

## Features

### **Zenith 2.8L Engine**

The 4 cylinder, overhead valve engine meets EPA/CARB emission regulations.

### **NEW Stamford Generator End**

The new SO Series has a 3 year warranty on the generator end and includes auxiliary winding standard with short circuit capability.

### **Premium Circuit Breakers**

Dependable circuit breaker protection.

### **Battery Charger**

Factory installed 3 stage, 2 Amp battery charger.

### **Block Heater**

In-line Kim Hotstart, 120V, block heater with thermostat.

### **DSE 7310 MKII**

Our digital controller is powerful and dynamic with a user-friendly interface.

### **Galvanealed Steel Weather Enclosure**

Our weather enclosures provide sound reduction while our powder coat paint provides a durable, long lasting finish.

### **100% Load Tested**

You won't find statistical sampling here. We load test every generator before it leaves our facility.

## ***PACKAGED STANDBY SYSTEMS***

**21,000 Continuous Watts-LP**

**21,000 Continuous Watts-NG**



## Optional Accessories

### **Generator Strip Heater**

Reduces condensation.

### **ASCO Automatic Transfer Switch**

Safely restore power to critical circuits.

### **Vapor Fuel Strainer**

Keep the fuel line free from debris that could cause damage to you generator.

### **Battery Charger Upgrade**

Upgrade from the standard 2 Amp charger to a 5 Amp or 10 Amp with fail contact or 10 Amp NFPA compliant.

### **Battery Heater Upgrade**

Keeps battery warm for maximum power output at start-up.

### **NFPA 110 Level 1**

Factory installed, includes remote annunciator, DSE 10 Amp battery charger, and low coolant alarm.

### **WebNet**

Control your generator from your smartphone or computer.

### **LP Liquid Withdrawal**

Pulls liquid LP from tank and vaporizes on eng/gen set; allowing you to install smaller fuel lines and smaller fuel tanks.

MODEL NUMBER	OUTPUT	LP GAS			NATURAL GAS			CIRCUIT BREAKER
	VOLTS	WATTS	KVA	AMPS	WATTS	KVA	AMPS	AMPS
PSS21-3	120/240 1-PH	21,000	21	88	21,000	21	88	90
PSS21-4	120/208 3-PH	22,000	27	76	22,000	27	76	80
PSS21-17	120/240 3-PH	22,000	27	66	22,000	27	66	80
PSS21-18	277/480 3-PH	24,000	30	36	24,000	30	36	35

Derating factors: **Temperature** - 2% for every 10°F above 77°F air inlet **Elevation** - 3% per 1,000 feet elevation above sea level.

## GENERATOR

SINGLE PHASE <sup>(1)</sup>	4 LEAD
3 PHASE <sup>(2)</sup>	12 LEAD
VOLTAGE REGULATION	+/-1%
VOLTAGE CONTROL	AS540
TOTAL HARMONIC DISTORTION	<5%
TEMPERATURE RISE	125°/40° C
TYPE	4 POLE ROTATING FIELD
BRUSHLESS	YES
GENERATOR SPEED	1800 RPM
ROTOR	2/3 PITCH
WINDINGS	100% COPPER
STATOR WINDING	DOUBLE LAYER CONCENTRIC
EFFICIENCY PEAK	87%
COUPLING	FLEXIBLE DISC
BEARINGS	(1) MAINTENANCE FREE
TELEPHONE INTERFERENCE	<2%
INSULATION	CLASS H
GENERATOR WARRANTY <sup>(3)</sup>	3 YRS

NOTES: (1) Unity (1.0) power factor (2) 3-PH power factor 0.8 (3) For generator warranty information contact your local WINCO service center.

## GENSET

MOTOR STARTING (CODE G) <sup>(1)</sup>	8 HP
CARB/EPA APPROVED	YES
CSA APPROVED	YES
UL2200 LISTED	YES
dBA AT 7 METERS (FULL LOAD)	75
TOGGLE FUEL SELECTOR	STANDARD
WINCO WARRANTY <sup>(2)</sup>	2 YRS/2000 HRS

NOTES: (1) Code G capacitor motor. (2) For generator warranty information contact your local WINCO service center.

## ENGINE

BRAND	ZENITH
MODEL	428
SPEED	1800 RPM
DISPLACEMENT	2.8L
CYLINDERS	4
LUBRICATION	FORCED W/ SPIN-ON FILTER
COOLING	LIQUID
BORE X STROKE	3.9 X 3.6"
IGNITION	ELECTRIC
GOVERNOR	ELECTRONIC
REGULATION	+/- 1.8 HZ STEADY STATE
EXHAUST	CRITICAL GRADE
EXHAUST OUTLET SIZE	3" AT MUFFLER
RECOMMENDED OIL	SAE 10W-30
OIL CAPACITY	4.0 QTS
LOW OIL PROTECTION	STANDARD
HIGH COOLANT TEMP PROTECTION	STANDARD
ENGINE WARRANTY <sup>(1)</sup>	2 YRS/2000 HRS

NOTES: (1) Contact your local Zenith service center for engine warranty information.

