

**Generators QAS 250
AML: Principal Data**

A Reference conditions^{1) 4)}

QAS250 (50/60Hz)

1. Rated speed	(rpm)	
136 Rated frequency	50 Hz	1500
136 Rated frequency	60 Hz	1800
2. Generator service duty		PRP
3. Absolute inlet pressure	(bar(a))	1
4. Relative humidity	%	30
5. Air inlet temperature	(°C)	25

B Limitations²⁾

1. Maximum ambient temperature	°C	50
2. Altitude capability	m	4000
3. Relative air humidity maximum	%	85
4. Minimum starting temperature	°C	-15
5. Minimum starting temperature, with coldstart equipment ⁷⁾	°C	-25

C Performance data^{2) 3) 4) 5)}

1. Rated active power (PRP) 3ph.	kW	
136 Rated frequency	50 Hz	200
136 Rated frequency	60 Hz	200
2. Rated power factor (lagging) 3phase.....		0.8
3. Rated apparent power (PRP) 3ph	kVA	
136 Rated frequency	50 Hz	250
136 Rated frequency	60 Hz	250
4. Rated voltage 3ph. line to line	V	
136 Rated frequency	50 Hz	400
136 Rated frequency	60 Hz	480
5. Rated current 3ph.	A	
136 Rated frequency	50 Hz	360.8
136 Rated frequency	60 Hz	305.6
6. Performance class (acc. ISO 8528-5:1993)		G2
7. Single step load acceptance	%	
136 Rated frequency	50 Hz	57
136 Rated frequency	60 Hz	75
8. Single step load acceptance	kW	
136 Rated frequency	50 Hz	114
136 Rated frequency	60 Hz	150
9. Frequency droop (lower than % /isochronous).....		isochronous
10. Fuel Consumption at 0% Load	kg/h	
136 Rated frequency	50 Hz	3.7
136 Rated frequency	60 Hz	5.2
11. Fuel Consumption at 50% Load	kg/h	
136 Rated frequency	50 Hz	25.8
136 Rated frequency	60 Hz	27.1
12. Fuel Consumption at 75% Load	kg/h	
136 Rated frequency	50 Hz	34.8
136 Rated frequency	60 Hz	37.9
13. Fuel Consumption at 100% Load	kg/h	
136 Rated frequency	50 Hz	44.2
136 Rated frequency	60 Hz	48.2
14. Specific fuel consumption	kg/kWh	
136 Rated frequency	50 Hz	0.219
136 Rated frequency	60 Hz	0.233
15. Fuel autonomy at full load with standard tank	h	
136 Rated frequency	50 Hz	8
136 Rated frequency	60 Hz	7
16. Fuel autonomy at full load with optional skid fueltank ⁷⁾	h	
136 Rated frequency	50 Hz	26
136 Rated frequency	60 Hz	24

17	Maximum oil consumption at full load	l/h	
136	Rated frequency	50 Hz	0.05
136	Rated frequency	60 Hz	0.05
18	Maximum sound power level (Lw) complies with 2000/14/EC (dB(A))		
136	Rated frequency	50 Hz	97
136	Rated frequency	60 Hz	99
19	Capacity of standard fuel tank	l	413
20	Capacity of optional skid fuel tank ⁷⁾	l	1380
21	Single step load capability	%	
136	Rated frequency	50 Hz	100
136	Rated frequency	60 Hz	100
22	Single step load capability	kW	
136	Rated frequency	50 Hz	200
136	Rated frequency	60 Hz	200

E Application data

1	Mode of operation	PRP
2	Site	land use
3	Operation	single/parallel
4	Start-up and control mode	manual/auto
5	Start-up time	unspecified
6	Mobility/Config acc.ISO 8528-1:1993(transportable)	D
7	Mounting	fully resilient
8	Climatic exposure	open air
9	Status of neutral (TT or TN)	earthed
10	Status of neutral (IT) ⁷⁾	Insulated

G Design data Engine

1.	Standard	ISO 3046/ISO 8528-2	
2.	Make	Volvo	
3.	Model	TAD754 GE	
4.	Rated net output	kW	
136	Rated frequency	50 Hz	217
136	Rated frequency	60 Hz	219
5	Rating type (acc. ISO3046-7)	ICXN	
6	Coolant	coolant	
7	Combustion system	direct injection	
8	Aspiration.....	turbocharged	
9	Charged air cooling system.....	intercooled	
10	Number of cylinders	6	
11	Swept volume	(l)	7.15
12	Speed governing	(l)	electronic
13	Governor type.....	(l)	EMS2
14	Capacity of oil sump : - Initial fill	(l)	34
15	Capacity of cooling system	(l)	34
16	Electrical system	(l)	24
17	Emission compliance	(l)	EU STAGE III
18	Maximum permissible load factor of PRP during 24h period ⁴⁾ %		70

I Design data Alternator

1.	Standard	IEC 34-1/ISO 8528-3	
2.	Make	LEROY SOMER	
3.	Model	LSA 46.2 L6	
4.	Rated output, class H temp. rise	kVA	
136	Rated frequency	50 Hz	250
136	Rated frequency	60 Hz	300
5	Rating type (acc. ISO 8528-3)	"BR" 125/40°C	
6	Degree of protection (IP index acc. NF EN 60-529		23
7	Insulation class - stator		H
8	Insulation class - rotor.....		H
9	Number of wires.....		12

K Electrical Power circuit

1	Circuit-breaker 3ph: Number of poles..	4
2	Circuit-breaker 3ph: Thermal release (It) (A)	400
3	Circuit-breaker 3ph: Magnetic release.. (Im)	3,5 x In
4	Fault current protection, residual current release, Idn.. (A)	0,03-30

R REJECTION LIMITS

O REMARKS

- 1 A Reference conditions for engine performance to ISO 3046-1
- 2 B;C See derating diagram in the graph section or consult the factory for other conditions
- 3 C At reference conditions unless otherwise stated.
- 4 A;C;G25 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 as indicated on the AML.
- 5 C Specific mass fuel used: 0.86 kg/l
- 6 K24;K27 Thermal release is higher at 25°C.

- 7 B115;C20
2;C205;E1
1;E12;K14 Optional equipment

P Graph

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