



**DIESEL GENERATOR**

**FUEL OPTIMISED**

## ELECTRICAL

Frequency (Hz)	Phases	Voltage (V)	Prime		Standby		MCB Rating (A)	Minimum ATP Rating (A)	Rated Speed (RPM)
			kVA	kW	kVA	kW			
50	3	400/230V	17	14	18	14	25	30	1500
50	1	230V	13	13	14	14	40	50	1500
60	3	380/220V	17	14	18	14	32	40	1800
60	3	220/127V	19	15	20	16	50	63	1800
60	3	480/277V	20	16	22	17	50	50	1800

## POWER FACTOR

3 Phase	0.8
1 Phase	1

## MAXIMUM LOAD IMPACT\*

kVA	17.10
kW	13.70

\*With 20% voltage and 10% frequency deviation @ 50Hz, 400V

## ALL RATINGS ARE TO STANDARD REFERENCE CONDITIONS ISO 8528

**Prime:** This rating is for the supply of continuous electrical power, at variable load, in lieu of commercially purchase power. There is no limitation on the annual hours of operation and 10% over load power can be supplied for 1 hour in 12.

**Standby:** This rating is for the supply of continuous electrical power, at variable load, in the event of a utility power failure. No overload is permitted.

"Stage IIIa" models are only emissions compliant at 50Hz Prime Power in accordance with 97-68EC.

## CANOPY/SKID

Lockable Maintenance Access Doors	●
Control Panel Viewing Window	●
Fork Pockets	●
Single Lift Point	●
Rental Sledging Base	Δ
Bunding	●
Open Frame	x
Bund Level Indicator	Δ
50mm Rock Wool Sound Insulation	x
Yellow Paint	●
Red Paint	Δ
White Paint	Δ

Standard: ●      Not Available: x      Optional: Δ

## ALTERNATOR HM160A1

Poles	4
Winding Connections	Star (3Ph) / Parallel (1Ph)
Insulation	Class H
Enclosure	IP23
Exciter System	Self-regulating brushless
Voltage Regulator	AVR
Steady State Voltage Regulation	+/- 1.0%
Bearing	Single bearing sealed
Coupling	Flexible disc
Cooling	Direct drive centrifugal blower fan
Coating	Winding Protection Standard +

## STARTING SYSTEM

Starter Motor	kW	1.40
Battery Capacity	Ah	92
Number of Batteries		1
Auxiliary Voltage	V	12

## ENGINE

<b>1500 RPM</b>		
Output Rating (PRP)	kW	14.80
Output Rating (Standby)	kW	15.80
<b>1800 RPM</b>		
Output Rating (PRP)	kW	17.70
Output Rating (Standby)	kW	19.20
Manufacturer and Model		Yanmar 4TNV88BGGEH
Fuel		Diesel
Injection		Direct
Aspiration		Natural
Cylinders		4
Bore and Stroke	mm	88 x 90
Displacement	L	2.19
Cooling		Water
Engine Oil Specification		SAE 3 Class 10W30 / IPE Grade CD,CF
Compression Ratio		19:1
Engine Oil Capacity	L	7.40
Coolant Capacity	L	5.50
Governor		Mechanical
Air Filter		Dry
Engine Oil Consumption	100% Load	0.27 g/kWh

## FUEL SYSTEM

Diesel Specification		EN590
Standard Fuel Tank Capacity	L	100

## FUEL TANK OPTIONS

	Material	Capacity (L)
Standard Tank	Plastic	100
Tank Option 1	Steel	190
Tank Option 2		

## FUEL CONSUMPTION

100% Load Prime	L/h	50Hz	4.27
75% Load Prime	L/h		3.29
50% Load Prime	L/h		2.40
100% Load Standby	L/h		4.63
100% Load Prime	L/h	60Hz	6.06
75% Load Prime	L/h		3.80
50% Load Prime	L/h		3.33
100% Load Standby	L/h		6.41

## EXHAUST SYSTEM

Maximum Temperature 100% Standby	°C	50Hz	470.00
Exhaust Gas Flow 100% Standby	m <sup>3</sup> /min		4.24
Maximum Allowed Back Pressure	mbar		127.00
Maximum Temperature 100% Standby	°C	60Hz	530.00
Exhaust Gas Flow 100% Standby	m <sup>3</sup> /min		5.59
Maximum Allowed Back Pressure	mbar		1300.00
Exhaust Flange Size	mm	50.00	

