WHOLESALE DIESEL GENERATORS
A DIVISION OF NORTH STAR LOGISTICS LLC
661 Miller's Bluff RD, Surgoinsville, TN 37873
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www.Wholesale-Generators.com

10KW Yanmar Compact Diesel Generator

Yanmar Engine | 60 Hz | 1800 RPM

Genset Specifications	
Power	10 kW | 13 kVA
Frequency	60 Hz
Speed	1800 RPM
Voltage	Any voltage can be customized
Phase	Single phase and Three phase options available
Overall Dimensions (L x W x H)	43.08 x 32.28 x 36.61 (in.)
Net Weight (lbs.)	680

Engine Data	
Model	Yanmar 3TNV88F-UGGE
Cylinders	3 cylinder
Engine Speed	1800 RPM
Combustion Type	Direct Injection
Governor Type	Mechanical
Aspiration	Naturally Aspirated
Displacement (L)	1.64 L
Bore x Stroke (in.)	3.46 x 3.54 in.
Electrical System	12V-40A
Cooling Method	Water Pump

Alternator Data	
Model	Stamford SOL1-J1
Excitation Mode	Self-exciting
Voltage Control Mode	AVR automatically regulates pressure
Type	Synchronous, brushless
Insulation Class	H
Protection Level	IP23

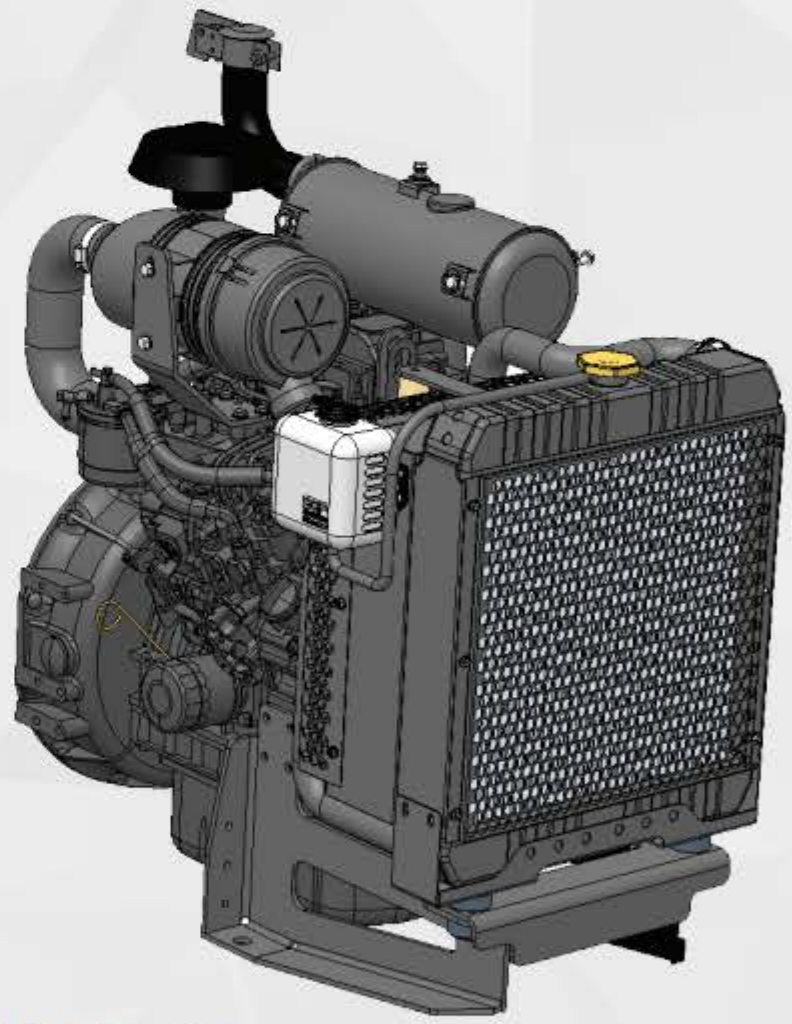
YANMAR

3TNV88F-UGGE
3TNV88F-UGGE-PPG

TYPICAL GENERATOR OUTPUT kWe (Standby)	13.9
TYPICAL GENERATOR OUTPUT KWE (PRIME)	12.7
CONTINUOUS GROSS ENGINE POWER hp (kW)	19.2 (14.3)
FUEL CONSUMPTION gal/h (l/h)	1.17 (4.44)
REGULATION	Final Tier 4
CYLINDERS	3
BORE X STROKE (mm)	88 x 90
DISPLACEMENT L (ci)	(1.64) 101
RATED SPEED rpm	1800
COMBUSTION TYPE	Direct Injection
ASPIRATION	Naturally Aspirated
GOVERNOR TYPE	Mechanical
LUBRICATION SYSTEM	6.7L Capacity Oil Pan
ELECTRICAL SYSTEM	12V-40A
FUEL SYSTEM	YPD-MP2 (Mechanical)
COOLING SYSTEM	Water Pump Belt Driven
POWER TAKE OFF	FWH:SAE 4 FW: SAE 7.5

