechanical options, in order to guarantee superior quality at efficient operating costs.

Conceived for 100% prime power operation in the most severe outdoor conditions, ready to work in sensitive areas, QAS generators are designed and configured for safe operation with minimal downtime under any circumstance.

### Features

- Carefully selected components, accurately developed and tested configuration
- Superior standard configuration and extensive option list
- 500 hours service interval and superior accessibility to all service points
- Compact and safe concept and sturdy design
- Designed and built to last

### Benefits

- Accurate and stable power regardless of the conditions
- Ability to power a wide range of applications
- Service efficiency: increased up-time
- Increased transport efficiency
- Superior resale value / longer life time

## Manufacturing and Environmental Standards

The QAS range is manufactured following stringent ISO 9001 regulations, and by a fully implemented Environmental Management System fulfilling ISO 14001 requirements.

Attention has been given to ensure minimum negative impact to the environment. The QAS range complies with the latest noise emission directives.

## Declaration of Conformity

Our QAS EC falls under the provisions of the article 12.2 of the EC Directive 2005/42/EC on the approximation of the laws of the Member States relating to machinery, is in conformity with, the relevant Essential Health and Safety Requirements of this directive:

**MACHINERY SAFETY (2006/42/EC):** EN ISO 12100-1, EN ISO 12100-2, UNE EN 12601

**ELECTROMAGNETIC COMPATIBILITY (2004/108/EC):** EN 61000-6-5, EN 61000-6-4

**LOW VOLTAGE EQUIPMENT (2006/95/EC):** EN 60034, EN60204-1, EN 60439

**OUTDOOR NOISE EMISSION (2000/14/EC):** ISO 3744

**ISO 8528:** QAS generators are design to comply with ISO 8528 regulation



## 1. Performance Data

Generator		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
Rated speed	rpm	1500	1800	1500	1800
Rated power factor (lagging)		0,8	0,8	0,8	0,8
Rated Prime Power, PRP	kVA	325	345	323,1	345,4
	kW	260	276,0	258,5	276,3
Limited Time Power, ESP (Stand-by)	kVA	357,5	379,5	355,4	379,9
	kW	286	303,6	284,328	304,0
Continuous Operation Power, COP (Continuous)	kVA	227,5	241,5	226,2	241,8
	kW	182	193,2	180,9	193,4
Rated voltage (3ph. line to line)	V	400	480	400	480
Rated voltage (1ph. line to neutral)	V	230	277	230	277
Rated current 3ph. (PRP)	A	469,1	415,0	466,4	415,5
Rated current 3ph. (ESP)	A	516,0	456,5	513,0	457,0
Maximum sound power level (LWA) complies with 2000/14/EC	dB(A)	97	99	97	99
Maximum sound pressure level (LPA) at 7 m	dB(A)	69	71	69	71
Coupling engine/alternator		Direct		Direct	
Capacity fuel tank (total)	l	640		640	
Fuel tank specifications		Metal		Metal	
Fuel Autonomy at full load (Considering full capacity)	h	9,4	9,0	10,4	9,4
Single step load acceptance (within G2, acc. ISO 8528-5:1993)	%	60	70	75	80
Frequency drop (lower than % isochronous)	%	≤0,25	≤0,25	≤0,25	≤0,25
Maxim oil consumption 100% load	l/h	0,04	0,04	0,04	0,04

## Derating Table (%)

	0°C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C	45 °C	50 °C
0 m	100	100	100	100	100	100	100	100	95	85	75
500 m	100	100	100	100	100	100	100	100	95	85	75
1000 m	100	100	100	100	100	100	100	100	95	85	75
1500 m	100	100	100	100	100	100	95	95	90	85	75
2000 m	95	95	95	95	95	95	90	90	85	80	75
2500 m	85	85	85	85	85	85	85	85	80	NA	NA
3000 m	80	80	80	80	80	80	80	80	75	NA	NA
3500 m	75	75	75	75	75	75	75	NA	NA	NA	NA
4000 m	70	70	70	70	70	70	70	NA	NA	NA	NA

## Limitations

Limitations		QAS 325 Vod Stage 3A	QAS 325 Vod Stage 2
Maximum ambient temperature	°C	50	50
Altitude capability	m	4000	4000
Relative air humidity maximum	%	85	85
Minimum running temperature	°C	-15	-15
Minimum running temperature, with coldstart equipment and opened breather*	°C	-25	-25

