



230/400 V - 50 Hz	Generating Set Model	AC 440
Power Pf. 0,8	Standby kVA	440
	Prime kVA	400

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046, BS 5514.

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, BS 5514. Contact us for the other running periods. Power ratings based on a 40 °C ambient temperature reference

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 canopy and mobile units

STANDARD GENSET SPECIFICATIONS

ENGINE:

- CUMMINS heavy duty diesel engine
- Four cycle, water cooled, turbo charged
- Electronic Governor Control System
- Direct injection fuel system
- 24 Vdc starter and charge alternator
- 4 Valves per cylinder (Except AC 250)
- Replaceable wet type cylinder liners
- Replaceable fuel filters, oil filters and dry element air filters
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual sump oil drain valve
- Industrial capacity exhaust silencer and steel bellow
- Jacket water heater (at automatic models)
- Operation manuals and circuit diagram documents

ALTERNATOR:

- Brushless, single bearing system, 4 poles
- Insulation class H
- Standard degree of protection IP21

- Self-exciting and self-regulating
- Stator winding with 2/3 pitch for improved harmonics
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator

CHASSIS:

- The complete generating set 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
- Dial type fuel gauge and drain bung on the fuel tank

CANOPY:

- All canopy parts are designed with modular principles
- Without welding assembly
- 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 canopy
- Easy lifting and moving
- Easy maintenance and operation

QUALITY STANDARDS:

- The equipment meets the following standards: ISO 3046, VDE 0530, BS 4999, BS 5000, EN 60034-I, IEC 34. The generating set is manufactured by a full accredited NQA-ISO 9001.

WARRANTY:

- 12 months warranty from commissioning date as standard.

CONTROL SYSTEM:

- Control, supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows;
- Control Modules Common Features
- Automatic controls generating set, start and shutdown
- Front panel programming of the module settings
- Remote communication via RS232 port or RS 485 "modbus" output
- Scrolling digital LCD display
- Event logging of shutdown alarms
- Control Metering via LCD display
- Generator Volts(F-F/F-N)
- Generator Amperes(L1,L2,L3)
- Generator Frequency (Hz)
- Generator kVA
- Generator kW
- Generator Cos ϕ
- Engine oil pressure (PSI&Bar)
- Engine Temperature (Cantigrade & Fahrenheit)
- Engine Speed RPM
- Engine hours run
- Plant battery volts
- Common Alarms

- Under / over generator volts
- Under / over generator frequency
- Over current
- Low oil pressure
- High engine temperature
- Under / over speed
- Low coolantlevel
- Fail to start
- Fail to stop
- Emergency stop
- Charge fail
- Low / High battery volts
- 1- Auto Mains Failure Control System P2020
- Control with DSE model 5220
- Static battery charger
- Emergency stop push button
- Additional Features
- Monitoring AC mains supply
- Provides signal to change over switch gear
- Easy pushbutton control
- Stop / Reset-Auto-Manual-Test-Start
- Additional Metering
- Mains volts (F-F / F-N)
- Mains frequency (Hz)
- Additional Alarms
- Under / over mains volts
- Under / over mains frequency
- Can data fail
- Can ECU fail
- Auto Start Control System P2010
- Control with DSE model 5010 module
- Emergency stop push button
- Additional Features
- Provides signal to load transfer
- Easy pushbutton control
- Stop / Reset-Auto-Manual-Test-Start

TECHNICAL DATA			
Diesel Generating Sets 230/400 V - 50 Hz			
G R O U P	MODEL		AC 440
	Power Pf. 0,8		440 352
			400 320
D I E S E L E N G I N	Engine Make		Cumimns
	Model		NTA 855 G7
	Gross engine power output at rated rpm		kWm hp 391 525
	Aspiration and Cooling		Turbo After cooled
	Cylinders Capacity		Lt 14
	Cylinders and Build		6 - in line
	Engine Speed		rpm 1500

E	Bore and Stroke	mmxmm	140 x 152		
	Compression Ratio		14.0:1		
	Governor		Electronic		
	Fuel Consumption	Load L/hr	1/2	3/4	Full
			45	65	88
	Fuel Tank Capacity	Lt	420		
	Oil Capacity	Lt	36		
	Water Capacity	Lt	70		
	Air Intake - Engine	m ³ /min	31.5		
	Exhaust Gas Flow	m ³ /min	84		
Alternator Voltage Regulation			± %1		

OPEN TYPES		
Dimensions (length x width x height)	mm	3230 x 1100 x 2150
Dry weight	kg	3850

SOUND ATTENUATED TYPE		
Canopy Model		AK 80
Dimensions (length x width x height)	mm	4900 x 1500 x 2520
Dry weight	kg	4700

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

OPTIONAL EQUIPMENTS	
* Fuel - Water separator filter	* Automatic fuel filling system
* Engine oil heater	* Manual sump oil drain pump
* Residential silencer	* Enclosure, Sound proof canopy
* Trailer	* Low fuel level alarm
* Charge ammeter	* Anti condensation heater for alternator
* Main fuel tank	* 3 pole alternator case circuit breaker (only for automatic models)
* 4 pole contactor	* Tool kit
* Over sized alternator	* Automatic transfer switch by contactor or motorized circuit breaker
* Automatic Synchronising and power control system	