









#### ES series Gas Genset











The small power gas genset produced by Tellhow EST adopts the most mature Cummins engine in the world as the prototype. After a long-term practical application and improvement, it has innovative advantages in mechanical structure, electrical control, safety performance and other aspects. Because the engine, gas ignition and control adopt closed-loop control system, the generator set achieves high efficiency, low exhaust temperature and low emission. At present, ES series of small power gas generator sets have been widely used in the power generation market.

At present, the rated power of Tellhow EST small power gas genset can be from 19kw to 550KW. LPG and biogas can be used for all models.





#### ES series Gas Engine



Special cylinder head for gas engine:

After the simulation test, the design of near exhaust passage is optimized, the intake swirl shape is improved, and the cooling channel is enlarged. The valve seat ring adopts powder metallurgy process, which is more resistant to high temperature.



The piston is specially designed for gas engine, and the compression ratio is designed according to Cummins gas engine 10.5:1. The results show that the engine life is greatly increased, and the surface enhanced bowl combustion chamber can effectively prevent the thermal fatigue cracking on the top of the piston, so as to obtain higher intake turbulence, which can increase the combustion speed by more than 10%.



The turbocharger has been independently designed and improved. The intercooler has been added into the oil-water dual cooling channel turbocharger, so as to obtain better cooling efficiency, reduce the exhaust heat load of the engine, and significantly improve the service life of the engine.





#### ES series Gas Engine



The gas engine control system mainly integrates ignition control, speed control and air-fuel ratio control into an integrated ECU module. ES series gas engine adopts two-phase control ignition time, and ignition time control is more accurate and combustion is better.



Speed control mechanism of engine Bosch throttle.



The proportioning mixer of IMPCO company is used in fuel control and air-fuel mixer.



The spark plug is made of iridium produced by American champion.





# ES 2. 2G-G19 Natural Gas Engine







Model ES 2.2G-G19

Rated power 19KW

Rated speed 1500 / 1800RPM

Adaptive GENSET power (natural gas) 15

Bore x stroke 110 X 117mm

Number of cylinders 2

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Inhale naturally

displacement 2.224L

Compression ratio 10.5:1

Exhaust temperature ≤500°C





#### ES 2.8G-G42 Natural Gas Engine







Rated power 42KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 35KW

Bore x stroke 93 X 105 mm

Number of cylinders 4

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Pressure boost

displacement 2.853 L

Compression ratio 10.5:1

Exhaust temperature ≤630°C





#### ES B3. 9G-G38 Natural Gas Engine







Model	ES	B3.9G-G38

Rated power 38KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 30KW

Bore x stroke 102 X 120 mm

Number of cylinders 4

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Inhale naturally

displacement 3.9L

Compression ratio 10.5:1

Exhaust temperature ≤580°C





# ES B3. 9G-G38 Natural Gas Engine







Model	ES B3.9G-G38
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Rated power 38KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 30KW

Bore x stroke 102 X 120 mm

Number of cylinders 4

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Inhale naturally

displacement 3.9L

Compression ratio 10.5:1

Exhaust temperature ≤580°C





# ES B5. 9G-G60 Natural Gas Engine







B5.9G-G60
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Rated power 60KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 50KW

Bore x stroke 102 X 120 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Inhale naturally

displacement 5.9L

Compression ratio 10.5:1

Exhaust temperature ≤580°C





# ES BT5. 9G-G110 Natural Gas Engine









Model ES BT5.9G-G110

Rated power 110KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power 90KW (natural gas)

Bore x stroke 102 X 120 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Supercharging, air air Air intake mode intercooling

displacement 5.9L

Compression ratio 10.5:1

Exhaust temperature ≤610°C





#### ES C8. 3G-G150 Natural Gas Engine







Rated power 150KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 130KW

Bore x stroke 114 X 135 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Supercharging, air-air intercooling

displacement 8.3L

Compression ratio 10.5:1

Exhaust temperature ≤610°C

Start mode DC 24V









#### ES C8. 3H-G180 Natural Gas Engine



Model	ES C8.3H-G180
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Rated power 180KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power 160KW (natural gas)

Bore x stroke 114 X 145 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Supercharging, air-air Air intake mode

intercooling

displacement 8.3L

Compression ratio 10.5:1

Exhaust temperature ≤610°C







# ES L8. 9G-G200 Natural Gas Engine









Model	ES L8.9G-G200
Rated power	200KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 180KW

Bore x stroke 114 X 145 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Supercharging, air-air intercooling

displacement 8.9L

Compression ratio 10.5:1

Exhaust temperature ≤610°C





#### ES L9. 5G-G220 Natural Gas Engine







Model	ES L9.5G-G220
Rated power	220KW
Rated speed	1500 / 1800 RPM
Adaptive GENSET power (natural gas)	200KW
Bore x stroke	116.5 X 148 mm
Number of cylinders	6

n-line, 4-stroke
ater cooling
arging, air-air ing

≤610°C

DC 24V Electric start

Exhaust temperature

Start mode





#### ES NT855G-G240 Natural Gas Engine







G-G240
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Rated power 240KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 220KW

Bore x stroke 140 X 152 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Supercharging, air-air intercooling

displacement 14L

Compression ratio 11:1

Exhaust temperature ≤580°C





# ES K19G-G330 Natural Gas Engine







odel	ES K19G-G330

Rated power 330KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power (natural gas) 300KW

Bore x stroke 159 X 159 mm

Number of cylinders 6

Shape Upright, in-line, 4-stroke

Cooling mode Closed water cooling

Air intake mode Supercharging, air-air intercooling

displacement 18.9L

Compression ratio 11:1

Exhaust temperature ≤580°C





# ES K38G-G550 Natural Gas Engine







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Rated power 550KW

Rated speed 1500 / 1800 RPM

Adaptive GENSET power 500KW (natural gas)

Bore x stroke 159 X 159 mm

Number of cylinders 12

V-shape, 60 degree, 4-Shape stroke

Cooling mode Closed water cooling

Supercharging, air-air Air intake mode intercooling

displacement 37.7L

Compression ratio 11:1

Exhaust temperature ≤580°C



# **Company vision**

We hope and work hard to make our products contribute to China's goal of "carbon neutral, carbon peak" as soon as possible. In order to show that we are a responsible company, we must shoulder a mission: "give priority to the use of advanced technology, products and services, so as to improve the customer experience.". We hope that our small power gas generator sets can provide customers with more competitive procurement costs under the same excellent quality.





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