



DATA SHEET DIESEL GENERATOR SET

GSJD30125S-UL



► Model

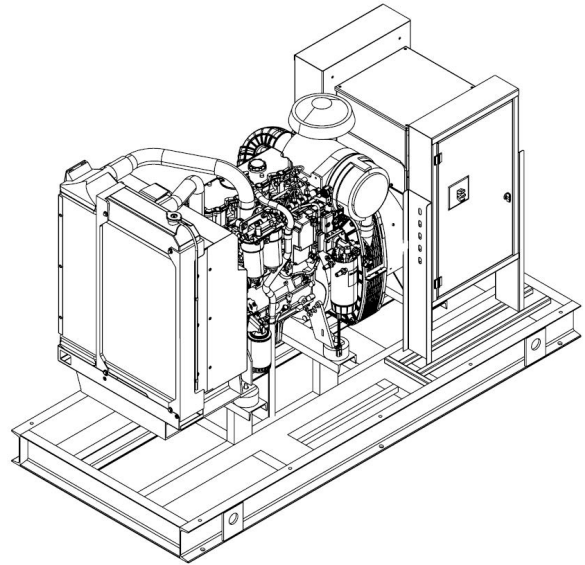
GSJD30125S-UL

ENGINE BRAND >> JOHN DEERE

ENGINE MODEL >> 4045HF285

ALTERNATOR BRAND >> STAMFORD

GENERATOR CONTROLLER >> DSE 7310



► GENSET RATING

ENGINE	ALTERNATOR	VOLTAGE	PH	Hz	STANDBY POWER		POWER FACTOR	CURRENT
		V			kW	KVA		A
	UCI274H (Wnd-06)	240/120	1	60	125	125	1.0	520
4045HF285	UCI274F (Wnd-311)	208/120	3	60	125	156	0.8	434
	UCI274F (Wnd-311)	480/277	3	60	125	156	0.8	188
	UCI274E (Wnd-17)	600/347	3	60	125	156	0.8	150

► 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	4045HF285
» EXHAUST EMISSIONS	TIER 3
» RPM	1800
» STANDBY RATING kWm	147
» STANDBY RATING bhp	197
» PRIME RATING kWm	134
» PRIME RATING bhp	180
» NUMBER OF CYLINDERS	4
» ASPIRATION	TURBOCHARGED
» DISPLACEMENT in ³	275
» ENGINE AIR FLOW CFM (m ³ /min)	341
» GOVERNOR TYPE	ELECTRONIC
» CONTROL VOLTAGE v	12
» BORE/STROKE, in ()	4.2 x 5
» COOLANT CAPACITY WITHOUT RADIATOR gal	2.25
» OIL CAPACITY, TOTAL gal	3.5

► FUEL CONSUMPTION

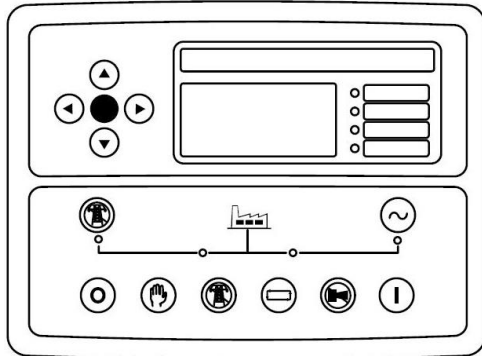
STANDBY POWER		
LOAD	GAL/hr	L/hr
100%	9.91	37.53
75%	7.64	28.94
50%	5.56	21.06
25%	3.01	11.41

► ALTERNATOR FEATURES

» BRAND	STAMFORD
» MODEL	UCI274F
» 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

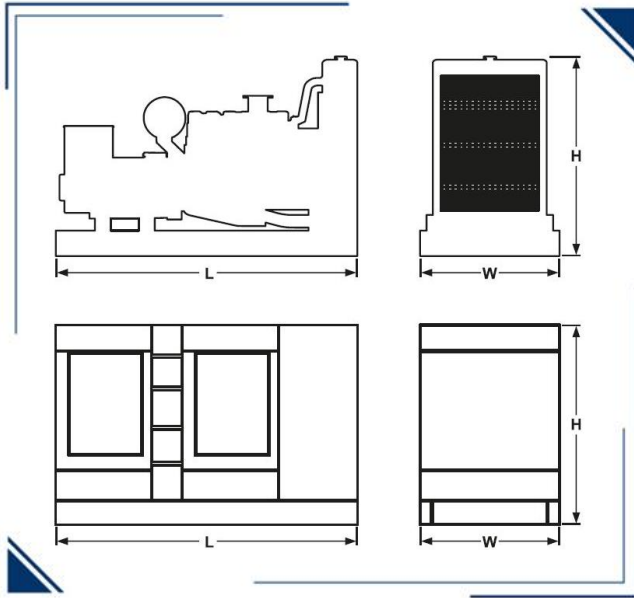
- Over current protection
- Unbalanced load protection
- Independent earth fault protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 2 configurable volt-free relay outputs
- 6 configurable analogue/digital inputs
- Support 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
	97	40	59	3121	
ENCLOSED GENSET LEVEL 2					
DIMENSION	Length (L)	Width (W)	Height (H)	Weight	Noise Level
	IN			Lbs	dB
	140	40	67	4224	

► 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

✓ DSE 9470 Battery Charger	✓ Emergency Stop Button
✓ Battery and Battery Rack	✓ Flex Fuel Lines
✓ ABB Main Line Circuit Breaker	✓ Protection Covers for Rotating Parts
✓ SX460 AVR	✓ Exhaust Insulation Cover
✓ Hotstart Pre heater TPS101GT10-000	✓ Anti Vibration Pads between Engine/Alternator & Base Frame
✓ Residential Grade Silencer Open Unit	✓ Operation and Maintenance manuals
✓ Critical Grade Silencer Inside Enclosure	✓ 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) SKIRT NOT INCLUDED
GSM/GPS ANTENNA 3M RG-174, GSM-SMA(M), GPS-SMA(F)	Spring Isolator- Seismic/Restraint (ACE 821 Series) SKIRT NOT INCLUDED
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)	250	500	750
Dimensions (L/W/H) in			
Weight lb			



