



## LIQUID COOLED PACKAGED STANDBY GENERATOR

Powered  
by:



4.3 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
PSS40-3	120/240V, 1-Phase, 1.0 p.f.	40.0	40.0	167	175	40.0	40.0	167	175
PSS40-4	120/208V, 3-Phase, .8 p.f.	40.0	50.0	139	125	40.0	50.0	139	125
PSS40-17	120/240V, 3-Phase, .8 p.f.	40.0	50.0	120	125	40.0	50.0	120	125
PSS40-18	277/480V, 3-Phase, .8 p.f.	40.0	50.0	60	60	40.0	50.0	60	60

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

### ENGINE FEATURES

The 6 cylinder, overhead valve GM 4.3L 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 a 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 ..... 4.3L INDUSTRIAL  
 FUEL TYPE ..... LP VAPOR OR NATURAL GAS  
 BASE HORSEPOWER-STANDBY (1800 RPM) (NG) ..... 61 HP  
 ENGINE CONTROL ..... ENGINE MOUNTED ECM  
 FUEL DELIVERY ..... VAPOR  
 STEADY STATE GOVERNOR ..... ELECTRONIC  
 ENGINE SPEED ..... 1800 RPM  
 CYLINDERS ..... 6  
 TOTAL DISPLACEMENT ..... 262 in<sup>3</sup>  
 BORE X STROKE ..... 4.00 X 3.48 IN  
 ASPIRATION ..... NATURAL  
 COMBUSTION AIR REQUIREMENT ..... 136.5 CFM  
 COOLING ..... LIQUID  
 RADIATOR CAPACITY ..... 13.0 Qts  
 TOTAL COOLING CAPACITY ..... 22.75 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 AMPS  
 NOISE LEVEL (7 METERS) (N-L / F-L) ..... 70 / 75 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 15 hp Code G. Mainline circuit breaker included for generator protection.

**OPTIONAL** Permanent Magnet Generators are available.

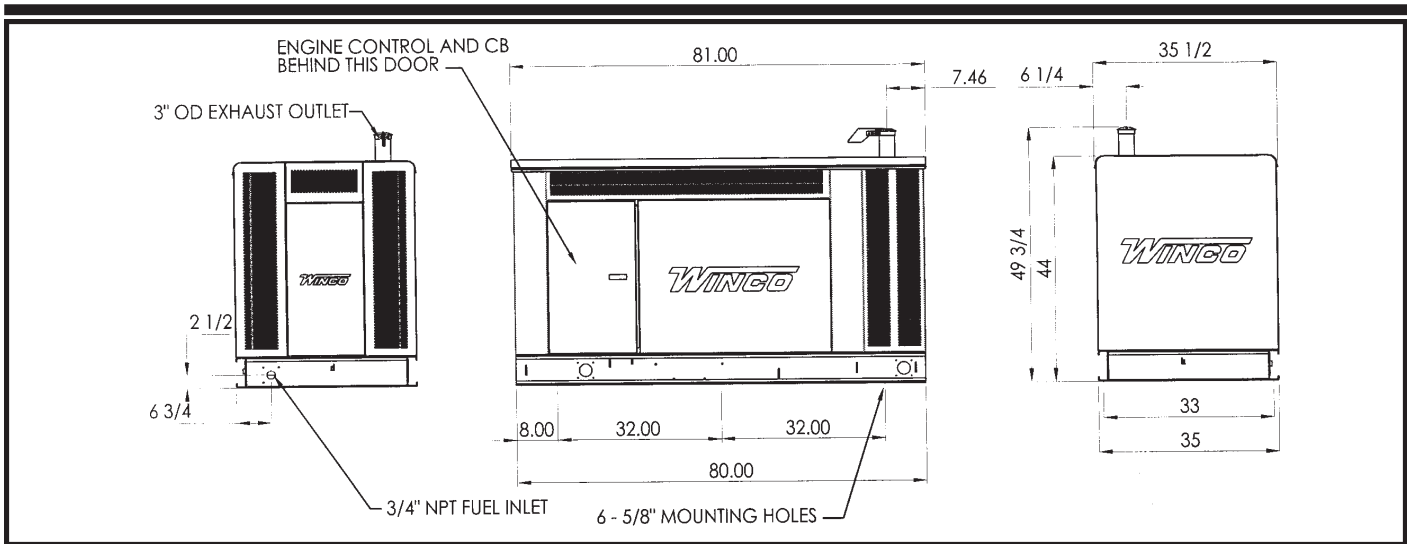
### GENERATOR SPECIFICATIONS

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 ..... 88%  
 COUPLING ..... FLEXIBLE DISC  
 BEARINGS (MAINTENANCE FREE) ..... 1  
 VOLTAGE CONTROL ..... AS 440  
 REGULATION ..... +/- 1%  
 SINGLE PHASE POWER FACTOR ..... 1.0  
 THREE PHASE POWER FACTOR ..... 0.8

### FUEL CONSUMPTION

Fuel Type	Full Load	BTU/Hr
LP Gas*	5.91 gal/hr	541,012
Natural Gas	499 ft <sup>3</sup> /hr	498,907
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 PSS40.

Features	DSE 3110	DSE 7110	DSE 7310
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### 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)

### Communications

	DSE 3110	DSE 7110	DSE 7310
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 warranties 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.