

TRU1600 natural gas generator set

Specifications

Frequency	Voltage	Continuous power
60Hz	AC 480V	800kW/1000kVA
Speed	Noise(Open)	Noise(Container)
1800rpm	≤115dB (A) @7m	≤95dB (A) @7m

Standard configuration

♦Electronic governor ECU	♦DC24V Charging generator	♦Water tank radiator, cooling fan
♦Ingress protection rating IP23	♦Insulation class H	♦DEIF SGC420MKII controller
♦Thermal efficiency: 40%	♦External mufflers	♦Battery floating charger
♦Electrical efficiency:38%	♦Delixi 3-pole ACB	♦Battery and connection cable
♦NO _x Emission: 500mg/m ³	♦Vibration damper	♦Generator set usage information

Engine parameters

Engine Brand	Cummins
Engine Model	K50N-G8PS
Engine Speed	1800 rpm
Prime power	N/A
Continuous power	890kW
Bore×Stroke	159×159 mm
Displacement	50.3L
No. of cylinders	16-V type, 4 Cycle
Governor type	ECU
Air Intake method	Turbocharged and Aftercooled
Compression Ratio	10:1
Start-up method	DC24V electrical start with charging generator

Gas System

Minimum Fuel Inlet Pressure @ Inlet of GMF Sensor Housing(kPa)					10
Maximum Fuel Inlet Pressure @ Inlet of GMF Sensor Housing(kPa)					35
Maximum Fuel Pressure Variation					+/-1
Acceptable Fuel					Natural gas
Fuel Methane Number*					55.44
Gas Consumption (LHV=52.85MJ/m³) (m³/h)					
Continuous power	100% Load	75% Load	50% Load	25% Load	
890kW	182.4	146.9	109.5	71.8	

Air Intake system

Maximum Allowable Intake Air Restriction	
with Clean Element (kPa)	3.7
with Dirty Element (kPa)	6.2
Intake Air Flow@100% load COP ft ³ /min (L/s)	2337(1103)

Cooling system

Coolant Capacity	
Engine Only(L)	165.5
After-cooler Only(L)	29.2
Thermostat (Modulating) Range (°C)	82-93
Minimum Allowable Pressure Cap @ sea level-(kPa)	48

Lubrication system

Oil Pressure	
@ Minimum Low Idle (kPa)	138
@ Governed Speed (kPa)	345-483
Maximum Allowable Oil Temperature (°C)	121
Total System Capacity (Including By-Pass Filter) (L)	234.7

Exhaust system

Max. exhaust back pressure (kPa)	10.0
Exhaust gas temperature@ COP100% load(°C)	504
Exhaust flow Volume@ COP100% load(L/s)	2731

Alternator parameters

Alternator brand	Stamford
Alternator model	S6L1D-E41
Capacity(kW/kVA)/480V	1040/1300
Voltage(V)	480
Frequency(Hz)	60
Phase	3
Connection type	Y
Power factor	0.8
Number of Poles	4
Speed	1800rpm
Insulation class	H
Winding number	312
Winding type	Pitch 2/3*
Bearing type	Single bearing
Altitude recommended	≤1000m
Ingress protection rating	IP23
Cooling method	IC01
Maximum over speed(rpm)	2250 RPM for two minutes
Excitation method	PMG
AVR type	MX341
Voltage Regulation (steady state)	± 1%
Short circuit current capacity	3In: 10s

Total Harmonic Distortion THD (**)	< 5%
Waveform: I.E.C. THF (**)	< 2%
Waveform: NEMA TIF (**)	< 50

Control system

Operation function	Remote monitoring, data measurement, alarm protection, etc.
Controller Model	DEIF SGC420MKII controller
Display	LCD screen
Communication	USB, RS485 & CAN
Digital. Inputs/Outputs	9/7
Ingress Protection Rating	IP65
Display function	Phase voltage, line voltage, current, frequency, phase sequence, active power, reactive power, apparent power, power factor, accumulated power generation, engine speed, oil pressure, cooling water temperature, running time, accumulated start-up times, battery voltage, etc.
Protective function	Over-speed, under-speed, over-voltage, under-voltage, over-frequency, under-frequency, over-current, over-power, low oil pressure, high water temperature, low battery voltage, charging failure, etc.

> 40HQ Container 1.6MW Generator Set

Power: 1.6MW (Composed of two 0.8MW generator sets)

Type: 40HQ Container

Fuel: Natural Gas

Dimensions: 12.192×2.438×2.896m

Noise Level: 95dB@7m

The schematic diagram is as follows:

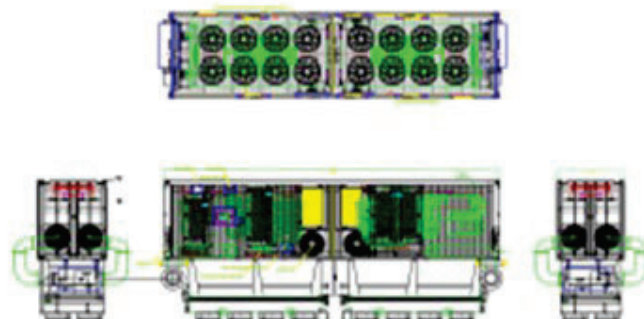


Image For Illustration Purposes Only

➤ Oil Field Gas Plant Project 8MW+6MW



➤ Oil Field Gas Plant Project 1MW*15



➤ Landfill Biogas Plant Project 1MW*10



➤ Natural Gas Power Plant Project 1MW*14