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Laredo, Texas 78041
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JOHN DEERE

ENGINE PERFORMANCE CURVE

Rating: Gross Power
Application: Generator
125 kWe Standby Market
1800 RPM (60 Hz)

PowerTech™ E 4.5L Engine
Model: 4045HF285
JD Electronic Control
180 hp (134 kW) Prime
197 hp (147 kW) Standby

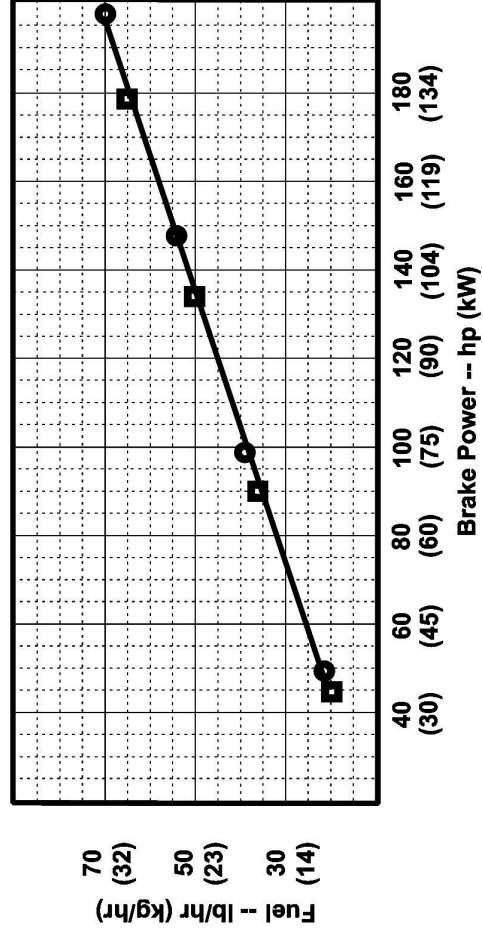
Nominal Engine Power @ 1800 RPM				
Prime		Standby		
HP	kW	HP	kW	
180	134	197	147	

Generator Efficiency %	Fan Power (% of Standby)		Power Factor		Prime Rating		Standby Rating	
	hp	kW			kWe	kVA	kWe	kVA
88-92	8.716643	6.5	0.8		112-117	140-146	124-129	155-161

Note1: Based on nominal engine power.

Note2: kWe/kVa rating assumes 90% efficiency. "Generator Efficiency %" will vary.

■ - PRIME ● - STANDBY



STANDARD CONDITIONS

Air Intake Restriction.....12 in.H₂O (3 kPa)
Exhaust Back Pressure.....30 in.H₂O (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 L = 0.85kg , 1 gal = 7.1 lb

Torque: N·m = lb-ft x 1.356

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

Notes:

Designed/Calibrated to meet:

- CARB
- EPA Tier 3

Certified by:

Ryan J. Cantor
27 Jan 2016

Ref. Engine Emission Label

Performance Curve: 4045HF285_K_S0_R0

Engine Installation Criteria

General Data

Model	4045HF285		
Number of Cylinders	4		
Bore	106 mm	4.2 in.	
Stroke	127 mm	5.0 in.	
Displacement	4.5 L	275 in. ³	
Compression Ratio	19.0:1		
Valves per Cylinder, Intake/Exhaust	1/1		
Firing Order	1-3-4-2		
Combustion System	Unit injection		
Engine Type	In-line, 4-cycle		
Aspiration	Turbocharged and air-to-air aftercooled		
Charge Air Cooling System	Air-to-Air		
Engine Crankcase Vent System	Open		

Physical Data

Length	860 mm	33.9 in.	
Width	612 mm	24.1 in.	
Height	1039 mm	40.9 in.	
Weight, with oil & no coolant (Includes engine, flywheel housing, flywheel & electrics)	491 kg	1082 lb	
Center of Gravity Location, X-axis From Rear Face of Block	249 mm	9.8 in.	
Center of Gravity Location, Y-axis Right of Crankshaft	55 mm	2.2 in.	
Center of Gravity Location, Z-axis Above Crankshaft	145 mm	5.7 in.	
Max. Allowable Static Bending Moment At Rear Face of Flywheel Housing with 5-G Load	814 N·m	600 lb-ft	
Thrust Bearing Load Limit Forward, Intermittent	4000 N	899 lb	
Thrust Bearing Load Limit Forward, Continuous	2200 N	495 lb	
Thrust Bearing Load Limit Rearward, Intermittent	2000 N	450 lb	
Thrust Bearing Load Limit Rearward, Continuous	1000 N	225 lb	
Max. Torsional Vibration, Front of Crank	0.25 DDA		

Electrical System

Recommended Battery Capacity, 12V @32 °F (0 °C)	800 amps
Recommended Battery Capacity, 24V @32 °F (0 °C)	570 amps
Starter Rolling Current, 12V @32 °F (0 °C)	920 amps
Starter Rolling Current, 24V @32 °F (0 °C)	600 amps
Starter Rolling Current, 12V @-22 °F (-30 °C)	1300 amps
Starter Rolling Current, 24V @-22 °F (-30 °C)	700 amps
Min. Voltage at ECU during Cranking, 12V	6 volts
Min. Voltage at ECU during Cranking, 24V	10 volts
Max. Allowable Start Circuit Resistance, 24V	0.002 Ohm
Max. Allowable Start Circuit Resistance, 12V	0.0012 Ohm
Max. Voltage From Engine to Crankshaft, 12V	0.15 volts
Max. Voltage From Engine to Crankshaft, 24V	0.15 volts
Max. ECU Temperature	105 °C
Max. Harness Temperature	120 °C
	248 °F

