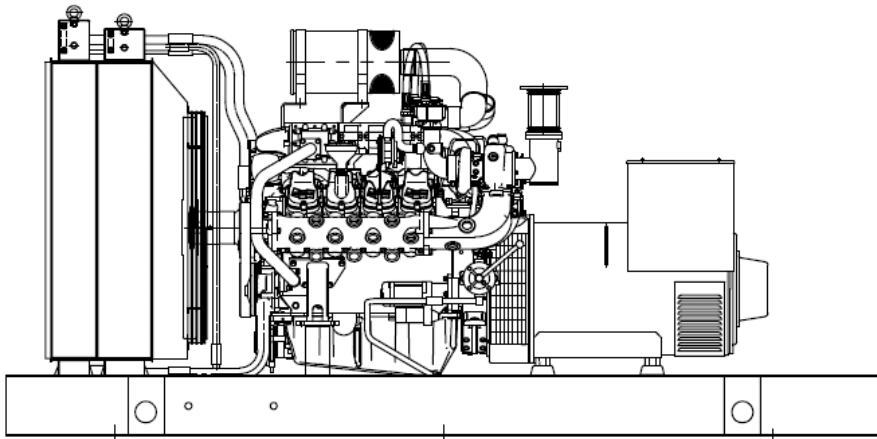


# GR180N4

# WINPOWER

LIQUID COOLED VAPOR FUELED GASEOUS GENERATOR SET

Est. 1925



**Standby Rating**  
**180kW 60Hz**

Powered by ...



**D111TIC 11.05L**  
**Turbocharged Intercooled**

## EXPERIENCED DESIGN

- EXPERIENCE IN THE GENERATOR INDUSTRY SINCE 1925
- DESIGNED FOR LONG LIFE TO MAXIMIZE RETURN ON INVESTMENT
- WELDED AND POWDER COATED STEEL BASE
- RUBBER MOUNTED ENGINE AND GENERATOR: NO NEED FOR ISOLATION PADS AND EXTENDS THE LIFE OF BATTERIES AND HOUSING
- ELECTRICIAN FRIENDLY SINGLE COVER CONNECTION POINTS
- LOAD BANK TESTED
- SINGLE STEP 100% LOAD TESTED
- OPERATOR MANUAL PACKAGE INCLUDING ENGINE AND GENERATOR MANUAL
- STARTING BATTERY NOT INCLUDED (2 X BCI 4D 1200 CCA)

## ENGINE

- DOOSAN ENGINES
- WATER-COOLED, TURBO-CHARGED, INTER-COOLED
- OVERHEAD VALVE
- INLINE 6 CONFIGURATION
- ELECTRONIC IGNITION
- ELECTRONIC GOVERNER
- CAST IRON BLOCK AND HEADS
- 2500 WATT BLOCK HEATER
- MASTERTRACK ELECTRONICS
- EPA CERTIFIED FOR STATIONARY/STANDBY APPLICATIONS

## DSE 7310 CONTROLLER

- GENERATOR PROTECTION AND METERING
- EVENT FAULT LOG RECORDING
- 9 CONFIGURABLE INPUTS (EXPANDABLE TO 24)
- 6 CONFIGURABLE OUTPUTS (EXPANDABLE TO 80)
- STARTER SOLENOID CONTROLS
- OPTIONAL DSE 3110 AND DSE 7110 CONTROLLERS PROVIDE FLEXIBILITY FOR ANY APPLICATION

## GENERATOR

- STANDBY RATED
- BRUSHLESS ROTATING FIELD
- WOUND 2/3 PITCH FOR LOW HARMONIC DISTORTION
- CLASS H WINDING INSULATION FOR PEAK PROTECTION
- MEETS BS EN 60034, BS5000, VDE 0530, NEMA MG1-32, ICE34, CSA C22.2-100, AS1359
- SX460 AUTOMATIC VOLTAGE REGULATION STANDARD STEADY STATE VOLTAGE +/- 1.5%
- OPTIONAL PMG WITH 1% OR .5% VOLTAGE REGULATION ISOLATES THE AVR CONTROL CIRCUIT FROM THE EFFECTS OF NON-LINEAR LOADS, REDUCES TRANSIT VOLTAGE DIP DURING HEAVY MOTOR STARTING. BUILT IN OVER-EXCITATION PROTECTION IN CASE OF A SHORT CIRCUIT

