





### **DIESEL GENERATOR**

ELECTRICAL									
		-	Pri	me	Star	ndby			
Frequency (Hz)	Phases	Voltage (V)	kVA	kW	kVA	kW	Power Factor	Rated Speed (RPM)	Alternator
50	3	400/230V	635	508	700	560	0.8	1500	ECO40-2L/4B
60	3	480/277V	682	546	750	600	0.8	1800	ECO40-1.5L/4B
60	3	220/I27V	682	546	750	600	0.8	1800	ECO40-2L/4B
60	3	208/I20V	682	546	750	600	0.8	1800	ECO40-2L/4B

#### **ALL RATINGS ARE TO STANDARD REFERENCE CONDITIONS**

**PRIME POWER:** This rating is for the supply of continuous electrical power at variable load with 70% load factor in lieu of commercially purchased 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 POWER:** 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. The average power output during a 24h period shall not exceed 80%. Operating hours are limited to 500h per annum with continuous operation to not exceed 300 hours



ENGINE			
	1500 RPM		
Output Rating (PRP)	kW	536	
Output Rating (Standby)	kW	596	
	1800 RPM		
Output Rating (PRP)	kW	585	
Output Rating (Standby)	kW	644	
Manufacturer and Model		Volvo TWD	1643GE
Fuel		Diese	el
Injection		Direc	it .
Aspiration		Turbo Ch	arged
Cylinders		6	
Bore and Stroke	mm	144x 1	65
Displacement	L	16.12	
Cooling		Wate	
Engine Oil Specification		API CH4 I	
Compression Ratio		16.5 :	1
Engine Oil Capacity	L	48.0	
Coolant Capacity	L	0.0	
Governor		Electro	
Air Filter		2 Stage	
Lube Oil Consumption @ 100%	L/hr	0.10	
FUEL CONSUMPTION			
100% Load Prime	L/h		125.6
75% Load Prime	L/h	FOLL	95.6
50% Load Prime	L/h	50Hz 64.4	
100% Load Standby	ad Standby L/h 13		139.8
100% Load Prime	L/h		144.0
75% Load Prime	L/h	(01.1	107.1
50% Load Prime	% Load Prime L/h 60Hz 7/2		72.2
100% Load Standby L/h 158.6			158.6

AIR SYSTEM			
Combustion Air Flow 100% Standby	m³/h		2818
Radiator Cooling Air Flow 100% Standby	m³/s		TBA
Alternator Fan Airflow	m³/s	50Hz	0.90
Radiator Duct Allowance	mmwg		TBA
Max Air On Temperature	°C		TBA
Combustion Air Flow 100% Standby	m³/h		3291
Radiator Cooling Air Flow 100% Standby	m³/s		12.4
Alternator Fan Airflow	m³/s	60Hz	1.08
Radiator Duct Allowance	mmwg		20
Max Air On Temperature	°C		20
EXHAUST SYSTEM			
Maximum Temperature 100% Standby	°C		463
Exhaust Gas Flow 100% Standby	m³/m	50Hz	111.8
Maximum Allowed Back Pressure	mbar		100
Maximum Temperature 100% Standby	°C		461
Exhaust Gas Flow 100% Standby	m³/m	60Hz	130.1
Maximum Allowed Back Pressure	mbar		100
FUEL SYSTEM			
	Material	Capacity	′ (L)
Standard Tank	Steel	744	
Extended Tank (12hr)	Steel	1285	
Extended Tank (24hr)	2565		
Diesel Specification		EN59	0
SOUND PRESSURE			
LpA (Im) 100% Standby	dB(A)	50Hz	105.0
LpA (Im) 100% Standby	dB(A)	60Hz	108.0



ALTERNATOR			
Poles	4		
Winding Connections	Parallel Star*		
Insulation	Class H		
Enclosure	IP23		
Exciter System	MAUX Excitation		
Voltage Regulator	AVR - DER		
Steady State Voltage Regulation	+/- 0.5%*		
Bearing	Single bearing sealed		
Coupling	Flexible disc		
Cooling	Direct drive centrifugal blower fan		
Coating	Winding Protection Grey		
*Depending on voltage selection			

ELECTRICAL FEATURES	
MAUX Excitation	•
PMG Excitation	Δ
Anti-Condensation Heater	Δ
Moulded Case Circuit Breaker (3 Pole)	•
Moulded Case Circuit Breaker (4 Pole)	Δ
Motorised Circuit Breaker	Δ
Earth Leakage Protection	Δ
Alternate Voltages	Δ
Emergency Stop Button	•
Static Battery Charger	Δ
Battery Isolator	Δ
Standard: • Not Available: x Optional: Δ	Δ

MECHANICAL FEATURES			
Electronic Governor		•	
Coolant Level Sender			•
Radiator Guards			•
Hot Component Guards			Δ
Manual Oil Drain Pump			Δ
Water Jacket Heater			Δ
Pre-Filter with Separator			•
Fuel Level Sender		•	
3 Way Fuel Valve and Coupling N		Δ	
Bunded Base Tank		•	
Exhaust Bellows		Δ	
Industrial Silencer		Δ	
Residential Silencer			×
Fork Pockets			•
Standard: ●	Not Available: x	Optional: $\Delta$	
STARTING SYSTEM			
Starting Battery		Δ	
Battery Type		Lead A	Acid
Battery Capacity	Ah	125	
Number of Batteries	2		
Auxiliary Voltage V			

kW

Not Available: x

Starter Motor

Standard: •

7.0

Optional:  $\Delta$ 



JCB COMMUNICATION AND CONTROL	
DSE 73 I 0 – Auto Start	•
DSE 7320 – Auto Start with Mains Sensing	X
DSE 8610 – Set to Set Synchronisation	Δ
DSE 8620 – Set to Mains Synchronisation	Δ
JCB LiveLink	Δ
RS232 Connection	•
RS485 Connection	•
Bund Leak Alarm	Δ
High Engine Temperature Shutdown	•
Low Oil Pressure Shutdown	•
Common Alarm Volt Free Contact	Δ
Generator Running Volt Free Contact	Δ
Standard: ● Not Available: x Optional:	Δ

WEIGHT AND DIMENSIONS				
Length	mm	3865		
Width	mm	1187		
Height	mm	2032		
Shipping Volume (sea ready)	$m^3$	9.32		
Weight*	Kg	5170		

<sup>\*</sup>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, EN 13857, EN 60204
- 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
- Based on diesel fuel with a specific gravity of 0.85 and conforming to BSEN590

Information based on standard specification equipment unless otherwise stated.