Charge Air Cooling System

Air-to-Air Heat Rejection, Prime	22.8 kW	1298 BTU/min
Air-to-Air Heat Rejection, Standby	26.5 kW	1508 BTU/min
Intake Manifold Pressure, Prime	147 kPa	21.3 psi
Compressor Discharge Temperature @77°F(25°C) Ambient Air, Prime	168 °C	334 °F
Intake Manifold Pressure, Standby	172 kPa	24.9 psi
Compressor Discharge Temperature @77°F(25°C) Ambient Air, Standby	187 °C	369 °F
Compressor Discharge Temperature @117°F(47°C) 80 kPa Barometric pressure, Prime	NA	
Compressor Discharge Temperature @117°F(47°C) 80 kPa Barometric pressure, Standby	NA	
Intake Manifold Temperature at which Power De-rate Occurs	88 °C	190 °F
Max. Pressure Drop through CAC	13 kPa	52.0 in. H ₂ O
Min. Pressure Drop through CAC	0 kPa	0 in. H ₂ O
Max. Temperature Out of Charge Air Cooler @77°F (25°C) Ambient Air	45 °C	113 °F
Min. Temperature Out of Charge Air Cooler @77°F (25°C) Ambient Air	48 °C	118 °F

Performance Curve: 4045HF285_K_S0_R0

Engine Installation Criteria

Cooling System

Max. Water Pump Inlet Restriction	-30 kPa	-4.4 psi
Engine Heat Rejection, Prime	64 kW	3643 BTU/min
Engine Heat Rejection, Standby	72 kW	4098 BTU/min
Coolant Flow	180 L/min	48 gal/min
Thermostat Start to Open	82 °C	180 °F
Thermostat Fully Open	95 °C	203 °F
Engine Coolant Capacity	8.5 Liter	9.0 quart
Min. Pressure Cap	100 kPa	15 psi
Min. Pump Inlet Pressure	30 kPa	4.4 psi
Max. Top Tank Temperature	110 °C	230 °F
Min. Limiting Ambient Temperature, Standby	47 °C	116.6 °F
Min. Limiting Ambient Temperature, Prime	47 °C	116.6 °F
Min. Coolant Fill Rate	11 L/min	2.9 gal/min

Exhaust System

Exhaust Flow, Prime	24.6 m ³ /min	869 ft. ³ /min
Exhaust Flow, Standby	27.0 m ³ /min	953 ft. ³ /min
Exhaust Temperature, Prime	572 °C	1062 °F
Exhaust Temperature, Standby	580 °C	1076 °F
Max. Allowable Exhaust Restriction	7.5 kPa	30 in. H ₂ O
Min. Allowable Exhaust Restriction	0 kPa	0 in. H ₂ O
Max. Bending Moment on Turbo Outlet	7.0 N·m	5.2 lb-ft
Max. Shear on Turbine Outlet	11 kg	24 lb

Fuel System

ECU Description	L 16 Controller	
Fuel Injection Pump	Denso HP3	
Governor Type	Electronic	
Total Fuel Flow, Prime	68.9 kg/hr	152 lb/hr
Total Fuel Flow, Standby	76.6 kg/hr	169 lb/hr
Fuel Consumption, Prime	29.0 kg/hr	64 lb/hr
Fuel Consumption, Standby	31.9 kg/hr	70 lb/hr
Fuel Temperature Rise, Inlet to Return Prime	47 °C	117 °F
Fuel Temperature Rise, Inlet to Return Standby	49 °C	120 °F
Max. Fuel Inlet Restriction	20 kPa	80 in. H ₂ O
Max. Fuel Inlet Pressure	NA	
Max. Fuel Return Pressure	20 kPa	80 in. H ₂ O
Max. Fuel Inlet Temperature	80 °C	176 °F

Lubrication System

Oil Pressure at Rated Speed	320 kPa	46 psi
Oil Pressure at Low Idle	105 kPa	15 psi
Max. Oil Carryover in Blow-By	1.0 g/hr	0.002 lb/hr
Max. Airflow in Blow-By	100 L/min	26.4 gal/min
Max. Crankcase Pressure	0.5 kPa	2 in. H ₂ O

Air Intake System

Engine Air Flow, Prime	8.8 m ³ /min	311 ft. ³ /min
Engine Air Flow, Standby	9.65 m ³ /min	341 ft. ³ /min
Maximum Allowable Temperature Rise, Ambient Air to Engine Inlet	8 Δ°C	15 Δ°F
Max. Air Intake Restriction, Clean Air Cleaner	3.75 kPa	15.0 in. H ₂ O
Max. Air Intake Restriction, Dirty Air Cleaner	6.25 kPa	25.0 in. H ₂ O
Air Cleaner Efficiency	99.9 %	

