



Atlas Copco



ATLAS COPCO Generators

Benchmarking

2020 V1
Angel Nieto

QAS GENERATOR RANGE

a true full line of generators

Q1 2021

QAS 25	QAS 45	QAS 70	QAS 95	QAS 125	QAS 150	QAS 200	QAS 250	QAS 330	QAS 625	QAC 1500 Twin Power	
											
25 kVA	45 kVA	70 kVA	95 kVA	125 kVA	150 kVA	200 kVA	250 kVA	330 kVA	625 kVA	1450 kVA	
ISUZU			JOHN DEERE							VOLVO	

Competition benchmark

STRENGTH

WEAKNESS

QAS 25						
	Atlas Copco	Magnum	MQ	Wacker	Doosan	TecnoGen
Model	QAS 25	MMG25i	DCA25SSIU4F	G25	G25WDO-3A-T4F	KL30TSX
Alternator	Leroy Somer	Marathon	Denyo	Mecc Alte	Marelli Motori	Leroy Somer
Excitation	AREP	Shunt	Open Delta/Brushless AVR	MAUX	Brushless/AVR	?
Published Prime kVA/KW 3Ø	25/20	26/21	25/20	24/19.5	25/20	25/20
Engine Make	Isuzu	Isuzu	Isuzu	Isuzu	Doosan	Kohler
Engine Model	4LE2T	4LE2T	4LE2T	4LE2T	D18	KDI1903TCR
Fuel tank - Gal	72.5	100	41.7	58.4	47	47
Autonomy – hours at full load	46	43	23	28.2	25.9	37.9 (75% load)
Dimensions L x W x H inches (trailer)	122 x 57 x 76	152 x 58 x 83	148 x 65.25 x 72.3	133 x 60 x 69	131 x 73 x 77	78 x 39 x 54 (skid)
Weight pounds (trailer) - lbs	2635 *	3680	4032	2843	3140	2366 (skid)
Number of Axles	1	1	1&2	1	1	1
Controller	DeepSea 4510	Magnum	ECU750	Basler or DeepSea	DynaGen TG410	DeepSea 7310
Sound level (dBA)@ 7m 75% load	67.2	-	-	-	-	-
Sound level (dBA)@ 7m 100% load	67.5	66	66	65	63	68

• AC Max Ambient temperature is 122°F, MQ Max. ambient temperature is 104°F

• < 3000 lbs, no brakes required less maintenance

• 500 hrs Service interval AC, MQ 250 hrs only

Atlas Copco

Competition benchmark

STRENGTH

WEAKNESS

QAS 45						
	Atlas Copco	Magnum	MQ	Wacker	Doosan	TecnoGen
Model	QAS 45	MMG45IF4	DCA45SSIU4F	G50	G50WDO-3A-T4F	KL50TSX
Alternator	Leroy Somer	Marathon	Denyo	Mecc Alte	Marelli Motori	Leroy Somer
Excitation	AREP	Shunt	Open Delta/Brushless AVR	MAUX	Brushless/AVR	?
Published Prime kVA/KW 3Ø	45/36	45/36	45/36	48/38		49/39
Engine Make	Isuzu	Isuzu	Isuzu	Isuzu	Doosan	Kohler
Engine Model	4LE2X	4LE2XAGV01	4LE2X	4LE2T	D24	KDI2504TCR
Fuel tank - Gal	72.5	100	79.2	84	110	49
Autonomy – hours at full load	30	27	27	24.3	36.7	24.4 (75% load)
Dimensions L x W x H inches (trailer)	122 x 57 x 76	152 x 58 x 83	148 x 65.25 x 72.3	160 x 67.5 x 80	131 x 73 x 78	91 x 46 x 67 (skid)
Weight pounds (trailer) - lbs	2785 *	4100	4032	4268	3870	3421 (skid)
Number of Axles	1	1	2	1	1	2
Controller	DeepSea 4510	Magnum	ECU750	DeepSea	DynaGen TG410	DeepSea 7310
Sound level (dBA)@ 7m 75% load	67.2	-	-	-	-	-
Sound level (dBA)@ 7m 100% load	67.5	65@prime power?	66	67.7	64	69

• AC Max Ambient temperature is 122°F, MQ Max. ambient temperature is 104°F

- < 3000 lbs, no brakes required less maintenance
- 500 hrs Service Interval AC, MQ 250 hrs only

