



LIQUID COOLED PACKAGED STANDBY GENERATOR

Powered
by:



3.0 Liter
Naturally Aspirated

MODEL NUMBER	STANDBY RATING			L.P. GAS			NATURAL GAS		
	POWER OUTPUT (60HZ)	KW	KVA	AMPS	CB AMPS	KW	KVA	AMPS	CB AMPS
PSS21-3	120/240V, 1-Phase, 1.0 p.f.	21.0	21.0	88.0	90	21.0	21.0	88.0	90
PSS21-4	120/208V, 3-Phase, .8 p.f.	22.0	27.5	76.4	75	22.0	27.5	76.4	75
PSS21-17	120/240V, 3-Phase, .8 p.f.	22.0	27.5	66.2	75	22.0	27.5	66.2	75
PSS21-18	277/480V, 3-Phase, .8 p.f.	25.0	31.2	37.6	35	25.0	31.2	37.6	35

Derating Factors: Temperatures - 3% per 10° above 104° F; 3.5% per 1,000 feet elevation above sea level.

ENGINE FEATURES

The 4 cylinder, overhead valve GM 3.0L engine meets EPA/ Carb Emission Regulations for LSI Engines. All engine functions are controlled by an engine mounted ECM.

The engine features include an electronic ignition, engine blockheater and vapor fuel system. A critical grade muffler is installed to reduce engine noise levels. Battery rack, cables, and battery tender (charger) are factory installed. A BCI Group 24 650 CCA battery must be purchased separately. Engine cooling is provided by a unit mount radiator. The engine is equipped with a belt driven pusher type fan.

ENGINE SPECIFICATIONS

MAKE GM
 MODEL 3.0L INDUSTRIAL
 FUEL TYPE LP VAPOR OR NATURAL GAS
 BASE HORSEPOWER-STANDBY (1800 RPM) (NG) 43 HP
 ENGINE CONTROL ENGINE MOUNTED ECM
 FUEL DELIVERY VAPOR
 STEADY STATE GOVERNOR ELECTRONIC
 ENGINE SPEED 1800 RPM
 CYLINDERS 4
 TOTAL DISPLACEMENT 181 in³
 BORE X STROKE 4.00 X 3.60 IN
 ASPIRATION NATURAL
 COMBUSTION AIR REQUIREMENT 94.3 CFM
 COOLING LIQUID
 RADIATOR CAPACITY 9.5 QTS
 TOTAL COOLING CAPACITY 15.5 QTS
 HOUSING (GM ADAPTER GROUP) FLAT FACE
 FLYWHEEL (GM ADAPTER GROUP) 300 mm
 ROTATION CCW
 LUBE OIL SPEC SAE 10W-30
 OIL & FILTER REPLACEMENT 150 HR
 TOTAL OIL CAPACITY 4.5 QTS
 EXHAUST OUTLET SIZE @ MUFFLER 2 in
 ELECTRICAL SYSTEM (NEGATIVE GROUND) 12V
 ALTERNATOR 70 Amp
 NOISE LEVEL (7 METERS) (N-L / F-L) 69 / 74 dBA

GENERATOR FEATURES

The generator is a single bearing rotating field generator mounted to the engine flywheel via dual flex drive discs. Three phase generators have 12 lead broad range reconnectable stators; single phase generators are 4 lead. An external voltage regulator maintains proper voltage output, accurate to +/- 1%.

The engine generator combination has the ability to start and operate motors up to 8 hp Code G. Mainline circuit breaker included for generator protection.

OPTIONAL Excitation Boost System available.