Engine Installation Criteria

Performance Data

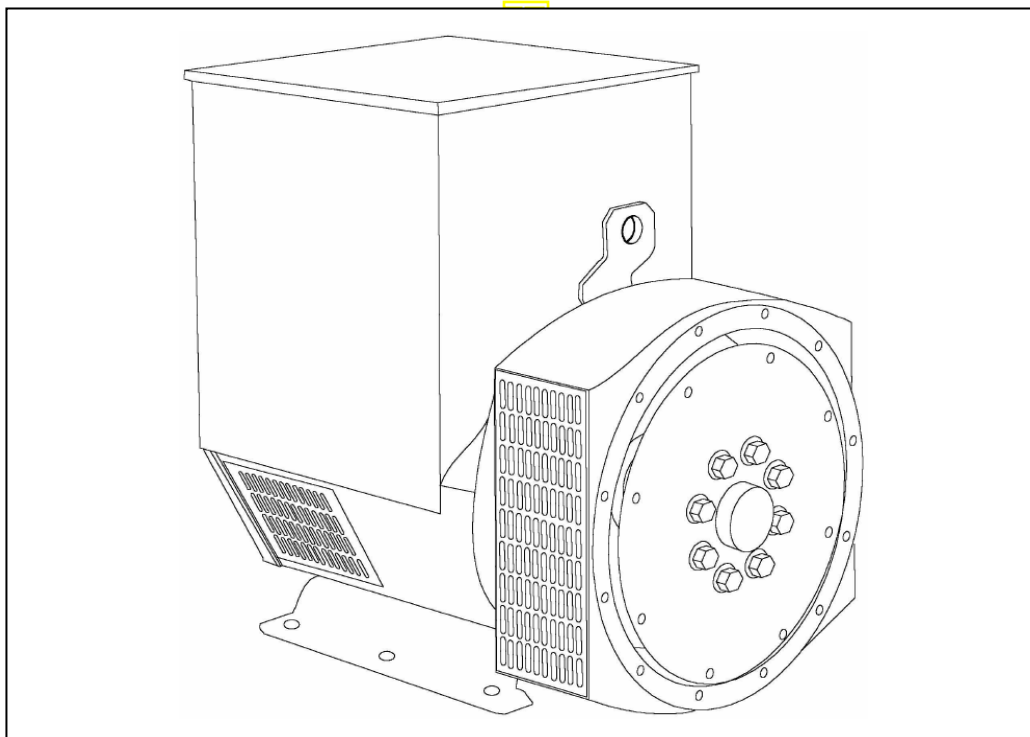
Rated Power, Prime	134 kW	180 HP
Rated Power, Standby	147 kW	197 HP
Rated Speed	1800 rpm	
Low Idle Speed	1150 rpm	
Rated Torque, Prime	961 N·m	780 lb-ft
Rated Torque, Standby	1057 N·m	780 lb-ft
BMEP, Prime	1980 kPa	780 psi
BMEP, Standby	2178 kPa	780 psi
Altitude Capability, Prime	3048 m	10000 ft
Altitude Capability, Standby	2286 m	7500 ft
Friction Power @Rated Speed	13 kW	17 HP
Air:Fuel Ratio, Prime	22.1	
Air:Fuel Ratio, Standby	21.1	
Smoke @Rated Speed Prime	0.44	Bosch No.
Smoke @Rated Speed Standby	1.25	Bosch No.
Noise @1 m Prime	90.0	dB(A)
Noise @1 m Standby	90.3	dB(A)

Fuel Consumption	Prime		Standby	
	lb/hr	kg/h	lb/hr	kg/h
25 % Power	19.8	9.0	21.4	9.7
50 % Power	36.4	16.5	39.5	17.9
75 % Power	50.3	22.8	54.2	24.6
100 % Power	65.0	29.5	70.3	31.9

STAMFORD®

UCI274F - Winding 311

Technical  Data Sheet



UCI274F

SPECIFICATIONS & OPTIONS

STAMFORD

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

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	0.024 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED		
ROTOR WDG. RESISTANCE	1.52 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	530 kg		545 kg	
WEIGHT WOUND STATOR	200 kg		200 kg	
WEIGHT WOUND ROTOR	188.67 kg		177.71 kg	
WR ² INERTIA	1.555 kgm ²		1.5044 kgm ²	
SHIPPING WEIGHTS in a crate	563 kg		577 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 m³/sec 1090 cfm				0.617 m³/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	160	160	160	N/A	181.3	190	190	206.3
Xd DIR. AXIS SYNCHRONOUS	2.24	2.02	1.88	-	2.53	2.37	2.17	2.16
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	-	0.14	0.13	0.12	0.12
Xq QUAD. AXIS REACTANCE	1.38	1.25	1.16	-	1.53	1.43	1.31	1.31
X''q QUAD. AXIS SUBTRANSIENT	0.17	0.15	0.14	-	0.20	0.19	0.17	0.17
X _L LEAKAGE REACTANCE	0.07	0.06	0.06	-	0.09	0.08	0.08	0.08
X ₂ NEGATIVE SEQUENCE	0.14	0.13	0.12	-	0.16	0.15	0.14	0.14
X ₀ ZERO SEQUENCE	0.08	0.08	0.07	-	0.10	0.09	0.09	0.09

