



**DATA SHEET DIESEL  
GENERATOR SET** 

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**GSJD30150S-UL**



## ► Model

# GSJD30150S-UL

ENGINE BRAND	»	JOHN DEERE
ENGINE MODEL	»	6068HF285
ALTERNATOR BRAND	»	STAMFORD
GENERATOR CONTROLLER	»	DSE 7310

## ► GENSET RATING

ENGINE	ALTERNATOR	VOLTAGE	PH	Hz	STANDBY POWER		POWER FACTOR	CURRENT
		V			kW	KVA		A
	UCDI274J (Wnd-311)	240/120	1	60	150	150	1.0	625
6068HF285	UCI274G (Wnd-311)	208/120	3	60	150	187	0.8	521
	UCI274G (Wnd-311)	480/277	3	60	150	187	0.8	225
	UCI274F (Wnd-17)	600/347	3	60	150	187	0.8	180

## ► Certifications



**Standby Power.** Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

## ▶ ENGINE FEATURES

» BRAND _____	▶ JOHN DEERE
» MODEL _____	▶ 6068HF285
» EXHAUST EMISSIONS _____	▶ TIER 3
» RPM _____	▶ 1800
» STANDBY RATING kWm _____	▶ 177
» STANDBY RATING bhp _____	▶ 237
» PRIME RATING kWm _____	▶ 161
» PRIME RATING bhp _____	▶ 216
» NUMBER OF CYLINDERS _____	▶ 6
» ASPIRATION _____	▶ TURBOCHARGED
» DISPLACEMENT in <sup>3</sup> _____	▶ 415
» ENGINE AIR FLOW CFM (m <sup>3</sup> /min) _____	▶ 448
» GOVERNOR TYPE _____	▶ ELECTRONIC
» CONTROL VOLTAGE v _____	▶ 12
» BORE/STROKE, in ( _____	▶ 4.2 x 5
» COOLANT CAPACITY WITHOUT RADIATOR gal _____	▶ 3.14
» OIL CAPACITY, TOTAL gal _____	▶ 6.49

## ▶ FUEL CONSUMPTION

STANDBY POWER		
LOAD	GAL/hr	L/hr
100%	11.81	44.70
75%	9.38	35.53
50%	6.90	26.12
25%	3.42	12.94

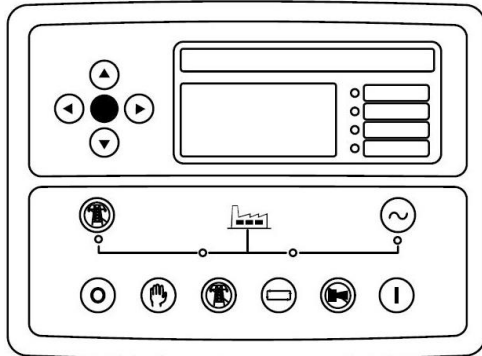
## ▶ ALTERNATOR FEATURES

» BRAND _____	▶ STAMFORD
» MODEL _____	▶ UCI274G
» FREQUENCY _____	▶ 60 Hz
» PHASES _____	▶ 3
» WINDING LEADS _____	▶ 12
» INSULATION SYSTEM _____	▶ H CLASS
» CONTROL SYSTEM _____	▶ SELF EXCITED
» PROTECTION _____	▶ IP23
» POWER FACTOR _____	▶ 0.8
» COOLING AIR CFM _____	▶ 1308
» VOLTAGE REGULATION (%) _____	▶ +-1.0

## ► GENERATOR CONTROLLER

### » MODEL

## DEEP SEA 7310



The DSE7310 MKII is an Auto Start Control Module and the DSE7320MKII 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, remote PC and via SMS text alerts (with external modem). The DSE7320 MKII will also monitor the mains (utility) supply. The modules include USB, RS232 and RS485 ports as well as dedicated DSENet@ terminals for system expansion.

#### KEY FEATURES

- 4-Line back-lit LCD text display
- Multiple Display Languages
- Five key menu navigation
- LCD alarm indication
- DSENet expansion compatibility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB, RS232 & RS485 communication
- Front panel configuration with PIN protection
- Power save mode
- 3 phase generator sensing and protection
- 3 phase mains (utility) sensing and protection (DSE7320 MKII only)
- Automatic load transfer control (DSE7320 MKII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains current and power monitoring (kW, kvar, kVA, pf) (DSE7320 MKII only)
- kW and kvar overload and reverse power alarms

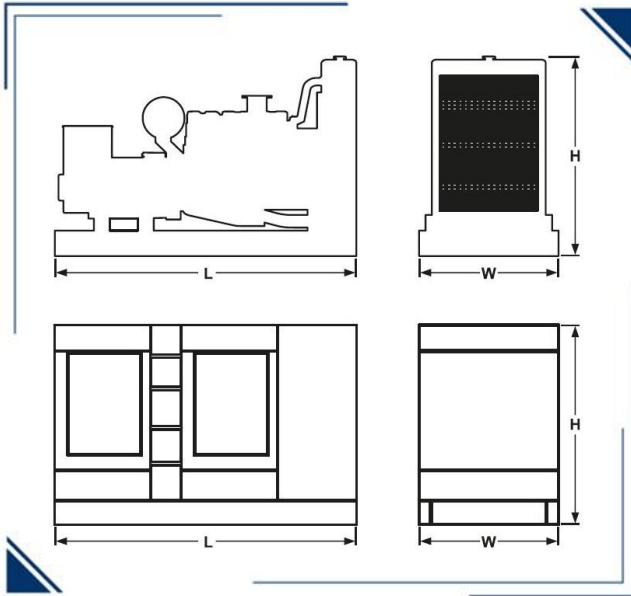
- Over current protection
- Unbalanced load protection
- Independent earth fault protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 2 configurable volt-free relay outputs
- 6 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- Configurable 5 stage dummy load and load shedding outputs
- 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 usage monitor and low fuel level alarms
- Simultaneous use of RS232 and RS485 communication ports
- True dual mutual standby using RS232 or RS485 for accurate engine hours balancing.
- MODBUS RTU support with configurable MODBUS pages.
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- 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 supplied gasket) offers increased resistance to water ingress
- Modules can be integrated into building management systems (BMS) using MODBUS RTU

#### KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE7320 MKII 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.

## ► DIMENSIONS AND WEIGHT



OPEN GENSET					
DIMENSION	Length (L)	Width (W)	Height (H)	Weight	Noise Level
	IN			Lbs	dB
	111	56	73	3549	
ENCLOSED GENSET LEVEL 2					
DIMENSION	Length (L)	Width (W)	Height (H)	Weight	Noise Level
	IN			Lbs	dB
	172	56	75	5258	

## ► ACOUSTIC ENCLOSURE

Acoustic enclosure designed and manufactured with 14 gauge carbon steel sheet, polyurethane acoustic coating, access and air expulsion to avoid gas accumulation, drainage system to avoid liquid accumulation. Electrostatic painting for extended life.  
We have options for enclosures in aluminum or stainless steel

## ► STANDARD FEATURES & ACCESSORIES

<input checked="" type="checkbox"/>	DSE 9470 Battery Charger	<input checked="" type="checkbox"/>	Emergency Stop Button
<input checked="" type="checkbox"/>	Battery and Battery Rack	<input checked="" type="checkbox"/>	Flex Fuel Lines
<input checked="" type="checkbox"/>	ABB Main Line Circuit Breaker	<input checked="" type="checkbox"/>	Protection Covers for Rotating Parts
<input checked="" type="checkbox"/>	SX460 AVR	<input checked="" type="checkbox"/>	Exhaust Insulation Cover
<input checked="" type="checkbox"/>	Hotstart Pre heater TPS101GT10-000	<input checked="" type="checkbox"/>	Anti Vibration Pads between Engine/Alternator & Base Frame
<input checked="" type="checkbox"/>	Residential Grade Silencer Open Unit	<input checked="" type="checkbox"/>	Operation and Maintenance manuals
<input checked="" type="checkbox"/>	Critical Grade Silencer Inside Enclosure	<input checked="" type="checkbox"/>	24 Months /1000 hours Limited Standby Warranty



## ▶ OPTIONAL ACCESSORIES

Paralleling Adder (DSE8610 & Motorized Breaker)	Enclosure AC light and On/Off Switch
120V GFCI Receptacle	Enclosure DC light and On/Off Switch
240V Receptacle	Enclosure space Heater (1500w/120v)
Alternator Strip Heater	Load Center / Distribution Board (100 A, 12 Breaker)
Battery Blanket Heater	Load Center / Distribution Board (200 A, 8 Breaker)
Battery Disconnect Switch	MX321 - AVR UPGRADE
Battery Pad Heater	Oil Pan Heater
Battery Restraint	Relay - 10A Common Alarm
Control Panel Heater	Relay - 10A Run Relay
DSE2157 Output Module (8 dry contacts)	Remote E-Stop- Breaker Glass Type / Nema 3R
DSE2520 Remote Display Module	Remote E-Stop- Breaker Glass Type / Nema 4X
DSE2548 Remote Annunciator (16 light)	Remote E-Stop- Flush Mount
DSE2548 Remote Annunciator (24 light)	Remote E-Stop- Surface Mount
DSE2548 Remote Annunciator (8 light)	Remote E-Stop- Visual/ Plastic Hinged Cover
DSE890 3G GATEWAY	Spring Isolator- Non Seismic (ACE 121 Series) <small>SKIRT NOT INCLUDED</small>
GSM/GPS ANTENNA 3M RG-174, GSM-SMA(M), GPS-SMA(F)	Spring Isolator- Seismic/Restraint (ACE 821 Series) <small>SKIRT NOT INCLUDED</small>
DSE9641 10A Battery Charger	Voltage Adjust Rheostat
DSE9470 10A Battery Charger	Automatic Transfer Switch

## ▶ OPTIONAL UL142 SUB BASE TANK

	24 hr	48 hr	72 hr
Fuel Capacity (gal)	300	600	850
Dimensions (L/W/H) in			
Weight lb			



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**JOHN DEERE**

**ENGINE PERFORMANCE CURVE**

**PowerTech E™ 6.8L Engine**  
**Model: 6068HF285**

Rating: Gross Power  
 Application: Generator (60 Hz)  
 Target: 150 kWe Standby Market

216 hp (161 kW) Prime  
 237 hp (177 kW) Standby

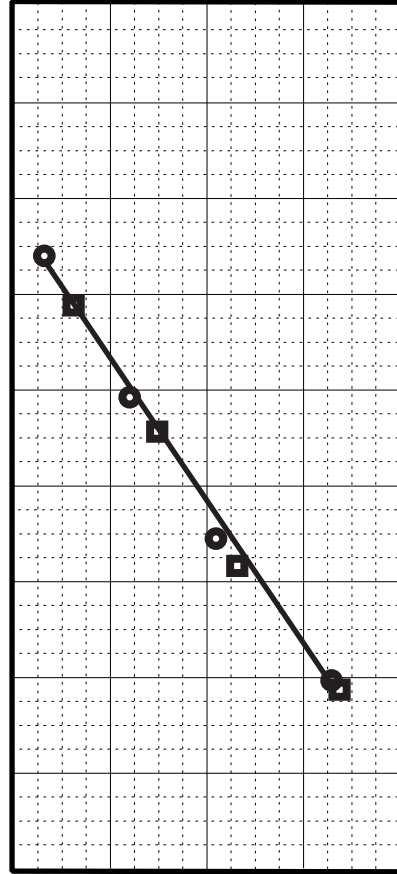
[See Option Code Tables]

Nominal Engine Power @ 1800 RPM			
Prime		Standby	
HP	KW	HP	KW
216	161	237	177

Generator Efficiency %	Fan Power (6% of Standby)		Power Factor	Prime Rating <sup>2</sup>		Standby Rating <sub>1,2</sub>		ISO 8528 G2 Block Load Capability
	hp	kW		kWe	kVA	kWe	kVA	
88-92	13.1	9.8	133-139	166-174	147-154	184-193	100%	

Note 1: Based on nominal engine power.  
 Note 2: kWe / kVA rating assumes 90% efficiency. "Generator Efficiency %" will vary.

■ - PRIME \*      ● - STANDBY



**STANDARD CONDITIONS**

Air Intake Restriction ..... 12 in.H<sub>2</sub>O (3 kPa)  
 Exhaust Back Pressure ..... 30 in.H<sub>2</sub>O (7.5 kPa)

Gross power guaranteed within + or - 5% at SAE J1995 and ISO 3046 conditions:

77 °F (25 °C) air inlet temperature  
 29.31 in.Hg (99 kPa) barometer  
 104 °F (40 °C) fuel inlet temperature  
 0.853 fuel specific gravity @ 60 °F (15.5 °C)  
 Conversion factors:

Power: kW = hp x 0.746  
 Fuel: 1 gal = 7.1 lb, 1 L = 0.85 kg  
 Torque: N•m = lb-ft x 1.356

All values are from currently available data and are subject to change without notice.

**Notes:**

All OEM Gen Set Engine Applications must be pre-screened for torsional vibration compatibility with the respective alternator end hardware.

