

## MG POWER DIESEL GENERATOR

Cummins® powered Genset Model:MGC 144





\*Drawing above for illustration purposes only

## I . GENERAL DATA

Prime Power	kW/kVA	144	180
Standby Power	kW/kVA	160	200
Frequency	Hz/rpm	50	1500
Voltage	V	400	230
Current	Α	260	
Connection	/	3P 4W/Y	
Rated Power Factor	/	0	0.8
Open Type (L×W×H)	mm	2400×9	50×1570
Open Type(Weight)	kg	1650	
Silent Type (L×W×H)	mm	3000×12	200×1800
Silent Type(Weight)	kg	23	350



- Available for voltages 400/230V, 480/277V, 380/220V, 440/254V, 416/240V,220/127V, 208/120V
- All datas based on ISO 3046, altitude 100m (328ft), barometric pressure 100kPa (29.53inHg), air temperature 25°C (77°F), relative humidity 30%.
- Please contact with YANAN engineer for correct generator capacity selection when the load application can't meet with the standard reference.
- ■YANAN diesel generators comply with standards:ISO8528,ISO14000,ISO3046,GB755,BS5000,VDE0530,IEC34-1



### **II. STANDARD CONFIGURATION**

**Engine** Cummins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

Alternator YANAN brushless AC alternator

Radiator 50°C, fan protective shroud

≤550KW: base mounted fuel tank, anti-vibration pads, battery holder

Base Frame

**Engine Accessories** 

>550KW: channel steel base frame, anti-vibration pads, battery holder

≤63A: Micro Circuit Breaker (MCB) >63A ≤1250A: Molded case circuit breaker(MCCB), Circuit Breaker

>1250A: Air circuit breaker(ACB)

DEEP SEA 6120 Control System

**Start Battery** Dry charged battery, available for 6 times starts under standard condition; connection cables.

Bellow, Elbow and flange, Exhaust silencer, etc. **Installation Accessories** 

Documents Electric drawing, operation & maintenance manual, certification etc.

### **III. OPTIONAL CONFIGURATION**

Alternator And Accessories ♦ High voltage kV ♦50°C radiator ♦ Heat exchanger + water cooling tower + External water circulation pumping system Cooling System ♦ AMF ♦ Parallel ♦ Practical type in low temperature environment ♦ Control Screen Heater Control System ♦ Other (Comap、DEIF)

♦ Heavy-duty air filter 
♦ Coolant heater 
♦ Lub oil heater 
♦ Fuel and Water Separator

♦ Stamford ♦ Leroy Somer ♦ Marathon ♦ Anti condensation heater ♦ PMG

Circuit Breaker ♦3/4 poles ♦ Fixed/handcart type ♦ Electric mechanism

Automatic Transfer ♦ ATS cabinet

Swtich

♦ Nickel-cadmium battery ♦ Maintenance-free battery ♦ Power charger and selector

Start Battery

○Charging current meter

**External Fuel Tank** ♦500L ♦1000L ♦1500L ♦2000L ♦2500L ♦3000L ♦4000L ♦5000L

Others



IV. ENGINE DATA	4				
Engine Model	6CTA8.3-G2		Engine Power	180	kW
Aspiration	Turbocharge Aftercooled	d &	Displacement	8.3	L
Туре	In-line		Bore×Stroke	114×135	mm
No. of Cylinders	6		Compression Ratio	17.3:1	
Governor Type	Electronic Go	overnor	Rated Speed	1500	RPM
■ Fuel System  Prime Power Fuel  Consumption  Fuel #	42 ASTM D975 I BS2869 1998		Standby Power Fuel Consumption Injection System	48 BYC PB	L/h
■ Lubrication Syste	rm				
Lub Oil Capacity	27.6	L			
Lub #	API CF-4 15W	V40	Max.Temperature	121	${\mathbb C}$
■ Coolant System					
Coolant Capacity	30.6	L	Max. Top Tank Temp.	104	${\mathbb C}$
Std. Thermostat (Modulating) Range	82-95	$^{\circ}\!\mathbb{C}$	Fan Drive Method	Shaft drive	
Cooling Fan Air Flow	408	m3/min			
■ <i>Air Intake System</i> Combustion Air Flow	11.52/12.36	m3/min	Maximum Air Intake Restriction	4	kPa
■ <i>Exhaust System</i> Exhaust Gas Flow	31.26/34.68	m3/min	Max.Back Pressure	10	kPa
Exhaust Gas Flow  Exhaust Gas Temp	51.20/54.08 ≤563	°C	Exhaust Pipe Size	ф102	
Exilaust das Temp	≥202	C	Extidust Fibe 2176	ψ102	mm
■ Starting System					
Start Mode	DC24V Electr	ic start	Battery	2x120	Ah



## V. ALTERNATOR DATA

Alternator Model	SLG274G	Rate Power	140/175	kW/kVA
PF.	0.8	Voltage	400/230	V
Phase	3	Frequency	50	Hz
Connection	3P 4W/Y	Bearing	1	
Winding Pitch	2/3	Proteccion Class	IP23	
Insulation Class	Н	Efficiency	92.5%	
Tel. Influence	TIF: <50	Voltage Regulation	±1.0%	
Harmonic Coefficient	THF: <2%	AVR	AS440	
Voltage Adjust Scope	≥±5%	Excitation System	Self Excited	

## VI. CONTROL SYSTEM DATA

### MODEL DSE6120

#### ■ Main feature

Electronic J1939 (CAN) and nonelectronic MPU and alternator sensing engine support for diesel, gas and petrol engines all in one variant.

With a number of flexible inputs, outputs and protections, the modules can be easily adapted to suit a wide range of applications.



DSE6120 MKIII

#### ■ Key Function

▲ Utility voltage sensing	▲Configurable staged loadingoutputs	▲Configurable remote start input
▲Generator/load powermonitoring	▲CAN, MPU and alternator	▲ Alternative configuration
(kW, kV A, kV Ar, pf)	speed sensing in one variant	▲Alarm including common alarm,common
▲Generator overload protection(kW)	▲3 engine maintenance alarms	electric and common shutdown
▲Efficient power save mode	▲Engine speed protection	▲ LCD and LED alarm indication
▲mains and generator closed via	▲Engine pre-heat	▲Configurable event log (50)
front panel	▲ Multiple date and time scheduler	▲ Heated display option available
▲4 configurable DC outputs	▲Engine idle control for starting	$ \stackrel{\star}{lpha} \underline{\textit{For more information, please visit the}} $
▲4 configurable analog./digitalinputs	&stopping	official website
▲6 configurable digital inputs	▲Fuel pump control	

### VII. WARRANTY POLICY

pressure sensors

1. Guarantee for one year or 1000 hours (accord to whichever reach first) from ex-factory date. Refer to

▲Start on low battery voltage

▲Support for 0-10 V & 4-20 mAoil ▲Battery voltage monitoring



《YANAN Diesel Generator Warranty Manual》 for more details.

2. Wearing parts( filters), incorrect man-made operation, maintenance failures are excluded from the warranty policy

