

ELIOS | LPG/NG 20KW Generator Liquid Cooled

120/240VOC, 1ph, 60HZ – 3600rpm






EliosGen20KH-120/240

Data Sheet



The Elios 20kW Liquid-Cooled Generator from the **Advance Series** provides robust and reliable standby power for residential and light commercial applications. Powered by LPG or natural gas, it features a compact, weather-resistant enclosure designed to perform in extreme conditions, with reliable cold-weather starting down to -28.9°C (-20°F). Its high-performance liquid-cooling system enables continuous operation for over 100 hours, even in ambient temperatures up to 50°C (122°F), while maintaining low sound levels at just 72 dB @ 7 m. Built with electronic engine control, a copper-wound alternator, and backed by a 5-year limited warranty, this generator is engineered for durability, efficiency, and long-term peace of mind.

Features & Benefits

-  **Rugged & Tested Design:** Engineered with a compact, durable frame and rigorously tested to operate in extreme climates, including temperatures as low as -28.9°C (-20°F).
-  **Low Noise Level:** High-grade muffler ensures quiet operation, ideal for residential or noise-sensitive areas.
-  **Lubrication System:** High-efficiency oil pump and oversized oil tank ensure consistent lubrication, extending engine life and reducing maintenance intervals.
-  **Radiator System:** The liquid-cooled radiator maintains stable engine temperatures even in extreme heat conditions exceeding 50°C (122°F).
-  **Transport & Installation:** Purpose-built packaging supports secure transport and simplifies on-site installation.

Certifications

EPA Tier3 | UL2200 | ETL



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GENERAL DATA

Dimensions (W x H x D)	53.54 x 31.85 x 37.83 in (1360 x 809 x 961 mm)
Weight	350Kg (772lb.)
Packing	Carton + Metal Crate
Model Number	EliosGen20KH-120/240

GENERATOR DATA

Rated power-Single(NG/LPG)	18 KW / 20 KW
Max Power-Single(NG/LPG)	19.8 KW / 22 KW
Power Factor - Single	1.0
Rated Frequency (Hz)	60
Rated Speed (rpm)	3600

ENGINE DATA

Manufacturer / Model	LF465QR
Engine Type	4 Cylinder, 4 Strokes
Displacement	0.998 liters (60.9in3)
Bore	65.5 mm (2.52in)
Stroke	74mm (2.91in)
Volume	1016 cc
Compression Ratio	9.5:1
Ignition System	ECM
Intake Air System	Naturally Aspirated
Starter Motor Rated Voltage	DC 12V / 0.8 KW Electrical Start
Battery Charging Alternator	DC 14V / 70A
Oil Capacity	4.0 liters (244.1in3)
Low Oil Pressure Shutdown	Yes
Rotary Oil Filter	Yes
Air Cleaner Type	Dry
Recommended cold cranking amps: (CCA) rating for -18°C (0°F)	550
Recommended Battery Start Current (CCA)	445A

GENERATOR SET PERFORMANCE

Governor Regulation Class	ISO 8528 Part 1 Class G2
Governor Type	Electronic
Voltage Regulation	±1.0%
Random Voltage Variation	±1.0%
Frequency Regulation	Isochronous
Frequency Regulation, Steady State	± 0.5% @ 60Hz

ALTERNATOR DATA

Rated Power	20KW
Alternator Type	Synchronous, Revolving Field
Poles	2
Rotor Insulation Class	F
Stator Insulation Class	F
Protection Level	Ip23
Winding Material	Copper
Sea Level	≤3280ft
Coupling	Direct Coupling

ENGINE COOLING SYSTEM

Cooling System	Closed Liquid Cooled
Coolant Capacity	5L
Coolant Temp Range	-25°C~106°C
Radiator Fan	7 Blade Ø380

FUEL SYSTEM

Fuel Type	Natural Gas or LPG
Fuel Supply Pressure, kPa (in. H2O):	NG: 1.2-2.7 (5-11) LPG: 1.7-2.7 (7-11)
Fuel Pipe Size	G ¾ Pipe
Fuel Pipe Length	<33ft
Fuel Consumption @50% (NG)	178ft³/h
Fuel Consumption @100% (NG)	286ft³/h
Fuel Consumption @50% (LPG)	70.6ft³/h
Fuel Consumption @100% (LPG)	109.4ft³/h

* Nominal fuel rating: Natural gas: 37 MJ/m3(1000 Btu/ft3)
LPG: 93 MJ/m3(2500 Btu/ ft³)
LPG conversion factors: 8.58 ft3 = 1 lb.
0.535 m3 = 1 kg36.39 ft3 = 1 gal.

NOISE LEVEL

Sound Output in dB(A) at 23 ft (7m) with generator in exercise mode *	64
Sound Output in dB(A) at 23 ft (7m) with generator operating at normal operation *	72
Sound Output in dB(A) at 23 ft (7m) with generator operating at normal operation with sound attenuated baffle option *	69

* Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters.

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Applications

- Residential backup power
- Light commercial power support
- Off-grid and remote area supply
- Micro-grid integration
- Emergency and disaster relief
- Mobile medical units
- Agricultural operations and greenhouses
- Outdoor events and construction sites

Warranty

- Limited 5-year/1000h warranty, whichever comes first.

Controller Features

- LCD display, easy to operate
- System voltage/frequency selection and engine configuration
- Maintain steady-state speed (stepping alternator)
- High engine temperature
- Low oil pressure
- Overspeed/under speed
- Crank cycle status
- Overvoltage/undervoltage
- Charging fail

Dimensions



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AVAILABLE ACCESSORIES

1. Elios Generator Noise Reduction Cover
2. Elios 200A Transfer Switch 120/240VOC
3. Elios WIFI Controller
4. Elios Battery Heater
5. Elios Oil Heater
6. Elios Coolant Heater
7. Elios 3-Piece Winter Kit (Battery Heater, Oil Heater, Coolant Heater)

AUTOMATIC TRANSFER SWITCH

Poles	2
Rated Current	200 A
Rated Volt	250 VAC
Max Volt	300 VAC
ATS Making Volt	170 V
ATS Breaking Volt	150 V
Withstand Rating	10000 A
Dimensions	19.38 x 14.72 x 7.12 in
Operating Temp	-20°C to 70°C (-4°F to 158°F)
Storage Temp	-40°C to 85° (-40°F to 185°F)
Weight	17.5 kg

