

4Y COP Gen Set Spec.

COP Generator Set Specification



Engine Data			
	Unit	1500	1800
Manufacturer		Toyota / IMT	
Aspiration		Naturally Aspirated	
Cylinder		4	
Cylinder arrangement		In line	
Rated Speed	Hz (rpm)	50 (1500) / 60 (1800)	
Displacement	cm ³	2,237	
Bore	mm	91	
Stroke	mm	86	
Compression ratio		10,5:1	
Engine weight dry	Kg	182	
Governour Type		Electronic	
Rotation viewed from Flywheel		Counter Clockwise	

Power rating* LPG			
Continous Power	(COP)	KW	20 25

Exhaust System			
Exhaust manifold type		dry	
exhaust flow rate at rated KW	Kg/h	97,2	118,8
exhaust temperature at rated KW, dry	°C	570	605
Maximum allowable back pressure	kPa	10	
Exhaust outlet size at exhaust flange	mm	46 I.D.	

Engine Electrical		
Ignition System		Electrical
Battery charging alternator	Amps	70
System Voltage	Volts	12
Starter Motor	Volts	12
Starter Motor	KW	1,3
Battery power minimum	Ah (CCA)	85 (630)
Ground		Negative

Lubrication System		
Oil Pan capacity	L	11,7
Oil pan capacity incl. filter	L	12
Oil filter		spin on cartridge



Air Requirements

Combustion Air	m ³ /min	1,37	1,63
Radiator cooling air	m ³ /sec	0,71	0,85

Cooling System

Engine: Water Pump ratio		1:1,2	1:1,2
Thermostat open	°C	77	43
Water Pump Flow	L/min	30	43
Heat rejected to cooling water (dry exhaust)	KWh	15	19
Thermostat open	°C	77	
Coolant volume engine only	L	4,8L	
Coolant volume engine + radiator	L	7,7L	
Fan Diameter	mm	410	
water pump type		centrifugal	

Fuel System

Fuel Type			LP Gas or Natural Gas	
Fuel Supply Line	G		1/2"	
Fuel supply pressure	kPa		1,74 - 2,74	
Fuel Composition Limits:				
Methane	vol %		92 min	
Ethane	vol %		4,5 max	
Propane	vol %		1,0 min 87 max	
Propene	vol %		0,1 min 5.0 max	
C4 and higher	vol %		0,3 min 2.5 max	
Sulfur	ppm mass		25 max	
Lower Heating value	MJ/m³		33,2 min	
	MJ/m³		84,2 max	
Fuel Consumption:				
Gastype:	LPG	NG	LPG	NG
100%	Kg/h	m³/h	5,1	5,5
75%	Kg/h	m³/h	4,3	4,6
50%	Kg/h	m³/h	3,4	3,7
Nominal Fuel Rating LP Vapor	MJ/m³		93	

* power rating is based on ISO 3046 net power at flywheel with cooling fan or alternator loss

The preceeding values may vary with temperature, pressure, application installation

All technical data are subject to change due to technical/installation changes