Atlas Copco

The versatile QES generators

European markets

The stationary QES generator

A standby generator is an essential part of any company's performance network. It needs to be ready and able to provide power in the event of an electrical supply interruption. You need to be sure that the generator will sense the urgent need and provide an instant response, with guaranteed performance, at exactly the moment it's needed.

Our QES range portfolio with power nodes from 9 to 695 kVA PRP, allow to offer the generator that's right for your business. Built to our time-tested design principles, used across our entire generator portfolio, the QES range offers you modular capabilities and room for upgrading and expansion; along with being designed for simple installation and exceptional reliability.

AMBIENT TEMPERATURE UP TO 50°C

WATER-PROOF CANOPY

STABLE POWER <10 SECONDS

UP TO 100% LOAD STEP CAPABILITY

PLUG & PLAY INSTALLATION

SERVICE INTERVAL (HRS) UP TO 500

SCADA INTEGRATION

SPILLAGE FREE FRAME

SERVICE <2 Hrs EVERY 1000Hrs

Not all the standards or options are available in all the range, for further information contact to Atlas Copco support.

RESIDENTIAL

TELECOMMUNICATION

HEALTHCARE

AGRICULTURE

RETAIL AND RECREATION

DATA CENTER

INDUSTRY

MINING

Versatile power for any stationary applications

QES Designed with the customer in mind

1. Superior accessibility:

- Optimal serviceability through big access doors (with Stainless steel hinges) and Panels
- Access to alternator (AVR and diode bridge)
- Full access to engine
- Direct radiator cleaning access panel

2. Performance:

- High cooling performance radiator with ParCOOL for 100% standby power operation
- Sound attenuated and anti-corrosion steel enclosure
- Alternator IP23 with optional Auxiliary Winding(2)
- Electronic governor engine and electronic engines

3. Plug and play connection:

- Plug and play cable connection
- Pass through cable path, natural bend and strain relief Rain cap
- Hot parts, fan and belt protection (Standard scope with CE Marking)

4. Transport efficiency:

- Integrated galvanized forklift slots
- Lifting structure with single external elevation point(2)
- Retention bund 110% self-containment with level sensor alarm(1)

**Options available may change depending on model selected. Please consult with your local Atlas Copco customer center.*

(1) Optional

(2) Optional on some models

5. Noise protection:

- Sound attenuated and anticorrosion protection canopy (Polyester Powder Coating finishing) designed for long-lasting durability in top condition

6. Service efficiency:

- Decreased service downtime due to heavy duty fuel filtration system with water separator(2) >25KVa
- Dual stage air filtration(2)
- Oil drain pump(2)
- Drain point (oil & coolant) on baseframe
- Service interval:
  - 500Hrs for QES 30-40-60-80-125
  - 400Hrs for QES 180-250-325-390-450-520
  - 200Hrs for QES 9-14-20

7. Integrated control and power cubicle:

- DSE 4620 and DSE 7320 digital controller including AMF, manual start and remote start
- 4 Pole breaker & battery charger(1)
- Emergency stop
- Earth leakage relay(1)

	QES 9-20	QES 30-40	QES 60	QES 80-125	QES 180-250	QES 325-520	QES 640
Standard Controller	DSE 4620	DSE 4620	DSE 4620	DSE 4620	DSE 7320	DSE 7320	DSE 7320
Lifting Beam External	Standard	Standard	Standard	Option	Option	Option	Option
Retention Bund	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Galvanized Forklift Slots	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Hot Parts Protection	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Oil Drain Pump	NA	Option	Option	Option	Option	Option	Standard
Heavy Duty Air Filter	Standard	Standard	Standard	Standard	Standard	Standard	Option
Alternator Auxiliary Winding (Awes)	Option	Option	Option	Option	Standard	Standard	Standard
Battery Switch	Option	Option	Option	Option	Standard	Standard	Standard
Panel Selector On/Off	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Fuel Sensor	Option	Standard	Standard	Standard	Standard	Standard	Standard
Fuel Gauge (Mechanical)	Standard	Option	Option	NA	NA	NA	NA
Radiator Coolant Level Switch	Option (*)	NA	Standard	Standard	Standard	Standard	Standard
Oil Pressure Sensor	NA	NA	Option (*)	Option (*)	Standard	Standard	Standard
Coolant Temperature Sensor	NA	NA	Option (*)	Option (*)	Standard	Standard	Standard