OEM Engine Application Engineering will perform this computer-based analysis work upon request.

Tier-3 Emission Certifications: Certified by:

CARB; EPA

*M. J. ...*  
 aa June '07

Ref: Engine Emission Label

\* Revised Data  
 Curve 6068HF2851800237 ..... Sheet 1 of 2  
 June 2007

## Engine Installation Criteria

### General Data

Model	6068HF285
Number of Cylinders	6
Bore and Stroke--in. (mm)	4.19 x 5.00 (106 x 127)
Displacement--in. <sup>3</sup> (L)	415 (6.8)
Compression Ratio	19.0:1
Valves per Cylinder--Intake/Exhaust	2/2
Firing Order	1-5-3-6-2-4
Combustion System	Unit Injection
Engine Type	In-line, 4-Cycle
Aspiration	Turbocharged
Charge Air Cooling System	Air-to-Air
Engine Crankcase Vent System	Open

### Physical Data

Length--in. (mm)	44.2 (1123)
Width--in. (mm)	25.9 (657)
Height--in. (mm)	40.8 (1036)
Weight, with oil--lb (kg)	1340 (608)
(Includes flywheel hsg., flywheel & electrics)	
Center of Gravity Location (Estimated based on Tier 2)	
From Rear Face of Block (X-axis)--in. (mm)	14.5 (369)
Right of Crankshaft (Y-axis)--in. (mm)	0.1 (3)
Above Crankshaft (Z-axis)--in. (mm)	6.1 (154)
Max. Allow. Static Bending Moment at Rear	
Face of Flywhl Hsg w/ 5-G Load--lb-ft (N*m)	600 (81.4)
Thrust Bearing Load Limit --lb (N) Forward	450 (2000)
Intermittent	899 (4000)
Continuous	495 (2200)
Max. Front of Crank. Torsional Vibration--DDA	0.25
Max. Continuous Damper Temp--°F (°C)	180 (82)

### Electrical System

Min. Battery Capacity (CCA)--amp	800	12 Volt	24 Volt
Max. Allow. Start. Circ't Resist.--Ohm	0.0012		0.002
Starter Rolling Current:			
At 32 °F (0 °C)--amp	920		600
At -22 °F (-30 °C)--amp	1300		700
Min. Volts at ECU while Cranking--volts	6		10
Max. ECU Temperature--°F (°C)	221 (105)		
Max. Harness Temperature--°F (°C)	248 (120)		
Maximum Voltage From Engine Crankshaft/Generator Shaft to Ground--VAC	0.15		0.15

### Air System

Max. Allowable Temp Rise--Ambient Air to Engine Inlet--°F (°C)	15 (8)	Prime	Standby
Maximum Air Intake Restriction			
Dirty Air Cleaner--in. H <sub>2</sub> O (kPa)	25 (6.25)		
Clean Air Cleaner--in. H <sub>2</sub> O (kPa)	15 (3.75)		
Engine Air Flow--ft <sup>3</sup> /min (m <sup>3</sup> /min)	427 (12.1)*		448 (12.7)*
Air Cleaner Efficiency--%	99.9		

### Charge Air Cooling System

Air/Air Exchanger Heat Rejection--BTU/min (kW)	1508(26.5)	Prime	Standby
Compress. Dischrg. Temp.(Rated) @ 77 °F (25°C) Amb. Air--°F (°C)	346(175)		362(183)*
Press. Drop. thru CAC--in. H <sub>2</sub> O (kPa)			
Max.			52 (13)
Min.			None*
Intake Manifold Pressure--psi (kPa)	24 (164)*		26 (178)*
CAC Out Temp @ 77°F (25°C) Amb.--°F (°C)			
Max.			140 (60)
Min.			118 (48)
CAC Out Temp @ any Ambient--°F (°C)			
Max.			190 (88)

### Cooling System

Engine Heat Reject.--BTU/min (kW)	5009(88)	Prime	Standby
Coolant Flow--gal/min (L/min)	48(180)		48(180)
Thermostat Start to Open--°F (°C)	180 (82)		
Thermostat Fully Open--°F (°C)	203 (95)		
Engine Coolant Capacity--qt (L)	13 (11.9)		
Min. Pressure Cap--psi (kPa)	14.5 (100)		
Max. Top Tank Temp--°F (°C)	230 (110)		
Min. Coolant Fill Rate--gal/min (L/min)	3 (11)		
Min. Air-to-Boil Temperature--°F (°C)	117 (47)		
Min. Pump Inlet Pressure--psi (kPa)	4.4 (30)		

### Exhaust System

Exhaust Flow--ft <sup>3</sup> /min (m <sup>3</sup> /min)	1104 (31.3)	Prime	Standby
Exhaust Temperature--°F (°C)	981 (527)		981 (527)*
Max. Exhaust Restriction--in. H <sub>2</sub> O (kPa)	30 (7.5)		
Min. Exhaust Restriction--in. H <sub>2</sub> O (kPa)	None		
Max. Bend. Moment, Turbo Out.--lb-ft (N*m)	5.2 (7.0)		
Max. Shear on Turbo Outlet--lb (kg)	24 (11)		

### Fuel System

ECU Description	L16 Controller	Prime	Standby
Fuel Injection Pump	Denso HP3		
Governor Type	Electronic		
Total Fuel Flow--lb/hr (kg/hr)	187(84.7)		201(91.3)*
Fuel Consumption--lb/hr (kg/hr)	78(35.3)		84 (38.1)*
Max. Fuel Inlet Temp--°F (°C)	176 (80)		
Fuel Temp. Rise, Inlt to Retrn--°F (°C)	73.1(41)		72(40)*
Max. Fuel Inlet Restriction--in. H <sub>2</sub> O (kPa)	80 (20)		
Max. Fuel Inlet Pressure--in. H <sub>2</sub> O (kPa)	NA (NA)		
Max. Fuel Return Pressure--in. H <sub>2</sub> O (kPa)	80 (20)		

### Lubrication System

Oil Press. at Rated Speed--psi (kPa)	44 (300)	Prime	Standby
Min. Oil Pressure--psi (kPa)	15 (105)		
Max. Oil Carryover in Blow-by--lb/hr (g/hr)	0.002 (1.0)		
Max. Airflow in Blow-by--gal/min (l/min)	34 (130)		
Max. Crankcase Pressure--in. H <sub>2</sub> O (kPa)	2 (0.5)		

### Performance Data

Rated Power--hp (kW)	216 (161)	Prime	Standby
Rated Speed--rpm	1800		1800
Low Idle Speed--rpm	1150		1150
Rated Torque--lb-ft (N*m)	1151 (849)*		1266 (934)*
BMEP--psi (kPa)	228 (1569)		250 (1726)*
Friction Power			
@ Rated Speed--hp (kW)	23 (17)		23 (17)
Altitude Capability--ft (m)	10,000(3050)		10,000(3050)
Ratio--Air : Fuel	24* : 1		23* : 1
Smoke @ Rated Speed--Bosch No.	0.85*		0.97*
Noise--dB(A) @ 1 m	89.8*		90.0*

### Fuel Consumption -- lb/hr (kg/h)

25 % Power	22.5 (10.2)	Prime	Standby
50 % Power	44.1 (20.0)		48.9 (22.2)*
75 % Power	60.2 (27.3)		66.6 (30.2)*
100 % Power	77.6 (35.2)		83.8 (38.0)

All values at rated speed and power with standard options unless otherwise noted.

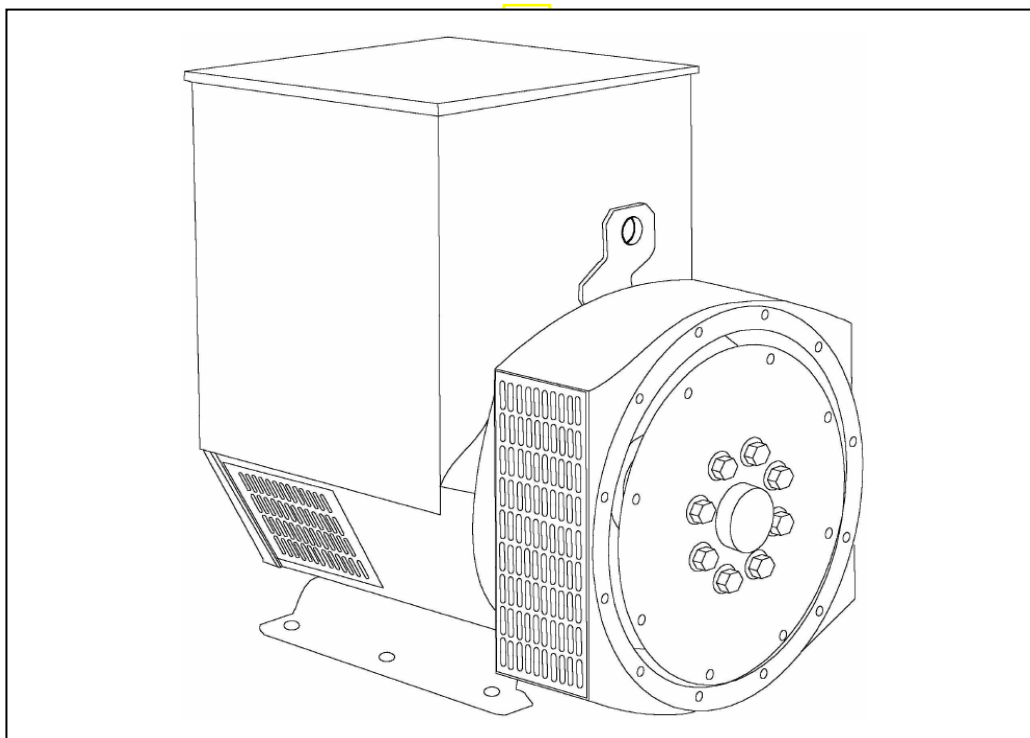
\* Revised Data

Curve 6068HF2851800237..... Sheet 2 of 2  
June 2007

# STAMFORD®

**UCI274G - Winding 311**

Technical  Data Sheet



## SPECIFICATIONS &amp; OPTIONS

**STANDARDS**

Stamford industrial generators meet the requirements of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.

Other standards and certifications can be considered on request.

**VOLTAGE REGULATORS****SX460 AVR - STANDARD**

With this self excited control system the main stator supplies power via the Automatic Voltage Regulator (AVR) to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three phase full wave bridge rectifier. This rectifier is protected by a surge suppressor against surges caused, for example, by short circuit.

**AS440 AVR**

With this self-excited system the main stator provides power via the AVR to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three-phase full-wave bridge rectifier. The rectifier is protected by a surge suppressor against surges caused, for example, by short circuit or out-of-phase paralleling.

The AS440 will support a range of electronic accessories, including a 'droop' Current Transformer (CT) to permit parallel operation with other ac generators.

**MX341 AVR**

This sophisticated AVR is incorporated into the Stamford Permanent Magnet Generator (PMG) control system.

The PMG provides power via the AVR to the main exciter, giving a source of constant excitation power independent of generator output. The main exciter output is then fed to the main rotor, through a full wave bridge, protected by a surge suppressor. The AVR has in-built protection against sustained over-excitation, caused by internal or external faults. This de-excites the machine after a minimum of 5 seconds.

An engine relief load acceptance feature can enable full load to be applied to the generator in a single step.

If three-phase sensing is required with the PMG system the MX321 AVR must be used.

We recommend three-phase sensing for applications with greatly unbalanced or highly non-linear loads.

**MX321 AVR**

The most sophisticated of all our AVRs combines all the features of the MX341 with, additionally, three-phase rms sensing, for improved regulation and performance.

Over voltage protection is built-in and short circuit current level adjustments is an optional facility.

**WINDINGS & ELECTRICAL PERFORMANCE**

All generator stators are wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform and is found to be the optimum design for trouble-free supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches, when in parallel with the mains. A fully connected damper winding reduces oscillations during paralleling. This winding, with the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

**TERMINALS & TERMINAL BOX**

Standard generators are 3-phase reconnectable with 12 ends brought out to the terminals, which are mounted on a cover at the non-drive end of the generator. A sheet steel terminal box contains the AVR and provides ample space for the customers' wiring and gland arrangements. It has removable panels for easy access.

**SHAFT & KEYS**

All generator rotors are dynamically balanced to better than BS6861:Part 1 Grade 2.5 for minimum vibration in operation.

Two bearing generators are balanced with a half key.

**INSULATION/IMPREGNATION**

The insulation system is class 'H'.

All wound components are impregnated with materials and processes designed specifically to provide the high build required for static windings and the high mechanical strength required for rotating components.

**QUALITY ASSURANCE**

Generators are manufactured using production procedures having a quality assurance level to BS EN ISO 9001.

The stated voltage regulation may not be maintained in the presence of certain radio transmitted signals. Any change in performance will fall within the limits of Criteria 'B' of EN 61000-6-2:2001. At no time will the steady-state voltage regulation exceed 2%.

**DE RATES**

All values tabulated on page 8 are subject to the following reductions

5% when air inlet filters are fitted.

3% for every 500 metres by which the operating altitude exceeds 1000 metres above mean sea level.

