







# DIESEL GENERATOR DATA SHEET

**Power By Cummins** 

Model: AC30



# **Output Ratings**

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standby	y Power
model	(V)				KVA	KW	KVA	KW
AC30	230/400	50	3	0.8	28	22	30	24

<sup>•220/380</sup>V, 240/415V, 254/440V is avaliable

## **Dimension & weight**

Generator set model	Type	L*W*H (mm)	Weight (kg)
AC30	Open	1610*730*1285	641
AC30	Silent	2250*1000*1550	1070

# Other datas

Circuit Breaker capacity (A)	63
Battery Brand	Varta
Base Fuel Tank Capacity (L)	56

#### **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 ISO8528, ISO3046.
- •Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

# **Standard Features**

					C'1.
<ul><li>Engine</li></ul>	1nc	nide	One	CAT	tiltere
Linging	1110	luuc	OHC	SOL	IIIICIS

- •Brushless Alternator with AVR
- •Radiator with engine driven fan
- •Auto control system with LCD show
- •3P circuit breaker
- Battery charger and Start battery
- •Industrial silencer
- Anti-vibration pads
- •8hrs bottom fuel tank≤650KVA
- Standard tools kits
- •User manual & Wiring diagrams
- Standard tools kits

## **Options**

- •Silent canopy (powder coated)
- •ATS
- •Remote Control panel
- •Synchronization system
- •Mobile trailer
- •Engine heater (water/oil)
- •Fuel and water seperator
- •Alternator space heater
- •PMG
- •ABB or 4P circuit breaker
- •Exernal fuel tank
- •Double wall base fuel tank
- •Residential exhaust silencer

# 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	Dongfeng Cummins Engine Co. Ltd
Engine brand	Cummins
Engine model	4B3.9-G1
Engine speed (rpm)	1500
Engine output(kWm)	
Standby Power	27
Prime Power	24
Continuous Power	TBD
No. of Cylinder	4
Aspiration	Naturally Aspirated
Bore * Stroke (mm)	102 * 120
Displacment (litre)	3.9
Compression Ratio	17.3:1
Engine Idle Speed (rpm)	950-1050

# **FUEL SYSTEM**

Type Injection System		BYC A/RSV Mechanical		
Fuel Consumption (litre/hour)				
	100% prime power	7.1		
	75% prime power	5.7		
	50% prime power	4.3		
	25% prime power	2.8		

# EXHAUST SYSTEM

Maximum Back Pressure (kPa)	10	
Exhaust Gas Temperature (standby/prime power) (°C)	410/380	
Exhaust Gas Flow(standby/prime power) (litre/sec.)	71/68	

# AIR INDUCTION SYSTEM

Maximum Intake Air Restriction (kPa)		
with Dirty Filter Element		6
with Clean Filter Element		4
Intake Air Flow (standby/prime power) (litre/sec.)		33 / 33

# **LUBRICATION SYSTEM**

Oil Pressure (kPa)	
Idle Speed	207
Governed Speed	345
Maximum Oil Temperature (°C)	121
Min. required Lube system capacity-sump plus filters (liter)	10.9

# COOLING SYSTEM

Coolant Capacity — Engine Only (liter)	7.2
Standard Thermostat Modulating Range (°C)	82-95
Maxi. Top Tank Temp. for Standby/Prime Power (°C)	104 / 100

# **ELECTRICAL SYSTEM**

Cranking Motor (Heavy Duty, Positive Engagement) (volt)	12	24
Battery Charging System, Negative Ground (ampere)	63	40
Minimum Recommended Battery Capacity		
Cold Soak @ -18 to 0-C (0°F CCA)	625	312

