



DIESEL GENERATOR DATA SHEET

Power By Cummins

Model: AC481



Output Ratings

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standb	y Power
model	(V)				KVA	KW	KVA	KW
AC481	127/220	60	3	0.8	438	350	481	385

^{•220/380}V, 277/480V, 254/440V is avaliable

Dimension & weight

Generator set model	Туре	L*W*H(mm)	Weight(kg)
AC481	Open	3100*1310*2130	4150
	Silent	3800*1600*2230	5050

Other datas

Circuit Breaker capacity (A)	1600	
Battery Brand	Varta	
Base Fuel Tank Capacity (L)	790	

Notes:

- Standby power: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.
- Prime power: 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.
- •Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

Standard Configuration

- Engine include air, fuel, oil filters, starting motor and charge alternator etc.
- Brushless AC alternator, single bearing, flange connection, with AVR
- Radiator with engine driven fan mounted on skid
- Channel steel base frame, <550KW base 8hrs mounted fuel tank as standard
- Anti-vibration pads between engine/alternator and base frame
- Circuit breaker 3P as standard, 4P optional
- Auto control panel
- Start battery with connecting cable and floating battery charger
- Flexbile pipe, exhaust elbow, industrial silencer etc.
- · Standard tools kit
- Electric drawing, test report ,operation & maintaince manual of generator etc.
- •Optional soundproof/Container canopy, ATS cabinet, remote control panel, synchronization panel, movable trailers, heat exchanger, remote horizontal water tank system, external fuel tank, etc

Warranty

- •The standard warranty period: One year after ex-work or 1000 operation hours whichever come first shall apply.
- •Consumable parts(air filter, fuel filter, lube oil filter), All failures and damages due to the mal-operation, neglect of maintenance and operation not according to the operation manual, are out of the scope of warranty.



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

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Engine

GENERAL ENGINE DATA

Engine manufacturer	Chongqing Cummins Engine Co., Ltd.	
Engine brand	Cummins	
Engine model	KTA19-G2	
Engine speed (rpm)	1800	
Engine output(kW)		
Standby power rating	448	
Prime power rating	392	
Туре	4-Cycle, In line, 6 Cylinder	
Aspiration	Turbocharged and aftercooled	
Borer * Stroke (mm)	140 * 152	
Displacment (litre)	18.9	
Compression Ratio	14.5:1	

FUEL SYSTEM

Type Injection System		Direct Injection Cummins PT
Fuel Consumption (litre/hour)		
	100% output power	98.8
	75% output power	77.3
	50% output power	55.9
	25% output power	35.7

EXHAUST SYSTEM

Maximum Back Pressure (kPa)	7.8
Exhaust Gas Temperature (overload/prime power) (°C)	513 / 493
Exhaust Gas Flow(overload/prime power) (liter/s)	1699 / 1543

AIR INDUCTION SYSTEM

Maximum Intake Air Restriction (in. H2O)		
	with Dirty Filter Element	25
	with Clean Filter Element	15
Intake Air Flow	(overload/prime power) (liter/s)	623 / 581

COOLING SYSTEM

Coolant Capacity — Engine Only (liter)	23
Standard Thermostat Modulating Range	82-93
Maximum Coolant Temperature (°C)	96.1
Minimum Coolant Makeup Capacity(L)	6.1
Maxi. Top Tank Temp.(standby power/prime power) (°C)	104/100

LUBRICATION SYSTEM

Oil Pressure (kPa)	
Idle Speed	138
Governed Speed	345-483
Maximum Oil Temperature (°C)	121
Total System Capacity (Excluding By-Pass Filter) (liter)	50

ELECTRICAL SYSTEM

Cranking Motor (Heavy Duty, Positive Engagement) (volt)	24
Battery Charging System, Negative Ground (ampere)	35

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ALTERNATOR

Alternator manufacturer	Cummins Generator Technologies(China) Co. Ltd
Alternator brand	Stamford
Alternator model	HCI444F
Control system	Self excited
A.V.R.	Included
Voltage regulation	±1%
Insulation system	Class H
Protection	IP23
Rated power factor	0.8
Winding pitch	Two thirds
Winding leads	12
Frequency (Hz)	60
Voltage (V)	220
Phase	3
Output ratings (kVA/kW)	
Cont.H-40°C	480/384
Standby-27°C	530/424
THF	<2%
TIF	<50
Max. overspeed (Rev/Min)	2250
Bearing	Single

CONTROL SYSTEM



The **DEEPSEA DSE 6120** is an Auto Mains (Utility) Failure Control Module developed to provide a wide range of operating and monitoring features for single diesel and gas gen-sets.

DSE7320, ComAp AMF25 etc for option.

Protection function:

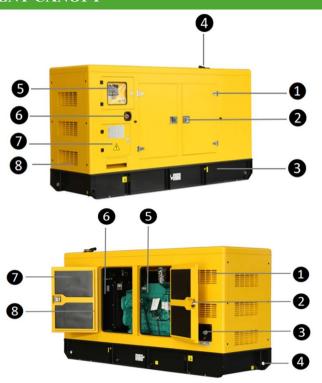
- •Low oil Pressure
- •High water temperature
- •High voltage and low voltage
- •Over current
- Overspeed
- •Volt adjuster and frequency adjuster.
- •Emergency stop
- •Low fuel alarm and shutdown
- •Low coolant alarm and shutdown

Key Functions:

- Multiple display languages
- · Data logging facility
- Fully configurable via PC using USB communication
- Front panel configuration
- 3 phase generator sensing
- 3 phase mains (utility) sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Accumulated power monitoring (kW h, kVA h, kVAr h)
- Generator/load current monitoring and protection
- Generator overload protection (kW)
- Breaker control via fascia buttons
- Fuel and start outputs, configurable when using CAN
- 4 configurable DC outputs
- 4 configurable analogue/digital inputs
- \bullet Support for 0 to 10 V & 4 to 20 mA oil pressure sensors
- 6 configurable digital inputs
- Configurable staged loading outputs
- CAN, MPU and alternator speed sensing in one variant
- 3 engine maintenance alarms
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection.
- LCD and LED alarm indication

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SILENT CANOPY



- 1)Durable stainless steel hinges
- 2Durable stainless steel hinges
- 3 Strong base fuel tank
- 4) High performance exhaust silencer
- (5) Deepsea control system
- 6 Emergency stop
- (7)High quality 3P Circuit breaker and terminal output
- 8 Fresh air inlet cooling system
- 1 air inlet cooling system
- 2stainless door lock
- 3 fuel cap lock
- 4 tow holes
- 5 engine
- 6 radiator
- 7)insluation and soundproof materials
- 8 maintenance door

Performance Features:

- More than 2mm thick steel to make the canopy.
- High quality paint materials and strict powder paint processing.
- large-scale impedance combined type silencer effectively reduce noise of the generator.
- Stainless steel door locks and hinges and 180° revolvable and disassemble door for easy maintenance.
- High quality soundproof and insulation materials could efficiently reduce noise.
- Transparent viewing window make the control panel clear at a glance.
- Lifting earis mounted in the base frame for easy pull.
- From 10kva to 700kva we use normal silent canopy, more than 700kva we are using containerized canopy.
- ISO standard 20', 40' and 40HQ sea container canopy for options.
- Standard sea container canopy is easier for shipping.

AI POWER COMPANY SHOW

