# OLYMPIAN<sup>™</sup>



# **GEM**260-1

Diesel Generator Set Exclusively from your Cat<sup>®</sup> dealer

Image shown may not reflect actual package

Output Ratings				
Generating Set Model - 3 Phase	Prime*	Standby*		
-	-	-		
220/127 V, 60 Hz	240.0 kVA	260.0 kVA		
	192.0 kW	208.0 kW		

\* Refer to ratings definitions on page 4. Ratings at 0.8 power factor.

Technical Data				
Engine Make & Model:	MWM 7.2P			
Alternator Model:	GTA252AI44			
Control Panel:	PowerWizard 1.1 +			
Base Frame Type:	Heavy Duty Fabricated Steel			
Circuit Breaker Type:	3 Pole MCCB			
Frequency:	50 Hz	60 Hz		
Engine Speed: RPM	- 1800			
Fuel Tank Capacity: litres (US gal)	457 (	120.7)		
Fuel Consumption, Prime: I/hr (US gal/hr)	- 50.0 (13.2)			
Fuel Consumption, Standby : I/hr (US gal/hr)	-	57.4 (15.2)		

## Engine Technical Data

Physical Data	
Manufacturer:	MWM
Model:	MWM 7.2P
No. of Cylinders/Alignment:	6 / In Line
Cycle:	4 Stroke
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G2
Compression Ratio:	16.8:1
Displacement: I (cu.in)	7.2 (438.2)
Bore/Stroke: mm (in)	105.0 (4.1)/137.0 (5.4)
Moment of Inertia: kg m <sup>2</sup> (lb. in <sup>2</sup> )	2.12 (7244)
Engine Electrical System:	
-Voltage/Ground:	24/Negative
-Battery Charger Amps:	80
Weight: kg (lb) - Dry:	590 (1301)
- Wet:	615 (1356)

Air System		50 Hz	60 Hz
Air Filter Type:		Paper El	ement 15"
Combustion Air Flo	w:		
m³/min (cfm)	-Standby:	-	21.0 (742)
	-Prime:	-	21.0 (742)
Max. Combustion A	ir Intake		
Restriction: kPa (in	ר H <sub>2</sub> O)	-	5.0 (20.1)
Radiator Cooling A	ir Flow:		
m³/min (cfm)		- 3	306.0 (10806)
External Restriction	to		
Cooling Air Flow:	Pa (in H <sub>2</sub> O)	-	125 (0.5)

Cooling Syster	n	50 Hz	60 Hz	
Cooling System C	apacity:			
l (US gal)		-	15.7 (4.1)	
Water Pump Type	:	Centrifugal		
Heat Rejected to \	Nater &			
Lube Oil: kW (Bt	u/min)			
	-Standby:	-	106.0 (6028)	
	-Prime:	-	95.0 (5403)	
Heat Radiation to	Room: Heat radiated	from engine and a	Iternator	
kW (Btu/min)	-Standby:		40.9 (2326)	
	-Prime:		30.7 (1746)	
Radiator Fan Load	: kW (hp)	-	5.0 (6.7)	
Cooling system desig (122°F). Contact yo specific site conditio	ur local Olympian™			

## Lubrication System

Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity I (US gal):	18.7 (4.9)
Oil Pan I (US gal):	17.0 (4.5)
Oil Type:	API CI4 15W-40
Cooling Method:	Water

Performance	50 Hz	60 Hz
Engine Speed: RPM	-	1800
Gross Engine Power: kW (hp)		
-Standby:	-	234.0 (314.0)
-Prime:	-	213.0 (286.0)
BMEP: kPa (psi)		
-Standby:	-	2192.0 (317.9)
-Prime:	-	1995.0 (289.4)