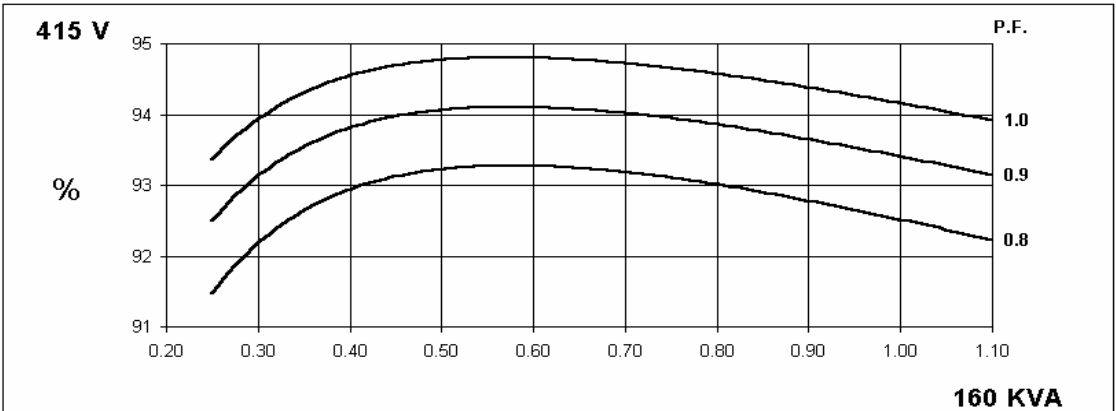
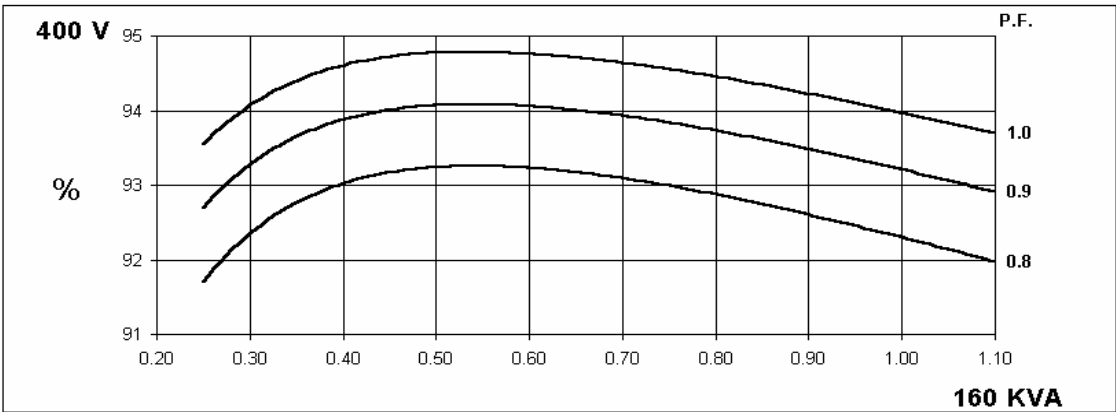
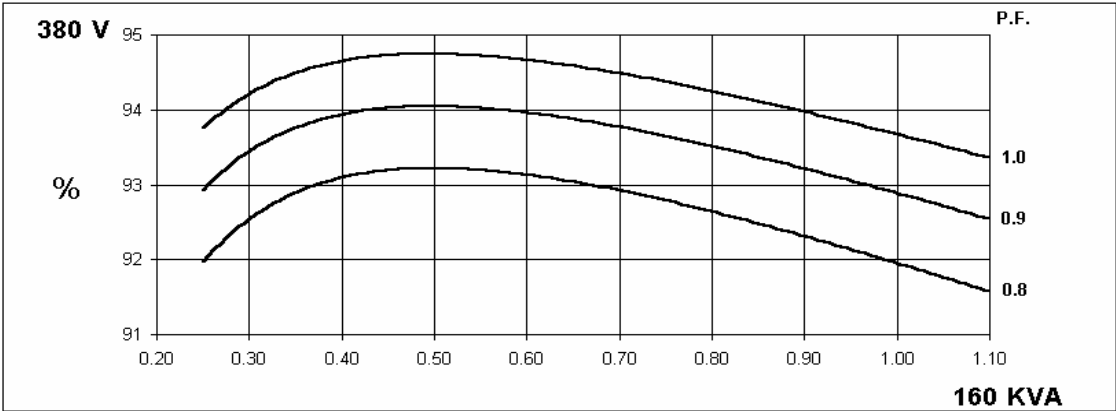
REACTANCES ARE SATURATED	VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED							
T'd TRANSIENT TIME CONST.	0.035 s							
T''d SUB-TRANSTIME CONST.	0.011 s							
T'do O.C. FIELD TIME CONST.	0.9 s							
Ta ARMATURE TIME CONST.	0.009 s							
SHORT CIRCUIT RATIO	1/Xd							