3% for every 5°C by which the operational ambient temperature exceeds 40°C.

Note: Requirement for operating in an ambient exceeding 60°C must be referred to the factory.

*NB Continuous development of our products entitles us to change specification details without notice, therefore they must not be regarded as binding.*

*Front cover drawing typical of product range.*

APPROVED DOCUMENT

# UCI274G



## WINDING 311

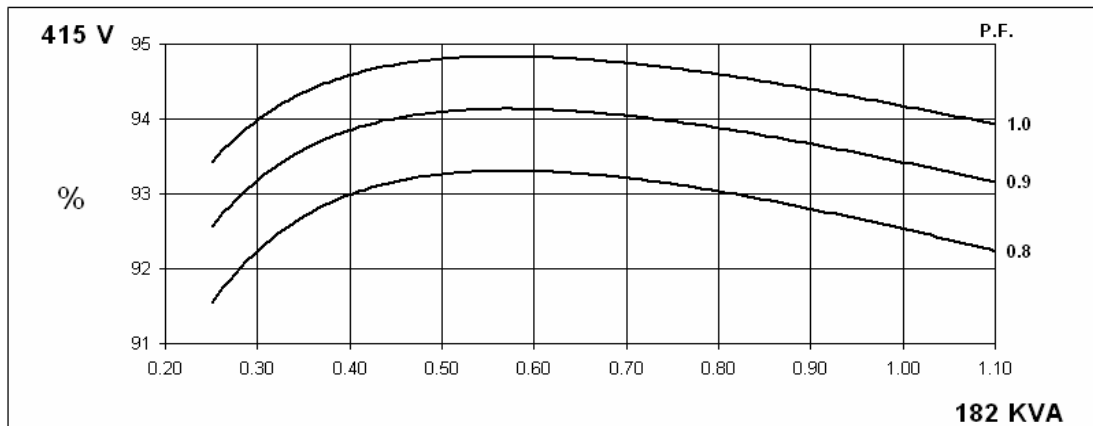
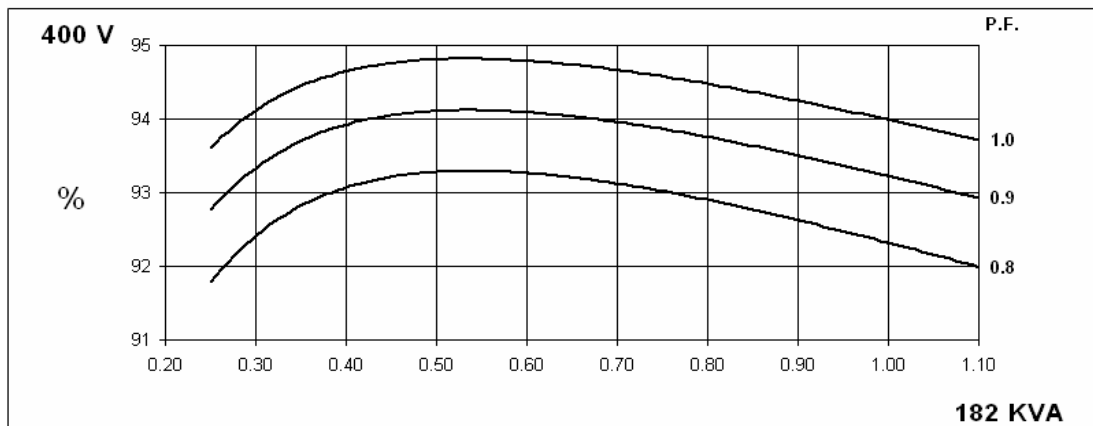
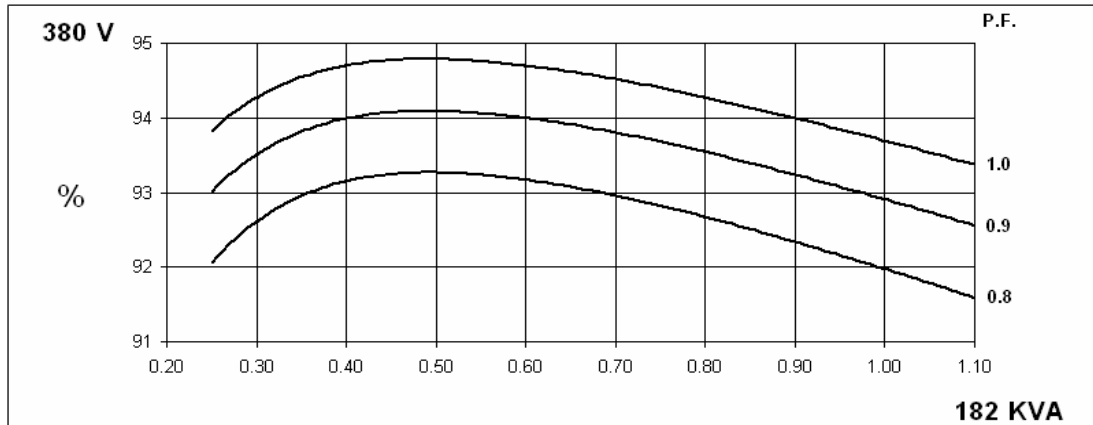
CONTROL SYSTEM		SEPARATELY EXCITED BY P.M.G.							
A.V.R.		MX321	MX341						
VOLTAGE REGULATION		± 0.5 %	± 1.0 %	With 4% ENGINE GOVERNING					
SUSTAINED SHORT CIRCUIT		REFER TO SHORT CIRCUIT DECREMENT CURVES (page 7)							
CONTROL SYSTEM		SELF EXCITED							
A.V.R.		SX460	AS440						
VOLTAGE REGULATION		± 1.0 %	± 1.0 %	With 4% ENGINE GOVERNING					
SUSTAINED SHORT CIRCUIT		SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT							
INSULATION SYSTEM		CLASS H							
PROTECTION		IP23							
RATED POWER FACTOR		0.8							
STATOR WINDING		DOUBLE LAYER CONCENTRIC							
WINDING PITCH		TWO THIRDS							
WINDING LEADS		12							
STATOR WDG. RESISTANCE		0.0199 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED							
ROTOR WDG. RESISTANCE		1.69 Ohms at 22°C							
EXCITER STATOR RESISTANCE		20 Ohms at 22°C							
EXCITER ROTOR RESISTANCE		0.091 Ohms PER PHASE AT 22°C							
R.F.I. SUPPRESSION		BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N. refer to factory for others							
WAVEFORM DISTORTION		NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%							
MAXIMUM OVERSPEED		2250 Rev/Min							
BEARING DRIVE END		BALL. 6315-2RS (ISO)							
BEARING NON-DRIVE END		BALL. 6310-2RS (ISO)							
		1 BEARING				2 BEARING			
WEIGHT COMP. GENERATOR		580 kg				598 kg			
WEIGHT WOUND STATOR		225 kg				225 kg			
WEIGHT WOUND ROTOR		210.35 kg				199.39 kg			
WR <sup>2</sup> INERTIA		1.7674 kgm <sup>2</sup>				1.7169 kgm <sup>2</sup>			
SHIPPING WEIGHTS in a crate		613 kg				630 kg			
PACKING CRATE SIZE		123 x 67 x 103 (cm)				123 x 67 x 103 (cm)			
		50 Hz				60 Hz			
TELEPHONE INTERFERENCE		THF<2%				TIF<50			
COOLING AIR		0.514 m <sup>3</sup> /sec 1090 cfm				0.617 m <sup>3</sup> /sec 1308 cfm			
VOLTAGE SERIES STAR		380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR		190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE SERIES DELTA		220/110	230/115	240/120	254/127	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES		182	182	182	N/A	205	218	218	231
Xd DIR. AXIS SYNCHRONOUS		2.15	1.94	1.80	-	2.43	2.31	2.11	2.06
X'd DIR. AXIS TRANSIENT		0.19	0.17	0.16	-	0.21	0.20	0.18	0.18
X''d DIR. AXIS SUBTRANSIENT		0.13	0.12	0.11	-	0.15	0.14	0.13	0.12
Xq QUAD. AXIS REACTANCE		1.29	1.16	1.08	-	1.47	1.40	1.28	1.24
X''q QUAD. AXIS SUBTRANSIENT		0.18	0.16	0.15	-	0.18	0.17	0.16	0.15
XL LEAKAGE REACTANCE		0.08	0.07	0.07	-	0.09	0.08	0.08	0.07
X <sub>2</sub> NEGATIVE SEQUENCE		0.13	0.12	0.11	-	0.16	0.15	0.13	0.13
X <sub>0</sub> ZERO SEQUENCE		0.08	0.07	0.07	-	0.10	0.09	0.08	0.08
REACTANCES ARE SATURATED		VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED							
T'd TRANSIENT TIME CONST.		0.038 s							
T''d SUB-TRANSTIME CONST.		0.012 s							
T'do O.C. FIELD TIME CONST.		1 s							
T <sub>a</sub> ARMATURE TIME CONST.		0.01 s							
SHORT CIRCUIT RATIO		1/Xd							

50  
Hz

UCI274G  
Winding 311

**STAMFORD**

**THREE PHASE EFFICIENCY CURVES**

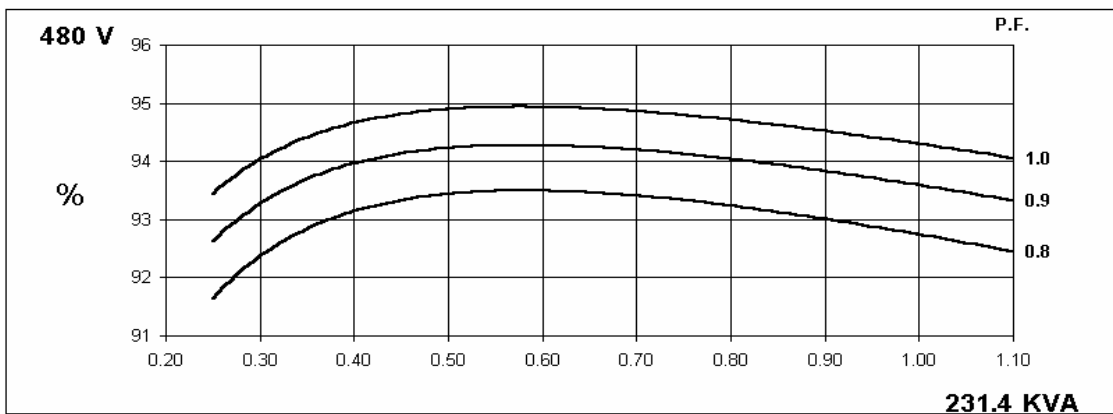
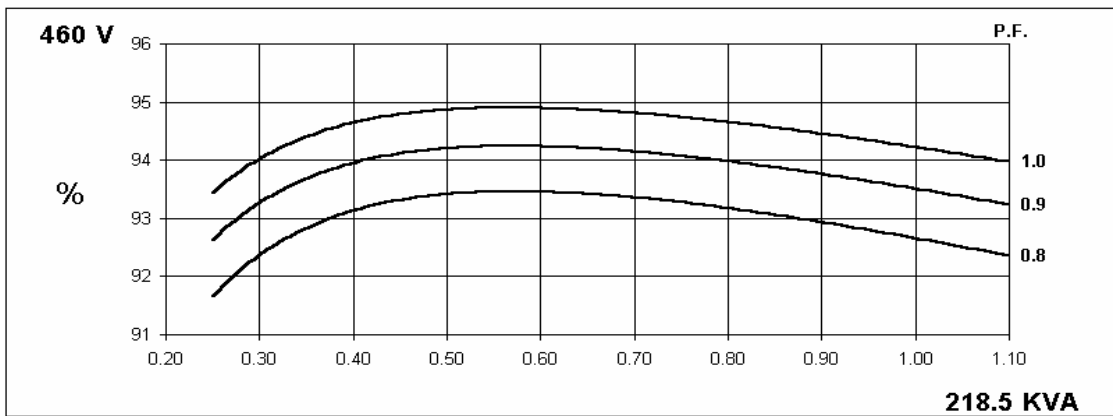
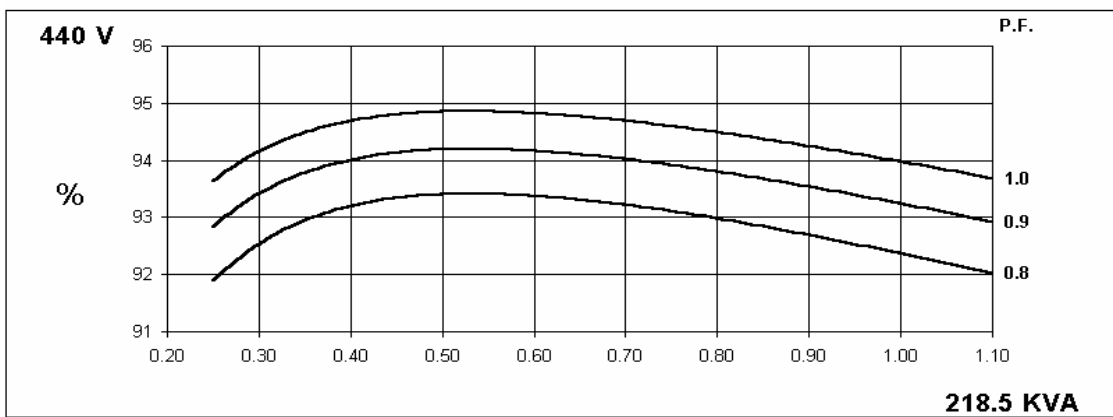
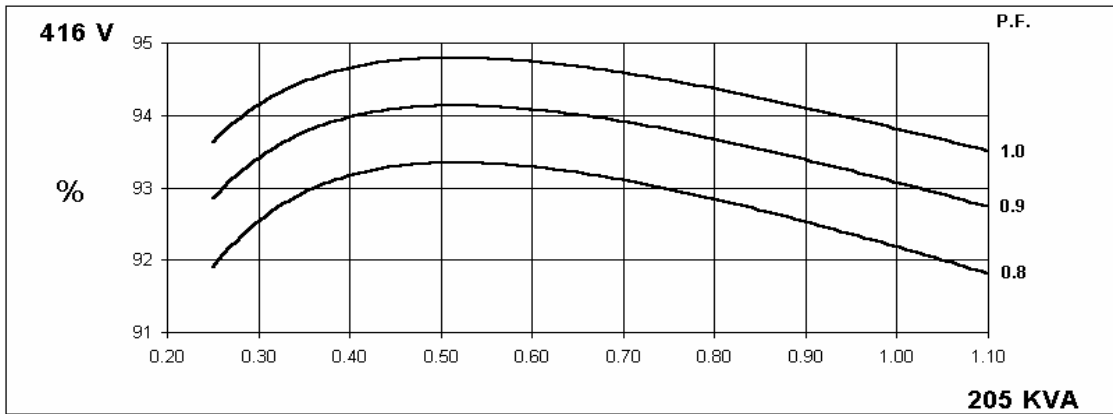