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# Alternator

Alternator manufacturer	Cummins Generator Technologies(China) Co. Ltd		
Alternator brand	Stamford		
Alternator model	S0L2-P1		
Control system	SELF EXCITED		
A.V.R.	Included		
Voltage regulation	±1.0%		
Insulation system	Class H		
Protection	IP23		
Rated power factor	0.8		
Winding pitch	Two thirds		
Winding leads	12		
Frequency (Hz)	50		
Voltage (V)	400		
Phase	3		
Output ratings (kVA/kW)			
Cont.H-40°C	30/24		
Standby-27°C	33/26.4		
THF	<2%		
TIF	<50		
Max. overspeed (Rev/Min)	2250		
Bearing	Single		

# **Control System**

Ai Power adopts ComAp AMF9 or Deepsea DSE6120 as the standard controller for single gen-set applications.. AMF25 or DSE7320 for option.



ComAP AMF9



Deepsea DSE6120

### **Protection function:** $\Box$

- •Low oil Pressure  $\square$
- •High water temperature
- •High voltage and low voltage
- •Over current
- •Over speed
- •Emergency stop
- •Low fuel alarm and shutdown
- •Fail to start

#### **Features**

- •Single-genset controller for stand-by and prime power applications
- •3 phase AMF function
- •3 phase generator protections over/under frequency, over/under voltage, over current
- •True RMS voltage measurement
- •True RMS current measurement
- •Event and performance log Gen-set ext alarm, Engine hours history, ECU Text alarm, Test Run scheduler
- •Power Measurements
- •User interface
- •Inputs and outputs
  Configurable analogue/digital, binary
- •Direct communication with EFI engines
- •Engine Protections
- Oil pressure, Coolant temperature, Fuel level
- •Breaker control via fasica buttons
- •Fuel Pump control
- •Optional Active Calls(SMS alarm/event)
- •Miscellaneous features
- •Communication interface

USB plug-in, Optional RS232, RS485, GSM

- •Multiple display languages
- •Start on low battery
- •Real-time clock
- •Zero power mode
- •LCD and LED alarm indication
- •Configuration Suite PC Software.
- •IP65 protection class
- •Remote monitoring

# **Open and Silent Generator**

Ai Power silent generator is widely used in residential area which require quiet environment, its reasonable and elegant design not only reduce the noise to applicable to the environment protection, but also a good view on the road. Our 10kva to 650kva generator adopts normal silent canopy, from 650kva to 1500kva adopts 20ft container canopy, the higher power

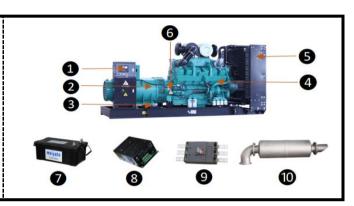
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# **Open Generator Standard Supply**

# The Open Type Generator Includes:

- 1. Automatic control panel.
- 2. 3 phases or single phase brushless alternator.
- 3. anti-vibration pad.
- 4. different brand engine.
- 5. water cooled radiator.
- 6. battery protection switch.
- 7. sealed lead acid free maintenance battery.
- 8. trickle battery charger.
- 9. 3P Chinese brand Circuit breaker.
- 10. Exhaust silencer, elbow and flange.



# **Silent Generator Standard Supply**

#### Silent Generator Standard Supply:

- 1. AMF automatic control system
- 2. Fresh air inlet cooling system
- 3. Emerency stop
- 4. 3P Chinese brand Cricuit Breaker
- 5. Cable output placement
- 6. 8hrs strong base fuel tank
- 7. stainless steel hings
- 8. maintenance door



# **Silent Canopy Features**

#### Silent Canopy Features:

- 1. more than 2mm thick steel canopy.
- 2. High quality paint and strict powder paint processing.
- 3. large-scale impedance combined type silencer.
- 4. Stainless steel door locks and hinges.
- 5. High quality fireproof, soundproof and insulation materials.
- 6. Clear monitoring control panel and outer emergency stop.
- 7. Lifting ear is mounted in the base frame for easy pull.
- 8. Fuel and lub oil drainout is all connected to the canopy.
- 9. Fuel refill opening is on the outer canopy.



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