Diesel Powered
Generating Sets
Power By Cummins Engine

DIY-C313,50HZ,230/400V,3P/4W

Standard Genset Features

Single Source Responsibility
Design, manufacture and testing of engine, alternator, control system and complete generating set are all produced by the companies with DIY Group.

Single bearing alternator, class H/H
Standard voltage 230/400 volts 50 Hz
Exciter/Voltage reg - Torque Match as standard
Standard ComAp AMF20 Auto start whith AMF
Steel base frame with A/V mounting,
Engine, Alternator, Chassis & Control Box
3 pole Delixi Circuit Breaker
50 Degree Radiator
Packing under shrunk plastic film
Operation & Maintenance manual
Standard set of labels
Battery Charger 24V, 5A or 10A
Floating Battery Charger 24V, 5A or 10A
Seaworthy Plastic film packaging
Maintenance-free battery

Generator Performance

Voltage Regulation
Maintains voltage output to within ±1.0%.
At any power factor between 0.8 and 1.0
At any variations from No load to Full load.
At any variations from Cold to Hot.
At speed droop variations up to 4.5%.

Frequency Regulation
Isochronous under varying loads from no load to 100% full load when electronic governor is fitted

Random Frequency Variation
Will not exceed ±0.25% of its mean value for constant loads – no load to full load.

Waveform
Total harmonic distortion open circuit voltage waveform in the order of 1.8%. Three-phase balanced load in the order of 5.0%.

Telephone Influence Factor (TIF)
TIF better than 50.
THF to BS 4999 Part 40 better than 2%.

Alternator Temperature Rise
Class H insulation.

Radio Interference
In compliance with BS 800 and VDE levels G and N.

Generator Set Options

Fuel options
Fuel Tank under 8working hours capacity

Exhaust Options
Exhaust Silencer - Industrial In-Line
Exhaust Bellows
Exhaust Silencer - Residential , In-Line
Installation Kit - Industrial Silencer
Installation Kit - Residential Silencer

Voltage Connections
240/416V, 230/400V, 220/380V,

Miscellaneous Options
3 pole or 4 pole Circuit Breaker
Optional Set mounted starting batteries
Coolant Heater 240V
Battery Charger 240V, 5A or 10A
Automatic Transfer Switches
Packing - Export Box

Engine Specification

Type
Cummins water cooled Diesel engine, four cycle, turbocharged and low temperature aftercooled

Construction
Two valves per cylinder, forged steel crankshaft and connecting rods, cast iron block.

Starting
12/24 volt negative earth. Battery charging alternator 35 amp on engine. Cranking current 1800 amps at 0°C.

Fuel System
12/24 volt fail safe actuator. Spin-on paper element fuel filters with fuel pump injection system with integral electronic governor. Dual flexible fuel lines and connectors. Standard fuel water separator.

Filters
Air cleaner with dry element.
Spin-on full flow lube oil filter.

Cooling
40°C ambient temperature standard
Stone guard. Drain Tap

Alternator Specification

Type
Brushless single bearing, revolving field, pole, drip proof, screen protected.
Class H Insulation, IP23 Protection
Fully interconnected damper winding.
AC exciter and rotating rectifier unit.
Epoxy coated stator winding.
Rotor and exciter impregnated with tropical grade insulating oil and acid resisting polyester resin. Dynamically balanced rotor BS 5625 grade 2.5.
Sealed for life bearings.
Layer wound mechanically wedged rotor.

Exciter
Triple dipped in moisture, oil and acid resisting polyester varnish and coated with anti-tracking varnish.

Output windings with 2/3 pitch for improved harmonics and paralleling ability.
Close coupled engine/alternator for perfect alignment.

Quality Standards

To BS4999/5000 pt 99,
VDE 0530, UTE5100,
NEMA MG1-22, CEMA,
IEC 34, CSA A22.2,
AS1359, BS 5514,
ISO 3046 and ISO 8528
ISO9001:2000,ISO14000,
CE Compliance

Engine Performance Data@1500RPM			
Output Power		Fuel Consumption	
%	kW	g/kW.h	L/h
Standby Power			
100	291	194.8	68
Prime Power			
100	261	195	61
75	196		52
50	131		37
25	65		21