60  
Hz

UCI274G  
Winding 311

STAMFORD

THREE PHASE EFFICIENCY CURVES

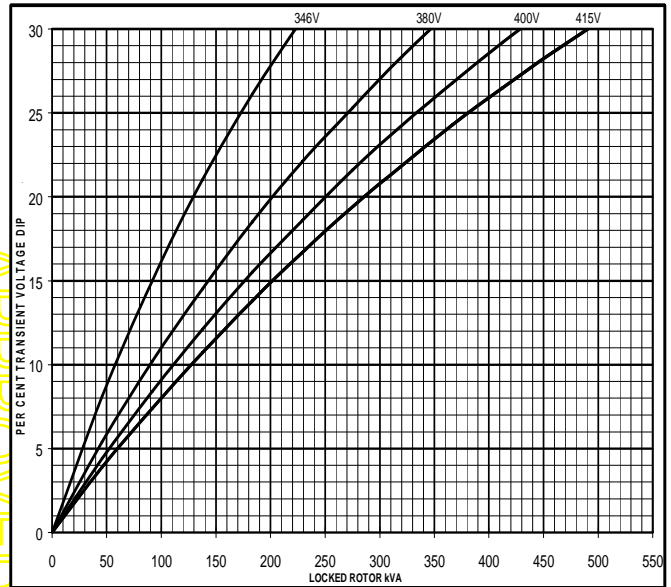
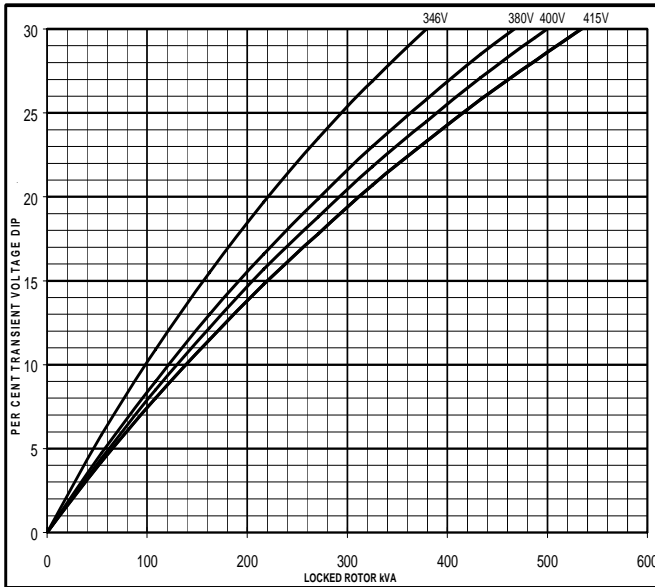


**Locked Rotor Motor Starting Curve**

50  
Hz

MX

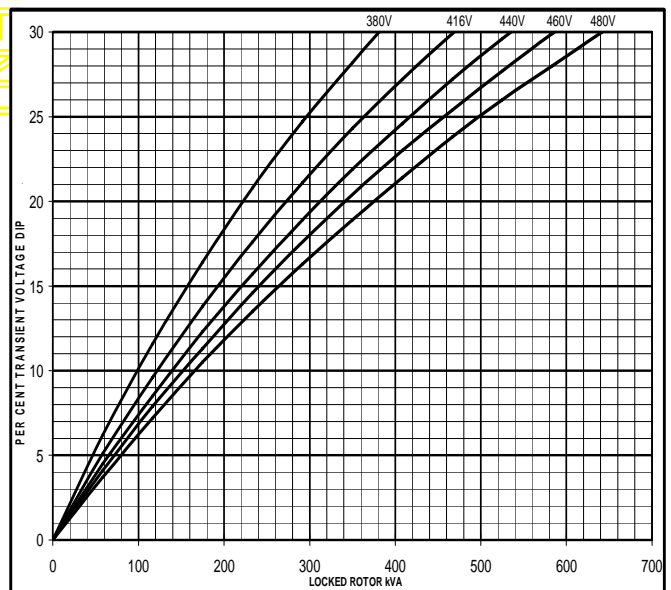
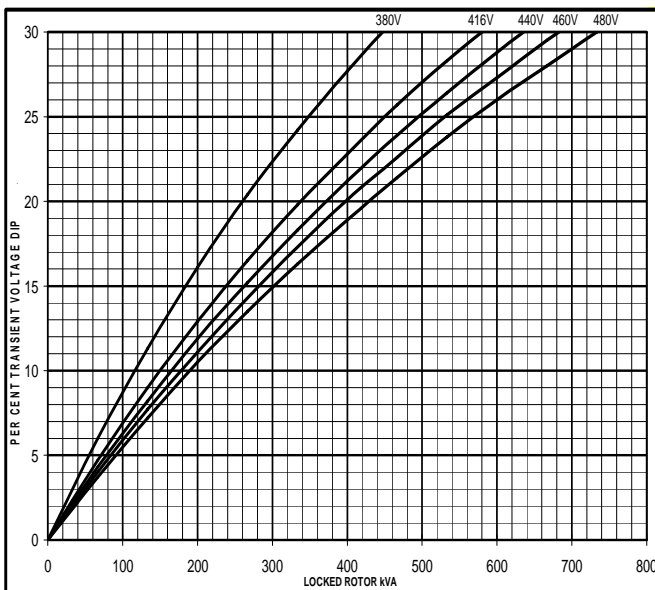
SX



60  
Hz

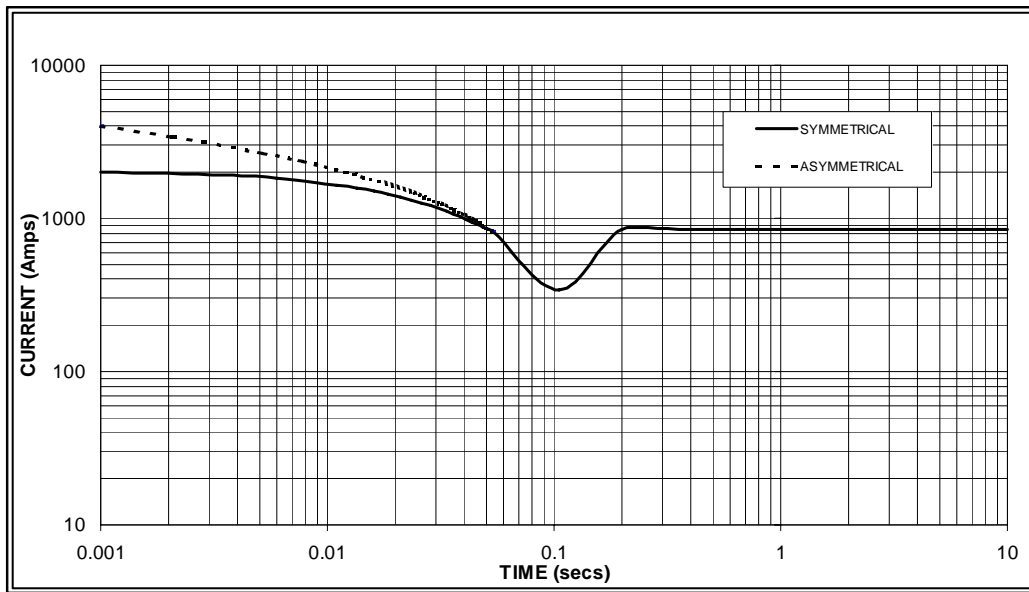
MX

SX



**Three-phase Short Circuit Decrement Curve. No-load Excitation at Rated Speed  
Based on star (wye) connection.**

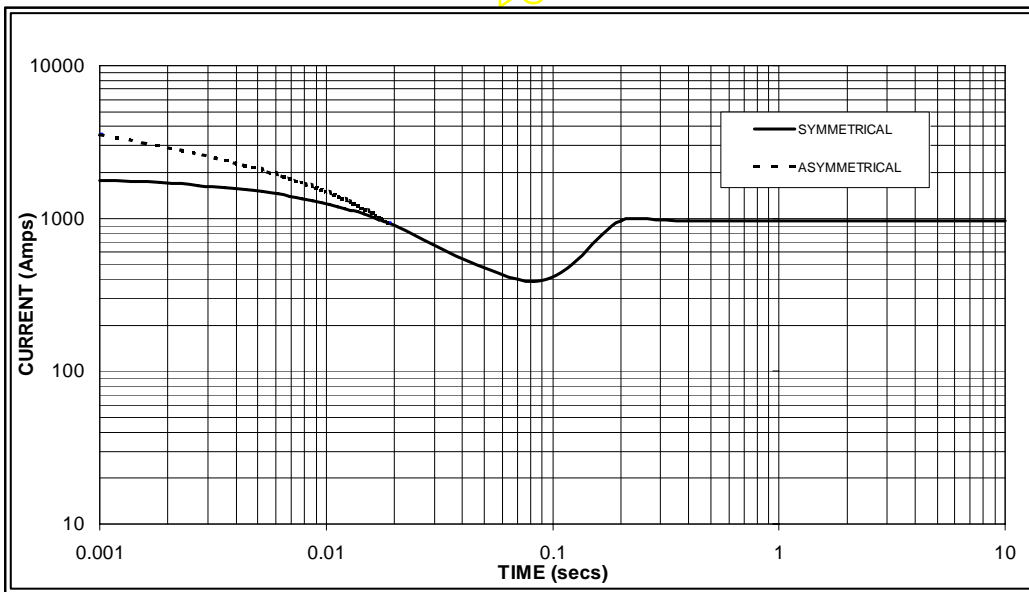
50  
Hz



Sustained Short Circuit = 850 Amps



60  
Hz



Sustained Short Circuit = 970 Amps

**Note 1**

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

50Hz		60Hz	
Voltage	Factor	Voltage	Factor
380v	X 1.00	416v	X 1.00
400v	X 1.07	440v	X 1.06
415v	X 1.12	460v	X 1.12
		480v	X 1.17

The sustained current value is constant irrespective of voltage level

**Note 2**

The following multiplication factor should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3-phase	2-phase L-L	1-phase L-N
Instantaneous	x 1.00	x 0.87	x 1.30
Minimum	x 1.00	x 1.80	x 3.20
Sustained	x 1.00	x 1.50	x 2.50
Max. sustained duration	10 sec.	5 sec.	2 sec.