\* on high humidity regions freezing may occur on the *breather pipes*

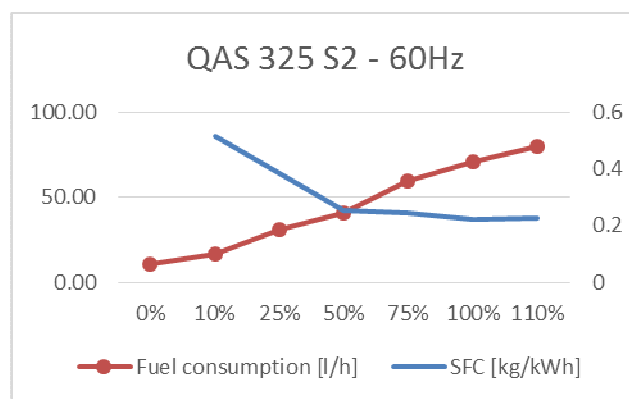
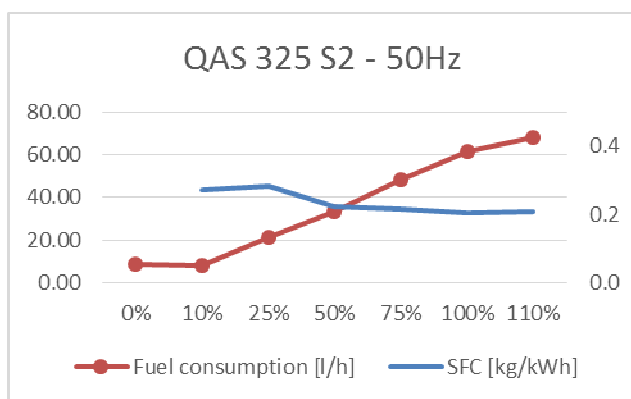
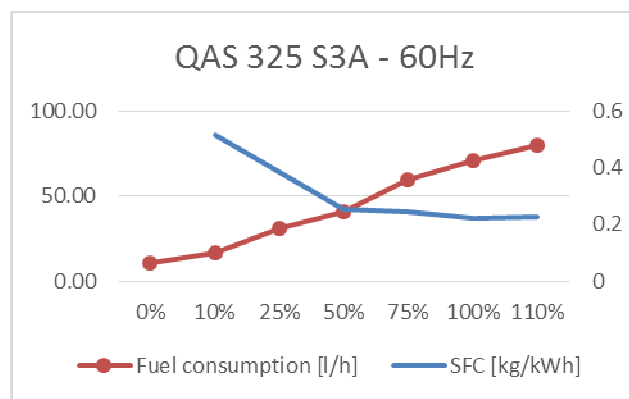
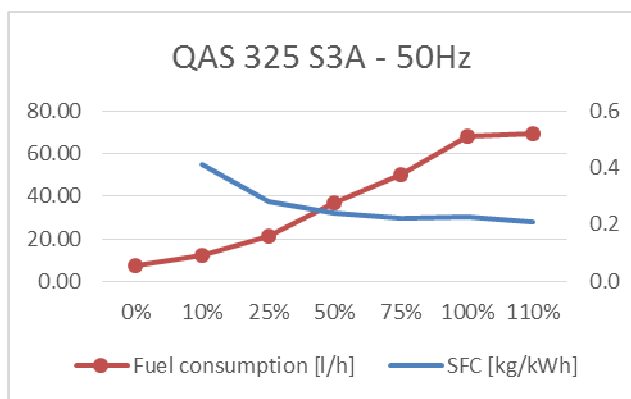
## Application Data

Application Data		QAS 325 Vod Stage 3A	QAS 325 Vod Stage 2
Mode of operation		PRP	PRP
Max. Inclination		+/- 11°	+/- 11°
Operation		single / parallel	single / parallel
Start-up and control mode		manual / auto	manual / auto
Climatic exposure		open air	open air



	rpm	QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>Fuel Consumption at*:</b>					
0% Load	l/h	7,40	10,94	8,67	11,50
10% Load	l/h	12,40	16,60	8,21	16,90
25% Load	l/h	21,40	30,70	21,28	25,20
50% Load	l/h	36,60	40,70	33,49	39,00
75% Load	l/h	50,30	59,40	48,49	53,20
100% Load	l/h	68,00	71,10	61,56	67,90
110% Load	l/h	69,5	79,8	68,25	76,60
<b>Specific Fuel Consumption at:</b>					
0% Load	kg/kWh	NA	NA	NA	NA
10% Load	kg/kWh	0,410	0,517	0,273	0,526
25% Load	kg/kWh	0,283	0,383	0,283	0,314
50% Load	kg/kWh	0,242	0,254	0,223	0,243
75% Load	kg/kWh	0,222	0,247	0,215	0,221
100% Load	kg/kWh	0,225	0,222	0,205	0,211
110% Load	kg/kWh	0,209	0,226	0,206	0,217

