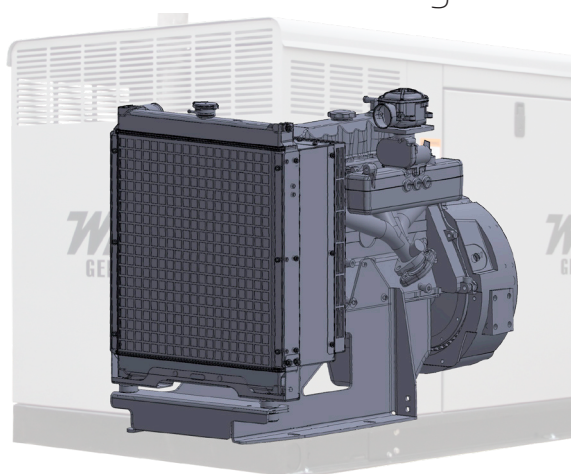




Industrial Zenith Engine



Brushless Industrial Genend



Assembled in the USA
Engineered, fabricated, and assembled in Minnesota



Full Load Tested
Every generator is 100% load tested



DSE 7310 Controller
Provides immediate performance information



Coolant Heater
120V in-line Hotstart coolant heater with thermostat



Battery Charger
5 Amp, smart marine charger standard



Galvanealed Steel Enclosure
Durable design with powder coat paint

UL2200 Listed
A safety standard for the design, construction, and performance of stationary generators

SPECIFICATIONS

ELECTRICAL

VOLTS	POWER FACTOR	LP			NG			MAIN CIRCUIT BREAKER AMPS
		WATTS	KVA	AMPS	WATTS	KVA	AMPS	
120/240 1-PH	1.0	21,000	21,000	88	21,000	21,000	88	90
120/208 3-PH	0.8	22,000	27,500	76	22,000	27,500	76	80
120/240 3-PH	0.8	22,000	27,500	66	22,000	27,500	66	80
277/480 3-PH	0.8	24,000	30,000	36	24,000	30,000	36	35

ENGINE

ENGINE MANUFACTURER	ZENITH
ENGINE MODEL	428
ENGINE STARTER	12V ELECTRIC
ENGINE SPEED	1800 RPM
ENGINE CYLINDERS	4
HP RATING	
NG	46
LP	52
FREQUENCY	60 HZ
TORQUE	
NG	138 FT/LBS
LP	152 FT/LBS
ALTERNATOR	86 AMPS
FLYWHEEL	7.5"
ROTATION	CCW
ASPIRATION	NATURAL
EXHAUST OUTLET ⁽¹⁾	3"
BORE/STROKE	98.4 mm x 91.0 mm
DISPLACEMENT/TYPE	2.8 L
LOW OIL PROTECTION	STANDARD
RECOMMENDED OIL ⁽²⁾	10W-30 SAE
OIL CAPACITY	5.0 QT
GOVERNOR	ELECTRONIC
COMPRESSION RATIO	9.5:1
FAN TYPE	PUSHER
COOLANT CAPACITY	2.5 GAL
HIGH COOLANT TEMP PROTECTION	STANDARD
COMBUSTION AIR	63.5 CFM
RADIATOR COOLING AIR	3974 CFM

NOTES: (1) Muffler ships loose. (2) The recommended oil is for normal applications. See operator's manual for the recommended oil for your needs.

PSS21

MOTOR STARTING (CODE G)	8 HP
DBA @ 7 METERS	75
TOTAL HARMONIC DISTORTION	< 5%
FLOATING NEUTRAL	YES
ASSEMBLED IN	USA
UL CERTIFICATION	UL2200 LISTED
EPA APPROVED	STANDBY ONLY
CSA APPROVED	YES
UNIT WARRANTY ⁽¹⁾	2 YR/2000 HRS

NOTES: (1) For more generator warranty, see operator's manual.

