

Generators QAS 80 PD

AML: Principal Data

	STD units	STD units	Note
Reference conditions ^{1) 4)}			
1. Rated frequency	50	60	
2. Rated speed	1500	1800	(a)
3. Generator service duty	PRP	PRP	
4. Absolute inlet pressure	100	100	
5. Relative air humidity	30	30	
6. Air inlet temperature	25	25	
Limitations ²⁾			
1. Maximum ambient temperature	50	50	
2. Altitude capability	4000	4000	
3. Relative air humidity maximum	85	85	
4. Minimum starting temperature unaided	-18	-18	
5. Minimum starting temperature aided	-25	-25	(a)
Performance data ^{2) 3) 5)}			
1. Rated active power (PRP) 3ph	64.0	72.8	
Rated active power (PRP) 1ph	56.5	62.5	(a)
2. Rated power factor (lagging) 3phase	0.80	0.80	
Rated power factor (lagging) 1phase	1.00	1.00	(a)
3. Rated PRP power 3ph	80.0	91.0	
Rated PRP power 1ph	56.5	62.5	(a)
4. Rated voltage line to line	400	480	
Rated voltage line to line lower voltage	230	240	
Rated voltage 1ph	230	240	(a)
5. Rated current 3ph	115.5	109.5	
Rated current 3ph lower voltage	200.8	218.9	
Rated current 1ph	245.7	260.4	(a)
6. Performance class (acc. ISO 8528-5:1993)	G2	G2	
Single step load acceptance (0-PRP)	90	100	
7. Frequency droop	<5	<5	(a)
	isochronous	isochronous	
8. Fuel consumption at no load (0%)	2.2	3.0	
Fuel consumption at 50% load	7.9	9.7	
Fuel consumption at 75% load	10.9	13.6	
Fuel consumption at full load (100%)	14.5	16.8	
9. Specific fuel consumption (at full load, 100%)	0.225	0.232	
10. Fuel autonomy at full load with standard tank	13.7	11.7	
11. Fuel autonomy at full load with standard tank and optional skid fueltank	32.4	27.8	(a)
12. Max. oil consumption at full load	21.9	25.7	
13. Maximum sound power level (LWA) measured according to 2000/14/EC OND	92	95	
14. Capacity of fuel tank	230	230	
15. Capacity of optional skid fuel tank	545	545	(a)
16. Single step load acceptance	100	100	
Application data			
1. Mode of operation	PRP	PRP	
2. Site	land use	land use	
3. Operation	single	single	
4. Start-up and control mode	manual/automatic	manual/auto.	
5. Start-up time	unspecified	unspecified	
6. Mobility/ Config. acc. to ISO 8528-1:1993	transportable/D	transportable/D	
	mobile/E	mobile/E	(a)
7. Mounting	fully resilient	fully resilient	
8. Climatic exposure	open air	open air	
9. Degree of protection (cubicle)	IP 54	IP 54	
10. Status of neutral (TT or TN)	earthed	earthed	
Status of neutral (IT)	insulated	-	(a)

Design data ⁴⁾

Alternator

1. Standard		IEC 34-1	IEC 34-1
		ISO 8528-3	ISO 8528-3
2. Make		STAMFORD	STAMFORD
3. Model		UCI224-G1	UCI224-G1
4. Rated output, class H temp. rise	kVA	85.0	103.8
rating type acc. ISO 8528-3		BR	BR
5. Degree of protection	IP	23	23
6. Insulation - stator	class	H	H
- rotor	class	H	H
7. Number of wires		12	12

Engine

1. Standard		ISO 3046	ISO 3046	
		ISO 8528-2	ISO 8528-2	
2. Make		PERKINS	PERKINS	
3. Model		1104C-44TAG1	1104C-44TAG1	
4. Rated net output	kW	71.0	80.0	
rating type acc. ISO 3046-7		ICXN	ICXN	
production tolerance	%	±5	±5	
5. Coolant		water	water	
6. Combustion system		direct injection	direct injection	
7. Aspiration		Turbo-charged	Turbo-charged	
		Intercooled	Intercooled	
8. Number of cylinders		4	4	
9. Swept volume	l	4.410	4.410	
10. Speed governing		mechanical	mechanical	
		electronic	electronic	(a)
11. Capacity of oil sump	l	8.5	8.5	
12. Capacity of cooling system	l	12.6	12.6	
13. Electrical system	Vdc	12	12	

Power circuit

Circuit-breaker, 3ph.

1. Number of poles		4	4	
2. Thermal release.....	lt..... A	125	125	(b)
3. Magnetic release.....	Im..... A	3..5xIn	3..5xIn	

Circuit-breaker, 3ph. lower voltage

1. Number of poles		3	4	(a)
2. Thermal release.....	lt..... A	200	225	(b)
3. Magnetic release.....	Im..... A	3..5xIn	3..5xIn	

Circuit-breaker, 1ph.

1. Number of poles		3	4	(a)
2. Thermal release.....	lt..... A	250	250	(b)
3. Magnetic release.....	Im..... A	3..5xIn	3..5xIn	

Fault current protection

1. Residual current release.. IDn.....	A	0.030-30	0.030-30	
2. Insulation resistance	kOhm	10-100	-	(a)

Outlet sockets

following three socket configuration is possible		i) domestic	(a)
		2P+PE	
		16A 230V	
1. i + ii + iii + iv			
		ii) CEE form	
		3P+N+PE	
		16A 400V	
2. i + ii + iii + iv (2x)			
		iii) CEE form	
		3P+N+PE	
		32A 400V	
3. i + ii + iii + iv + v			
		iv) CEE form	
		3P+N+PE	
		63A 400V	
		v) CEE form	
		3P+N+PE	
		125A 400V	

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 utility power failure (for up to 500 hours per year of which a maximum of 300 hours is continuous running). No overload is permitted on these ratings. The alternator is peak continuous rated (as defined in ISO8528-3) at 25°C.

PRP Prime Power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals and under the stated ambient conditions. A 10% overload is permitted for 1 hour in 12 hours. The permissible average power output during a 24h period shall not exceed the stated load factor of 80%.

- 5) Specific mass fuel used: 0.86 kg/l
- (a) optional equipment
- (b) thermal release is higher at 25°C

DERATING FACTOR QAS80 (%)

<i>Derating Factor %</i>		<i>temperature (°C)</i>										
		0	5	10	15	20	25	30	35	40	45	50
<i>height (m)</i>	0	100	100	100	100	100	100	99	98	97	86	76
	500	100	100	100	100	100	100	99	98	97	86	76
	1000	100	100	100	100	100	99	98	97	96	85	75
	1500	100	100	100	100	99	98	96	96	95	85	74
	2000	99	99	99	98	97	96	95	94	93	83	74
	2500	92	92	92	92	92	92	92	92	92	81	69
	3000	92	92	92	92	92	92	91	90	89	79	69
	3500	86	86	86	86	86	86	86	86	86	75	65
	4000	86	86	86	86	86	86	85	84	83	74	65

For use of generator outside these conditions, please contact Atlas Copco