\*Diesel fuel type No. 2 diesel or a fuel corresponding to ASTM D2. Density: 0,86 kg/l



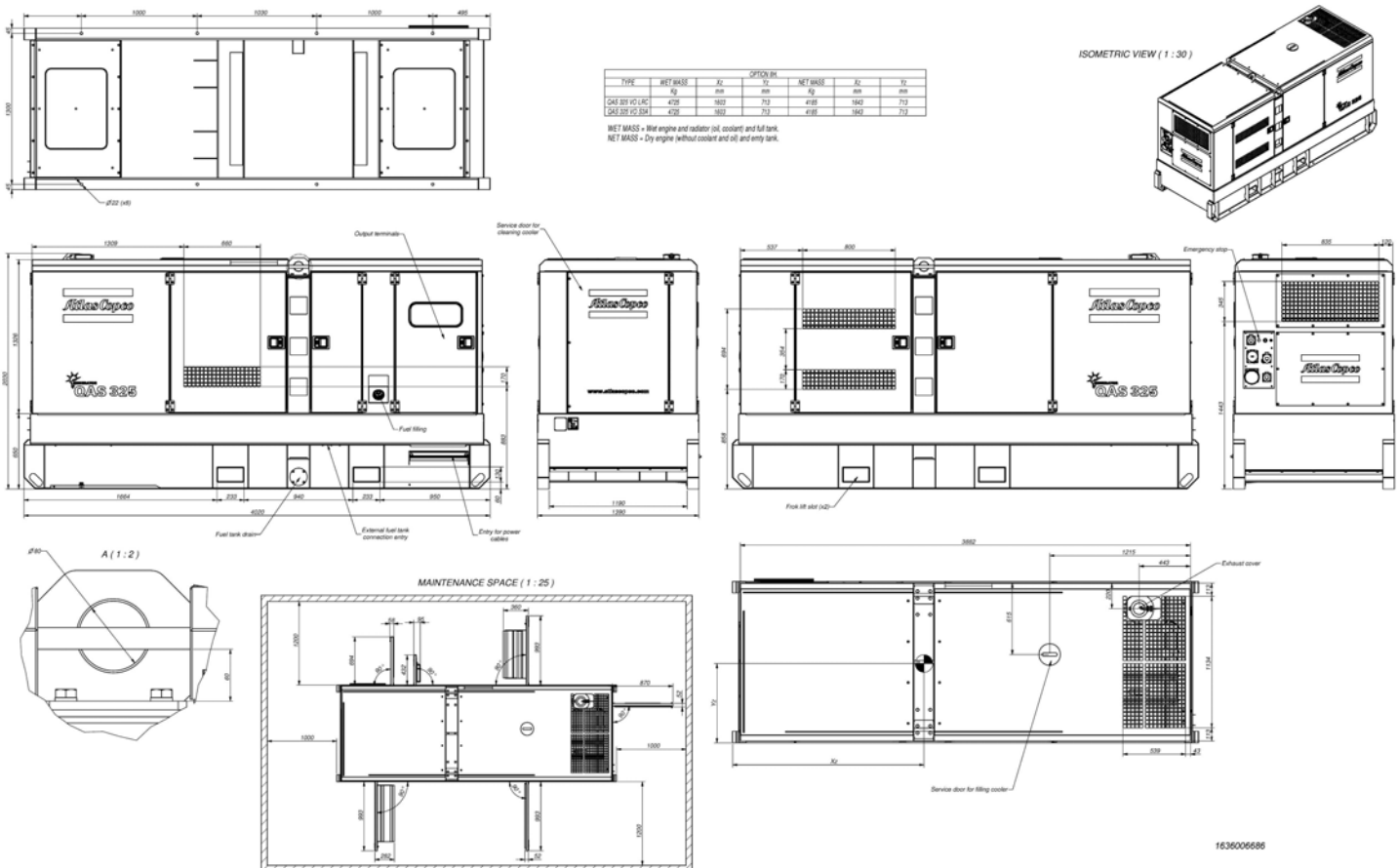
(Reference conditions at 25°C Air Inlet Temperature, 60% Relative Humidity, 1bar Absolute inlet pressure, for different conditions or limitations contact Atlas Copco technical support).