(*) With DS7320 option

QES range - 50Hz

Technical data

		QES9	QES14	QES20	QES 30
Electrical data					
Rated frequency	Hz	50	50	50	50
Exhaust gas emission compliance		CHINA 3	CHINA 3	CHINA 3	Stage3A
Rated voltage (1)	V	400	400	400	400
Prime power (PRP)	kVA / kW	8.8/7	13.8/11	20/16	30/24
Rated standby power (ESP)	kVA / kW	10/8	15/12	21.3/17	31/25
Power factor cos ϕ		0.8	0.8	0.8	0.8
Rated current (PRP)	A	12.6	19.9	28.9	43.0
Performance class acc. ISO-8528/5		G1	G2	G2	G2
Operating temperature (min/max) (2)	°C	-10/50	-10/50	-10/50	-10/50
Fuel consumption					
Fuel tank capacity (Standard / 24h / 48h)	l	54 / 125 / 250	54 / 125 / 250	54 / 125 / 250	73 / 193 / 370
Fuel consumption at 100% PRP load	l / h	2.4	3.8	4.97	7.1
Fuel autonomy at full load (Standard / 24-48H / 1000l fuel tank)	h	22 / 52 / 103	14 / 32 / 65	10,8 / 25 / 50	10 / 27 / 52
Control panel					
Model -- standard		DSE4620	DSE4620	DSE4620	DSE4620
Battery Charger (Optional)		DSE9150	DSE9150	DSE9255	DSE9150
Engine					
Model		D1105-E3BG2	D1703-M-E4BG2	V2403-M-E3BG2	V3300-E2BG
Speed	rpm	1500	1500	1500	1500
Rated net power	kWm	8.6	13.2	21.3	28
Aspiration		Natural	Natural	Natural	Natural
Speed control		Mechanical	Electronic governor	Electronic governor	Electronic governor
Number of cylinders		3	3	4	4
Coolant		water-cooled	water-cooled	water-cooled	water-cooled
Swept volume	l	1.12	1.65	2.43	3.3
Alternator					
Model		ACA160D	ACA160E	ACA180E	ACA180E
Rated Output (ESP 163°/27°C / PRP 125°/40°C)	kVA	13.5	16	22.5	33/32
Degree of protection / Insulation class		IP23/H	IP23/H	IP23/H	IP23/H
Excitation type / AVR model		Shunt/SX460	Shunt/SX460	Shunt/SX460	Shunt/SX460
Noise level					
Sound power level (LwA)	dB(A)	91	95	93	92
Sound pressure level (LpA) at 7m	dB(A)	65	69	67	67
Dimensions and weight					
Length x width	mm	1540 x 700	1540 x 700	1540 x 700	1900 x 971
QES Canopy version					
Height (Standard / 24h / 48h*)	mm	1225 / 1350 / 1580	1225 / 1350 / 1580	1225 / 1350 / 1580	1175 / 1360 / 1550
Weight (Standard / 24h / 48h*)	kg	560 / 585 / 640	635 / 660 / 715	680 / 705 / 760	950 / 1100 / 1320
Skid dimensions (L x W x H)	mm	2135 x 720 x 245	2135 x 720 x 245	2135 x 720 x 245	2000 x 910 x 130
Skid weight	kg	55	55	55	60