50
Hz

UCI274F
Winding 311

STAMFORD

THREE PHASE EFFICIENCY CURVES

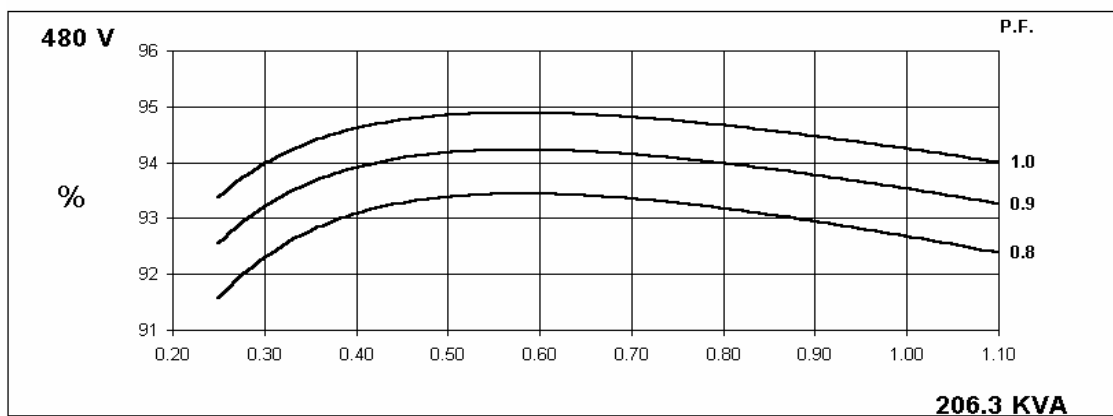
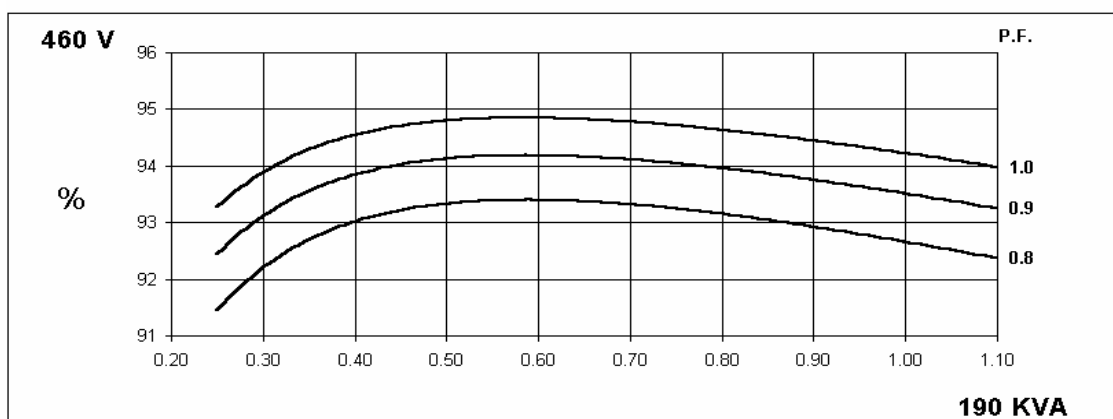
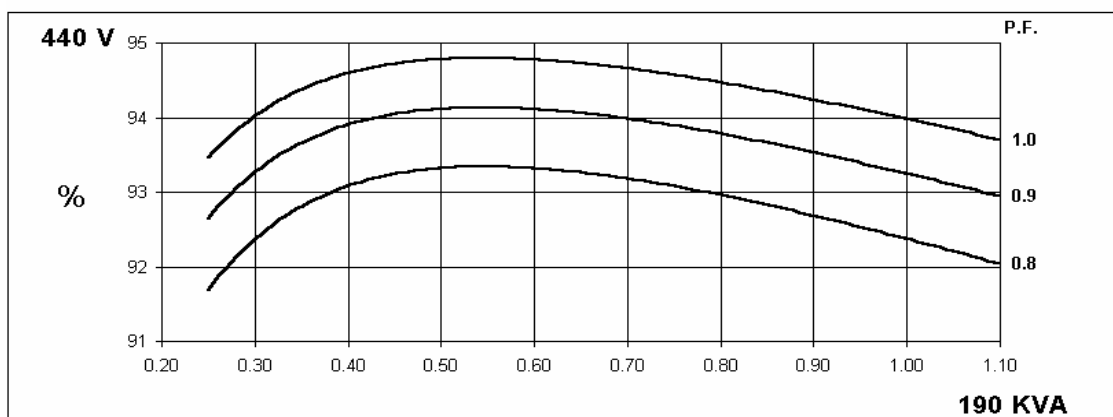
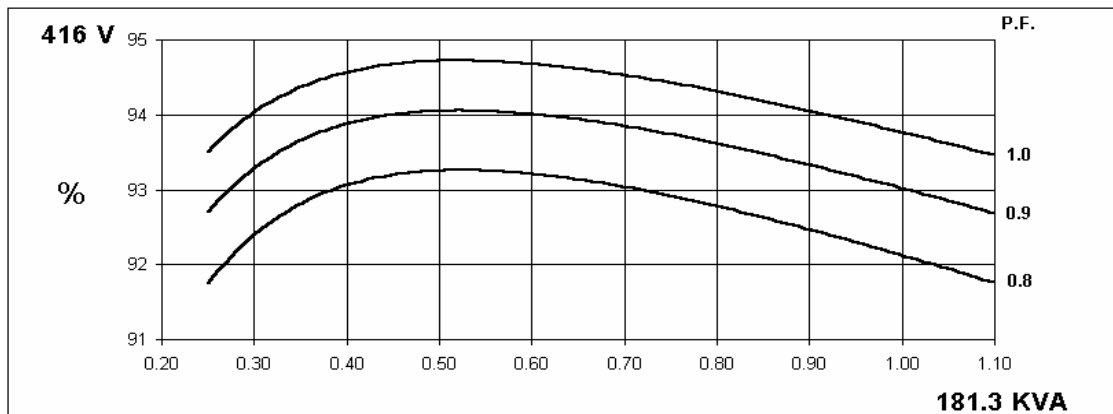


60
Hz

UCI274F
Winding 311

STAMFORD

THREE PHASE EFFICIENCY CURVES



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Winding 311

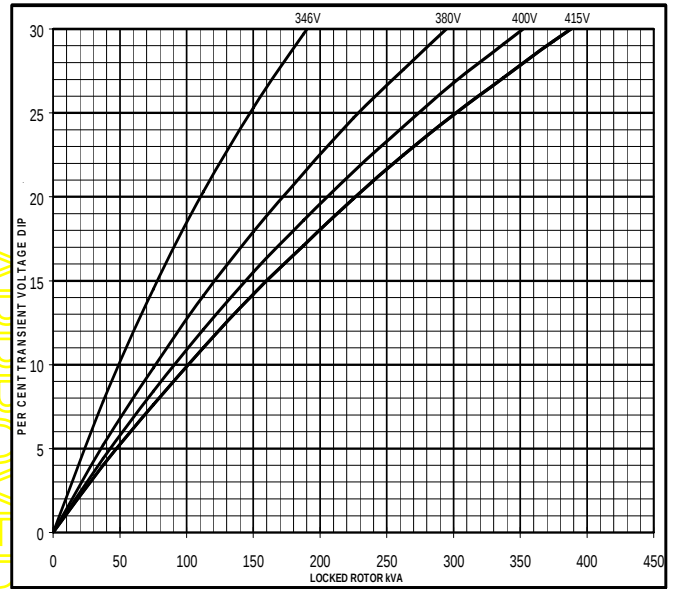
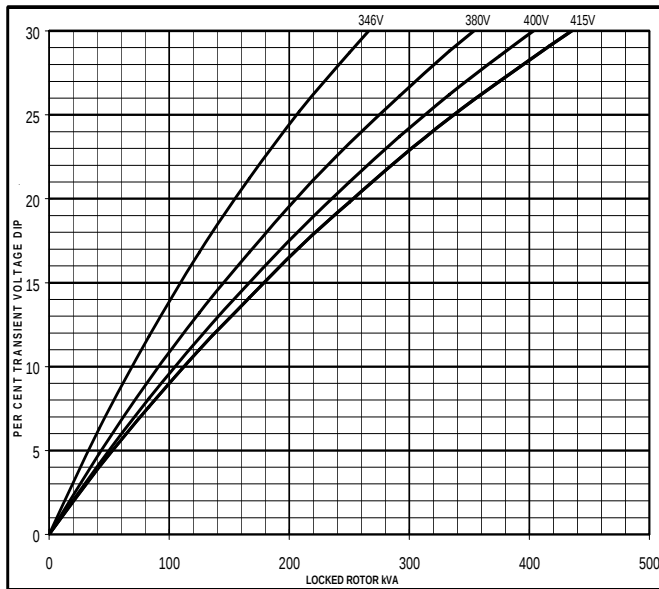
STAMFORD