Atlas Copco

Competition benchmark

STRENGTH

WEAKNESS

QAS 70						
	Atlas Copco	Magnum	MQ	Wacker	Doosan	TecnoGen
Model	QAS 70	MMG75D	DCA70SSIU4F	G70	G70WDO-3A-T4F	KL75TSX
Alternator	Leroy Somer	Marathon	Denyo	Mecc Alte	Marelli Motori	Leroy Somer
Excitation	AREP	Brushless	Open Delta/Brushless AVR	MAUX	Brushless/AVR	?
Published Prime kVA/KW 3Ø	70/56	75/60	70/56	72/58	70/56	77/62
Engine Make	Isuzu	John Deere	Isuzu	Cummins	Doosan	Kohler
Engine Model	4JJ1X	4045HFG04_B	4JJ1X	QSB5-G10	D34	KDI3404TCR
Fuel tank - Gal	110	165	103	112		92
Autonomy – hours at full load	27.8	34	23.4	25.2		28 (75% load)
Dimensions L x W x H inches (trailer)	137 x 57 x 76	170 x 69 x 80	169 x 73 x 24 (?)	160 x 67 x 85	164 x 71 x 93	100 x 46 x 70 (skid)
Weight pounds (trailer) - lbs	3690	5490	5300	5390	5550	4146 (skid)
Number of Axles	1	1	2	1	2	2
Controller	DeepSea 4510	Power Zone	ECU835	Wacker	DynaGen TG410	DeepSea 7310
Sound level (dBA)@ 7m 75% load	67.3	-	65	-	-	-
Sound level (dBA)@ 7m 100% load	67.1	74	66	68	64	69

- AC Max Ambient temperature is 122°F, MQ Max. ambient temperature is 104°F
- 500 hrs Service Interval AC, MQ 250 hrs only

Competition benchmark

STRENGTH

WEAKNESS

QAS 95			?		?	?
	Atlas Copco	Magnum	MQ	Wacker	Doosan	TecnoGen
Model	QAS 95	MDG100DF4	No offering in the 100 kVA Range	G100	No offering in the 100 kVA Range	No offering in the 100 kVA Range
Alternator	Leroy Somer	Marathon	-	Mecc Alte	-	-
Excitation	AREP	Brushless	-	Brushless/AVR	-	-
Published Prime kVA/KW 3Ø	95/76	100/80	-	100/80	-	-
Engine Make	John Deere	John Deere	-	Cummins	-	-
Engine Model	4045	4045HFG04A	-	QSB5-G11	-	-
Fuel tank - Gal	166	165	-	187.6	-	-
Autonomy – hours at full load	31.5	27.5	-	32.3	-	-
Dimensions L x W x H inches (trailer)	162 x 56 x 86	170 x 69 x 80	-	176 x 80 x 92	-	-
Weight pounds (trailer) - lbs	6180	5640	-	7611	-	-
Number of Axles	2	1	-	2	-	-
Controller	DeepSea 7310	Power Zone	-	Basler	-	-
Sound level (dBA)@ 7m 75% load	73	-	-	-	-	-
Sound level (dBA)@ 7m 100% load	73	74	-	69.4	-	-

- AC Max Ambient temperature is 122°F, MQ Max. ambient temperature is 104°F
- 500 hrs Service interval AC, MQ 250 hrs only



Competition benchmark

STRENGTH

WEAKNESS

QAS 125		?				
	Atlas Copco	Magnum	MQ	Wacker	Doosan	TecnoGen
Model	QAS 125	No offering in the 125 kVA Range	DCA125SSIU4F	G130	G125WCU-3A-T4F	FP130TSX
Alternator	Leroy Somer	-	Denyo	Mecc Alte	Marelli Motori	Leroy Somer
Excitation	AREP	-	Open Delta/Brushless AVR	Brushless/AVR	Brushless/AVR	?
Published Prime kVA/KW 3Ø	125/100	-	125/100	130/104	125/100	127/102
Engine Make	John Deere	-	Isuzu	Cummins	Cummins	FPT
Engine Model	4045	-	BR-4HK1X	-	QSB5-G11	NEF45
Fuel tank - Gal	170	-	169	188	172	80
Autonomy – hours at full load	24.3	-	23.7	24.6	24.2	14.7 (75% load)
Dimensions L x W x H inches (trailer)	162 x 56 x 86	-	181 x 79 x 88	176 x 80 x 92	170 x 71 x 95	116 x 43 x 79 (skid)
Weight pounds (trailer) - lbs	6485	-	8424	7756	6990	7710 (skid)
Number of Axles	2	-	2	2	2	2
Controller	DeepSea 7310	-	ECU835	Basler	DynaGen TG410	DeepSea 7310
Sound level (dBA)@ 7m 75% load	72	-	-	-		-
Sound level (dBA)@ 7m 100% load	-	-	66	69.6	68	70