GENERATOR END

SINGLE PHASE WINDING NUMBER	4 LEAD 706
THREE PHASE WINDING NUMBER	12 LEAD 711
VOLTAGE REGULATION	+/- 1%
AVR TYPE	AS540
TEMPERATURE RISE	125/40°C
TYPE	REVOLVING FIELD
BRUSHLESS	YES
SPEED	1800 RPM
WINDING PITCH	2/3
WINDINGS	100% COPPER
STATOR WINDING	
706	SINGLE LAYER CONCENTRIC
711	DOUBLE LAYER CONCENTRIC
COUPLING	DIRECT/FLEXIBLE DISC
BEARINGS	SINGLE (MAINTENANCE FREE)
EFFICIENCY PEAK @ 0.8 PF	
706 WINDING	79.6%
711 WINDING	87.7%
INSULATION	CLASS H
INGRESS PROTECTION	IP23

SPECIFICATIONS

DERATES

ABOVE SEA LEVEL PER 1,000 FT	3%
TEMPERATURE EVERY 10°F ABOVE 77°F	2%

FUEL

INLET PRESSURE	4-6 OZ/7-11" WATER COLUMN
FUEL INLET SIZE	3/4"
FUEL CONSUMPTION NG	
100%	321.33 FT³/HR - 321,332 BTU/HR
50%	193.98 FT³/HR - 194,252 BTU/HR
0%	88.38 FT³/HR - 88,379 BTU/HR
FUEL CONSUMPTION LP	
100%	3.76 GAL/HR - 342,516 BTU/HR
50%	2.43 GAL/HR - 205,005 BTU/HR
0%	0.97 GAL/HR - 88,217 BTU/HR

DBA @ 7 METERS

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

SHIPPING

SHIPPING DIMENSIONS (L x W x H)	86" x 40" x 51"
SHIP WEIGHT	1,478 LBS
FREIGHT CLASS	70

BATTERY

DC SYSTEM	12V
DC ALTERNATOR	ENGINE MOUNTED
BATTERY RACK/CABLE	INCLUDED
BATTERY CHARGER	5 AMP INCLUDED
REQUIRED BATTERY ⁽¹⁾	GROUP 24 650 CC

Notes: (1) Battery not included.

OPTIONAL ACCESSORIES

GENERATOR STRIP HEATER
AUTOMATIC TRANSFER SWITCH
VAPOR FUEL STRAINER
BATTERY CHARGER UPGRADE
BATTERY HEATER
NFPA 110 LEVEL 1
WEBNET
LP LIQUID WITHDRAWAL

DSE 7310 CONTROLLER

ENGINE DISPLAY/PROTECTION

ENGINE RPM	YES
LOW OIL PRESSURE	YES
HIGH COOLANT TEMP	YES
LOW COOLANT	OPTIONAL
OVER/UNDER SPEED	YES
OVER CRANK	YES
CAN ECU SHUTDOWN	YES
ENGINE MAINTENANCE CODES	YES

GENSET DISPLAY/PROTECTION

VOLTAGE (L-N & L-L)	YES
OVER/UNDER VOLTAGE	YES
FREQUENCY	YES
OVER/UNDER FREQUENCY	YES
AMP DISPLAY/SHUTDOWN	YES
PHASE IMBALANCE	DISABLED
KW, KVA, KVAR DISPLAY	YES
KWH, KVAH, KVARH DISPLAY	YES
GENERATOR PHASE SEQUENCE	OPTIONAL