2. Box

	rpm	QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>Dimensions (L x W x H)</b>	m	4,02 x 1,39 x 2,03		4,02 x 1,39 x 2,03	
<b>Weight</b>					
Net mass	Kg	4185		4185	
Wet mass	Kg	4725		4725	
<b>Capacity of spillage free frame</b>	l	765,6		765,6	
<b>Dimensions Long autonomy Fuel tank</b>					
		4,02 x 1,39 x 2,32		4,02 x 1,39 x 2,32	
<b>Weight</b>					
Net mass	Kg	4395		4395	
Wet mass	Kg	5884		5884	
<b>Foam silencer</b>					
Thickness	mm	50		50	
Temperature	°C	Min -30 Max 120		Min -30 Max 120	

Our canopies are made from galvanized steel and painted with powder coating paint. To improve the protection in the most exposed parts as frame and lifting beam, it is also primed with a special paint before coating.



### 3. Engine

	rpm	QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>General</b>					
Manufacturer		Volvo		Volvo	
Model		TAD1351 GE		TAD1341 GE	
Standard		ISO 3046 / ISO 8528-2		ISO 3046 / ISO 8528-2	
Number of cylinders		6		6	
Configuration		6 in line		6 in line	
Aspiration		Turbocharged		Turbocharged	
Speed governor		Volvo Penta EMS-2		Volvo Penta EMS-2	
Bore	mm	131		131	
Stroke	mm	158		158	
Electrical system (DC)	V	24		24	
Compression ratio		18,1:1		18,1:1	
Displacement (swept volume)	l	12,78		12,78	
Piston speed	m/s	7,9	9,5	7,9	9,5
Combustion system		Direct injection		Direct injection	
Charged air cooling system		Intercooled		Intercooled	
Maximum permissible load factor of PRP during 24h	%	70		70	
<b>Lubrication system</b>					
Type		PAROIL E (Mineral)		PAROIL E (Mineral)	
Capacity of oil system (including filters + sump)	l	36		36	
Oil pressure at rated speed	kPa	370 - 520		370 - 520	
Maximum Lubrication oil temperature	°C	130		130	
<b>Air intake system</b>					
Air consumption 25°C (PRP)	m³/min	19,7	24,5	22,7	26,4
Air consumption 25°C (ESP)	m³/min	21,2	25,7	24,1	29
Max allowable air intake restriction	kPa	5		5	
Air filter cleaning efficiency	%	99.95%		99.95%	
Air filter capacity	m³/min	28 - 32		28 - 32	
<b>Cooling system</b>					
Coolant		Parcool		Parcool	
Capacity of engine	l	20		20	
Total capacity (radiator, hoses...)	l	24		24	
Fan power consumption at nominal speed	kW	7	12	7	12
Fan material		Plastic		Plastic	
Coolant flow	l/s	5	5,5	5	5,5
Air mass flow (59°C)	m³/s	4,7	5,7	(64°C) 5,1	5,6
(64°C)	m³/s	5,6	6,4	(66°C) 5,5	6,9
<b>Fuel filter</b>					
		Water Separator		Water Separator	
Max pressure	bar	1,8		1,8	
Temperature	°C	-40 to 121		-40 to 121	
Volume	l	2,6		2,6	
Flow Rate	l/h	341		341	
<b>Emission compliance</b>					
		EU STAGE 3A	EU STAGE 3A	EU STAGE 2	EU STAGE 2
No X + HC	g/kWh	3,56 + 0,15	3,22 + 0,21	5,62 + 0,22	5,5 + 0,28
CO	g/kWh	0,9	0,81	0,56	0,59
PM	g/kWh	0,142	0,133	0,083	0,103
SO2	g/kWh	NA	NA	NA	NA
CO2 (at optimal working point)	%	8,69	7,99	6,69	5.92

\*These values are extracted from official engine datasheet.



