

**Standby Power (ESP)**

Standby power is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage under test conditions for up to 500 hours of operation per year under average of 70% load. Overloading is not permissible

**Prime Power (PRP)**

Prime power is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load. Average load should be 70%. The generator can be overloaded 10% for 1 hour per 12 hours.



Technical information and values are according to ISO8528, ISO3046, NEMA MG1.22, IEC 600341, BS 49995000, VDE 0530 standards. Producing with ISO9001, CE standards.

All information given in this leaflet is intended for general purposes only. Due to a policy continuous improvement TPH reserves the right to amend details and specifications without notice and all information given is subject to the TPH's current condition of sales.

**Power Output Ratings 50 Hz. / 400 V**

Standby Power (ESP)	kVA	1250
	kW	1000
Prime Power (PRP)	kVA	1125
	kW	900

**Engine**

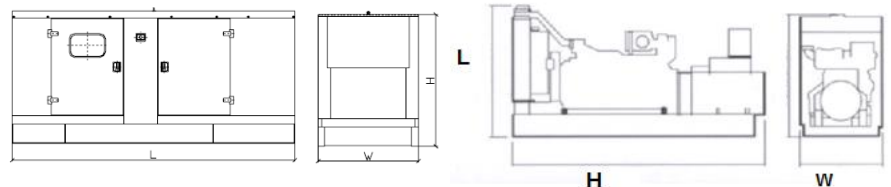
Manufacturer	CUMMINS		
Model	KTA 50 G3		
No of Cylinder / Configuration	16 V		
Displacement lt	lt	50,3	
Bore / Stroke	mm	159x190	
Compression Ratio	13.9:1		
Aspiration	Turbo charged and AC		
Governor Type	ELECTRONIC		
Cooling System	WATER		
Coolant Capacity	lt	340	
Lubrication Oil Capacity	lt	177	
Electrical System	VDC	24	
Speed / Frequency	rpm	1500 rpm / 50 Hz	
Engine Prime Power (with fan)	kWm	1227	
	100%	261	
	75%	199	
Fuel Consumption	50%	139	
	Exhaust Gas Temperature	°C	525
	Exhaust Gas Flow	m³/min	240
Heat Radiated to Ambient	kW	150	
Air Intake Engine	m³/min	105	

**Alternator**

Manufacturer	STAMFORD	
Model	PI734B	
Power Factor	0,8	
No of Bearing	SINGLE	
No of Poles	4	
No of Leads	12	
Voltage Regulation ( Steady State)	± %0,5	
Insulation	H	
Degree of Protection	IP23	
Excitation System	AVR, BRUSHLESS	
Connection Type	STAR	
Total Harmonic Content (No Load)	< %2	
Frequency	Hz	50
Voltage Output	VAC	231/400

**DIMENSION**

	L x W x H (mm)	Weight (kg)	Fuel Tank (lt)
Canopied	40ft ISO CONTAINER	15300	1250
Open Skid	4910x2120x2260	10100	2000



## DESIGN SPECIFICATIONS

High quality, reliable and complete power unit, Compact design, Easy start and maintenance possibility, Every generating set is subjected to a comprehensive test programme which includes full load testing and checking and providing of all control and safety shut down functions testing, Full engineered with a wide range of options and accessories: Canopy, soundproof and on road trailer

## STANDARD GENSET SPECIFICATIONS

### ENGINE

CUMMINS heavy duty diesel engine, Four cycle, water cooled, turbo charged and after cooled, 4 valves per cylinder. Electronic Governor Control System, Direct injection fuel, Replaceable wet type cylinder liners, 24 V D.C. starter and charge alternator, Replaceable fuel filter, oil filter and dry element air filter, Cooling radiator and fan, Starter battery (with lead acid) including Rack and Cables, Flexible fuel connection hoses and manual oil sump drain pump, Industrial capacity exhaust silencer and steel bellows, Jacket water heater (at automatic models), Operation manuals and circuit diagram documents

### ALTERNATOR

Brushless, single bearing system, 4 poles, flexible disc, Insulation class H, Standard degree of protection IP21, Self-exciting and self-regulating, Stator winding with 2/3 pitch for improving harmonics, Impregnation with tropicalised epoxy varnish, Solid state Automatic Voltage Regulator. Close voltage regulation.