3TNV88F-UGGE

LENGTH w/fan in (mm)	24 (608)	HEIGHT in (mm)	28 (709)
WIDTH in (mm)	21 (532)	WEIGHT (DRY) lbs (kg)	348.3 (158)



3TNV88F-UGGE-PPG

LENGTH w/fan in (mm)	37.2 (944.2)	HEIGHT in (mm)	34.8 (884.2)
WIDTH in (mm)	23.6 (600.2)		

PURE. RELIABLE. POWER.

NOW EVEN MORE RELIABLE

The YANMAR line of Final Tier 4 engines continues to build upon the legendary reliability of the YANMAR TNV line with a focus on vibration reduction and high-strength materials. The result is an engine more than capable of handling the most demanding applications.

FINAL TIER 4 AND EU STAGE 5

Building off the proven TNV design, YANMAR has achieved superior exhaust emissions by improving the combustion chamber and increasing the displacement and compression ratios. YANMAR engines meet the strict NTE and NRTC test requirements for Final Tier 4 and EU Stage V.

BETTER FUEL EFFICIENCY, FEWER EMISSIONS

YANMAR continues its reputation for superior starting characteristics by refining the combustion process to assure more precise fuel delivery and control. The result is reduced emissions, improved performance over a wide range of applications and increased fuel economy.

PURE. RELIABLE. POWER.

YANMAR is engaged in the relentless pursuit of high efficiency, low emission, diesel engines. With technology that already meets the next generation of environmental emissions standards, YANMAR is providing sustainable solutions towards a new era of prosperity.

www.yanmar.com
770.877.9894

1st. kWe rating with fan loss included • 2nd. gal/h calculated from g/kWh using fuel weight of .82 and gross rated output 3rd. Generator kWe rating based on generator efficiency of 92%, at sea level.

STAMFORD

S0L1-J1 Winding 05

Electrical Data		
Insulation System	Class H	
Stator Winding	Double Layer Concentric	
Winding Pitch	Two Thirds	
Winding Leads	4	
Winding Number	05	
Number of Poles	4	
IP Rating	IP 23	
RFI Suppression	EN 61000-6-2 & EN 61000-6-4, refer to factory for others	
Waveform Distortion	NO LOAD < 2.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%	
Short Circuit Ratio	1/Xd	
Steady State X/R Ratio	N/A	
	50 Hz	
Telephone Interference	THF<2%	
Voltage Series	230	230
Power Factor	0.8	1.0
kVA Base Rating (Class H)	7.5	8.1
Saturated Values in Per Unit at Base Ratings and Voltages		
Xd Dir. Axis Synchronous	1.995	2.155
X'd Dir. Axis Transient	0.125	0.135
X"d Dir. Axis Subtransient	0.111	0.120
Xq Quad. Axis Reactance	0.904	0.976
X"q Quad. Axis Subtransient	0.191	0.206
XL Stator Leakage Reactance	0.064	0.069
X2 Negative Sequence Reactance	0.219	0.237
X0 Zero Sequence Reactance	0.073	0.079
Unsaturated Values in Per Unit at Base Ratings and Voltages		
Xd Dir. Axis Synchronous	2.394	2.586
X'd Dir. Axis Transient	0.144	0.155
X"d Dir. Axis Subtransient	0.130	0.140
Xq Quad. Axis Reactance	0.931	1.006
X"q Quad. Axis Subtransient	0.229	0.248
XL Stator Leakage Reactance	0.072	0.078
X2 Negative Sequence Reactance	0.263	0.284
X0 Zero Sequence Reactance	0.085	0.092
Time Constants (Seconds)		
T'd TRANSIENT TIME CONST.	0.014	
T''d SUB-TRANSTIME CONST.	0.001	
T'do O.C. FIELD TIME CONST.	0.347	
Ta ARMATURE TIME CONST.	0.009	

STAMFORD

S0L1-J1 Winding 05

RATINGS AT 0.8/1.0 POWER FACTOR

	Class - Temp Rise	Standby - 163/27°C		Standby - 150/40°C		Cont. H - 125/40°C		Cont. F - 105/40°C	
50 Hz	Series (V)	230	230	230	230	230	230	230	230
	Power Factor	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0
	kVA	8.3	8.9	8.0	8.6	7.5	8.1	6.8	7.4
	kW	6.6	8.9	6.4	8.6	6.0	8.1	5.4	7.4
	Efficiency (%)	71.3	77.2	71.9	77.7	73.1	78.6	74.4	79.6
	kW Input	9.3	11.5	8.9	11.1	8.2	10.3	7.3	9.3

De-Rates

All values tabulated above are subject to the following reductions:

- 3% for every 500 meters by which the operating altitude exceeds 1000 meters above mean sea level
- 3% for every 5°C by which the operational ambient temperature exceeds 40°C
- For any other operating conditions impacting the cooling circuit please refer to applications

Note: Requirement for operating in an ambient exceeding 60°C and altitude exceeding 4000 meters must be referred to applications.