Benchmarking

QAS 150					
	Atlas Copco	MQ	GENERAC	DOOSAN	WACKER
Model	QAS150	DCA150	MDG150	G150WCU	G150
Published Prime kVA/KW 3Ø	150/ 120	150/ 120	150/ 120	154/ 123	151/ 121
Engine Make	John Deere	John Deere	John Deere	Cummins	Cummins
Engine Model	6068HFG05	6068HFG05	6068HFG05	QSB5-G12	QSB5-G12
50/60Hz Switchable	Yes	Yes	No	Yes	No
Max Ambient temperature(F)	120	104 F	120 F	NA	NA
Fuel tank(gal)	335	319	343	176	188
DEF tank(gal)	25	29.7	28.5	24.4	8
Fuel Autonomy @100%/ @75% load	37/ 44	36/ 44	39/ 48	20/-	20/ 27
Alternator	LEROY SOMER	DENYO	MARATHON	LEROY SOMER	MECCALTE
Excitation	AREP	Open Delta	Shunt	NA	Aux Winding
Voltage Switch	Yes	Yes	Yes	Yes	Yes
Single Phase Voltage position	Yes	Yes	Yes	Yes	Yes
Controller	DSE7310	ECU845	DSE7310	TG410	NA
Fluid Containment	Yes	Yes	Option	Yes	Yes
Sound Level @23ft	70	66	75	69	73
Dimensions L x W x H inches (trailer)	203 x 87 x 98	212 x 89 x 105	208 x 86 x 104	171 x 72.5 x 91	176 x 80 x 92
Weight trailer mounted (lb)	10,787	10761	11040	7040	7770
Same box size as	150-200	150-180-200	150-175-250	150	100-130-150
Price level: Competitor vs QAS/CPG		\$	\$	\$	\$

Benchmarking

QAS200					
	Atlas Copco	MQ	GENERAC	DOOSAN	WACKER
Model	QAS200	DCA180	DCA175	G190WCU	G180
Published Prime kVA/KW 3Ø	200/ 160	180/ 140	175/ 140	181/ 145	178/ 143
Engine Make	John Deere	John Deere	John Deere	Cummins	Cummins
Engine Model	6068HFG05	6068HFG05	6068HFG05	QSB7-G8	QSB7-G8
50/60Hz Switchable	Yes	Yes	No	Yes	No
Max Ambient temperature	122	104 F	120 F	NA	NA
Fuel tank - Gal	335	319	358	330	304
DEF tank(gal)	25	29.7	28.5	24.4	37.4
Fuel Autonomy @100%/ @75% load	27.6/ 36.6	31.5/ 41	33/ 43	31.7	27/35
Alternator	LEROY SOMER	DENYO	MARATHON	LEROY SOMER	MECCALTE
Excitation	AREP	Open Delta	Shunt	NA	Aux Winding
Voltage Switch	Yes	No	Option	Yes	Yes
Single Phase Voltage position	Yes	No	Yes	Yes	Yes
Controller	DSE7310	ECU845	DSE7310	NA	NA
Fluid Containment	Yes	Yes	Option	Yes	Yes
Sound Level @23ft	72	66	75	69	70.5
Dimensions L x W x H inches (trailer)	203 x 87 x 98	212 x 89 x 105	208 x 86 x 104	224 x 83.2 x 103	199 x 84.5 x 102.5
Weight pounds (trailer) - lbs	11,062	13471	11300	11377	8234
Same box size as	150-200	150-180-200	150-175-250	190-240	180-240
Price level: Competitor vs QAS/CPG		↑	↘	↘	↘