ADDITIONAL DISPLAYS/PROTECTIONS

EXTERNAL E-STOP	CUSTOMER SUPPLIED
BATTERY VOLTAGE	YES
BATTERY OVER/UNDER VOLTAGE	YES

COMMUNICATIONS

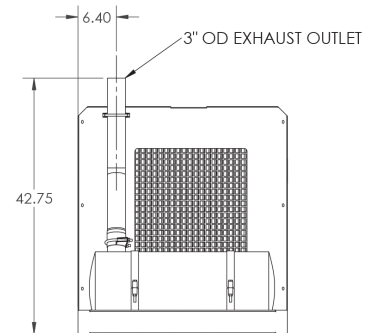
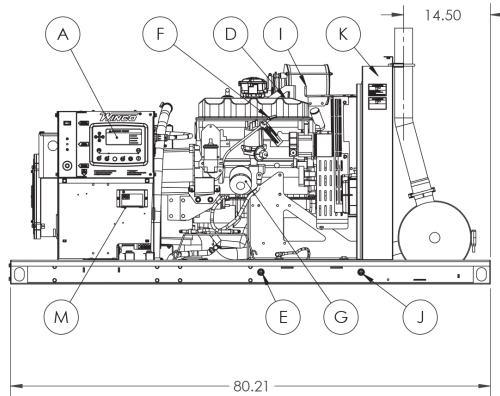
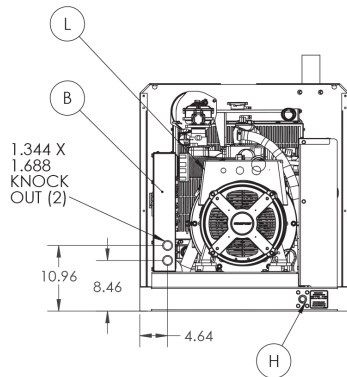
USB CONNECTABLE	YES
RS232/RS485	YES
REMOTE DISPLAY PANEL	OPTIONAL
DSE WEB NET	OPTIONAL

ADDITIONAL FEATURES

AUDIBLE ALARM	YES
ENGINE EXERCISER	DISABLED
MAINTENANCE INTERVAL TIMER	DISABLED
LOAD SHEDDING/DUMMY	DISABLED
CONFIGURABLE INPUTS	4 (EXPANDABLE)
CONFIGURABLE OUTPUTS	4 (EXPANDABLE)
EVENT LOG	250

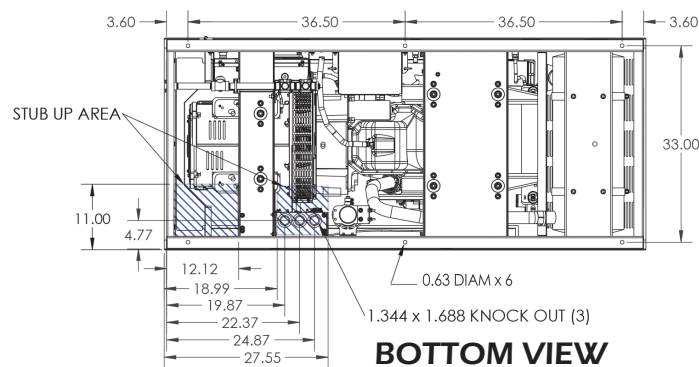
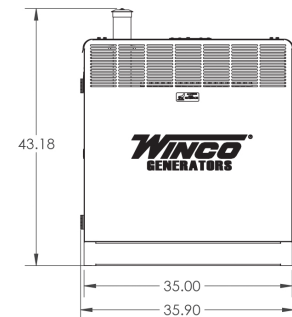
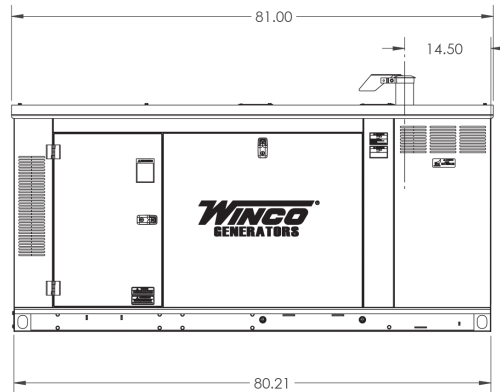
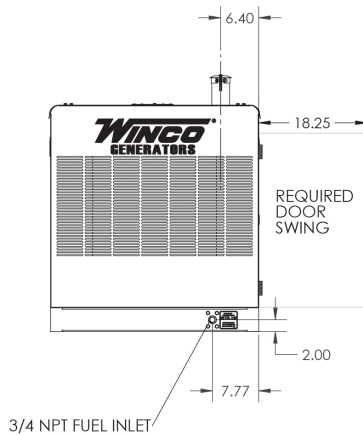
DRAWINGS

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

ENCLOSED



BOTTOM VIEW

Specifications are subject to change without notice.