Dimensional and Torsional Drawing

For dimensional and torsional information please refer to the alternator General Arrangement and rotor drawings available on our website (http://stamford-avk.com/)

Note: Continuous development of our products means that the information contained in our data sheets can change without notice, and specifications should always be confirmed with Cummins Generator Technologies prior to purchase.

DSEGenset®

DSE6110/20 MKIII

AUTO START & AUTO MAINS (UTILITY) FAILURE CONTROL MODULES

DSE**6110 MKIII**

DSE**6120 MKIII**

KEY FEATURES

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and screen images.
- DSENet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB communications
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (DSE6120 MKIII only)
- Automatic load transfer control (DSE6120 MKIII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (DSE6120 MKIII only)
- kW overload alarm
- Over current protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel level alarms
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including Tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Configurable CAN read & transmitted information.
- 1 alternative configuration.

KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE6120 MKIII only) for convenience.
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.

RELATED MATERIALS

TITLE	PART NO.
DSE6110 MKIII & DSE6120 MKIII Installation Instructions	053-240
DSE6110 MKIII & DSE6120 MKIII Operator Manual	057-289
DSE6110 MKIII & DSE6120 MKIII Configuration Suite PC Manual	057-290

SPECIFICATIONS

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous
5 V for up to 1 minute

CRANKING DROPOUTS
Able to survive 0 V for 100 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT
260 mA at 12 V, 150 mA at 24 V

MAXIMUM STANDBY CURRENT
145 mA at 12 V, 85 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
0 V to 35 V

GENERATOR & MAINS (UTILITY)

VOLTAGE RANGE
15 V to 415 V AC (Ph to N)
26 V to 719 V AC (Ph to Ph)

FREQUENCY RANGE
3.5 Hz to 75 Hz

MAGNETIC PICKUP

VOLTAGE RANGE
+/- 0.5 V to 70 V

FREQUENCY RANGE
10,000 Hz (max)

INPUTS

DIGITAL INPUTS A TO H
Negative switching

ANALOGUE INPUTS A & D
Configurable as:
Negative switching digital input
0 V to 10 V sensor
4 mA to 20 mA sensor
Resistive sensor

ANALOGUE INPUTS B & C
Configurable as:
Negative switching digital input
Resistive sensor

OUTPUTS

OUTPUT A & B (FUEL & START)
10 A DC at supply voltage

AUXILIARY OUTPUTS C, D, E, F, G & H
2 A DC at supply voltage

DIMENSIONS

OVERALL
216 mm x 158 mm x 43 mm
8.5” x 6.2” x 1.5”

PANEL CUT-OUT
184 mm x 137 mm
7.2” x 5.3”

MAXIMUM PANEL THICKNESS
8 mm
0.3”

STORAGE TEMPERATURE RANGE
-40°C to +85°C
-40 °F to +185 °F

OPERATING TEMPERATURE RANGE

NON-HEATED DISPLAY VARIANT
-30°C to +70°C
-22 °F to +158 °F

HEATED DISPLAY VARIANT
-40 °C to +70 °C
-40 °F to +158 °F

OPTIONAL PARTS

PART	PART NUMBER
IP65 Gasket	020-521

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DSEGenset®

DSE6110/20 MKIII

AUTO START & AUTO MAINS (UTILITY) FAILURE CONTROL MODULES

The DSE6110 MKIII is an Auto Start Control Module and the DSE6120 MKIII is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single, diesel or gas, gen-set applications.

Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs and remote PC.

The DSE6120 MKIII will also monitor the mains (utility) supply. The modules include USB connection and dedicated DSENet® terminals for system expansion.

Both modules are compatible with electronic (CAN) and non-electronic (magnetic pick-up/alternator sensing) engines and offer an extensive number of flexible inputs, outputs and extensive engine protections so the system can be easily adapted to meet the most demanding industry requirements.

The extensive list of features includes enhanced event and performance monitoring, remote communications & PLC functionality.

The modules can be easily configured using the DSE Configuration Suite PC software. Selected front panel editing is also available.