#### 4. Alternator

		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>General</b>					
Manufacturer		Leroy Somer		Leroy Somer	
Model		LSA 46,2 VL13		LSA 46,2 VL13	
Standard		IEC 34-1 / ISO 8528-3		IEC 34-1 / ISO 8528-3	
Rated net power (ESP: 50Hz 27°C / 60 Hz 40°C)	kVA	341	412	341	412
Number of bearings		1		1	
Number of wires		12		12	
Voltage regulator accuracy		+/- 0.5%		+/- 0.5%	
Degree of protection / Insulation class		IP 23/H		IP 23/H	
Environment Protection		System 2 (Humid atmosphere)		System 2 (Humid atmosphere)	
Number of poles		4		4	
Number phases		3		3	
Over speed	rpm	2250		2250	
Air flow	m³/s	0,43	0,51	0,43	0,51
Total Harmonic Distortion THD		no load < 2,5%- load < 2,5%		no load < 2,5%- load < 2,5%	
Waveform: NEMA = TIF		< 50		< 50	
Xd Direct axis synchro reactance unsaturated	%	273	275	273	275
X'd Direct axis transient reactance saturated	%	12,1	12,2	12,1	12,2
X''d Direct axis subtransient reactance saturated	%	7,2	7,3	7,2	7,3
<b>Excitation system</b>		Shunt		Shunt	
Sustained short-circuit current	%	180% (1,8x In)		180% (1,8x In)	
Time sustained short-circuit current	s	20		20	
<b>AVR</b>					
Model		R 250		R 250	
Sensing		1 phase		1 phase	
Voltage regulation	%	±0.5		±0.5	
Voltage sensing	V	≤139V		≤139V	

The Leroy Somer LSA alternators are designed for heavy duty continuous applications:

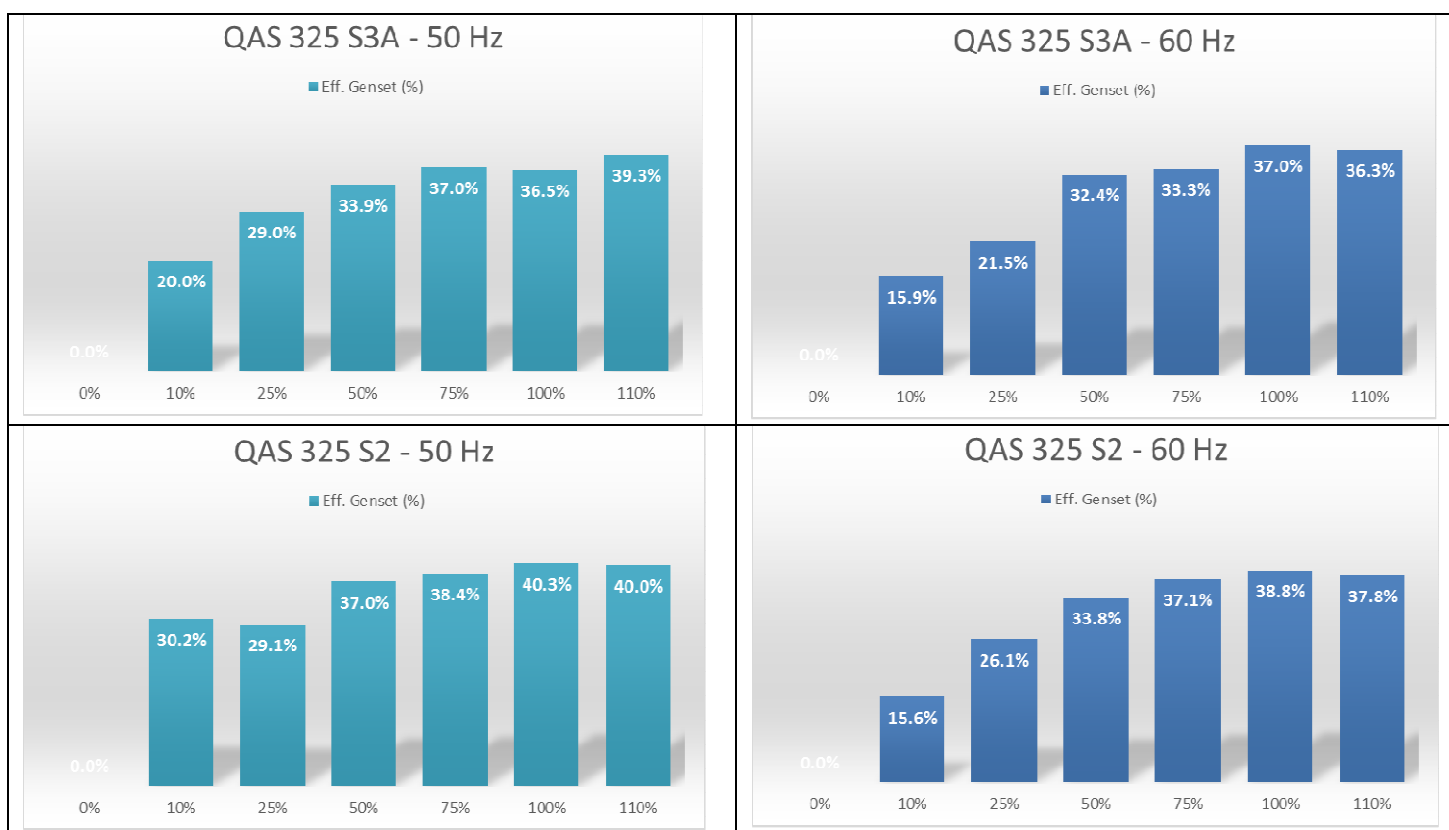
- System 2 protection (relative humidity >95%) for tropical environment (except coastal areas). With high performance dielectric varnish and reinforced over-coating on main stator and rotor
- 4 pole brushless design with single bearing, Class H insulation and IP23 rating
- Voltage regulation +/- 0.5%
- Full Load acceptance of prime power rating
- Standard excitation system is SHUNT (Self excited). As option (check *Electrical options*) you can have additional excitation system as:
  - PMG
  - Auxiliary winding



