

**Compressors QAS 500/600 VOD
AML: Principal Data**

		Dual frequency		QAS 600	Note
Reference conditions ^{1) 4)}					
1. Rated frequency	Hz	50	60	60	
2. Rated speed	rpm	1500	1800	1800	
3. Generator service duty		PRP	PRP	PRP	
4. Absolute inlet pressure	kPa	100	100	100	
5. Relative air humidity	%	30	30	30	
6. Air inlet temperature	°C	25	25	25	
Limitations ²⁾					
1. Maximum ambient temperature	°C	50	50	50	
2. Altitude capability	m	4000	4000	4000	
3. Relative air humidity maximum	%	85	85	85	
4. Minimum starting temperature unaided.....	°C	-15	-15	-15	
5. Minimum starting temperature with coolant heater..	°C	-25	-25	-25	(c)
Performance data ^{2) 3) 4) 5)}					
1. Rated active power (PRP) 3ph.	kW	400	457	457	
2. Rated power factor (lagging) 3ph.		0.8	0.8	0.8	
3. Rated apparent power (PRP) 3ph.	kVA	500	571	571	
Rated apparent power (PRP) 3ph. lower voltage ...	kVA	500	-	571	(c)
4. Rated voltage √ line to line voltage	V	400	480	480	
Rated voltage √ line to line lower voltage.....	V	230	-	240	(c)
5. Rated current 3ph.	A	722	687	687	
Rated current 3ph. lower voltage	A	1255	-	1374	(c)
6. Performance class (acc. ISO 8528-5:1993)		G2	G2	G2	
Single step load acceptance (0-PRP)	%	62%	72%	72%	
	kW	248	329	329	
7. Frequency droop	%	<5	<5	<5	
		isochronous	isochronous	isochronous	
8. Fuel consumption at 0% load.....	kg/h	8.9	13.2	13.2	
Fuel consumption at 50% load.....	kg/h	42.8	53.2	53.2	
Fuel consumption at 75% load.....	kg/h	62.6	73.7	73.7	
Fuel consumption at full load (100%).....	kg/h	82.8	100.4	100.4	
9. Specific fuel consumption at full load (100%).....	kg/kWh	0.207	0.219	0.219	
10. Fuel autonomy at full load with standard tank	h	9.4	7.8	7.8	
11. Max. oil consumption at full load	l/h	0.10	0.11	0.11	
12. Maximum sound power level (LWA) measured according to 2000/14/EC OND (measured @ 75% PRP load)	dB(A)	99	100	-	
Maximum sound pressure level (LPA) measured according to Atlas Copco spec. 9822087700	dB(A)	-	-	77	
13. Useful capacity of fuel tank	l	905	905	905	
14. Single step load capability (0-PRP)	%	100	100	100	
	kW	400	457	457	
Application data					
1. Mode of operation		PRP	PRP	PRP	Note
2. Site		land use	land use	land use	
3. Operation		single/parallel	single/parallel	single/parallel	
4. Start-up and control mode		manual/auto	manual/auto	manual/auto	
5. Start-up time		unspecified	unspecified	unspecified	
6. Mobility/ Config. acc. to ISO 8528-1:1993.....		transportable/D	transportable/D	transportable/D	
7. Mounting		fully resilient	fully resilient	fully resilient	
8. Climatic exposure		open air	open air	open air	
9. Status of neutral		earthed	earthed	earthed	

Design data

Alternator

1. Standard	IEC 34-1	IEC 34-1	IEC 34-1
	ISO 8528-3	ISO 8528-3	ISO 8528-3
2. Make	Leroy Somer	Leroy Somer	Leroy Somer
3. Model	LSA 47.2 M7	LSA 47.2 M7	LSA 47.2 M7
4. Rated output, class H temp. rise	500	625	625
rating type acc. ISO 8528-3.....	"BR" 125/40°C	"BR" 125/40°C	"BR" 125/40°C
5. Degree of protection	IP 23	IP 23	IP 23
6. Insulation - stator	class H	class H	class H
- rotor	class H	class H	class H
7. Number of wires	12	12	12