Competition benchmark

STRENGTH

WEAKNESS

QAS 250						
	Atlas Copco	Generac	MQ	Wacker	Doosan	TecnoGen
Model	QAS 250	MDG250DF4	DCA220SSJU4F2	G230	G240WCU-3B-T4F	FP250TSX
Published Prime kVA/KW 3Ø	250/200	250/200	220/176	230/184	236/188	250/201
Engine Make	John Deere	John Deere	John Deere	Cummins	Cummins	FPT
Engine Model	6090HFG06	6068HFG06	6068HFG06	-	QSB7-G9	CURSOR9
Max Ambient temperature	136F	NA	104 F	NA	NA	NA
Fuel tank - Gal	385	358	319	382	368	283
Autonomy – hours at full load	27	24	26.6	26.1	27	28.2 (75% load)
Alternator	Leroy Somer	Marathon	Denyo	Mecc Alte	Leroy Somer	Leroy Somer
Excitation	AREP	Brushless/AVR	Open Delta	Auxiliary Winding	NA	NA
Voltage Swicth	YES	NO	NO	NA	NO	NA
Single Phase Voltage position	YES	NO	NO	Yes	Yes	NO
Dimensions L x W x H inches (trailer)	215 x 94 x 109	208 x 86 x 104	213 x 87 x 108	199 x 85 x 107	224 x 83 x 103	189 x 45 x 88 (skid)
Weight pounds (trailer) - lbs	14175	11376	13515	11680	11377	10974 (skid)
Controller	DeepSea 7310	Power Zone	ECU845	Basler	DynaGen TG410	DeepSea 7310

- 500 hrs Service interval AC, MQ 250 hrs only

Competition benchmark

STRENGTH

WEAKNESS

QAS 330						
	Atlas Copco	Generac	MQ	Wacker	Doosan	TecnoGen
Model	QAS 330	MMG330	DCA300SSJU4F2	G320	G325WCU-3A-T4F	FP330TSX
Published Prime kVA/KW 3Ø	330/264	329		319/256	334/270	329/263
Engine Make	John Deere	John Deere	John Deere	Cummins	Cummins	FPT
Engine Model	6090HFG06	6090HFG09	6090HFG06	-	QSL9-G9	CURSOR9
Max Ambient temperature	130 F	NA	104 F	NA	NA	
Fuel tank - Gal	385	459	431	404.3	480	283
Autonomy – hours at full load	21	23	25.8	20	25.2	16
Alternator	Leroy Somer	Marathon	Denyo	Mecc Alte	Leroy Somer	Leroy Somer
Excitation	AREP	Brushless/AVR	Open Delta	Auxiliary Winding	NA	NA
Voltage Swicth	YES	NO	NO	NA	NO	NA
Single Phase Voltage position	YES	NO	NO	Yes	Yes	NO
Dimensions L x W x H inches (trailer)	215 x 94 x 109	230 x 102 x 110	223 x 100 x 120	228 x 96 x 105	240 x 83 x 113	189 x 45 x 88 (skid)
Weight pounds (trailer) - lbs	14355	15800	18086	14400	14032	12297 (skid)
Controller	DeepSea 7310	Power Zone	ECU845	Basler	DynaGen TG410	DeepSea 7310

- 500 hrs Service interval AC, MQ 250 hrs only

Competition benchmark

STRENGTH

WEAKNESS

QAS 625		?			?	
	Atlas Copco	Magnum	MQ	Wacker	Doosan	TecnoGen
Model	QAS 625	No offering in the 625 kVA Range	DCA600SSV4F3	G625	No offering in the 625 kVA Range	VO630TSX
Published Prime kVA/KW 3Ø	625/500	-	600/480	625/500	-	629/503
Engine Make	Volvo	-	Volvo	Volvo	-	Volvo
Engine Model	TWD1672GE	-	TWD1672GE	TWD1642GE	-	TWD1672GE
Maxium Ambient Temperature	122F	-	104F	-	-	-
Fuel tank - Gal	707	-	653(129+524)	238	-	465
Autonomy – hours at full load	21	-	20.6	6	-	14
Alternator	Leroy Somer	-	Denyo	Mecc Alte	-	Leroy Somer
Excitation	AREP	-	Open Delta/BrushlessAVR	Brushless AVR	-	?
Voltage Swicth	YES	-	NO	-	-	NA
Single Phase Voltage position	YES	-	NO	-	-	NO
Dimensions L x W x H inches (trailer)	260 x 102 x 118	-	324 x 90 x 139	263 x 93 x 124	-	189 x 76 x 94 (skid)
Weight pounds (trailer) - lbs	25679	-	27720	16618	-	20762 (skid)
Number of Axles	3	-	3	3	-	3
Controller	Deif AGC4	-	ECU845	Deep Sea 8610	-	DeepSea 7310
Sound level (dBA)@ 7m 75% load	-	-	-	70	-	-
Sound level (dBA)@ 7m 100% load	73	-	71	-	-	70