## 5. Generator

	rpm	QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>Energy Balance</b>					
<b>Engine</b>					
Heat rejection to exhaust	kW	202	225	187	213
Heat rejection to coolant	kW	127	143	124	138
Heat rejection to radiation	kW	10	8	8	22
<b>Alternator</b>					
Efficiency at full load	%	93,50%	94,10%	93,50%	94,10%

## Genset Efficiency



### Exhaust System

Flow (PRP)	m³/min	48,9	56,6	49	58
Flow (ESP)	m³/min	52,6	60,3	52	62
Exhaust gas temperature "after turbine" (PRP)	°C	467	445	405	383
Exhaust gas temperature "after turbine" (ESP)	°C	480	465	414	403
Max. Backpressure (Without / with spark arrestor)	kPa	10 / TBD	10 / TBD	9 / TBD	9 / TBD
Output pipe diameter	mm	130		130	

### Battery

Quantity		2	2
Voltage	V	12	12
Capacity	Ah	143	143
Connection		Serie	Serie
Dimensions (L x W x H)	mm	514x218x210	514x218x210



	rpm	QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
Cold cranking current	A(EN) / A(DIN)	1000 / 540		1000 / 540	
Starting power	kW	7,5		7,5	
Weight (wet)	kg	43,4		43,4	
<b>Sensor</b>					
Oil (temp, pressure & level)		STD		STD	
Coolant (temp & level)		STD		STD	
Fuel (feed pressure)		STD		STD	
Charge air (temp & pressure)		STD		STD	
Fuel Level		STD		STD	
Water in Fuel		STD		STD	
Generator Voltage		STD		STD	
Mains Voltage		OP		OP	
Generator Current transformer		STD		STD	
Transformer Maintenance Changeover feedback		OP		OP	
Reply: Mains CB opened/closed		OP		OP	
Reply: Generator CB opened/closed		OP		OP	
Air Inlet Pressure Switch		STD		STD	
Low Coolant Level Shutdown/Warning		STD		STD	

## 6. Power Output

	rpm	QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>Circuit Breaker</b>					
Brand		Schneider		Schneider	
Model		CVS630F		CVS630F	
Poles		4		4	
Rated current (In)	A	500-630		500-630	
Thermal release, regulated (It)	A	470		470	
CB tripping point	A	469,1	415,0	469,1	415,0
Overload protection (Ir)	A	3,5 x In		3,5 x In	
Fault current protection, residual current release (I <sub>dn</sub> )	A	0,03-30		0,03-30	
Motor Driven DC voltage	V	24		24	
Motorized		Standard with Qc4003		STD with Qc4003	
Life operating cycles without maintenance		15000		15000	
<b>Terminal Board</b>					
Bolts diameter	mm	15		15	
Terminal type		Platen		Platen	
<b>Sockets Available*</b>					
<b>Sockets 1 Phase</b>					
PIN Domestic (1x) 2p + E 16 A/230 V		OP		OP	
RIN Domestic (1x) 2p + E 16 A/230 V		OP		OP	
CE Domestic (1x) 2p + E 16 A/230 V		OP		OP	
<b>Sockets 3 Phase</b>					
		OP		OP	
Configuration Remarks**		CEE form 3p + N + PE 16 A/400 V CEE form 3p + N + PE 32 A/400 V CEE form 3p + N + PE 63 A/400 V CEE form 3p + N + PE 125 A/400 V		CEE form 3p + N + PE 16 A/400 V CEE form 3p + N + PE 32 A/400 V CEE form 3p + N + PE 63 A/400 V CEE form 3p + N + PE 125 A/400 V	