## ENGINE SPECIFICATIONS

MAKE .....	DOOSAN ENGINE
MODEL .....	D111TIC
TYPE .....	NG/LP VAPOR FUEL
SPEED GOVERNOR .....	ELECTRONIC
CYLINDERS .....	INLINE 6, REPLACEABLE LINERS
TOTAL DISPLACEMENT .....	11.05 L
BORE X STROKE .....	INCH 4.84 X 6.1
ASPIRATION .....	TURBO-CHARGED INTER-COOLED
COMBUSTION AIR REQUIREMENT .....	554 CFM
COOLING .....	LIQUID
ENGINE COOLING CAPACITY W/RADIATOR .....	32.8 GAL
COOLING AIR REQUIREMENT .....	22300 CFM
HOUSING .....	SAE 1
FLYWHEEL .....	NO. 14
ROTATION .....	CCW
LUBE OIL SPEC .....	SAE 15W-40
OIL & FILTER REPLACEMENT .....	100 HRS
TOTAL OIL CAPACITY .....	6.6 GAL
EXHAUST OUTLET SIZE AT ENGINE .....	3.5 in.
ELECTRICAL SYSTEM (NEGATIVE GROUND) .....	24 VDC
ALTERNATOR .....	VALEO 45 A
STARTER .....	VALEO 7 KW
BATTERY (NOT INCLUDED (2) BCI 4D ) .....	1200 CCA

## ALTERNATOR SPECIFICATIONS

RATING .....	(125/40°C) STANDBY
TYPE .....	4 POLE – REVOLVING FIELD
SPEED .....	1800 RPM
INSULATION SYSTEM .....	CLASS H
THREE PHASE .....	12 LEAD
STATOR WINDINGS .....	DOUBLE LAYER CONCENTRIC
PITCH .....	2/3
WAVEFORM DISTORTION .....	1.5%
TELEPHONE INTERFERENCE .....	<2.0%
EFFICIENCY PEAK .....	~92.5%
COUPLING .....	FLEXIBLE DISC
BEARINGS (MAINTENANCE FREE) .....	1
VOLTAGE CONTROL .....	(SX460 STANDARD) SELF EXCITED
REGULATION .....	+/- 1%
THREE PHASE RATING .....	0.8PF

Permanent Magnet Generator Available

If the information that you require is not shown, please contact your dealer.

## GENERATOR CONTROLLER

### General

Deep Sea digital genset controllers are highly advanced microprocessor controllers. Each model is designed to stand up to the harshest conditions providing timely performance information and safety shutdowns. With so many options it is easy to find a controller flexible enough to meet your application. Some options may require activation through the free interface software or additional accessories. The DSE 7310 is standard.

Feature	DSE 3110	DSE 7110	DSE7310
<b>Engine Display/Protection</b>			
Engine RPM	X	X	X
Low Oil Pressure	Shutdown Only	X	X
High Coolant Temperature	Shutdown Only	X	X
Low Coolant Level	Optional	Optional	Optional
Overspeed	X	X	X
Underspeed	X	X	X
Overcrank	X	X	X
Charging Alternator Failure	Optional	X	X
CAN ECU Shutdown	X	X	X
<b>Genset Display/Protection</b>			
Voltage (L-N)	One L-N or L-L	X	X
Voltage (L-L)	One L-N or L-L	X	X
Overvoltage	X	X	X
Undervoltage	X	X	X
Frequency	X	X	X
Overfrequency	X	X	X
Underfrequency	X	X	X
Phase Imbalance	-	-	Disabled
Amp Display/Shutdown	-	X	X
kW, kVa, kVAr, pf Display	-	-	X
kWh, kVAh, kVARh Display	-	-	X
Generator Phase Sequence	-	-	X
Earth Current	-	-	Optional
<b>Additional Displays/Protections</b>			
Emergency Stop	X	X	X
Fuel Leak/Sender Failure	Optional	X	X
High Fuel Level	-	Optional	Optional
Low Fuel Level	Optional	X	X
Fuel Level	-	X	X
Battery Voltage	-	X	X
Battery Over/Under Voltage	-	X	X
Battery Charger Failure	-	Optional	Optional
<b>Communications</b>			
USB Connectable	X	X	X
RS232/RS485	-	-	X
NFPA Annunciator	-	-	10xDSE2548
Remote Display Panel	-	-	3xDSE2510
Ethernet/Modem	-	-	Optional
<b>Additional Features</b>			
Audible Alarm	-	-	X
Engine Exerciser	-	X	X
Maintenance Interval Timer	-	1 Event	3 Event
Load Shedding/Dummy	-	-	5 Step
Configurable Inputs	6	7	9-24w/DSE2130
Configurable Outputs	4	8	6-80w/DSE2751
Event Log	-	5	250
Alternative Configurations	1	1	3
UL/CSA Listed	X	X	X