Fuel S	ystem			
Fuel Filter Type: Recommended Fuel: Fuel Consumption: I/hr			Element sel or BSEN590	)
	110% Load	100% Load	75% Load	50% Load
Prime				
50 Hz	-	-	-	-
60 Hz	57.4 (15.2)	50.0 (13.2)	37.4 (9.9)	26.9 (7.1)
Standby	1			
50 Hz		-	-	-
60 Hz		57.4 (15.2)	42.1 (11.1)	29.4 (7.8)
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)				

Exhaust Systen	n	50 Hz	60 Hz
Silencer Type:		Ind	ustrial
Silencer Model & Q	uantity:	EXS	SY1 (1)
Pressure Drop Acro	SS		
Silencer System:	kPa (in Hg)	-	0.21 (0.061)
Silencer Noise Redu	uction		
Level: dB		-	10
Max. Allowable Ba	ck		
Pressure: kPa (in.	Hg)	-	10.7 (3.2)
Exhaust Gas Flow:			
m³/min (cfm)	-Standby:	-	41.7 (1473)
	-Prime:	-	37.2 (1314)
Exhaust Gas Temperature: °C (°F)			
	-Standby:	-	630 (1166)
-Prime:		-	570 (1058)

## Alternator Performance Data

		50	Hz				60 Hz		
Data Item						380/220V			220/127V
Motor Starting Capability* kVA	-	-	-	-	-	553	-	-	831
Short Circuit Capacity%	-	-	-	-	-	300	-	-	300
Reactances: Per Unit									
Xd	-	-	-	-	-	2.118	-	-	1.577
X'd	-	-	-	-	-	0.081	-	-	0.061
X''d	-	-	-	-	-	0.058	-	-	0.043

Reactances shown are applicable to prime ratings. \*Based on 30% voltage dip at 0.6 power factor and AUX COIL excitation system.

## Alternator Technical Data

Physical Data	
Manufactured for Olympian by:	OLYMPIAN
Model:	GTA252AI44
No. of Bearings:	1
Insulation Class:	н
Winding Pitch - Code:	2/3 - NA
Wires:	12
Ingress Protection Rating:	IP21
Excitation System:	AUX COIL
AVR Model:	GRT7-TH4

Operating Data			
Overspeed: RPM	2250		
Voltage Regulation: (steady state)	+/- 0.5%		
Wave Form NEMA = TIF:	50		
Wave Form IEC = THF:	2.0%		
Total Harmonic Content LL/LN:	5.0%		
Radio Interference: Supression is in line with European Standard EN61000-6			
Radiant Heat: kW (Btu/min)			
-50 Hz:	-		
-60 Hz:	10.9 (620)		

## **Technical Data**

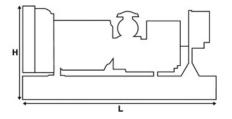
Voltage 50 Hz	Prime		Standby	
	kVA	kW	kVA	kW

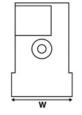
Voltage 60 Hz	Prime		ne Standby	
	kVA	kW	kVA	kW
220/127V	240.0	192.0	260.0	208.0
380/220V	240.0	192.0	260.0	208.0

## Weights & Dimensions

Weights: kg (lb)		
Net (+ lube oil)	1766 (3893)	
Wet (+ lube oil & coolant)	1775 (3913)	
Fuel, lube oil & coolant	2164 (4771)	

Dimensions: mm (in)		
Length	2512 (98.9)	
Width	1030 (40.6)	
Height	1700 (66.9)	





Note: General configuration not to be used for installation. See general dimension drawings for detail.

## **General Data**

#### Documents

A full set of operation and maintenance manuals and circuit wiring diagrams.

### **Quality Standards**

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.

#### Warranty

All prime equipment carries a one year manufacturer's warranty. Standby equipment, limited to 500 running hours per year, has a two year manufacturer's warranty. For details on warranty cover please contact your local Dealer, or visit our website: www.OlympianPower.com.

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### Definitions

#### Standby Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

### Prime Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

### Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) air inlet temp, 100m (328ft) A.S.L. 30% relative humidity. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.