All other times are unchanged

**Note 3**

Curves are drawn for Star (Wye) connected machines. For other connection the following multipliers should be applied to current values as shown :

Parallel Star = Curve current value X 2

Series Delta = Curve current value X 1.732

# UCI274G

**STAMFORD**

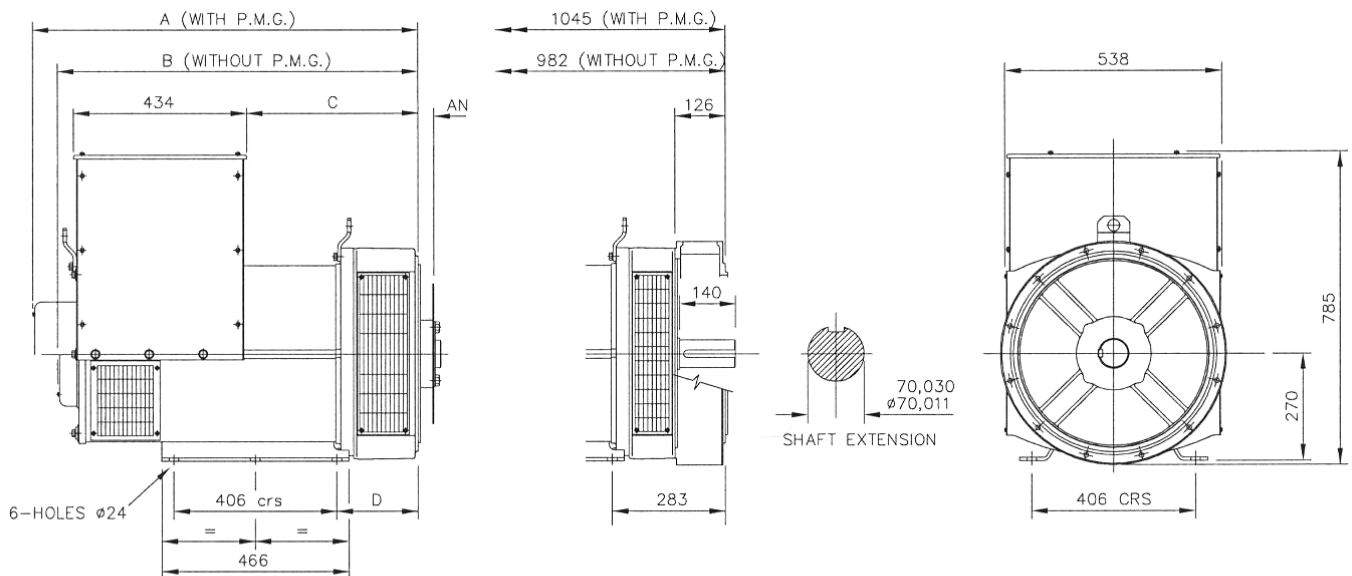
## Winding 311 / 0.8 Power Factor

### RATINGS

Class - Temp Rise	Cont. F - 105/40°C				Cont. H - 125/40°C				Standby - 150/40°C				Standby - 163/27°C				
<b>50 Hz</b>	Series Star (V)	380	400	415	440	380	400	415	440	380	400	415	440	380	400	415	440
	Parallel Star (V)	190	200	208	220	190	200	208	220	190	200	208	220	190	200	208	220
	Series Delta (V)	220	230	240	254	220	230	240	254	220	230	240	254	220	230	240	254
kVA	164.6	164.6	164.6	N/A	182.0	182.0	182.0	N/A	187.0	187.0	187.0	N/A	200.0	200.0	200.0	N/A	
kW	131.7	131.7	131.7	N/A	145.6	145.6	145.6	N/A	149.6	149.6	149.6	N/A	160.0	160.0	160.0	N/A	
Efficiency (%)	92.3	92.6	92.8	N/A	92.0	92.3	92.5	N/A	91.9	92.2	92.5	N/A	91.6	92.0	92.2	N/A	
kW Input	142.7	142.2	141.9	N/A	158.3	157.7	157.4	N/A	162.8	162.2	161.8	N/A	174.7	173.9	173.5	N/A	

<b>60 Hz</b>	Series Star (V)	416	440	460	480	416	440	460	480	416	440	460	480	416	440	460	480
	Parallel Star (V)	208	220	230	240	208	220	230	240	208	220	230	240	208	220	230	240
	Series Delta (V)	240	254	266	277	240	254	266	277	240	254	266	277	240	254	266	277
kVA	192.8	199.0	199.0	212.2	205.0	218.5	218.5	231.4	213.0	228.8	228.8	250.0	218.5	234.0	234.0	253.3	
kW	154.2	159.2	159.2	169.8	164.0	174.8	174.8	185.1	170.4	183.0	183.0	200.0	174.8	187.2	187.2	202.6	
Efficiency (%)	92.4	92.7	92.9	93.0	92.2	92.4	92.7	92.7	92.0	92.2	92.5	92.5	91.9	92.1	92.4	92.5	
kW Input	166.9	171.7	171.4	182.5	177.9	189.2	188.6	199.7	185.2	198.5	197.9	216.2	190.2	203.3	202.6	219.1	

### DIMENSIONS



SINGLE BEARING ADAPTORS				
ADAPTOR	A	B	C	D
SAE 1	978,3	915,3	439,3	216,3
SAE 2	964	901	425	202
SAE 3	964	901	425	202

COUPLING DISCS	
DISC	AN
SAE 10	53,98
SAE 11,5	39,68
SAE 14	25,40

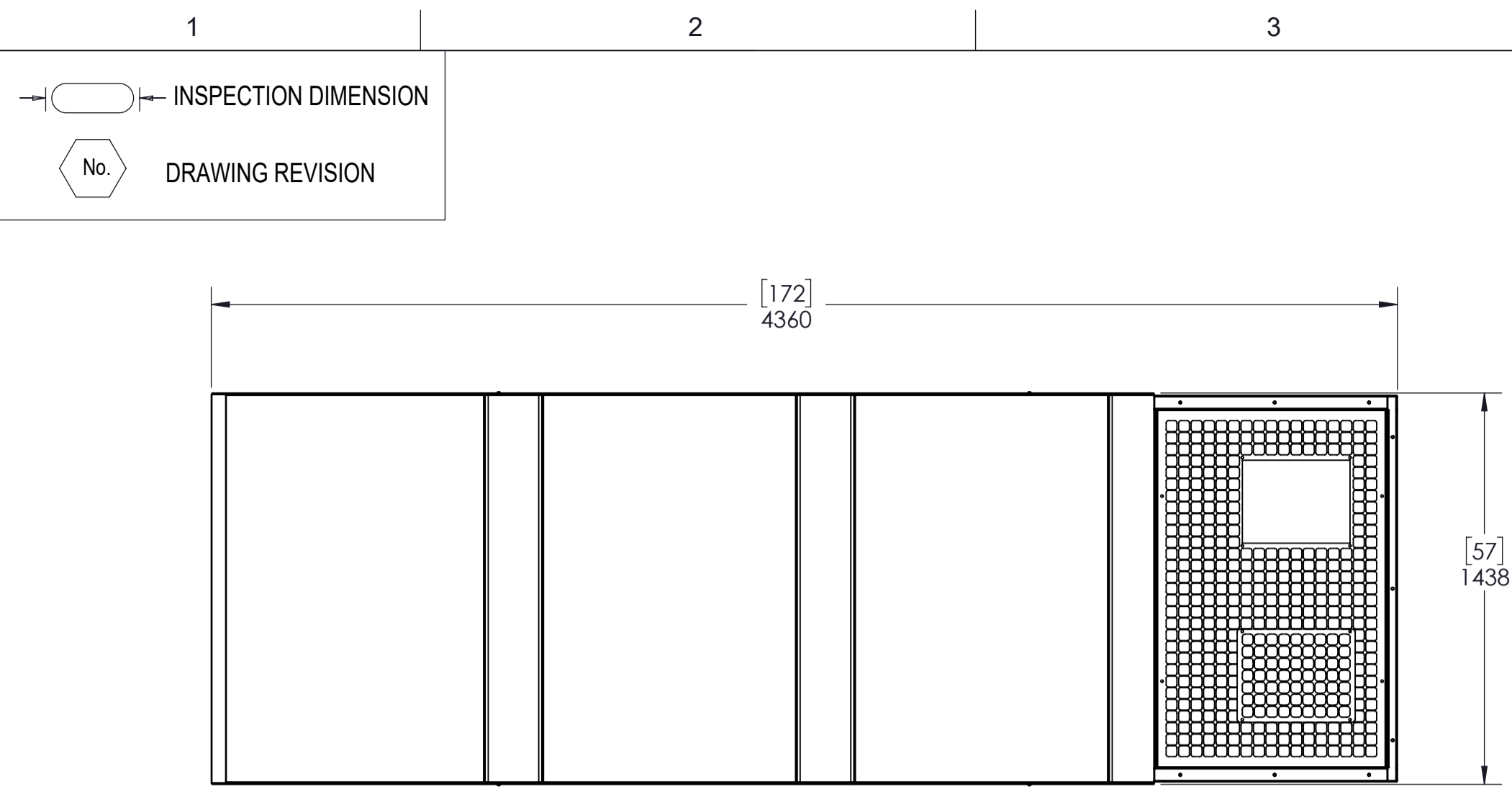
APPROVED DOCUMENT

**STAMFORD**

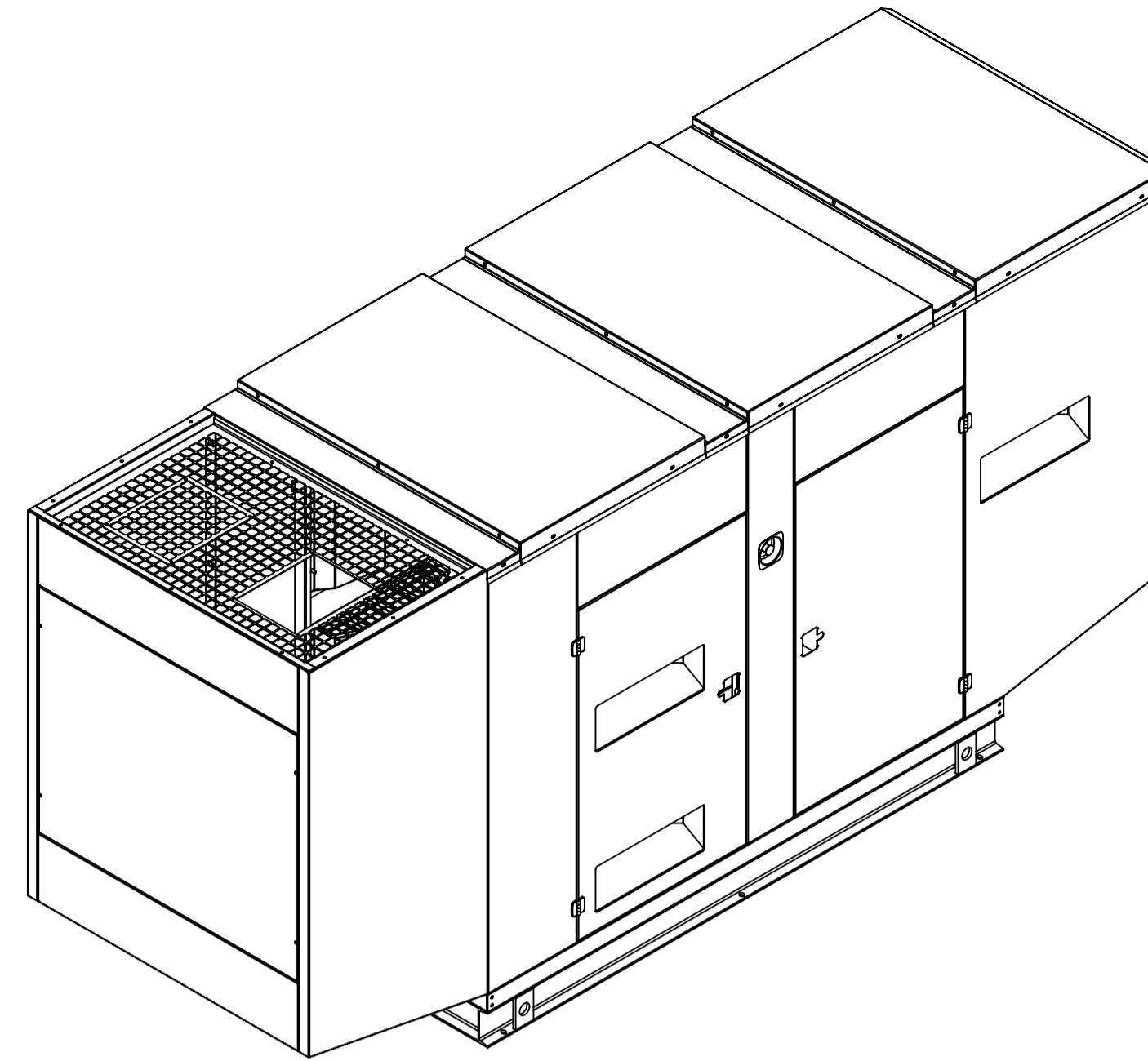
Head Office Address:  
Barnack Road, Stamford  
Lincolnshire, PE9 2NB  
United Kingdom  
Tel: +44 (0) 1780 484000  
Fax: +44 (0) 1780 484100

