

# WGP-C40/S

## CUMMINS Series

### Features:

- Rotate speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: AS480
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 24V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy (Only for Soundproofed sets)
- 50°C radiator
- Oil pump on the engine
- Steel base frame with fork holes
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for daily running
- Drain points for fuel tank
- Operation Manual / Specifications



### Dimensions and Weights

Model	L	W	H
WGP-C40	1850	700	1280
WGP-C40S	2400	1050	1420

### Output Ratings

Genset Model	Prime Power	Standby Power
WGP-C40	40kVA/32kW	47kVA/37kW
WGP-C40S	40kVA/34kW	47kVA/37kW

Ratings at 0.8 power factor

### Notes:

#### \*Prime Power

Continuous duty operation, under variable load 24/24h-10% over load

#### \*\*Standby Power

Standby duty, operation under variable load, without over load;

### Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) 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,

### Ratings and Performance Data

Engine Model:	Cummins 4BT3.9-G1
Alternator Brand:	Stamford
Alternator Model:	PI 144J
Control System:	Auto Genset /
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L	
WGP-C40	10 hrs
WGP-C40S	10 hrs
Fuel Consumption: l/hr (100% Load)	
- Prime Power	13
- Standby Power	14.3

**Engine Model: 4BT3.9-G1**

**Engine Technical Data**

No. of Cylinders / Alignment:	4 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm	102/120
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G2
Compression Ratio:	16.5:1
Displacement: L	3.9
Moment of Inertia:kg.m <sup>2</sup>	0.143
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger	65 Amp
Weight: kg - Dry	320
- Wet	/

**Performance**

Engine Speed: RPM	1500
Gross Engine Power: kWm	
- Prime	50
- Standby	55
BMEP: kPa	
- Prime	/
- Standby	/

**Lubrication System**

Oil Pressure @ Idle Speed kPa	207
@ Rated Speed kPa	345
Maximum Oil Temperature: °C	121
Total Oil Capacity: L	11
Oil Type:	API CH4/15W-40

**Exhaust System**

Silencer Type	Industrial
Silencer Quantity:	1
Silencer Noise Reduction Level:	15 - 20dBA
Maximum Allowable Back Pressure: mmhg	76
Exhaust Gas Flow: l/s	
- Prime	247
- Standby	272
Exhaust Gas Temperature: °C	
- Prime	492
- Standby	537

**Cooling System**

Cooling System Capacity: L	20.8
Maximum coolant Friction Head	28
External to Engine: kPa	
Maximum Static Head of Coolant Above Engine Crank Centerline m :	14
Standard Thermostat (Modulating) Range: °C	82-95
Minimum Pressure Cap: kPa	69
Maximum Top Tank Temperature for Standby / prime Power: °C	104/100

Designed to operate in ambient conditions up to 50°C (122°F)  
Contact a representative for power ratings at specific site conditions.

**Fuel System**

Injection System Type: BYC A Stanadyne				
Recommended Fuel Type:				
Diesel Fuel No.2-D(ASTMD975)				
Fuel Consumption: l/hr				
Prime Load	110%	100%	75%	50%
WGP-C43	14	13	10	7.5
WGP-C43S	14	13	10	7.5

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869,Class A2)

**Air Systems**

Air Filter Type:	Dry type
	replaceable
	Element
Intake Air Flow: l/s	
- Prime	32.8
- Standby	32.9
Max. Air Intake Restriction: mmH2O	
-With Dirty Filter Element	508
-With Normal Duty and Clean Filter Element	254
-With Heavy Duty and Clean Filter Element	305

**Alternator Model: PI 144J**

**Alternator Physical Data**

Manufactured by:	Stamford
Model:	PI 144J
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	Self excited,shunt
AVR Model:	AS480

**Alternator Operating Data**

Overspeed: rpm	2250rpm
Voltage Regulation: (Steady state)	±1.0%
Wave Form NEMA = TIF:	<50
Wave Form IEC = THF:	<2%
Air Flow: m3/s	0.1
Altitude: m	≤ 1000