Specification

Model	DIY-C313	Alternator Manufacture	LeroySomer
Standby Power	313kVA/250kW	Alternator Model	LSA46.2L9
Prime Power	275kVA/220kW	Standby Power	290kVA/232kW
Engine Manufacture	CCEC CUMMINS	Prime Power	280kVA/224kW
Engine Model	Cummins NTA855-G1A	Alternator Voltage Regulation	AVR AS440
Number of Cylinders	6L	Alternator Insulation	H
Air intake way	Turbocharged and Charge Air Cooled	Protection Class	IP23
Bore×stroke	140mm X 152mm	Fuel Consumption at 100% Output (Standby)	68L/h
Compression Ratio	14.5:1	Fuel Consumption at 100% Output (Prime)	61L/h
Displacement	14L	Intake Air Flow	379L/Sec
Engine Standby Output	291KW(50HZ)	Exhaust Gas Temperature(Standby)	498℃
Engine Prime Output	261kW	Radiated Heat to Ambient(Standby)	36
Speed	1500 rpm	Fuel Tank Capacity	500L/132Gallon(Open Type)
Lubrication Capacity	36 liter	Coolant Capacity	20.8 liter

In accordance with ISO 8528, 3046, BS5514

PRIME POWER

Prime Power is available continuously during the period of power outage in a variable load application. Variable load should not exceed a 70% average of the prime power rating

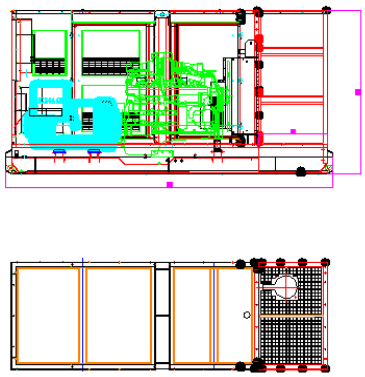
during any 24 hour period.

A 10% overload capability is available for a period of 1 hour within a 12 hour period of operation.

STANDBY POWER

The Standby Power is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

Canopy diagram



1500 rmp400v 3P 4W/60HZ/0.8F			Open type Dimensions & Weight				Canopy type Dimensions & Weight			
Genset Model	Cummins	Original Stamford	Length mm	Width mm	Height mm	Weight(dry) kg	Length mm	Width mm	Height mm	Weight(dry) kg
DIY-C313R5	NTA855G1A	HCI444D	2570	1160	1680	2980	4650	1600	2260	5200
DIY-C350R5	NTA855G1B	HCI444ES	3050	1150	1760	4020	4650	1600	2260	5200
DIY-C450R5	NTAA855G7A	HCI444F	3440	1430	2100	5200	4650	1600	2260	5200

Robust Corrosion Resistant Construction

Δ Black finish stainless stell lock and hinges
Δ body made from steel components treated with polyester powder coating

Excellent Access for Maintenance

Δ radiator fill access plate
Δ lube oil and cooling water drains pipes to exterior of the enclosure
Δ adding cooling water from top of canopy
Δ LED light will be lighting automaticlly when open the door

Security and Safety

Δ control panel viewing window in a lockable access door
Δ emergency stop push buttom (red)mounted on enclosure interior
Δ cooling fan and battery charging alternator fully guarded
Δ exhaust silencing system totally enclosed for operator safely
Δ Control panel and cable design in different directions,all the connection wiring in control panel are more neater and firmer.

Note:

Rating Definitions (Operation at Altitude ≤1000m, Ambient temperature ≤ 40℃)Continuous Power.These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power.

Control Panel -ComAp

The base mounted control panel in a vibration isolated sheet steel enclosure.The control panel is equipped as follows:

a) Instruments:V, A (3 phase), Hz, kW, kVAr, kWh.

b) Controls:Push buttons and LEDs for simple control.

c) Control module:Standard collocation is ComAp AMF20 Auto start with AMF.

Main Features:

ΔSupport of engines equipped with Electronic Control Unit J1939 interface (25) 1

Δ Remote Start operation available

Δ Active SMS / E-mails

Δ Comprehensive diagnostic messages; SPN / FMI codes; KWP2000 support

Δ Automatic or manual start / stop of the gen-set

Δ Graphic back-lit LCD display

Δ Parameters adjustable via keyboard or PC

Δ Selectable protections alarm / shutdown

Δ Configurable analog inputs and outputs

Δ Battery voltage, engine speed (pickup) measurement

Δ Configurable programmable binary inputs and outputs

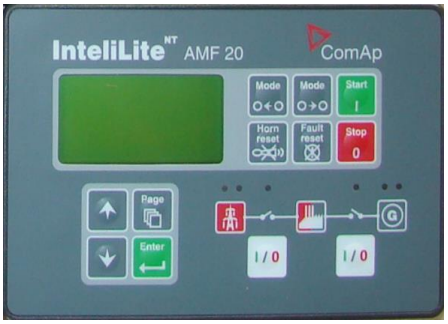
Δ Event based history file

Δ Warm-up and cooling functions

Δ Generator C.B. and Mains C.B. control with feedback and return timer

Δ Power and temperature switching binary output

Δ Wide range of communication interfaces



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See your distributor for more information.

Specifications may change without notice