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**TOP VIEW**

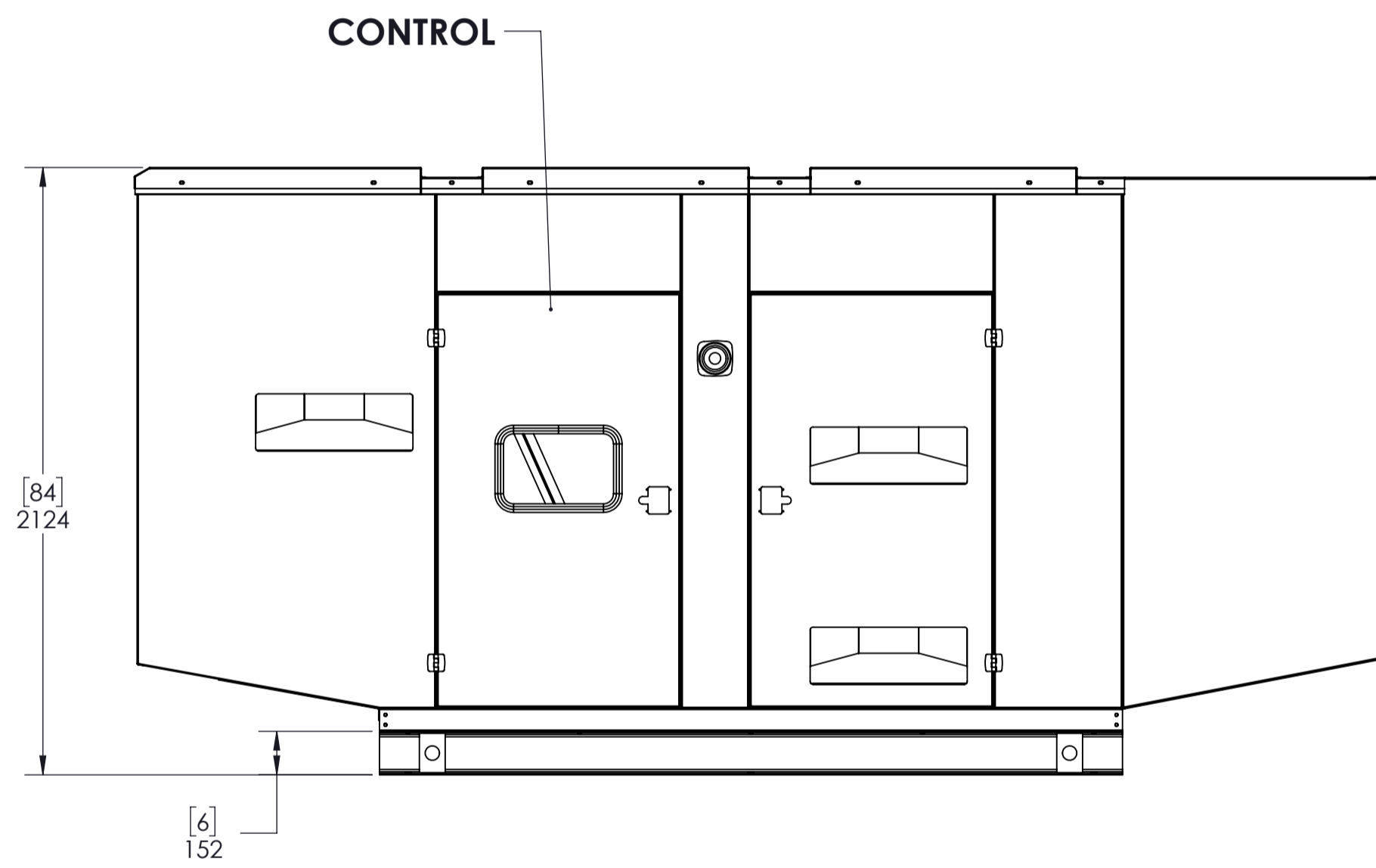


**ISOMETRIC VIEW**

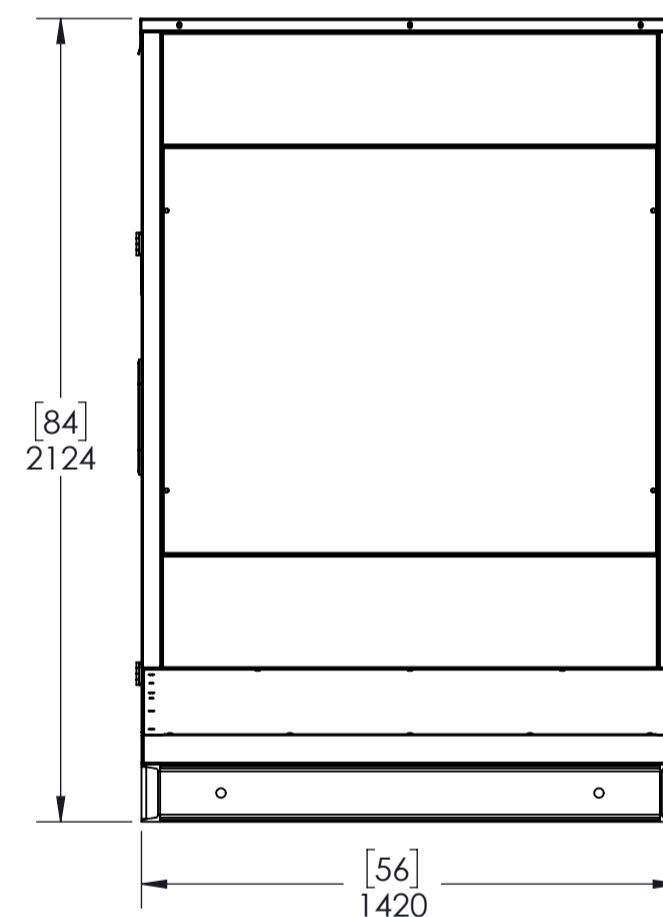
**APROX TOTAL WEIGHT: 4971.42 LBS (2255 KG)**

NON SPECIFIED TOLERANCES			
PART TOLERANCE TABLE		GENERAL TOLERANCES	
INTERVAL	TOLERANCE	DIAMETERS	ANGULAR
0" - 40"	± 0.04"	UNPROF'D	± 0.03°
40" - 16.5'	± 0.08"		± 2°
16.5' - 40'	± 0.12"	PROF'D	± 0.002"
40' - 328'	± 0.4"		
MATERIAL	ITEM	WEIGHT	FINISH

