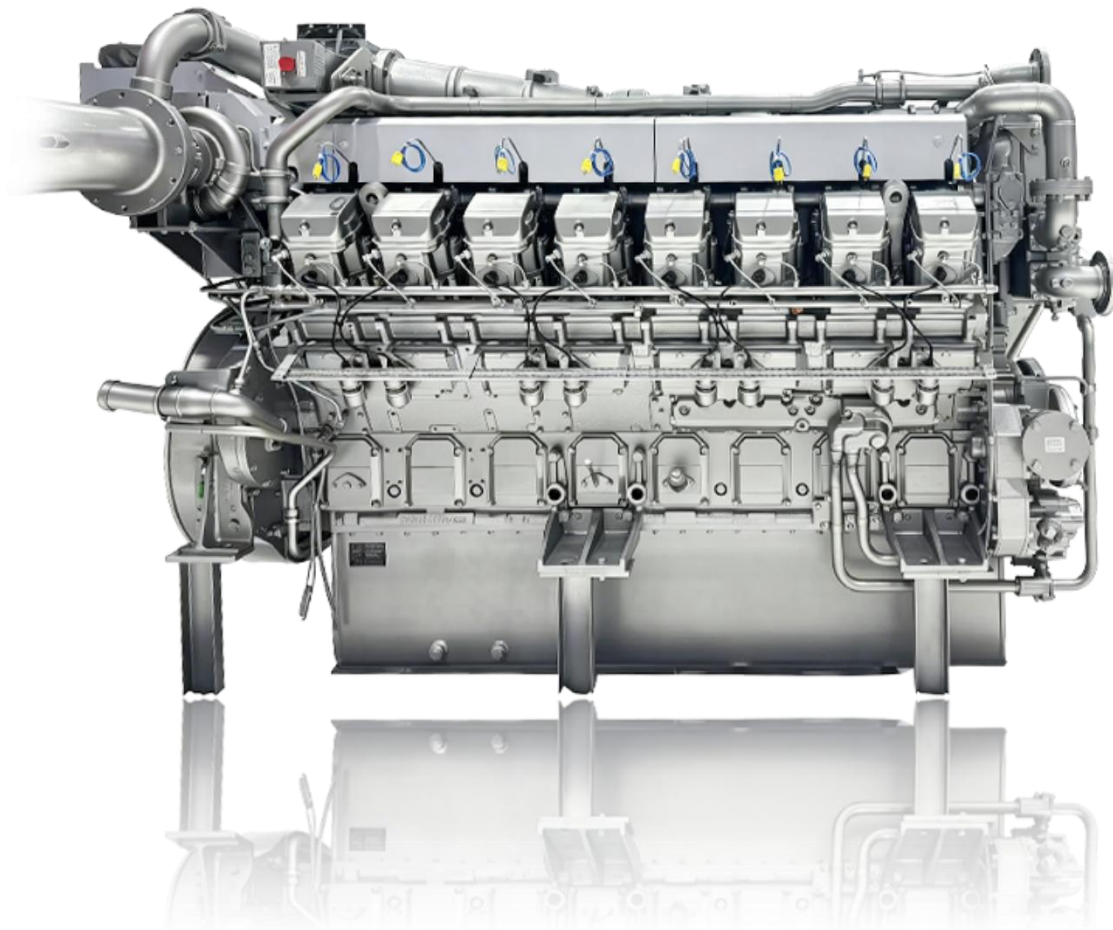


GS16R2-PTK-C

GAS ENGINE TECHNICAL INFORMATION

Specification Sheets of GS16R2-PTK-C 1500kW/1500min-1 Miller



Specification Sheets of GS16R2-PTK-C Miller Cycle Gas Engine are enclosed hearin.

* The specifications are subject to change without notice

GENERAL ENGINE DATA

Type	4-Cycle, Water Cooled
	Spark-Ignition, Lean-Burn Engine with Pre-chamber
Aspiration	Turbo-Charged, Inter-Cooled (Fresh Water to Cooler)
Cylinder Arrangement	60°V
No. of Cylinders	16
Bore —mm (in)	170 (6.69)
Stroke —mm (in)	220 (8.66)
Displacement —liter (cu.in)	79.9 (4876)
Compression Ratio (BTDC BASE)	12 : 1
Dry Weight – Engine Only – kg (lb)	8105 (17868)
Wet Weight – Engine Only – kg (lb)	8705 (19191)