Engine

1. Standard	ISO 3046	ISO 3046	ISO 3046
	ISO 8528-2	ISO 8528-2	ISO 8528-2
2. Make	Volvo	Volvo	Volvo
3. Model	TAD1641 GE	TAD1641 GE	TAD1641 GE
4. Rated net output (with fan).....	430	485	485
rating type acc. ISO 3046-7	ICXN	ICXN	ICXN
5. Coolant	coolant	coolant	coolant
6. Combustion system	direct injection	direct injection	direct injection
7. Aspiration	turbocharged intercooled	turbocharged intercooled	turbocharged intercooled
8. Number of cylinders	6	6	6
9. Swept volume	16.12	16.12	16.12
10. Speed governing	electronic EMS 2	electronic EMS 2	electronic EMS 2
11. Capacity of oil sump	42	42	42
12. Capacity of cooling system	60	60	60
13. Electrical system	Vdc 24	24	24
13. Emission compliance	EU STAGE II	EU STAGE II	US TIER II

Power circuit

Circuit-breaker, 3ph.

1. Number of poles	4	4	3	
2. Thermal release.....	lt..... A 720	720	690	(b)
3. Magnetic release.....	Im..... A 4 x In	4 x In	8 x In	

Circuit-breaker, 3ph., lower voltage

1. Number of poles	3	-	3	(c)
2. Thermal release.....	lt..... A 1250	-	1375	(b)
3. Magnetic release.....	Im..... A 4 x In	-	4 x In	

Fault current protection

1. Residual current release.....	IDn..... A 0,03-30	0,03-30	0,03-30	
2. Insulation resistance	kOhm 10-100	10-100	-	(a)

Outlet sockets

domestic (1x) 2P+E 16A 230V	GFCI duplex (2x) 2p+E 20A 125V	
CEE form (1x) 3P+N+PE 16A 400V	Temp Power (3x) 2p+N+E 50A 125/250V	
CEE form (1x) 3P+N+PE 32A 400V	Camlocks (4x) 3P+N+PE 400A 240V/480V	(a)
CEE form (1x) 3P+N+PE 63A 400V		
CEE form (1x) 3P+N+PE 125A 400V		

Note

(c)

Notes

- 1) Reference conditions for engine performance to ISO 3046-1
- 2) See derating diagram or consult the factory for other conditions
- 3) At reference conditions unless otherwise stated
- 4) Rating Definition (ISO 8528-1):
 - LTP Limited Time Power is the maximum electrical power which a generating set is capable of delivering (at variable load), in the event of a
 - PRP Prime Power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per
- 5) Specific mass fuel used: 0.86 kg/l

- (a) optional equipment
- (b) thermal release is higher at 25°C
- (c) optional equipment on QAS500, standard equipment on QAS600

Derating Table (in %, 100% is declared power in "Performance Data")
50 Hz

derating factor %		temperature (°C)										
		0	5	10	15	20	25	30	35	40	45	50
height (m)	0	100	100	100	100	100	100	100	100	100	90	80
	500	100	100	100	100	100	100	100	100	100	90	80
	1000	100	100	100	100	100	100	100	100	100	90	80
	1500	100	100	100	100	100	100	100	95	95	90	80
	2000	95	95	95	95	95	95	95	95	90	90	80
	2500	90	90	90	90	90	90	90	85	85	80	80
	3000	85	85	85	85	85	85	85	85	85	80	80
	3500	65	65	65	65	65	65	65	65	65	65	65
	4000	50	50	50	50	50	50	50	50	50	50	50

60 Hz

derating factor %		temperature (°C)										
		0	5	10	15	20	25	30	35	40	45	50
height (m)	0	100	100	100	100	100	100	100	100	95	85	75
	500	100	100	100	100	100	100	100	100	95	85	75
	1000	100	100	100	100	100	100	100	100	95	85	75
	1500	100	100	100	100	100	100	100	95	95	85	75
	2000	95	95	95	95	95	95	95	95	90	85	75
	2500	90	90	90	90	90	90	90	85	85	80	75
	3000	85	85	85	85	85	85	85	85	85	80	75
	3500	65	65	65	65	65	65	65	65	65	65	65
	4000	50	50	50	50	50	50	50	50	50	50	50

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