\*Sockets are enable for 50Hz and disable for 60Hz

\*\*For a different configuration/scope contact Atlas Copco support

STD – Standard; OP – Option; NA – Not Available





## 7. Options

		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
	rpm				
<b>Mechanical Options</b>					
<b>Special Equipment</b>					
<b>Spark arrestor</b>			OP		OP
Material			S235 JR G0		S235 JR G0
<b>Inlet shutdown valve</b>			OP		OP
Design pressure		bar	13,8		13,8
Max/Min Temperature		°C	-25 to 80		-25 to 80

Spark arrestor is a device that is designed to trap any exhaust particles or combustible materials, such as sparks or other flaming debris, from escaping into hazardous areas where they might cause fires. Exhaust particles are centrifuged in the spark arrestor, then collected and stored in a reservoir until emptied by an operator. An air shut-off valve serves to stop the engine by closing the air intake once the controller detects an over speed in the engine.

		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>Fuel System</b>					
<b>External fuel tank connection</b>			STD		STD
Material			Brass 0011 5204 03		Brass 0011 5204 03
Test pressure		bar	1		1
Overpressure		bar	2		2
Open pressure		bar	1±0,1		1±0,1
Max/Min Temperature		°C	-30 to +80		-30 to +80
<b>External fuel tank connection with quick coupling</b>			OP		OP

The EFT enable the generator to run for long periods of time on an external fuel supply without having to refuel. We can also provide quick couplings to enable easy and fast connection to the fuel tank

		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
<b>AFT Automatic fuel transfer</b>			NA		NA
<b>Additional fuel filter</b>			OP		OP
Design pressure		bar	1,2		1,2
Test pressure		bar	1,8		1,8
Volume		l	2,6		2,6
Max/Min Temperature		°C	-40 to 121		-40 to 121
Max flow rate		g/h	90		90
<b>Skid fuel tank (long autonomy)</b>			OP		OP
Capacity		l	1775		1775
Material			Metal		Metal
<b>Fuel level sender</b> (*Changes automatically for different fuel tank)			STD		STD
<b>Oil level maintainer</b>			NA		NA
Capacity of oil tank			-		-
<b>Cold start synthetic first oil filling</b>			STD		STD
Type			PAROIL Extra		PAROIL Extra
Temperature (min / max)		°C	-15 to 40°C		-15 to 40°C
Density (Ambient temperature)		g / cc	0,86 (15°C)		0,86 (15°C)
<b>Cold flow</b>			Antifreeze fuel additives in 0,2% composition		



		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
	rpm	1500	1800	1500	1800

### Mechanical Options

<b>Undercarriage option</b>					
<b>Undercarriage adjustable towbar with brakes</b>			NA		NA
Number of axles					
Permissible mass on each axle	kg				
Maximum speed	km/h				
Dimensions (L x W x H)	mm				
<b>Brake connections</b>					
Wheel	r				
<b>Loose ball coupling</b>			NA		NA
<b>Adapter 24V road signalization</b>			NA		NA
<b>Towing eye</b>					
Towing eye DIN			NA		NA
Towing eye NATO			NA		NA
Towing eye BALL coupling			NA		NA
Towing eye ITA			NA		NA
Towing eye AFR			NA		NA

Depending on the size, units have a two-wheeled, single axle trailer, or a double axel with 4 wheels. Both types of trailer have an adjustable towbar and road signalization.

<b>Special options</b>					
Special color undercarriage			NA		NA
Special color wheels			NA		NA
Special color canopy			OP		OP
Special color frame			OP		OP
<b>Witness test</b>			OP		OP

Guided and face to face testing of the machine. Including Transient test and Heat Run Test.

### Electrical Options

		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
<b>Coolant Heater</b>					
<b>Electric driven coolant heater</b>			OP		OP
Voltage	V		240		240
Power	kW		2		2
Current	A		8,3		8,3
Thermostat Range	°C		38 / 49		38 / 49
<b>Fuel driven coolant heater</b>			NA		NA
Electrical power	W				
Rated voltage	V				
Operating pressure	bar				
Flow rate at 0,1 bar	l/h				

Its main mission is heat the coolant so that the temperature of the engine is always high enough to start straight away, even in temperatures as low as minus 25 degrees Celsius. Not for all models but a fuel powered version is available, which is ideal for remote areas without mains supply.