ENVIRONMENTAL TESTING STANDARDS

ELECTRO-MAGNETIC COMPATIBILITY
BS EN 61000-6-2
EMC Generic Immunity Standard for the Industrial Environment
BS EN 61000-6-4
EMC Generic Emission Standard for the Industrial Environment

ELECTRICAL SAFETY
BS EN 60950
Safety of Information Technology Equipment, including Electrical Business Equipment

TEMPERATURE
BS EN 60068-2-1
Ab/Ae Cold Test -30 °C
BS EN 60068-2-2
Bb/Be Dry Heat +70 °C

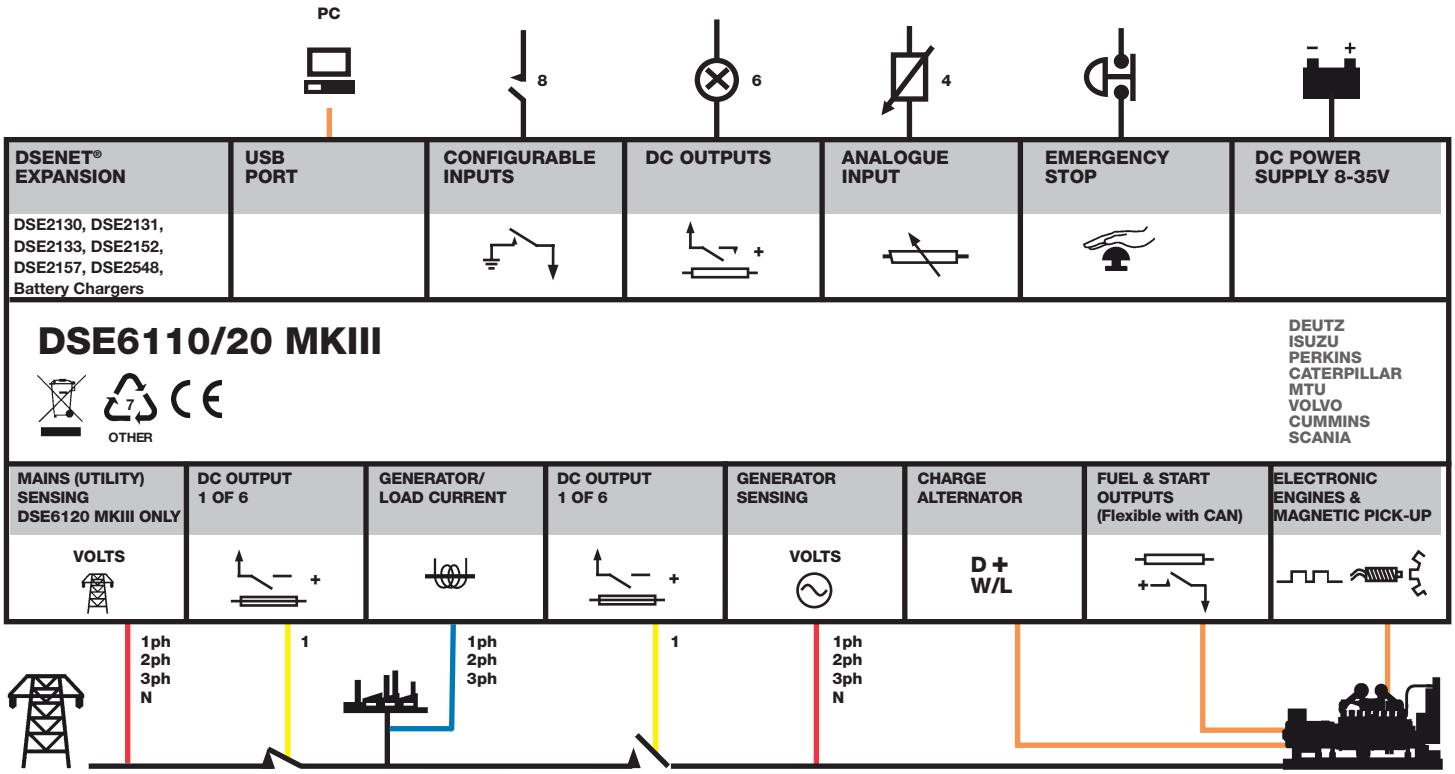
VIBRATION
BS EN 60068-2-6
Ten sweeps in each of three major axes
5 Hz to 8 Hz at +/-7.5 mm,
8 Hz to 500 Hz at 2 gn

HUMIDITY
BS EN 60068-2-30
Db Damp Heat Cyclic 20/55 °C
at 95% RH 48 Hours
BS EN 60068-2-78
Cab Damp Heat Static 40 °C
at 93% RH 48 Hours

SHOCK
BS EN 60068-2-27
Three shocks in each of three major axes
15 gn in 11 ms

DEGREES OF PROTECTION PROVIDED BY ENCLOSURES
BS EN 60529
IP65 - Front of module when installed into the control panel with the optional sealing gasket.

COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF GEN-SET APPLICATIONS



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