

# AC1000-6





1000 kVA / 800 kW POWERED by CUMMINS

# DIESEL GENERATING SET 480/277V,380/220V,220/127V- 60 Hz

MODEL			AC1000-6
Power Pf. 0.8	Standby	kVA	1000
		kW	800
	Prime	kVA	905
		kW	724

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.

Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.

- ✓ High quality, reliable and complete power unit
- √ Compact design
- ✓ Easy start and maintenance possibility
- ✓ Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
- ✓ Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer











Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.



# **ENGINE**

CUMMINS						
Model		QSK23G3				
Engine Power Output	kWm	895				
at rated rpm	HP	1200				
Aspiration and Cooling		Turbocharged and Air to Air Aftercooled				
Total Displacement	Litre	23.15				
No. of Cylinders and Build		6 - L				
Engine Speed	rpm	1800				
Bore and Stroke	mmxmm	170x170				
Compression Ratio		16:1				
Governor		Electric				
Fuel Consumption at full load	L/hr	189				
Fuel Tank Capacity	Litre	Open: 1400/Canopy: 1100				
Oil Capacity	Litre	103				
Coolant Capacity	Litre	122.5				
Radiator Cooling Air	m³/min	1206				
Air Intake – Engine	m³/min	67.92				
Exhaust Gas Flow	m³/min	183.36				

- √ Heavy duty Cummins diesel engine
- ✓ Four stroke, water cooled, turbocharged & Air to air after cooled ✓ Starter battery (with lead acid) including Rack and Cables
- ✓ Direct injection fuel system
- ✓ Electronic Governor system
- ✓ 12/24 V D.C. starter and charge alternator
- ✓ Replaceable fuel filter, oil filter and dry element air filter
- ✓ Cooling radiator and fan
- √ Flexible fuel connection hoses and manual oil sump drain valve
- ✓ Industrial capacity exhaust silencer and steel bellows
- ✓ Jacket water heater(at automatic models)
- ✓ Operation manuals and circuit diagram documents

# **ALTERNATOR**

Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 - 163°C Continuous
Exciter Type	Self Excited
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

- ✓ Brushless, single bearing system, flexible disc, 4 poles
- ✓ Insulation class H
- ✓ Standard degree of protection IP21 (\*IP22/IP23 is available.)
- ✓ Self-exciting and self-regulating

- ✓ Impregnation with tropicalised epoxy varnish✓ Solid state Automatic Voltage Regulator
- ✓ Stator winding with 2/3 pitch for improved harmonics

# **CONTROL SYSTEM**

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

### 1. Auto Mains Failure Control Panel

Panel equipments:

- ✓ Control with AMF module
- ✓ Static battery charger
- ✓ Emergency stop push button

## a) Generating set control module DSE 7320 features:

- √ The module is used to monitor a mains supply and starts and stops a standby generating set
- √ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- ✓ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ Easy push button control STOP/RESET - MANUAL -TEST- AUTO - MUTE ALARM - START

### b) Metering via LED display:

- ✓ Generator Volts (L-L / L-N)
- √ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine temperature (° C&° F)
- ✓ Generator Frequency (Hz)✓ Plant battery volts
- ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)
- ✓ Generator kVA, kWh
- ✓ Generator kW as % of rated kW setting
- ✓ Generator Cos (σ)



DSE 7320

### c) Alarms:

- ✓ Over and Under Speed
- ✓ Low and High Battery Volt.
- ✓ Start and Stop Failure
- ✓ Charge fail
- ✓ Over Current
- ✓ Under / Over Generator Voltage
- √ Low Oil Pressure
- ✓ Emergency stop
- √ High engine temperature
- √ kW overload
- ✓ Unbalanced load
- ✓ Independent earth fault trip

#### d) LED indications

Four configurable LED's like:

- ✓ Mains available
- ✓ Generator available
- ✓ Mains on load
- ✓ Generator on load

#### 2. Power Outlet Terminal Board Mounted on the Genset Base Frame

## **OPTIONAL EQUIPMENTS**

### **Diesel Engine**

✓ Oil heater

#### **Alternator**

- ✓ 3/4 Pole Output Circuit Breaker
- ✓ Anti-condensation Heater

### **Panel**

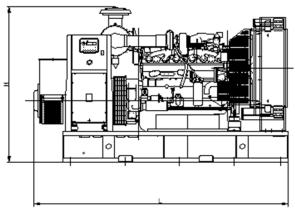
- ✓ Charge ammeter
- ✓ Transfer Switch 3 Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault ,single set

### **Accessories**

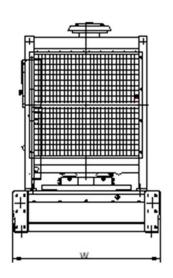
- ✓ Bulk fuel tank
- ✓ Automatic filling system
- √ Fuel-water separator filter
- ✓ Low fuel level alarm
- √ Residential silencer
- ✓ Enclosure or sound proof canopy
- ✓ Traile
- ✓ Manual oil drain pump
- √ Tool kit for maintenance



# **CHASSIS**



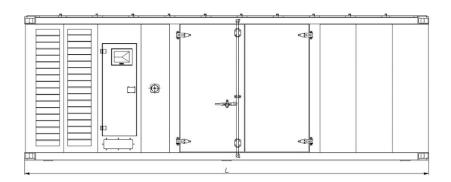
- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 1000 kVA)
- ✓ The generating set can be lifted or carefully pushed / pulled by the base frame
- ✓ Dial type fuel gauge and drain plug on the fuel tank
- ✓ Forklift pockets within base frame (up to 500kVA)



# **DIMENSIONS**

OPEN TYPE							
DIMENSIONS (LxWxH)	mm	4124x2000x2261					
DRY WEIGHT	kg	6500					
SOUND ATTENUATED TYPE							
DIMENSIONS (LxWxH)	mm	6502x2294x2353					
DRY WEIGHT	kg	8800					

# **CANOPY**



- All canopy parts are designed with modular principles
- ✓ Without welding assembly
- ✓ Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint
- ✓ Exhaust silencer is protected against environment influences
- ✓ Thermally insulated engine exhaust system
- ✓ Emergency stop push button is installed outside of the canopy
- ✓ Easy lifting and moving
- ✓ Easy maintenance and operation