## FUEL

FUEL CONSUMPTION	
LP	
0%	.97 GAL/HR - 88,217 BTU/HR
50%	2.43 GAL/HR - 205,005 BTU/HR
100%	3.76 GAL/HR - 342,516 BTU/HR
NG	
0%	88.38 FT³/HR - 88,379 BTU/HR
50%	193.98 FT³/HR - 194,252 BTU/HR
100%	321.33 FT³/HR - 321,332 BTU/HR
INLET PRESSURE	4-6 OZ / 7"-11" WATER COLUMN
FUEL INLET SIZE	1"

## BATTERY<sup>(1)</sup>

DC SYSTEM VOLTAGE	12V
DC ALTERNATOR	ENGINE MOUNTED
BATTERY RACK/ CABLE	INCLUDED
BATTERY CHARGER	STAGE 3 INCLUDED
REQUIRED BATTERY	GROUP 24 650 CCA

NOTES: (1) Battery not included

## SHIPPING

DIMENSIONS - ENCLOSED (LxWxH)	81" x 36" x 43.2"
DIMENSIONS - OPEN SKID (LxWxH)	80.5" x 36" x 42.75"
NET WEIGHT	1396 LBS
SHIPPING DIMENSIONS	87" x 40" x 50.75"
SHIP WEIGHT	1478 LBS
FREIGHT CLASS	70

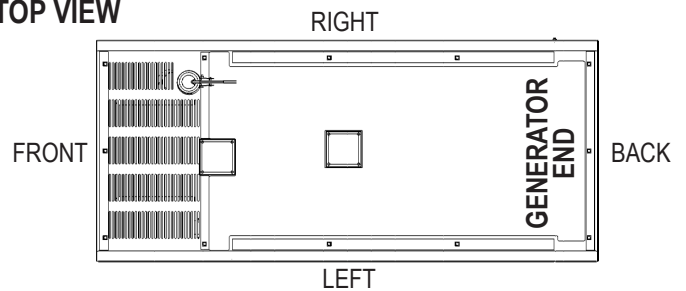
## DSE 7310 MKII CONTROL FEATURES

ENGINE DISPLAY/PROTECTION	
ENGINE RPM	YES
LOW OIL PRESSURE	YES
HIGH COOLANT TEMPERATURE	YES
LOW COOLANT LEVEL	OPTIONAL
OVERSPEED	YES
UNDERSPEED	YES
OVERCRANK	YES
CAN ECU SHUTDOWN	YES
GENSET DISPLAY/PROTECTION	
VOLTAGE (L-N)	YES
VOLTAGE (L-L)	YES
OVERVOLTAGE	YES
UNDERVOLTAGE	YES
FREQUENCY	YES
OVERFREQUENCY	YES
UNDER FREQUENCY	YES
PHASE IMBALANCE	DISABLED
KW, KVA, KVARH DISPLAY	YES
KWH, KVAH, KVARH DISPLAY	YES
GENERATOR PHASE SEQUENCE	YES
EARTH CURRENT	OPTIONAL