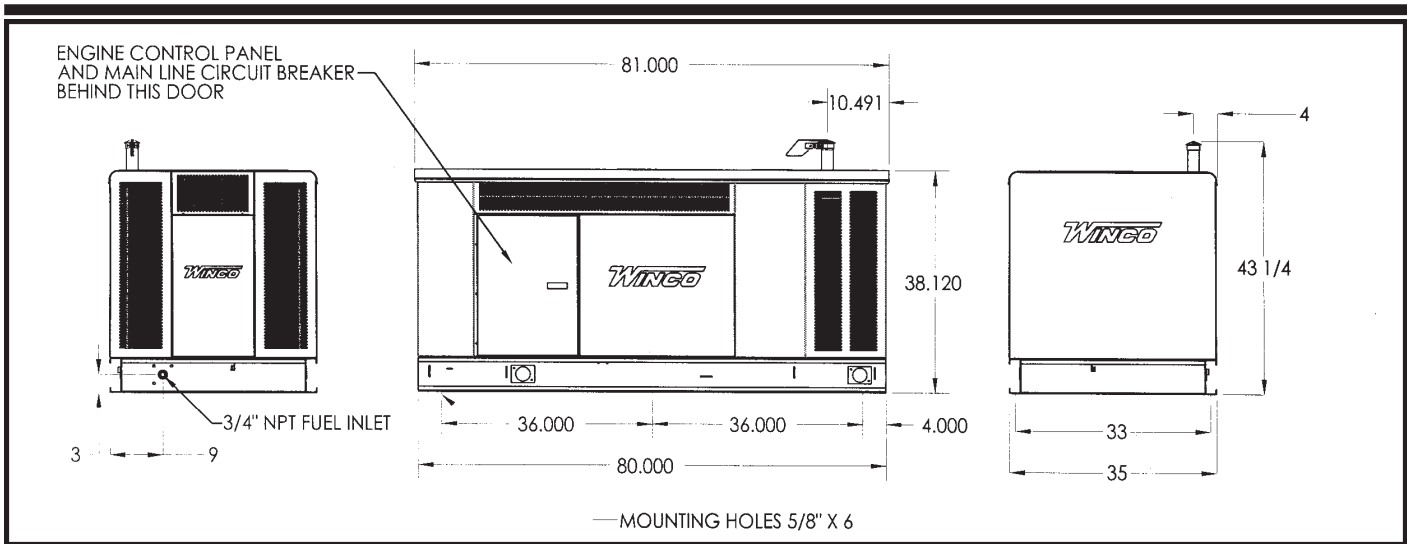
GENERATOR SPECIFICATIONS

RATING 125° C / 40° C STANDBY
 TYPE 4 POLE REVOLVING FIELD
 SPEED 1800 RPM
 INSULATION SYSTEM CLASS H
 SINGLE PHASE 4 LEAD
 THREE PHASE 12 LEAD
 STATOR WINDINGS DOUBLE LAYER CONCENTRIC
 PITCH 2/3
 WAVEFORM DISTORTION < 1.5%
 TELEPHONE INTERFERENCE < 2.0%
 EFFICIENCY PEAK 87%
 COUPLING FLEXIBLE DISC
 BEARINGS (MAINTENANCE FREE) 1
 VOLTAGE CONTROL AS 480
 REGULATION +/- 1%
 SINGLE PHASE POWER FACTOR 1.0
 THREE PHASE POWER FACTOR 0.8

FUEL CONSUMPTION

Fuel Type	Full Load	BTU/Hr
LP Gas*	3.9 gal/hr	345,000
Natural Gas	340 ft ³ /hr	340,000
Inlet Pressure	4-6 oz. / 7-11 in. water column	
Fuel Inlet Size	3/4 in.	

* LP liquid withdrawal is available in a Non-ETL configuration



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 7110 is standard on the PSS21.

Features	DSE 3110	DSE 7110	DSE 7310
----------	----------	----------	----------

Engine Display/Protection

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

Genset Display/Protection

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

Additional Displays/Protections

Emergency Stop	X	X	X
Battery Voltage	-	X	X
Battery Over/Under Voltage	-	X	X
Battery Charger Failure	-	Optional	Optional

Controller Features (con't)	DSE 3110	DSE 7110	DSE 7310
-----------------------------	----------	----------	----------

Communications

USB Connectable	X	X	X
RS232/RS485	-	-	X
NFPA Annunciator	-	-	10xDSE 2548
Remote Display Panel	-	-	3xDSE 2510
Ethernet/Modem	-	-	Optional

Additional Features

Audible Alarm	-	-	X
Engine Exerciser	-	X	X
Maintenance Interval Timer	-	1 Event	3 Event
Load Shedding/Dummy	-	-	5 Step
Configurable Inputs	6	7	9-24 w/DSE 2130
Configurable Outputs	4	8	6-80 w/DSE 2751
Event Log	-	5	250
Alternative Configurations	1	1	3
UL/CSA Listed	X	X	X

HOUSING & CONSTRUCTION

- Sound attenuated enclosure constructed of galvanized steel with durable baked powder coat paint finish.
- Generator set is factory built and tested to NEMA standards.

OPTIONS

Battery Chargers

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

Generator Accessories

- Anti-condensation Heater
- Excitation Boost System
- 12 Lead (Double Delta) Single Phase

Controller Options

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

Limited Warranties

WINCO warrants its product from material defects for 1 yr/1000 hours. PSI's limited engine warranty is 3 yrs/3500 hours.

Specifications subject to change without notice.