Alternator Performance Data:	WGP-C40	WGP-C40S
Time constants/400V:Ms		
T'd	30	30
T''d	7	7
T'do	680	680
Ta	7	7
Short Circuit Capacity** %	1/Xd	1/Xd
Reactances: Per Unit		
Xd	1.79	1.79
X'd	0.17	0.17
X''d	0.12	0.12

**Voltage Technical Data WGP-C40**

Voltage	Prime kVA	Standby kVA
380/220	40	44
400/230	40	44
415/240	40	44
440/254	40	44

**Voltage Technical Data WGP-C40S**

Voltage	Prime kVA	Standby kVA
380/220	40	44
400/230	40	44
415/240	40	44
440/254	40	44

**Genset Controller DSE4620**



**Features:**

- Large back-lit icon LCD display.
- 3-phase generator sensing.
- 3-phase generator and mains (utility) sensing.
- 600 V ph-ph nominal system compatibility.
- Generator & load power monitoring (kW, kV A, kV Ar, pf).
- Generator overload protection (kW).
- Configurable inputs & outputs.
- Fuel & crank outputs.
- Magnetic pick-up speed sensing.
- Battery voltage monitoring.
- Configurable event log (50).
- DSE Configuration Suite PC Software.
- Engine speed protection, engine hours counter, engine pre-heat, engine run-time scheduler, engine idle control for start/stop.

**Genset Controller DSE7420**



**Features:**

- Microprocessor control, with high stability and credibility .
- Mains supply and generator operation monitoring.
- Indicating operation status and fault conditions.
- Multiple protections; multiple parameters display such as pressure, temperature.
- Manual and automatic work mode selectable.
- Real time clock for time and date display, overall runtime display, 99 log entries
- Overall power output display.
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed.
- Communication with PC via RS485 or RS232 interface, using MODBUS protocol.
- Engine ECU is available.
- Common USB cable is usable for parameter configuration.
- Multi-language is available

**Optional**

Engine	Alternator	Generator Set
<ul style="list-style-type: none"> <li>• Water Jacket Preheater</li> <li>• Fuel-water separator</li> <li>• Oil pump</li> <li>• Oil preheater</li> <li>• Battery preheater</li> </ul>	<ul style="list-style-type: none"> <li>• PMG excitation</li> <li>• Alternator heater</li> <li>• Winding Temperature Measuring</li> <li>• Anti-damp and anti-corrosion treatment</li> <li>• Anti-condensation heater</li> </ul>	<ul style="list-style-type: none"> <li>•Tools with the machine</li> <li>•Coolant (-30°C)</li> </ul>
Canopy	Fuel System	Control System
<ul style="list-style-type: none"> <li>• Hired type</li> <li>• Trailer</li> </ul>	<ul style="list-style-type: none"> <li>• Low fuel level alarm</li> <li>• Automatic fuel feeding system</li> <li>• Fuel T-valves</li> <li>• Dual Wall Integral Fuel Tanks</li> <li>• Dual Wall Sub-base Fuel Tanks</li> <li>• Automatic Fuel Fill Options</li> <li>• Fuel level shut down sensor</li> </ul>	<ul style="list-style-type: none"> <li>• AMF function</li> <li>• ATS control cabinet</li> <li>• Double HZ &amp; Volt</li> <li>• ABB &amp; MCCB</li> </ul>
Air Inlet system	Lube system	Starting /Charging system
<ul style="list-style-type: none"> <li>• Air pre-heater</li> </ul>	<ul style="list-style-type: none"> <li>• Manual sump pump</li> <li>• Lubricant oil pre-heater</li> </ul>	<ul style="list-style-type: none"> <li>• Jacket water heater</li> <li>• Maintain free battery</li> </ul>



**WALT GLOBAL POWER EQUIPMENT CO.,LTD**

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Walt reserves the right to make changes in model, technical specification, color, configuration and accessories without prior notice.

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