**<125kVA*

QES range - 50Hz

Technical data



		QES 40	QES60	QES 80	QES 100
Electrical data					
Rated frequency	Hz	50	50	50	50
Exhaust gas emission compliance		Stage3A	/	/	/
Rated voltage (1)	V	400	400	400	400
Prime power (PRP)	kVA / kW	42/34	60/48	90/72	100/80
Rated standby power (ESP)	kVA / kW	45/36	63/50	96/77	112/90
Power factor cos ϕ		0.8	0.8	0.8	0.8
Rated current (PRP)	A	61.0	86.0	129.0	144.3
Performance class acc. ISO-8528/5		G2	G2	G2	G2
Operating temperature (min/max) (2)	°C	-10/50	-10/50	-10/50	-10/50
Fuel consumption					
Fuel tank capacity (Standard / 24h / 48h)	l	73 / 193 / 370	105 / 250 / 500	260 / 650 / 1300	260 / 650 / 1300
Fuel consumption at 100% PRP load	l / h	8.2	13.3	18.9	20.5
Fuel autonomy at full load (Standard / 24-48H / 1000l fuel tank)	h	9 / 24 / 45	8/ 19 /38	14 / 34 / 79	13 / 31 / 63
Control panel					
Model -- standard		DSE4620	DSE4620	DSE4620	DSE4620
Battery Charger (Optional)		DSE9150	DSE9255	DSE9255	DSE9255
Engine					
Model		V3800DI-T-E2BG	4BTA3.9-G2	6BT5.9-G2	6BT5.9-G2
Speed	rpm	1500	1500	1500	1500
Rated net power	kWm	38.8	56.5	86	96
Aspiration		Turbo charger	Turbo charger	Turbo charger	Turbo charger
Speed control		Electronic governor	Electronic governor	Electronic governor	Electronic governor
Number of cylinders		4	4	6	6
Coolant		water-cooled	water-cooled	water-cooled	water-cooled
Swept volume	l	3.8	3.9	5.9	5.9
Alternator					
Model		ACA180G	ACA225D	ACA225G	ACA270B
Rated Output (ESP 163°/27°C / PRP 125°/40°C)	kVA	45/42.5	63.5/60	95.8/90	112/100
Degree of protection / Insulation class		IP23/H	IP23/H	IP23/H	IP23/H
Excitation type / AVR model		Shunt/SX460	Shunt/SX460	Shunt/SX460	Shunt/SX460
Noise level					
Sound power level (LwA)	dB(A)	93	94	94	96
Sound pressure level (LpA) at 7m	dB(A)	66	68	68	66
Dimensions and weight					
Length x width	mm	1900 x 971	2080 x 1000	2920 x 1098	2920 x 1098
QES Canopy version					
Height (Standard / 24h / 48h*)	mm	1175 / 1360 / 1550	1280 / 1400 / 1590	1643 / 1854 / 2228.5	1643 / 1854 / 2228.5
Weight (Standard / 24h / 48h*)	kg	992 / 1150 / 1370	1300 / 1350 / 1450	1484 / 1774 / 1908	1514 / 1804 / 1938
Skid dimensions (L x W x H)	mm	2000 x 910 x 130	2180 x 1005 x 130	2960 x 1100 x 150	2960 x 1070 x 130
Skid weight	kg	60	65	73.9	73.9

**<125kVA*

QES range - 50Hz

Technical data



		QES 125	QES 180	QES 250	QES325
Electrical data					
Rated frequency	Hz	50	50	50	50
Exhaust gas emission compliance		/	/	/	/
Rated voltage (1)	V	400	400	400	400
Prime power (PRP)	kVA / kW	125/100	180/144	250/200	325/260
Rated standby power (ESP)	kVA / kW	135/108	194/155	272/218	350/280
Power factor cos ϕ		0.8	0.8	0.8	0.8
Rated current (PRP)	A	180.4	259.0	360.0	469.0
Performance class acc. ISO-8528/5		G2	G2	G2	G3
Operating temperature (min/max) (2)	°C	-10/50	-10/50	-10/50	-10/50
Fuel consumption					
Fuel tank capacity (Standard / 24h / 48h)	l	260 / 650 / 1300	520 / 900	520 / 900	700
Fuel consumption at 100% PRP load	l / h	25.6	36.5	46.0	65.0
Fuel autonomy at full load (Standard / 24-48H / 1000l fuel tank)	h	10 / 25 / 50	14.3 /25	11.3 / 19.6	11.0
Control panel					
Model -- standard		DSE4620	DSE7320	DSE7320	DSE7320
Battery Charger (Optional)		DSE9255	DSE9255	DSE9255	DSE9255
Engine					
Model		6BTAA5.9-G2	6CTA8.3-G2	6LTAA8.9-G2	6LTAA9.5-G1
Speed	rpm	1500	1500	1500	1500
Rated net power	kWm	120	158	215	290
Aspiration		Turbo charger	Turbo charger	Turbo charger	Turbo charger
Speed control		Electronic governor	Electronic governor	Electronic governor	Electronic governor
Number of cylinders		6	6	6	6
Coolant		water-cooled	water-cooled	water-cooled	water-cooled
Swept volume	l	5.9	8.3	8.9	9.5
Alternator					
Model		ACA270C	ACA270F	ACA270J	ACA315G
Rated Output (ESP 163°/27°C / PRP 125°/40°C)	kVA	135/125	194/180	275/250	390/350
Degree of protection / Insulation class		IP23/H	IP23/H	IP23/H	IP23/H
Excitation type / AVR model		Shunt/SX460	AWES/VR438	AWES/VR438	AWES/KR680
Noise level					
Sound power level (LwA)	dB(A)	97	97	97	97
Sound pressure level (LpA) at 7m	dB(A)	69	67	69	69
Dimensions and weight					
Length x width	mm	2920 x 1098	3410 x 1250	3410 x 1250	3870 x 1600
QES Canopy version					
Height (Standard / 24h / 48h*)	mm	1643 / 1854 / 2228.5	2224 / 2407	2224 / 2407	2100
Weight (Standard / 24h / 48h*)	kg	1558 / 1848 / 1982	2394 / 2537	2924 / 3067	3610
Skid dimensions (L x W x H)	mm	2960 x 1070 x 130	3610 x 1260 x 200	3810 x 1340 x 200	4090 x 1600 x 200
Skid weight	kg	73.9	205	205	325