PERFORMANCE DATA

Generator Output / Speed —kW / min ⁻¹	1500 / 1500
Engine Output / Speed —kW / min ⁻¹	1562.5 / 1500
Generator Efficiency — %	96.0
Turbo Model	TF15
Steady State Speed Stability Band at any Constant Load	
Electric Governor — %	±0.2
Maximum Overspeed Capability – min ⁻¹	1750
Moment of Inertia of Rotating Components J— kg· m ² (lb· ft ²) (Includes 21 inch Mass-up Flywheel)	59.21 (1405)
Cyclic Speed Variation with Flywheel at 1500 min ⁻¹	1 / 395

ENGINE MOUNTING

Max. Bending Moment at Rear Face of Flywheel Housing – N· m (lb· ft)	4413 (3256)
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AIR INLET SYSTEM

Maximum Intake Air Restriction	
With Clean Filter Element – kPa (in.H ₂ O)	1.5 (6.0)

EXHAUST SYSTEM

Maximum Allowable Back Pressure — kPa (in.H ₂ O)	5.0 (20.1)
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LUBRICATION SYSTEM

Oil Pressure at Idle – kPa (psi)	196 - 294 (28 - 43)
at Rated Speed – kPa (psi)	490 - 637 (71 - 92)
Maximum Oil Temperature — °C (°F)	110 (230)
Oil Pan Capacity High—liter (U.S.gal.)	430 (113.6)
Low—liter (U.S.gal.)	370 (97.7)
Total System Capacity (includes Oil Filter) — liter (U.S.gal.)	460 (121.5)
Maximum Angle of Installation (Std.Pan)	Front Down
(Engine only)gl	Front Up
	Side to Side

COOLING SYSTEM

Cooling Type	External Water Pump Forced Cooling System
Coolant Capacity (Engine Only) – liter (U.S. gal)	200 (52.8)
Maximum External Friction Head at Engine Outlet – kPa (psi)	34.32 (5.0)
Maximum Static Head of Coolant above Crankshaft Center m (ft)	10 (32.8)
(* 1)Maximum Outlet Pressure of Engine Water Pump – kPa (psi) (Restricted)	196.1 (28.4)
(* 2)Standard Thermostat (modulating) Range— °C (°F) (Restricted)	71 - 85 (160 - 185)
Minimum Coolant Expansion Space — % of System Capacity	10
Standard Jacket Water Temperature at Engine Outlet— °C (°F)	91 ± 2 (195.8 ± 3.6)
Standard Coolant Temperature at Intercooler Inlet— °C (°F)	35 (95)
Maximum Coolant Temperature at Intercooler Inlet—°C (°F)	49 (120)
for Radiator Cooling @Atmosphere Temperature : 40°C (104°F)	
Jacket Water Heater Capacity (AC3φ-220V)—kW x piece	2 x 2

FUEL GAS SYSTEM

Fuel Type	Natural Gas
Methane Number	Higher than 60
Fuel Gas Specification	C3H8 : less than 5% C4H10 : less than 4% Water : The dew point to be lower than 0 deg C
Supply Pressure to Main Fuel Gas –To pressure regulator kPa (psi)	100 - 300 (14.5 - 43.5)
–To Tecjet Valve kPa (psi)	20 ± 1 (2.90 ± 0.15)
Supply Pressure to Pre-chamber Fuel Gas – kPa (psi)	325 - 375 (47.1 - 54.4)

STARTING & ELECTRICAL SYSTEM

Starting Motor Capacity – V - kW	24 - 7.5 x 2
Maximum Allowable Resistance of Cranking Circuit – mΩ	1.5
Recommended Minimum Battery Capacity	
At 5°C (41°F) and above – Ah	300
Below 5°C (41°F) through –5°C (23°F) – Ah	600

SITE CONDITIONS

Max. Ambient Temperature— °C (°F)	40 (104)
Altitude Capability at 40°C(104° F) ambient, above sea level –m	150

FLYWHEEL & FLYWHEEL HOUSING

Flywheel size (SAE Standard)	No.21
Flywheel Housing size (SAE Standard)	No.00

ENGINE OUTLINE DRAWING

(* 3)Standard Outline Drawing Part Number	37800-05401
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-----NOTE-----

- (* 1)-----w / o Engine driven jacket water pump
- (* 2)-----w / o Engine installed cooling water thermostat
- (* 3)-----Drawing part number is subject to engine specification