Locked Rotor Motor Starting Curve

50
Hz

MX

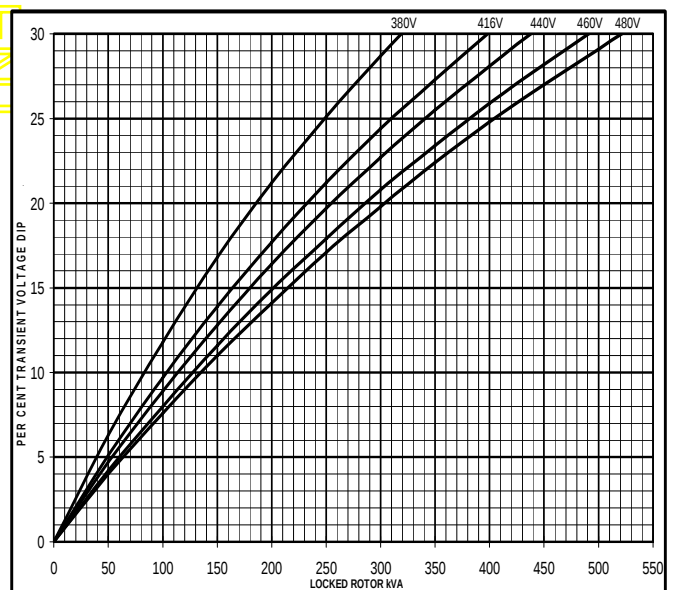
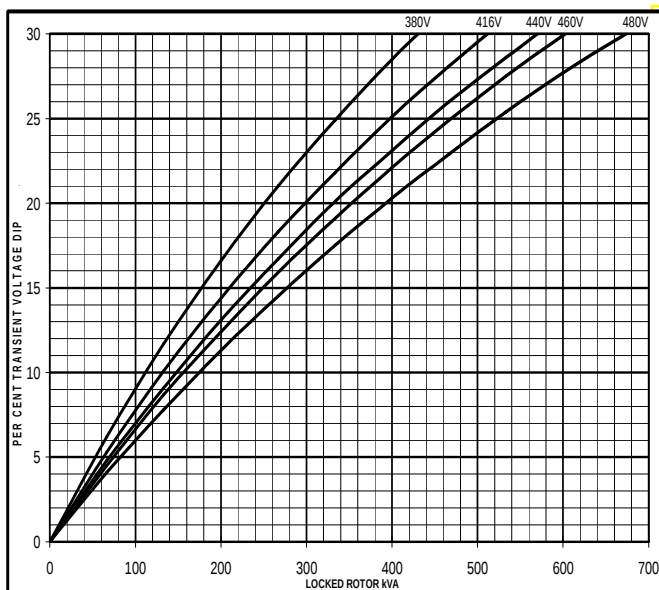
SX