- Only true 625kVA / 500kW. MQ uses small alternator.
- Integrated Fluid containment. MQ is having tank in the trailer without fluid containment. Local tank of MQ 600 is less than 10hrs runtime.
- 500 hrs Service interval AC, MQ 250 hrs only

EASY fuel refilling

COMPETITOR



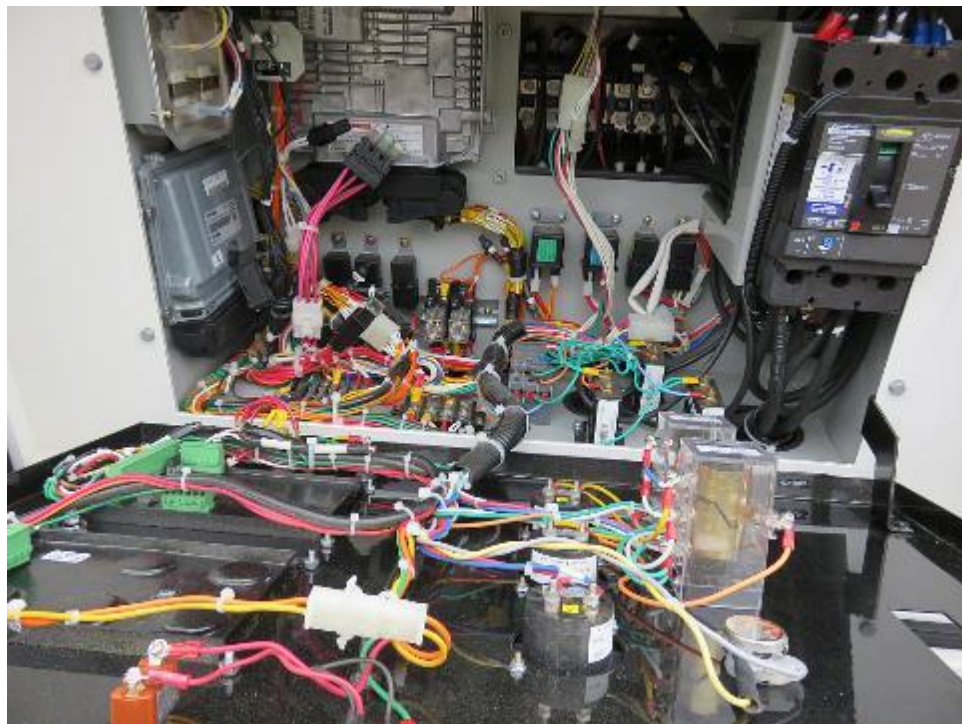
QAS



NEW QAS VS competitor

- CONTROL PANEL

COMPETITOR



VERY BAD FOR SERVICING, BAD ROUTING

QAS



CLEAN , WELL ORGANIZED, USER FRIENDLY, GOOD FOR SERVICE

User friendly

- EASY ACCESS TO POWER PANEL AND SOCKETS

COMPETITOR



QAS



QAS vs Competitor

EMERGENCY STOP

COMPETITOR



NO EMERGENCY STOP (OPTIONAL), OR NO STRAIGHT ACCESS. IF DOOR IS LOCKED NO WAY TO STOP THE GENERATOR

QAS



EMERGENCY STOP IS STANDARD

QAS vs Competitor

CONTROL PANEL

Competitor



VERY SIMPLE DIGITAL CONTROL WITH LACK OF INFORMATION

QAS



DSE7310 WITH ALL AC REQUIRED INFO, REMOTE START TIMER

NEW QAS VS competitor

- DEF Fill Location

COMPETITOR



CLOSE TO THE COOLER, IT
DEGRADES DEF EARLIER

QAS



DEF FILL ON REAR OF UNIT. THE RIGHT
PLACE!

DOOR SEALS

COMPETITOR



NO PROPER SEALING OF DOORS
LEADING TO WATER INGRESS

QAS



GOOD SEALING, GOOD CORNERS,
GOOD TO PREVENT WATER INGRESS
AND CORROSION

ANTI CORROSION DESIGN

COMPETITOR



CORNERS VERY EXPOSED TO CORROSION

QAS



CANOPY CONSTRUCTION TO AVOID RUSTING

NEW QAS VS competitor

- RAIN CAP

COMPETITOR



NO RAIN CAP

QAS



RAIN CAP

