12M26D902E201 / 792E200 Engine Data Sheet

Model Name (rpm)	Gross Engine Output (kWm / PS)	
	PRP	ESP
12M26D902E201 (1800)	820 (1115)	902 (1226)
12M26D792E200 (1500)	720 (979)	792 (1077)

Ratings Definitions

Rating	Prime Power (PRP)	Standby Power (ESP)
Annual Working Time	Unlimited	≤200 h
Mean Engine Load Factor	≤70% per 24 h	≤70% per 24 h
Time at Full Load	≤500 h per year	≤25 h per year
Overload Capacity	1 h per 12 h (10% overload) ≤25 h per year	No

1) The power ratings are in accordance with ISO 3046.
2) Test conditions: 100 kPa, 25 °C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L.
3) The engine maybe operated at : up to 1000 m and 30°C without power deration. For sustained operation above these conditions, derate by 3% per 300m, and 2% per 11°C.
4) Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; notincluded are battery charging alternator, fan and optional equipment.

Basic Data

Engine Model	12M26D902E201 12M26D792E200	Cylinder / Valve No.	12 / 48
Bore / Stroke (mm)	150 × 150	Displacement (L)	31.8
Fuel System	Mechanical Pump	Aspiration	Turbocharged / Intercooled
Compression Ratio	15.5 : 1	Emission Standard	EU Stage II
Overall Dimension (L × W × H) (mm)	2,615 × 1,525 × 1,760	Engine Net Weight (kg)	2,910
Injection Timing (°CA)	50HZ : 18 - 19		60HZ : 21 - 22
Flywheel Size	SAE NO. 0 / 18	Tooth No.	178
Max. Permitted Installing Angle (°)	Longitudinal Inclination	Front / Rear	10 / 10
	Cross Inclination	Left / Right	22.5 / 22.5
Permitted Ambient Temperature (℃)	-10 ~ 50	Permitted Altitude Limit (m)	2,000
Valve Lash at Cold (mm)	(intake valve:0.3±0.03) / (exhaust valve:0.4±0.03)		

Performance Data

	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ
Idle Speed (rpm)	700 - 750		Max. Speed Limit (rpm)		1,725	2,070
Mean Piston Speed (m/s)	7.5	9	BMEP (MPa)		1.811	1.719
Friction Power (kW)			Fan Power (kW)		28	40
Load Factor	**Power (kW)**		**SFC (g/kW.h)**		**Fuel Consumption (L/h)**	
110%	792	902	199.2	210.4	187.8	225.9
100%	720	820	197.1	208.3	168.9	203.3
90%	648	738	196.1	209.4	151.3	184.0
80%	576	656	196.7	210.1	134.9	164.1
70%	504	574	202.3	212.1	121.4	144.9
60%	432	492	207.2	214.3	106.6	125.5
50%	360	410	214.5	248.5	91.9	121.3
40%	288	328	245.2	281.5	84.1	109.9
30%	216	246	299.7	325.3	77.1	95.3
20%	144	164	310.6	335.2	53.2	65.4
10%	72	82	320.1	340.2	27.4	33.2

* BMEP : Brake Mean Effective Pressure
* SFC : Specific Fuel Consumption

Air Intake System

		50HZ	60HZ
Intake Air Temperature Rise (℃)	Permitted difference between turbocharger inlet temperatureand ambient temperature (this parameter impacts emission, LAT and altitude capability)	≤5	
Intake Air Resistance (kPa)	Clean filter	≤3	
	Dirty filter	≤5	
Combustion Air Flow (kg/h)	Rated Power	4,070	5,112
	Standby Power	4,334	5,344
Air Filter Clear Efficiency (%)		≥99.5%	
Recommended Min. Diameter of Intake Pipe (mm)		140	

Intercooler System

Intercooler Heat Dissipating Capacity (kJ/s)	Rated Power	93.7	240.8
	Standby Power	111.7	286.6
Intercooler Efficiency	Rated Power	≥85%	
	Standby Power	/	
Max. Intake Temperature at Amb. Temp. 25 ℃ (℃)		55	
Permited Temperature Difference between Intake Temperature and Ambient Temperature (℃)		30	
Permitted Max. Intake Pres. Drop of Intercooler (kPa)		12	
Recommended Intercooler Radiator Cooling Area (m2)		95.2	

Exhaust System

Permitted Max. Exhaust Back Pressure (kPa)		7.5	
Max. Exhaust Temperature (℃)	Before turbocharger	750	
	After turbocharger	550 (rated power)	
Exhaust Gas Mass Flow (kg/h)	Rated Power	3,706	5,648
	Standby Power	4,077	6,213
Recommended Min. Diameter of Exhaust Pipe (mm)		220	
Max. Bending Moment of Turbocharger Flange (N•m)		10	

Lubrication System

Quantity of Oil (L)	Oil Pan Full Level	113	
	Oil Pan Low Level	95	
	Others (Filter etc.)	20	
Oil Pressure in Normal Condition (kPa)	Idle Speed	≥200	
	Rated Power	400 - 600	
Lowest Oil Pressure Alarm / Highest Alarm (kPa)		200 / -	
Temperature Range in Main Oil Passage under Rated Working Condition (℃)		85 ~ 105	
Max. Oil Pressure while Engine Starts (kPa)		1,000	
Opening Pressure of Main Oil Passage Pressure Limiting Valve (kPa)		500 - 550	
Oil Flow (L/min)		≥350	≥360
Oil Fuel Consumption Ratio		≤0.3%	