<b>Frequency and Voltage configuration</b>						
Frequency/Voltage/Phases		50 Hz / 400V / 3ph		NA		NA
Dual frequency switch		50Hz-60Hz		STD		STD
<b>*If the unit is dual frequency, DV and MV versions are NA</b>						
Dedicated frequency		50 Hz	230V	1ph		NA
Dual voltage		50 Hz	400 V	3ph - 230V	3ph (Norway)	NA
Dual voltage		50 Hz	400	3ph - 230V	1ph	NA



		QAS 325 Vod Stage 3A		QAS 325 Vod Stage 2	
		1500	1800	1500	1800
		rpm			
<b>Electrical Options</b>					
<b>Battery</b>					
<b>Battery charger*</b>		OP		OP	
Temperature	°C	-20 to 70		-20 to 70	
Input frequency	Hz	47.....63		47.....63	
Output voltage	V	24		24	
Output current	A	10		10	
Output power	W	240		240	
Dimensions (L x W x H)	mm	205 x 123 x 86		205 x 123 x 86	
<i>Recommendable with Qc2103 and Qc4003</i>					
<b>Battery cut off switch</b>		OP		OP	
Operations	V / A	24 / 1500		24 / 1500	

Battery charger is necessary for stand-by applications because the controller is always on, ready to start at any time. Battery cut off switch allows the battery to be disconnected when storing the unit, thus preventing the battery from becoming drained.

		STD	STD
<b>Electronic speed regulator (Governor)</b>			
Model		Engine Management System (EMS 2)	Engine Management System (EMS 2)
Connection to engine		CAN SAE J1939	CAN SAE J1939
Sensors/Switch	°C and kPa	Lubrication, cooling and fuel system	Lubrication, cooling and fuel system

<b>Earth Protection</b>			
Neutral TNS		STD	STD
Neutral EDF (TT)		OP	OP
Neutral IT		NA	NA
Earth leakage detection Relay (ELR)		STD	STD
	mA	30	30
Insulation Monitoring Relay		OP	OP
Earth PIN		STD	STD
Length	mm	950	950

<b>Alternator excitation system</b>					
<b>Permanent magnet (PMG)</b>					
AVR		OP		OP	
		R 450 M		R 450 M	
Sustained short-circuit current	%	300% (3x In)		300% (3x In)	
Time sustained short-circuit current	s	10		10	
Operating temperature	°C	-20°C to +70°C		-20°C to +70°C	
No load voltage	V	125	150	125	150
Stator Phase/Phase resistance (20°C)	Ω	2,1		2,1	
<b>Auxiliary winding</b>					
AVR		NA		NA	
Sustained short-circuit current	%				
Time sustained short-circuit current	s				

The PMG or Permanent Magnet Generator is a separate device to power the AVR and is ideal for motor starting and distorted loads as provides the generator 3 times its nominal current during 10 seconds. Auxiliary winding system is an extra winding layer in the alternator that provides same benefits than the PMG.

<b>Controllers</b>			
Qc1103		STD	STD
Qc2103		OP	OP
Qc4003*		OP	OP

\*with Qc4003+ PMS Atlas Copco recommends: Battery charger + Coolant heater

\*Just 1 ph socket available

\*Qc4003 includes always communication cables and needed adaptors

Qc1103: is the controller dedicated for island operation or remote start

Qc2103: has in addition the possibility of detect a mains failure

Qc4003: is the high spec controller prepared to work synchronized with several units (IPP) and/or the mains



## CONTROLLERS KEY FEATURES QC 1103 & 2103 CONTROLLERS

**Auto start or automatic mains failure applications**

**Monitoring of electronic or non-electronic engines**  
J1939 as standard

**Gen-set and busbar control & protection**

**Improved inputs/outputs**  
Up to 11 digital inputs, 5 analogue inputs and 8 relay outputs

**Modbus communication rs485**

**Configurable for other applications**  
PARUS configurable

**Graphical display**  
Multi-language



## CONTROLLERS KEY FEATURES QC 4003 CONTROLLER

**Controllers key features Qc 4003**

**Paralleling between generators and mains power supply**

**Full engine monitoring**  
CAN communication J1939

**Gen-set and busbar control & protection**

**Multiple configurable inputs/outputs**

**Modbus communication RTU/RS485**

**Easy software with m-logic programation**  
PARUS 3

**PARALLELING APPLICATIONS**  
Load Take Over, Mains Export/Import, AMF, Peak Shaving, Transformer Maintenance, Fix power and PMS (CAN)