**<125kVA*

QES range - 50Hz

Technical data

		QES 390	QES 450	QES 520	QES 640
Electrical data					
Rated frequency	Hz	50	50	50	50
Exhaust gas emission compliance		/	/	/	Stage 2
Rated voltage (1)	V	400	400	400	400
Prime power (PRP)	kVA / kW	380/304	450/360	500/400	659/527
Rated standby power (ESP)	kVA / kW	414/331	502/402	555/444	722/578
Power factor cos ϕ		0.8	0.8	0.8	0.8
Rated current (PRP)	A	548.5	649.5	721.7	951.0
Performance class acc. ISO-8528/5		G2	G2	G2	G2
Operating temperature (min/max) (2)	°C	-10/50	-10/50	-10/50	-10/50
Fuel consumption					
Fuel tank capacity (Standard / 24h / 48h)	l	740	740	740	980
Fuel consumption at 100% PRP load	l / h	75.5	89.0	103.0	131.1
Fuel autonomy at full load (Standard / 24-48H / 1000l fuel tank)	h	10.0	9.0	7.0	7.5
Control panel					
Model -- standard		DSE7320	DSE7320	DSE7320	DSE7320
Battery Charger (Optional)		DSE9255	DSE9255	DSE9255	DSE9255
Engine					
Model		6ZTAA13-G3	QSZ13-G2	QSZ13-G3	TWD1644GE
Speed	rpm	1500	1500	1500	1500
Rated net power	kWm	325	388	430	536
Aspiration		Turbo charger	Turbo charger	Turbo charger	Turbo charger
Speed control		Electronic governor	Electronic governor	Electronic governor	Electronic governor
Number of cylinders		6	6	6	6
Coolant		water-cooled	water-cooled	water-cooled	water-cooled
Swept volume	l	12.8	12.8	16.1	16.1
Alternator					
Model		ACA315F	ACA315H	ACA355C	ACA355E
Rated Output (ESP 163°/27°C / PRP 125°/40°C)	kVA	415/380	505/450	590/550	738/670
Degree of protection / Insulation class		IP23/H	IP23/H	IP23/H	IP23/H
Excitation type / AVR model		AWES/KR680	AWES/KR680	AWES/KR680	AWES/KR680
Noise level					
Sound power level (LwA)	dB(A)	97	98	104	104
Sound pressure level (LpA) at 7m	dB(A)	69	71	74	77
Dimensions and weight					
Length x width	mm	4600x1500	4600x1500	4600x1500	4590 x 1850
QES Canopy version					
Height (Standard / 24h / 48h*)	mm	2350	2350	2350	2401
Weight (Standard / 24h / 48h*)	kg	4810	4910	5110	6341
Skid dimensions (L x W x H)	mm	4825 x 1510 x 200	4825 x 1510 x 200	4825 x 1510 x 200	5009 x 1860 x 150
Skid weight	kg	402	402	402	362

**<125kVA*

Optimize your power solutions

When you need temporary power, a single generator is not always the most efficient solution. Does the application load vary? Do any of the gensets in your fleet need higher power? A Modular Power Plant (or paralleling multiple generators) is the efficient solution if you answered yes to any of the these questions.