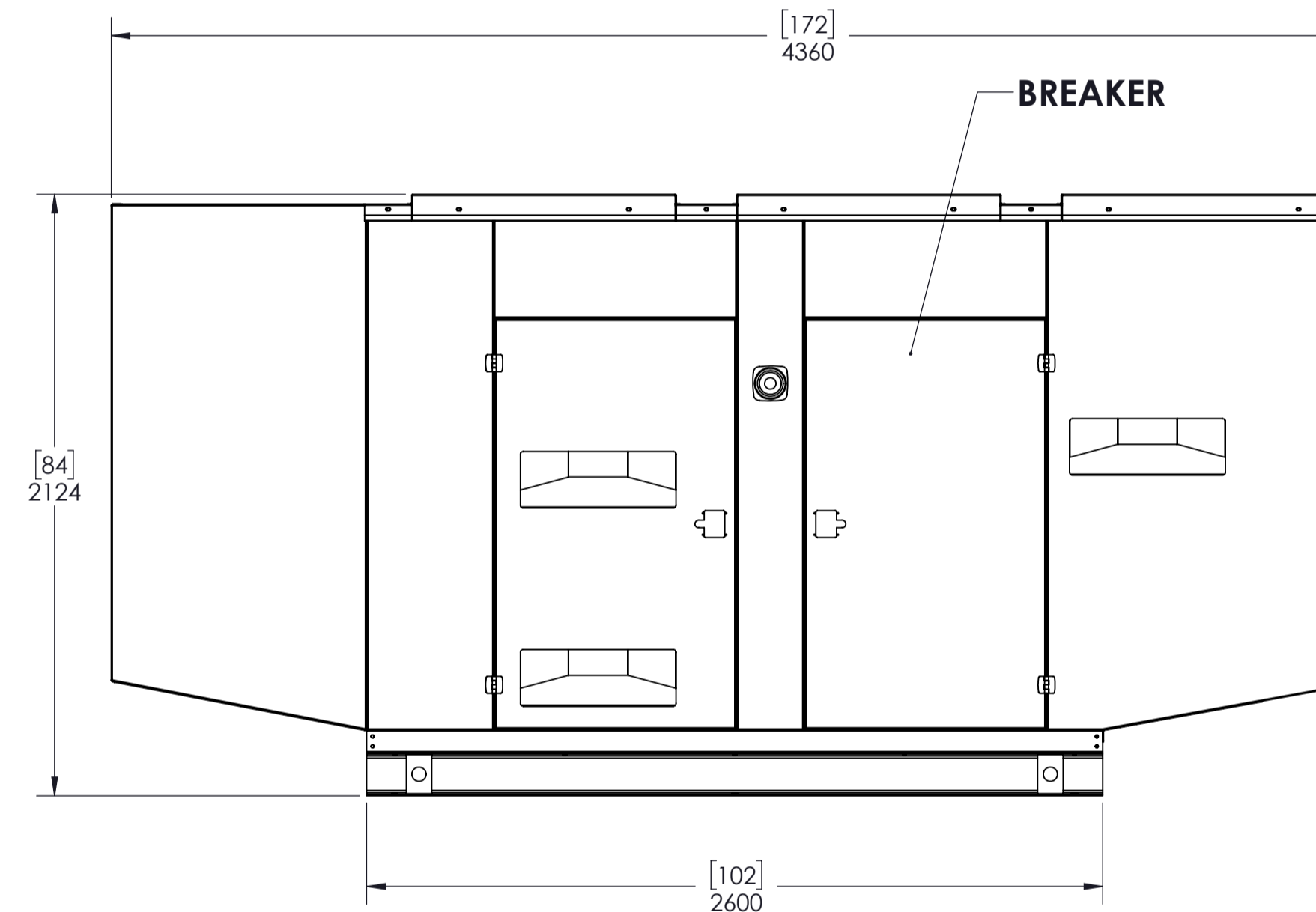
**PRELIMINARY**



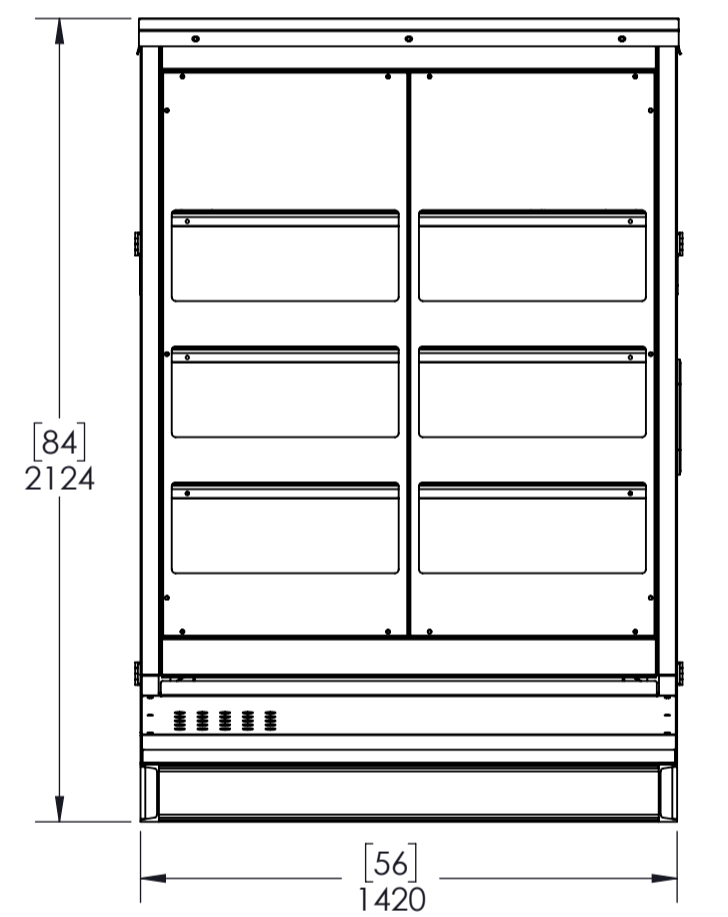
**RIGHT VIEW**



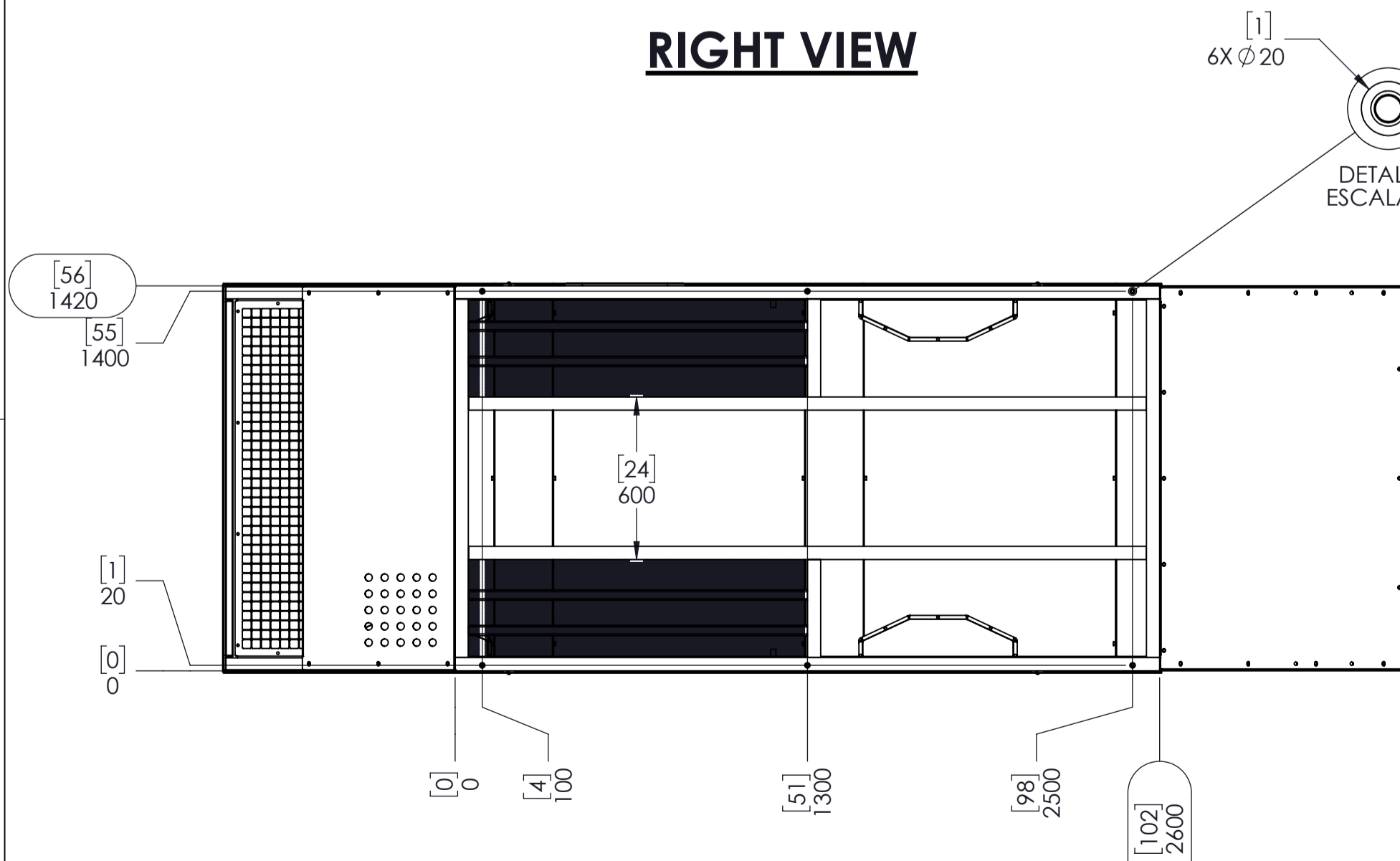
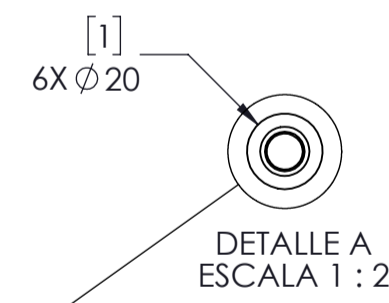
**FRONT VIEW**



**LEFT VIEW**



**REAR VIEW**



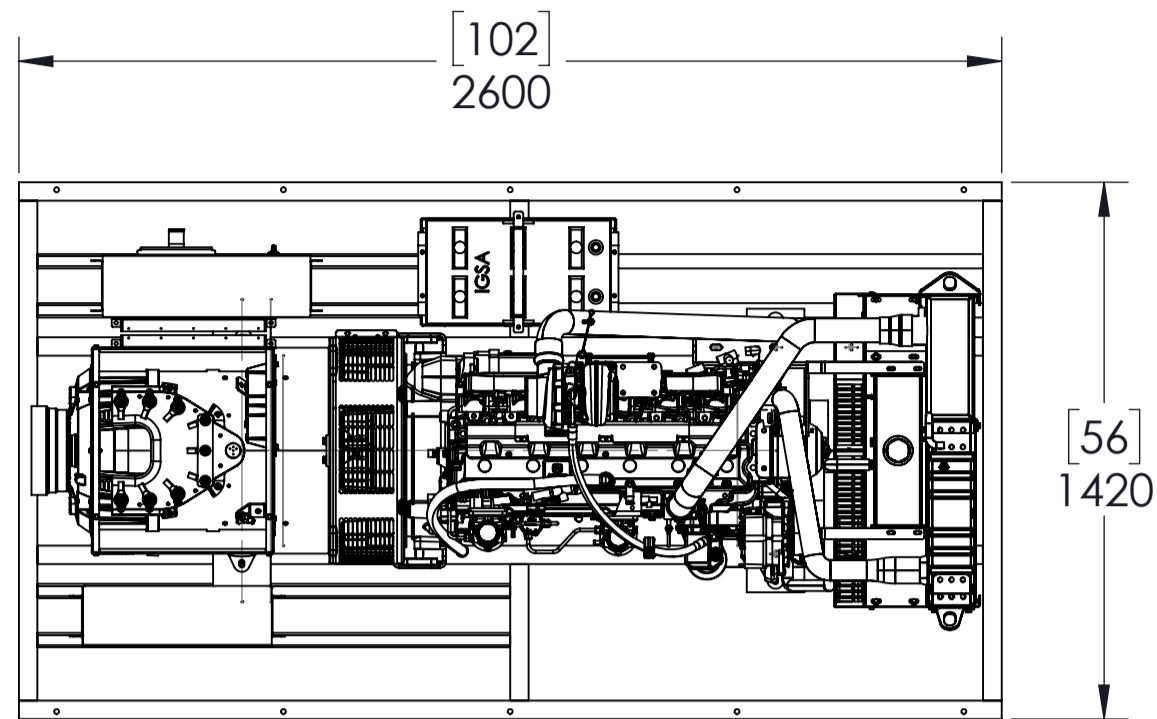
**BOTTOM VIEW**

**\*ALL GENSET CAN BE CONFIGURED WITH ALTERNADOR STANFORD/LEROY/WEG\***

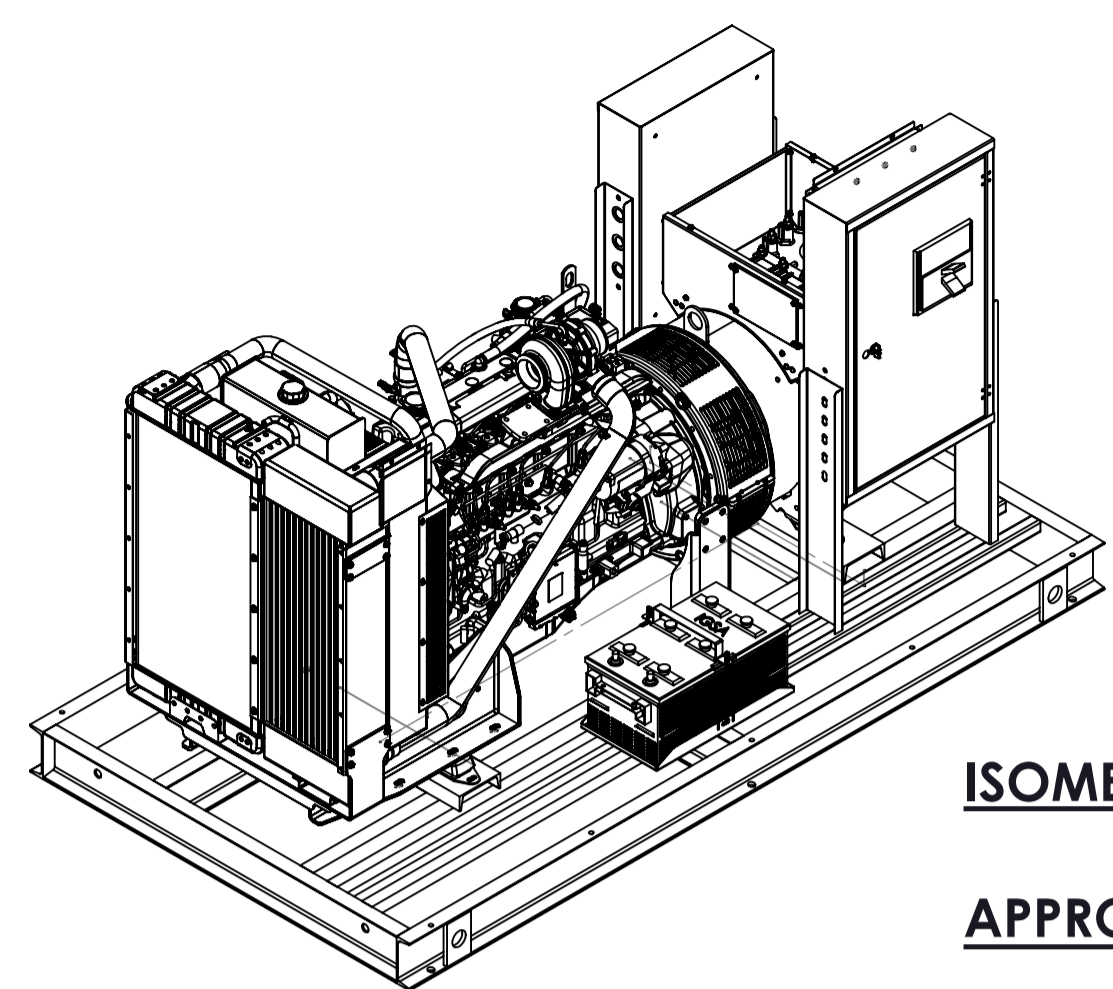
DEPT.: ENGINEERING	DATE: 26/03/2024	DRAWING: JMRS	REVISED: RMMM	APPROVED: OLM
SCALE: N/A ACOT.: INCH	CUSTOMER: UL DIESEL STD	DRAWING No: GSJD30150S		REV.:
TITLE: GENSET 150KW JD				SHEET: 1 DE 1
<b>IGSA S.A. DE C.V.</b> <small>OFFICE GENERAL: PASEO DE LA REFORMA No. 2977, COL. CUAJIMALPA, CP 05000, MEX. D.F.          PLAN AMOLMOLUOLO-OCYVACAC RIM-5, LERMA EDO. DE MEXICO, CP 32740          ENGINEERING DEPARTMENT: TEL: 01 (52) 96265300 E-CL: 3016.3000 &amp; 3030.</small>		<small>THE INFORMATION CONTAINED HEREIN IS EXCLUSIVE PROPERTY IGSA S.A. DE C.V.          THEREFORE IT CAN NO BE USED, COPIED OR DUPLICATED          WITHOUT THE WRITTEN CONSENT IGSA S.A. DE C.V.</small>		

INSPECTION DIMENSION  
DRAWING REVISION

NON SPECIFIED TOLERANCES			
PART TOLERANCE TABLE		GENERAL TOLERANCES	
INTERVAL	TOLERANCE	DIAMETERS	ANGULAR
0" - 40"	± 0.04"	UNPROF'D ± 0.03"	± 2°
40" - 16.5"	± 0.08"		
16.5" - 40"	± 0.12"	PROF'D ± 0.002"	
40" - 328"	± 0.4"		
MATERIAL	ITEM	WEIGHT	FINISH