## DBA @ 7 METERS

NO LOAD	
LEFT	68.4
RIGHT	70.2
FRONT	66.9
BACK	71.5
FULL LOAD	
LEFT	74.0
RIGHT	74.6
FRONT	75.2
BACK	73.5

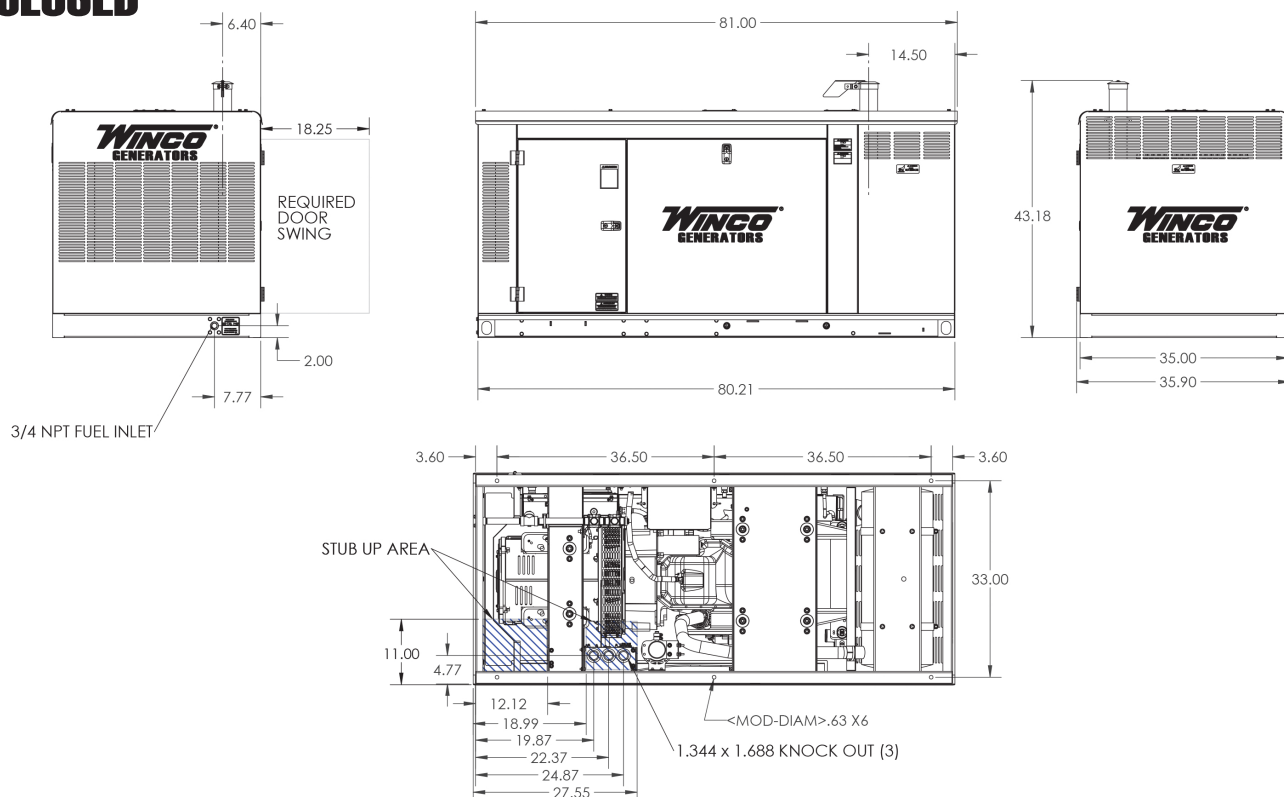
## TOP VIEW



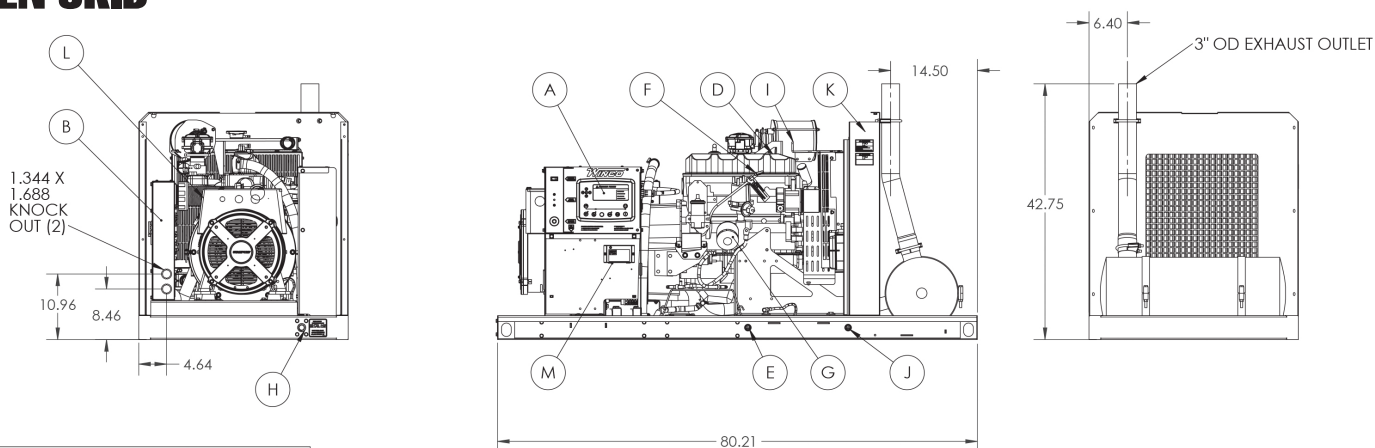
ADDITIONAL DISPLAYS/PROTECTIONS	
EMERGENCY STOP	YES
BATTERY VOLTAGE	YES
BATTERY OVER/UNDER VOLTAGE	YES
BATTERY CHARGER FAILURE	OPTIONAL
COMMUNICATIONS	
USB CONNECTABLE	YES
RS232/RS485	YES
NFPA ANNUNCIATOR OPTIONAL	10XDSE 2548
REMOTE DISPLAY PANEL	3XDSE 2510 OPTIONAL
ETHERNET/MODEM	OPTIONAL
ADDITIONAL FEATURES	
AUDIBLE ALARM	YES
ENGINE EXERCISER	USER ENABLED
MAINTENANCE INTERVAL TIMER	USER ENABLED
CONFIGURABLE INPUTS OPTIONAL	14-32 W/4 DSE 2130
CONFIGURABLE OUTPUTS OPTIONAL	8-80 W/DSE 2157
EVENT LOG	250
ALTERNATIVE CONFIGURATIONS	5
UL/CSA LISTED	YES

Contact your local WINCO dealer for more DSE 7310 MKII information.

## ENCLOSED



## OPEN SKID



KEY COMPONENTS	
A	ENGINE CONTROL
B	MAIN LINE CIRCUIT BREAKER
C	GROUP 24 BATTERY(NOT INCLUDED)
D	OIL FILL
E	OIL DRAIN
F	OIL DIPSTICK
G	OIL FILTER
H	FUEL INLET
I	AIR FILTER
J	COOLANT DRAIN
K	COOLANT FILL
L	AVR
M	BATTERY CHARGER

Specifications are subject to change without notice.