# OPERATIONAL DATA



Electrical Output – Standby		Natural Gas Fuel			LP Vapor Fuel			
Output Voltage – 60Hz	kW	kVa	Amperes	CB Size	kW	kVA	Amperes	CB Size
120/240, 1-phase, 1.0 pf	171	171	712	700	128	128	533	500
120/208, 3-phase, 0.8 pf	180	225	625	600	135	169	469	450
120/240, 3-phase, 0.8 pf	180	225	542	500	135	169	406	400
277/480, 3-phase, 0.8 pf	180	225	271	250	135	169	203	200

Consult factory for switchable voltage & 50 Hz.

Load	Natural Gas	LP Vapor
100% Load	2115 ft <sup>3</sup> /hr	703 ft <sup>3</sup> /hr
75% Load	1648 ft <sup>3</sup> /hr	600 ft <sup>3</sup> /hr
50% Load	1156 ft <sup>3</sup> /hr	404 ft <sup>3</sup> /hr

### Derating Factors

Temperatures > 104°F	3% per 10°F
Altitude	3% per 1000 ft
Prime Power	10%

NG Fuel consumption ..... 2,115,150 BTU/hr  
 LP Vapor Fuel consumption ..... 1,629,944 BTU/hr  
 Fuel inlet ..... 2 inches

### Engine Block Heater Specifications

- Volts – 120
- Watts – 2500
- Thermostat On/Off - 80°/100°F

### NFPA 110 Level 1 Package Option

This option provides a higher state of readiness in accordance with NFPA 110. Option includes a dual rate battery maintenance charger with failure indication, 16-light remote annunciator, low coolant level indication, block heater upgrade that maintains 100°-120°F and enhanced genset controller pre-alarm settings.

### Limited Warranty

Winpower warrants its product from material defects for a period of one year or 1000 hrs. Doosan warrants the engine for 1 year or 500 hours for standby applications. Contact Winpower for copies of full warranty statements.

## Options and Accessories

### Optional Fuel Accessories

- Contact Factory

### Battery Chargers

- 2 amp (Standard)
- 3.5 amp
- 6 amp
- 6 amp w/Fail Contact
- 10 amp
- 10 amp w/Fail Contact

### Enclosure Options

- POWR-PAK (Open skid, no enclosure)
- SOUND-PAK

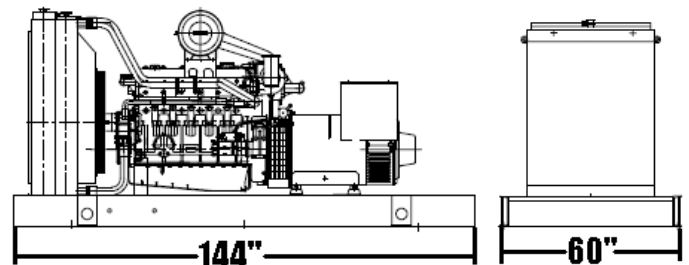
### Controller Options

- DSE 3110
- DSE 7110
- DSE 7310 (Standard)
- NFPA 110 Level 1
- 16 Light Remote Annunciator
- Remote Display Panel (DSE 2510)
- Ethernet
- DSE 2130 Input Expansion
- DSE 2751 Output Expansion

### Generator Accessories

- Anti-condensation Heater
- PMG
- Oversized Generator
- 12 Lead (Double Delta) Single Phase

Distributed by



\*\*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE\*\*