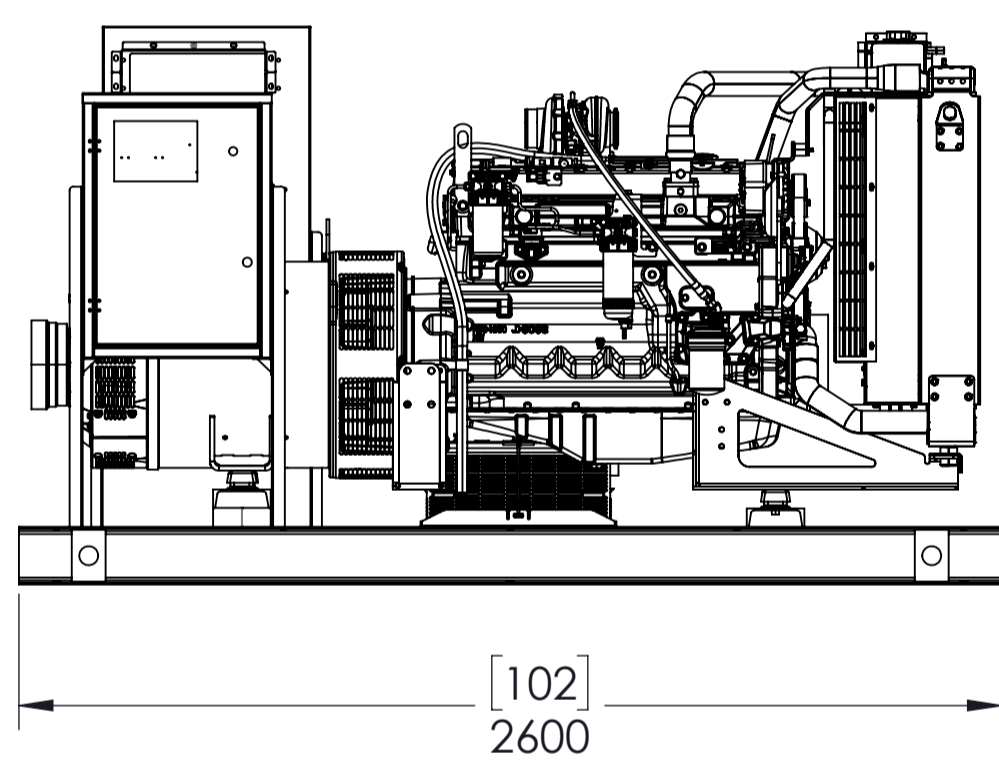


**TOP VIEW**

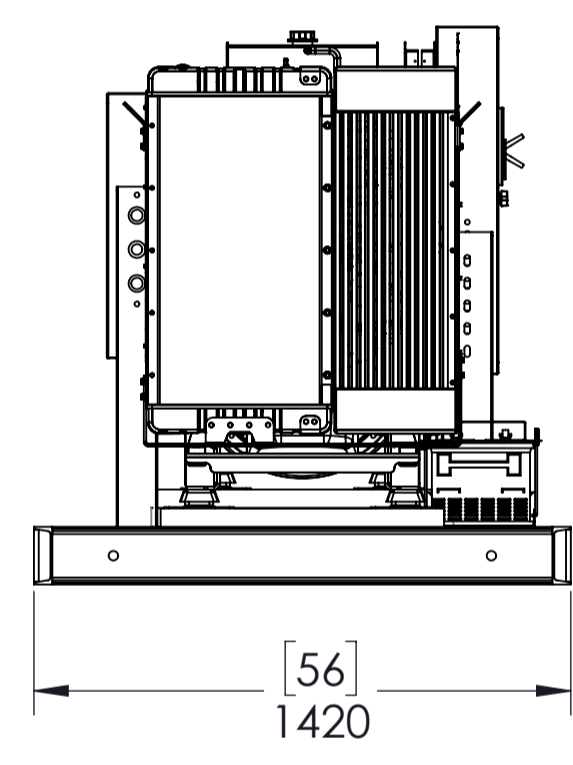


**ISOMETRIC VIEW**

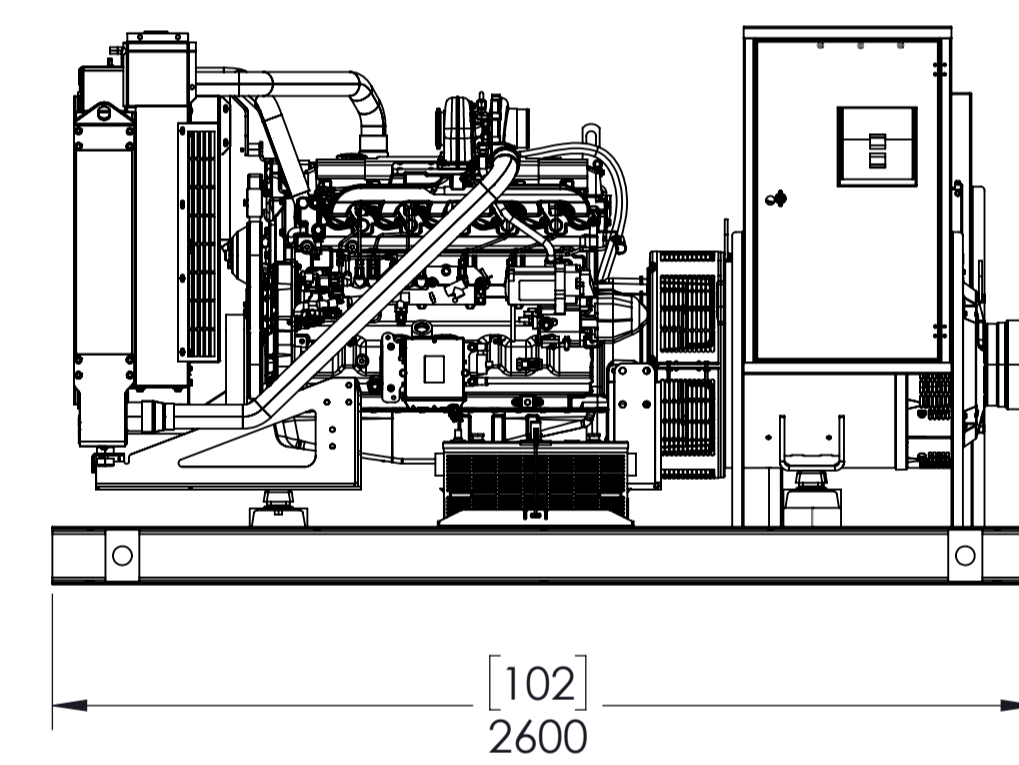
**APPROX TOTAL WEIGHT: .3428.18 LBS (1555 KG)**



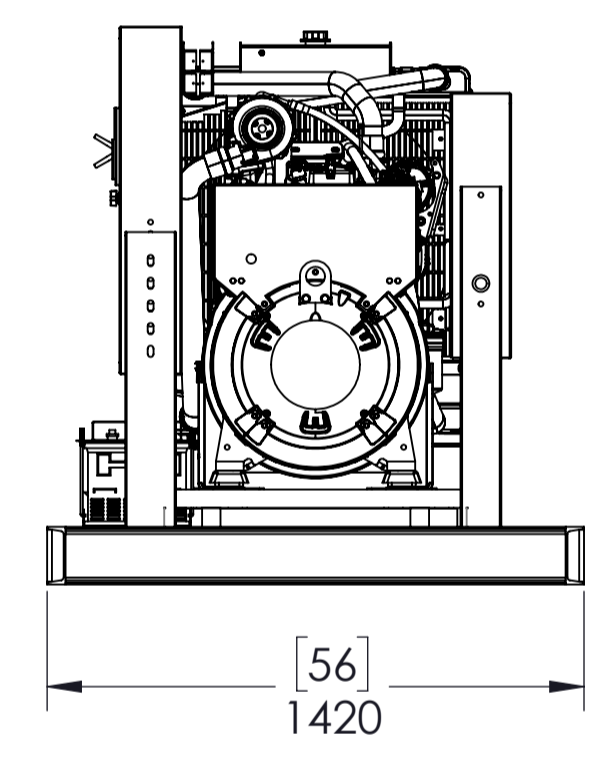
**RIGHT VIEW**



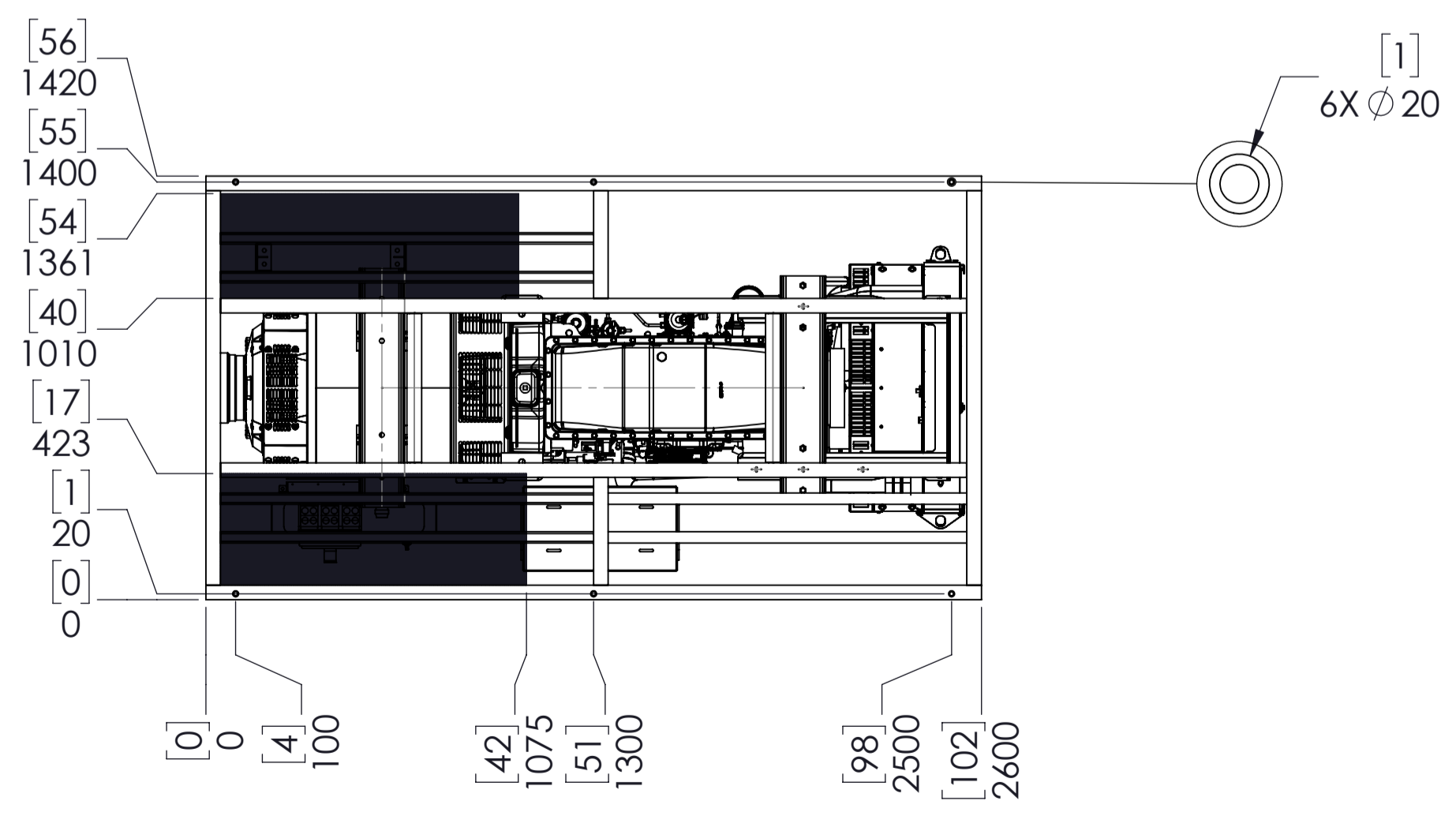
**FRONT VIEW**



**LEFT VIEW**



**REAR VIEW**



**BOTTOM VIEW**

DEPT.: <b>ENGINEERING</b>	DATE: 27/03/2024	DRAWING: JMRS	REVISED: RMMM	APPROVED: OLM
SCALE: N/A ACOT.: INCH	CUSTOMER: <b>UL DIESEL STD</b>	DRAWING No: <b>GSJD30150S</b>		REV.:
TITLE: <b>GENSET 150KW JD</b>				SHEET: 1 DE 1
<b>IGSA S.A. DE C.V.</b> <small>OFFICE GENERAL: PASEO DE LA REFORMA No. 2977, COL. CUAJIMALPA, CP 05000, MEX. D.F.          PLAN AMOMOLULCO-OCYOYACAC KM-5, LERMA EDO. DE MEXICO, CP 32740          ENGINEERING DEPARTMENT: TEL: 01 (52) 96265300 E-CL: 3016.3000 &amp; 3030.</small>		<small>THE INFORMATION CONTAINED HEREIN IS EXCLUSIVE PROPERTY IGSA S.A. DE C.V.          THEREFORE IT CAN NO BE USED, COPIED OR DUPLICATED          WITHOUT THE WRITTEN CONSENT IGSA S.A. DE C.V.</small>		

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20190304-AU6440  
**Report Reference** AU6440-20190226  
**Issue Date** 2019-MARCH-04

**Issued to:** IGSA S A DE C V  
PROLONGACION PASEO DE LA REFORMA 2977  
COL CUAJIMALPA  
05000 DF, MEXICO MEXICO

**This certificate confirms that  
representative samples of**

ENGINE GENERATORS

USL, CNL - Stationary engine generator assemblies for  
outdoor use and indoor use, models as follows:

Models(s) - GSJD30060S, GSJD30060L, GSJD30080S,  
GSJD30080L, GSJD30100S, GSJD30100L, GSJD30125S,  
GSJD30125L, GSJD30150S, GSJD30150L, GSJD30200S,  
GSJD30200L, GSJD30250S, GSJD30250L, GSJD30300S,  
GSJD30300L, GSJD30350S, GSJD30350L, GSJD30400S,  
GSJD30400L.

Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 2200 - engine generators  
CSA-C22.2 No. 100 - Motors and Generators

**Additional Information:** See the UL Online Certifications Directory at  
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program  
UL LLC

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# CERTIFICATE OF COMPLIANCE

**Certificate Number** MH63698  
**Report Reference** MH63698-20200103  
**Issue Date** 2020-JANUARY-08

**Issued to:** IGSA S A DE C V  
PROLONGACION PASEO DE LA REFORMA 2977  
COL CUAJIMALPA  
05000 MEXICO  
DF MEXICO

**This certificate confirms that representative samples of** SPECIAL-PURPOSE TANKS  
Secondary Containment Generator Base Tanks

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 142, STANDARD FOR STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.  
UL 142A STANDARD FOR SPECIAL PURPOSE ABOVEGROUND TANKS FOR SPECIFIC FLAMMABLE OR COMBUSTIBLE LIQUIDS.  
CAN/ULC S601, STANDARD FOR SHOP FABRICATED STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.

**Additional Information:** See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information.

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Bruce Mahrenholz, Director North American Certification Program  
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