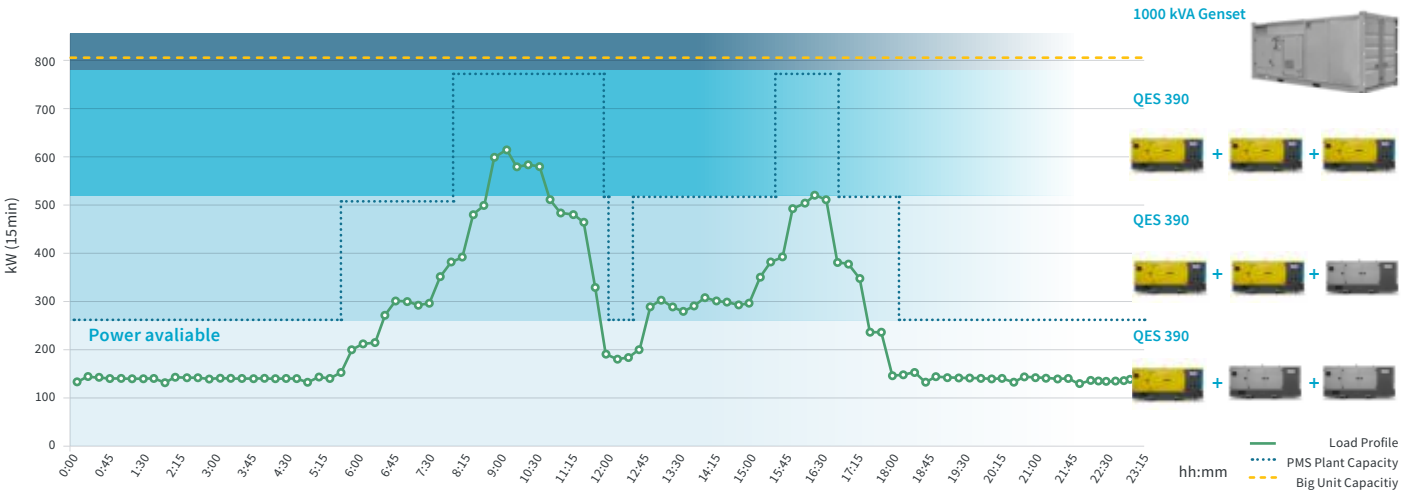
We have developed a unique Power Management System (PMS). The PMS manages the number of generators running in parallel with load demand, starting and stopping units in line with increases or decreases in load. In this way, the load on each generator remains at a level that optimizes fuel consumption.

It also eliminates the need for generators to run with low load levels, which can cause engine damage and shorten the life expectancy of the equipment.

Just one example:

The deployment of a **1MVA** generator as a prime power source, taking the load demand patterns of a typical industrial application as a guide, could mean **up to 1677 liters** of fuel consumed each day. That compares with approximately 1558 liters of fuel if three QES 390 in the PMS were doing the same job. In this case, an estimated **annual saving of more than €30.000** makes for a compelling case, not to mention **85 tons of CO2 saved** over the course of a year.

Powerful match



Note: this data is simulated. It's based on a typical industrial daily load diagram.


Atlas Copco
QES 40

Product portfolio

ENERGY STORAGE SYSTEMS

PORTABLE
2–6 kVA

MOBILE
15-150 kVA

CONTAINER
250–1000 kVA

FAST CHARGER
160-480 kW

HYBRID GENERATORS

HYBRID

LIGHT TOWERS

SOLAR

ELECTRIC

DIESEL

GENERATORS

PORTABLE
1,6–14 kVA

SPECIALIZED
14–660* kVA

VERSATILE
9–1500* kVA

LARGE POWER
1350 kVA

*Multiple configurations available to produce power for any size application

DEWATERING PUMPS

ELECTRIC SUBMERSIBLE
up to 18 000 l/min

ELECTRIC SELF-PRIMING CENTRIFUGAL
833-35.000 l/min

SELF-PRIMING CENTRIFUGAL
833-35.000 l/min

ONLINE SOLUTIONS

FLEETLINK

Intelligent telematics is a system that helps optimize fleet usage and reduce maintenance, ultimately saving time and cutting operating costs.

PUMP SIZING CALCULATOR

With a few inputs, this pump sizing calculator will help you to compare dewatering submersible models and find the right one for you.

ECO CALCULATOR: YOUR SIZING TOOL

A useful calculator to help you choose the best solution for your power and light needs.

Atlas Copco Portable Power and Flow
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