## AIR SYSTEM

Intake Air Flow 100% Standby	m <sup>3</sup> /h	50Hz	88.70
Total Cooling Air Flow 100% Standby	m <sup>3</sup> /s		0.80
Alternator Fan Airflow	m <sup>3</sup> /s		0.09
Intake Air Flow 100% Standby	m <sup>3</sup> /h	60Hz	106.43
Total Cooling Air Flow 100% Standby	m <sup>3</sup> /s		0.987
Alternator Fan Airflow	m <sup>3</sup> /s		0.108

## SOUND PRESSURE (CANOPY ONLY)

LpA (7m)	50Hz	dB(A)	56
LpA (7m)	60Hz	dB(A)	69

## MECHANICAL FEATURES

Cooling Pack	●
Air Filter	●
Mechanical Governor	●
Electronic Governor	x
High Coolant Temperature Sender	●
Low Oil Pressure Sender	●
Advanced Coolant Temperature Sender	Δ
Advanced Oil Pressure Sender	Δ
Oil Temperature Sender	x
Water Level Sender	x
Radiator Guards	●
Hot Component Guards	●
Manual Oil Drain Pump (Canopy)	●
Water Jacket Heater	●
Manual Fuel Fill	Δ
Electric Fuel Fill	Δ
Racor Fuel Filter (No Alarm)	Δ
Racor Fuel Filter (With Alarm)	Δ
Pre-Filter with Separator	x
External Spark Arrestor	Δ
Fuel Level Sender	●
Fuel Heater	Δ
External Fuel Fill (Belly Tank)	Δ
3 Way Fuel Valve and Coupling Nest	Δ
Residential Silencer	●
Industrial Silencer	x

Standard: ●      Not Available: x      Optional: Δ

## ELECTRICAL FEATURES

AVR DSR	●
AVR DER	x
Winding Protection Standard	x
Winding Protection Standard +	●
Winding Protection Grey	Δ
Winding Protection Total	Δ
Winding Protection Total +	Δ
MAUX	●
PMG	Δ
Anti-Condensation Heater	Δ
Miniature Circuit Breaker (Integrated busbar)	●
Moulded Case Circuit Breaker (with integrated busbar)	x
Earth Leakage Protection (Shunt Trip)	●
Synchronisation	x
Socket Box (inclusive of heavy duty busbar & micro switch)	Δ
Preparation for Earth Spike	●
Optional Voltages	Δ
Remote Screen	Δ
Panel Door Micro Switch	Δ
Copper Busbar/Tails	Δ
Emergency Stop Button	●
External Emergency Stop Button	●

Standard: ●      Not Available: x      Optional: Δ

## BATTERY FEATURES

Battery Isolator	Δ
Battery Type	Dry
Battery Size (Ah)	66Ah
Number of Batteries	1
Optional Battery	Wet
Battery Charger	●

Standard: ●      Not Available: x      Optional: Δ

## JCB COMMUNICATION AND CONTROL

KSI	x
CPI	●
CP2	Δ
ATP	Δ
CAN/USB	Δ
CAN/LAN	Δ
CAN RS-232	Δ
Remote Modem	Δ

Standard: ●      Not Available: x      Optional: Δ

## WEIGHT AND DIMENSIONS

Length	mm	2100
Width	mm	975
Height	mm	1349
Shipping Volume (sea ready)	m <sup>3</sup>	2.76
Weight*	Kg	765.00

\*Standard build with all fluids except fuel

## REFERENCE STANDARDS

JCB Generators are CE certified and conform to the following Directives (subject to a country requiring such standard):

- EN 12100, EN13857, EN60204
  - 2006/42/CE Machinery safety
  - 2006/95/EC Low voltage
  - 2004/108/CE Electromagnetic compatibility
  - 2000/14/EC Sound Power Level (amended by 2005/88/EC)
  - 97/68/EC Emissions(amended by 2002/88/EC & 2004/26/EC)
  - Power according to ISO 8528 and ISO 3046
  - Ambient reference conditions 1000mbar, 25°C, 30% relative humidity ISO3046
- Information based on standard specification equipment unless otherwise stated.