

a group company of



GS12R-PTK (Generator set 687 kW, 400V, 50Hz)

February 20, 2014

APPLICATION : GENERATOR

DATA SHEET

Item	Unit	Data
speed	rpm/min	1500
Cylinder No.	V type	12
Total displacement	liter	49.03
Bore	mm	170
Stroke	mm	180
Compression ratio		15:1
Engine brake output	kW	722
Generator output	kVA	859
Power factor (minimum)		0.8
Alternator efficiency	%	95.2%
Generator output (gross)	kW	687
Auxiliary consumption (maximum : including ventilation and cooling)	kW	22
Net generator output (auxiliary deducted)	kW	665
Power generation efficiency (gross)	%	40.0%
Fuel gas input	kW	1718
Fuel gas flow rate	Nm ³ /h	169
Heat rejection on jacket water (HT circuit) - for radiator design	kW	366
Heat rejection charge air (LT circuit) - radiator design	kW	146
Heat rejection on exhaust	kW	476
Thermal radiation (engine block)	kW	111
Net electrical efficiency	%	38.7%
CW temperature at HT outlet (maximum)	°C	91 +/- 2
CW temperature at LT inlet (maximum)	°C	35
Air intake flow rate	m ³ /min	
Exhaust gas flow rate	Nm ³ /h	3100
Exhaust gas temperature	°C	399
Lube oil consumption	g/kWh	0.5
Outside ambient temperature (maximum)	°C	30
Inside ambient temperature - container (maximum)	°C	50
Flow rate of HT cooling circuit	m ³ /h	72
Flow rate of LT cooling circuit	m ³ /h	15
NOx emission level (O2 5%) - Std - Other level as option.	mg/Nm³	500
CO emission level (O2 5%)	mg/Nm ³	N/A
Noise level at 10m (container)	dB(A)	70
Fuel gas methane number (minimum)		80
Fuel gas Lower Heating Value	kJ/Nm ³	36620

Tolerances :

Fuel input : 0/+5% (ISO 3046/1). Submitted to fuel gas specification confirmation.

Heat rejection data for radiator design : including 17% margin

Exhaust gas flow / temp : +/- 8% / +/- 6%

Non specified data : refer to ENGINE SPECIFICATION SHEET