Noise and Emission

Exhaust Smoke (FSN)	Rated Working Station	≤1.5
	Max. Torque Working Condition	/
Diesel Engine Noise (Acoustic Power Level) (dB(A))		122

Fuel System

Governor		Electric Governor	
Steady Speed Drop		≤3%	
Max. Fuel Supply Resistance of the Fuel Pump at Rated Working Condition (kPa)		13	
Max. Fuel Return Resistance (kPa)		15	
Permitted Max. Fuel Inlet Temperature (℃)		45	
Fuel Supply Flow (kg/h)	Rated Power	144	175
	Standby Power	160	190
Min. Pressure of Fuel Pump (kPa)		35	
Recommended Diameter of Inlet Pipe (mm)		12	
Recommended Diameter of Return Pipe (mm)		12	

Electric System

Electric System Voltage (V)		24
Starter Power / Voltage (kW/V)		10 / 24
Alternator Power / Voltage (kW/V)		1.54 / 28
Battery Capacity		400 Ah (12V / 200 Ah x 4 EA)
Permitted Max. Electric Resistance of Starting Circuit (Ω)		0.002
Recommended Min. Sectional Area of Wire (mm^2)		90
The Lowest Cold Starting Temperature (℃)	Without Auxiliary Starting Device	0
	With Auxiliary Starting Device	-10

Cooling System

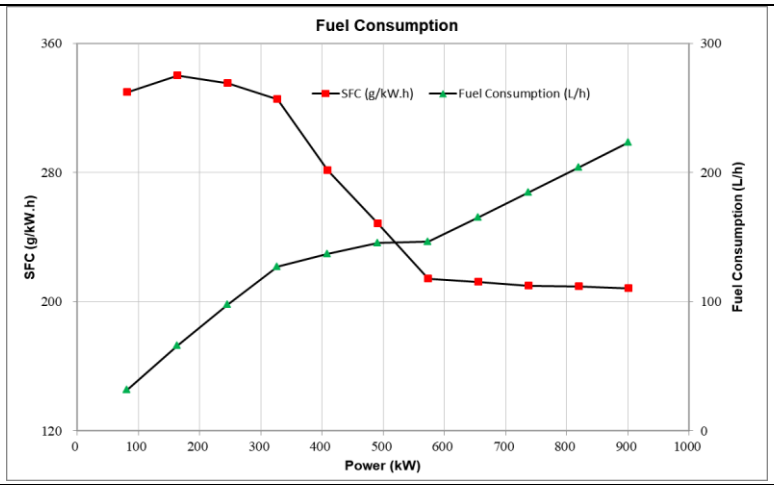
Water Pump Transmission Speed Ratio	2
Permited Min. Coolant Temp. When Engine Working (℃)	50
Fan Air Flow (m3/min)	942
Water pump Flow (m3/h)	L : 40.5, R : 40.5
Recommended Min. Inside Dia of Outlet Water Pipe (mm)	45
Min. Pressure at Water Pump Inlet without Degassing Device or with Some Degassing Device (kPa)	50
Min. Pressure At Water Pump Inlet With Full Degassing Device (kPa)	0
Max. Degassing Time (min)	-
Coolant Capacity of Engine (L)	86
Coolant Capacity of Radiator (L)	126 (with pipe 148 L)
High Alarm / Shut Down Temperature (℃)	95 / 103
Thermostat Opening / Full Open Temp. (℃)	77(1/-2) / 87
Permitted Min. Pressure in Cooling System (kPa)	50
Permitted Max. External Resistance (at Rated Speed) (kPa)	50

Mounting System

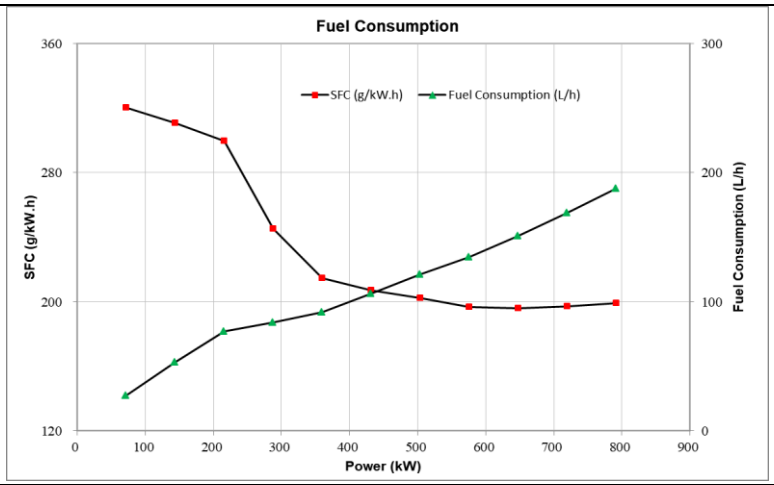
Inertia of Flywheel (kg•m2)	6.97
Inertia of Crankshaft (kg•m2)	2.58

Fuel Consumption Curve

Fuel Consumption Curve versus Engine Power (60HZ)



Fuel Consumption Curve versus Engine Power (50HZ)



※ Specifications are subject to change without prior notice. [End]