### BASE FRAME

The complete genset is mounted as whole on a heavy-duty fabricated, steel base frame. Antivibration pads are fixed between the engine/ alternator feet and the base frame. Base frame design incorporates an integral fuel tank. The generating set can be lifted or carefully pushed / pulled by the base frame, Lifting eyes allow easy transportation by a crane. Daily type gauge and drain plug on the fuel tank.

### CONTAINER

Welded with square and trapeze sheet steel construction - Lockable doors on each side - Removable roof - Aluminium internal floor - Residential silencer - Sandwich mineral wool attenuation on the roof surface - White paint finishing (RAL 9010)

### CONTROL SYSTEM

#### Devices

DSE, model 7320 Auto Mains Failure control module  
Static battery charger  
Emergency stop push button and fuses for control circuits  
Construction and Finish

Components installed in sheet steel enclosure. Phosphate chemical, pre-coating of steel provides corrosion resistant surface

Polyester composite powder topcoat forms high gloss and extremely durable finish  
Lockable hinged panel door provides for easy component access

#### Installation

Control panel is mounted generating set baseframe on robust steel stand or power module.

Located at side of generating set with properly panel visibility.

#### Generating Set Control Unit

The DSE 7320 control module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel and gas generating sets that include electronic and non electronic engines. The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is therefore suitable for controlling a standby generating set in conjunction with an automatic transfer switch. The DSE 7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

#### Standard Specifications

- Microprocessor controlled
  - 132 x 64 pixel LCD display makes information easy to read
  - Front panel programming and also via PC software
  - Soft touch membrane keypad and five key menu navigation
  - Remote communications via RS232, RS485 and ethernet and SMS messaging
  - DSE860-65 ethernet adaptor
  - Event logging (50) showing date and time
  - Multiple date and time engine exercise mode and maintenance scheduler
  - Engine block heater control.
  - Controls: stop, manual, auto, test, start, mute lamb test/transfer to generator, transfer to mains, menu navigation
- Instruments

#### ENGINE

Engine speed  
Oil pressure  
Coolant temperature

Run time  
Battery volts  
Engine maintenance due

#### GENERATOR

Voltage (L-L, L-N)  
Current (L1-L2-L3)  
Frequency

Earth current  
kW  
Pf

kVA  
kWh, kVAh, kVArh  
Phase sequence

MAINS  
Voltage (L-L, L-N)  
Frequency

#### Protection Circuits

#### WARNING

Charge failure  
Battery under voltage  
Fail to stop  
Low fuel level (opt.)  
kW over load  
Negative phase sequence  
Loss of speed signal  
PRE-ALARMS  
Low oil pressure  
High engine temperature  
Low engine temperature  
Over /Under speed  
Under/over generator frequency  
Under/over generator voltage

ECU warning  
SHUT DOWNS  
Fail to start  
Emergency stop  
Low oil pressure  
High engine temperature  
Low coolant level  
Over /Under speed  
Under/over generator frequency  
Under/over generator voltage  
Oil pressure sensor open  
Phase rotation  
ELECTRICAL TRIP  
Earth fault  
kW over load  
Generator over current  
Negative phase sequence

#### Static Battery Charger

Battery charger is manufactured with switching-mode and SMD technology and it has high efficiency.

Battery charger models' output V-I characteristic is very close to square 2405 has fully output short circuit protection and it can be used as a current source. 2405 charger has high efficiency, long life, low failure rate, light weight and low heat radiated in accordance with linear alternatives.

The charger is fitted with a protection diode across the output. Charge fail output is available. Connect charge fail relay coil between positive output and CF output.

Input: 196-264V.  
Output: 27,6V 5A or 13,8V 5A.