60
Hz

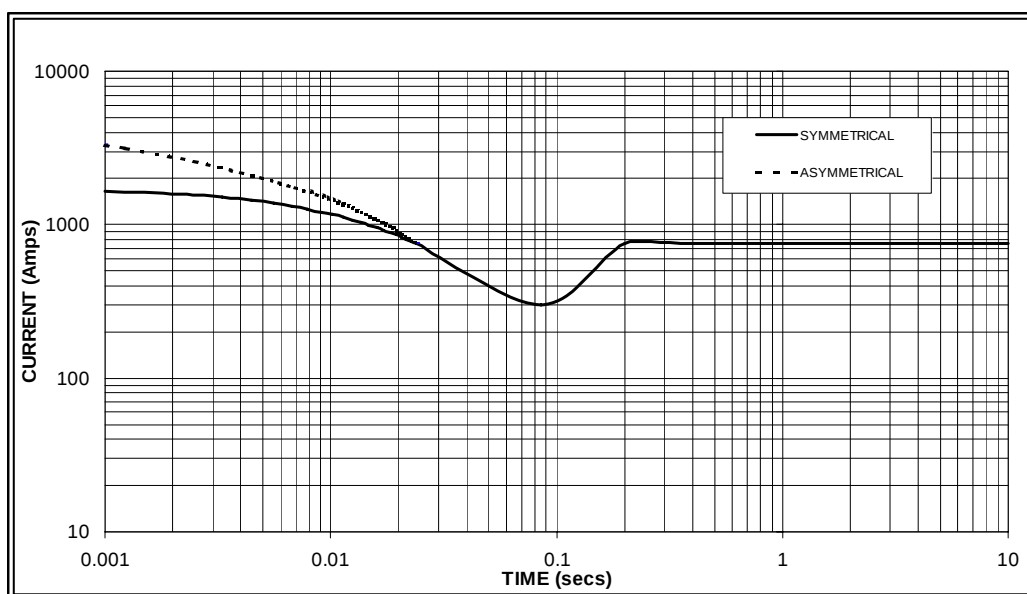
MX

SX



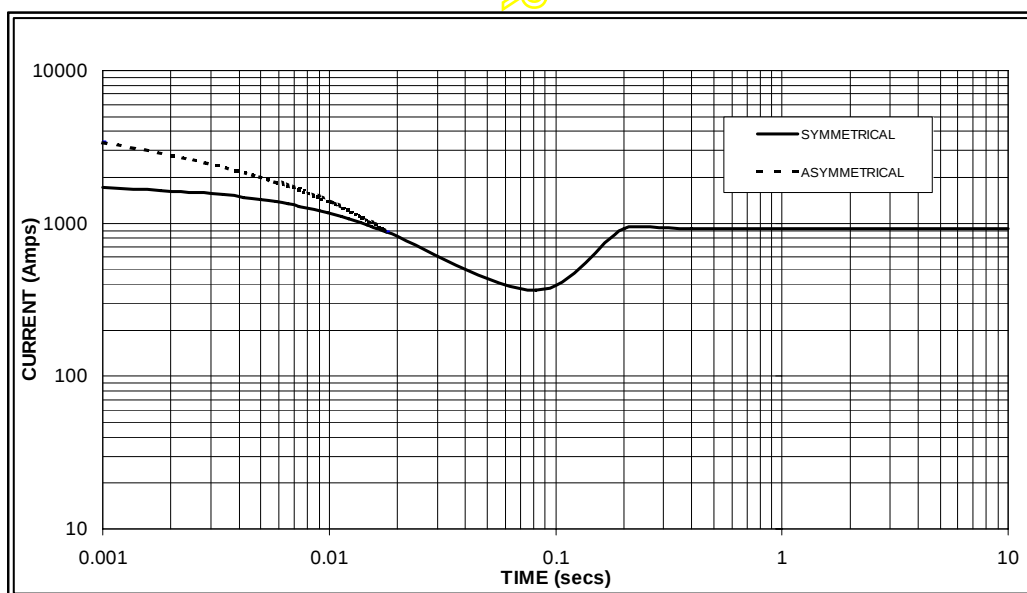
Three-phase Short Circuit Decrement Curve. No-load Excitation at Rated Speed Based on star (wye) connection.

50
Hz



Sustained Short Circuit = 750 Amps

60
Hz



Sustained Short Circuit = 920 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

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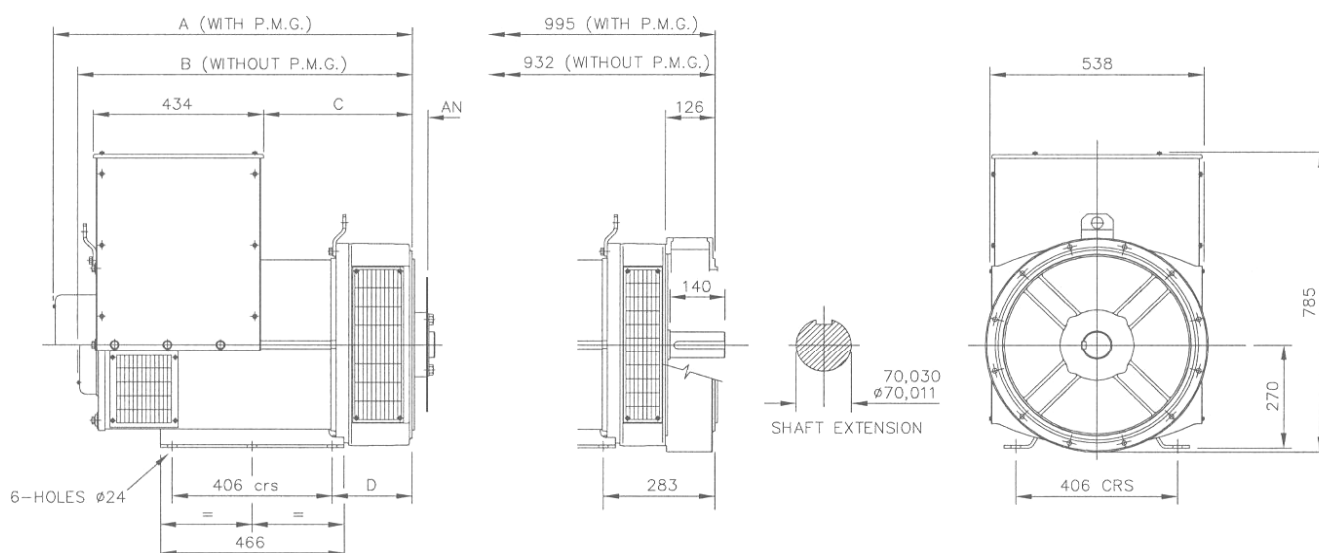
Winding 311 / 0.8 Power Factor

RATINGS

Class - Temp Rise		Cont. F - 105/40°C				Cont. H - 125/40°C				Standby - 150/40°C				Standby - 163/27°C			
50 Hz	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	145.0	145.0	145.0	N/A	160.0	160.0	160.0	N/A	170.0	170.0	170.0	N/A	175.0	175.0	175.0	N/A
	kW	116.0	116.0	116.0	N/A	128.0	128.0	128.0	N/A	136.0	136.0	136.0	N/A	140.0	140.0	140.0	N/A
	Efficiency (%)	92.3	92.6	92.8	N/A	92.0	92.3	92.5	N/A	91.7	92.1	92.3	N/A	91.6	92.0	92.2	N/A
	kW Input	125.7	125.3	125.0	N/A	139.1	138.7	138.4	N/A	148.3	147.7	147.3	N/A	152.8	152.2	151.8	N/A

60 Hz	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	162.5	172.5	172.5	187.5	181.3	190.0	190.0	206.3	187.5	200.0	200.0	212.5	192.5	206.3	206.3	218.8
	kW	130.0	138.0	138.0	150.0	145.0	152.0	152.0	165.0	150.0	160.0	160.0	170.0	154.0	165.0	165.0	175.0
	Efficiency (%)	92.5	92.7	92.9	92.9	92.1	92.4	92.7	92.7	92.0	92.2	92.5	92.6	91.9	92.1	92.4	92.5
	kW Input	140.5	148.9	148.5	161.5	157.5	164.5	164.0	178.0	163.0	173.5	173.0	183.6	167.6	179.2	178.6	189.2

DIMENSIONS



SINGLE BEARING ADAPTORS				
ADAPTOR	A	B	C	D
SAE 1	928,3	865,3	389,3	216,3
SAE 2	914	851	375	202
SAE 3	914	851	375	202

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

APPROVED DOCUMENT

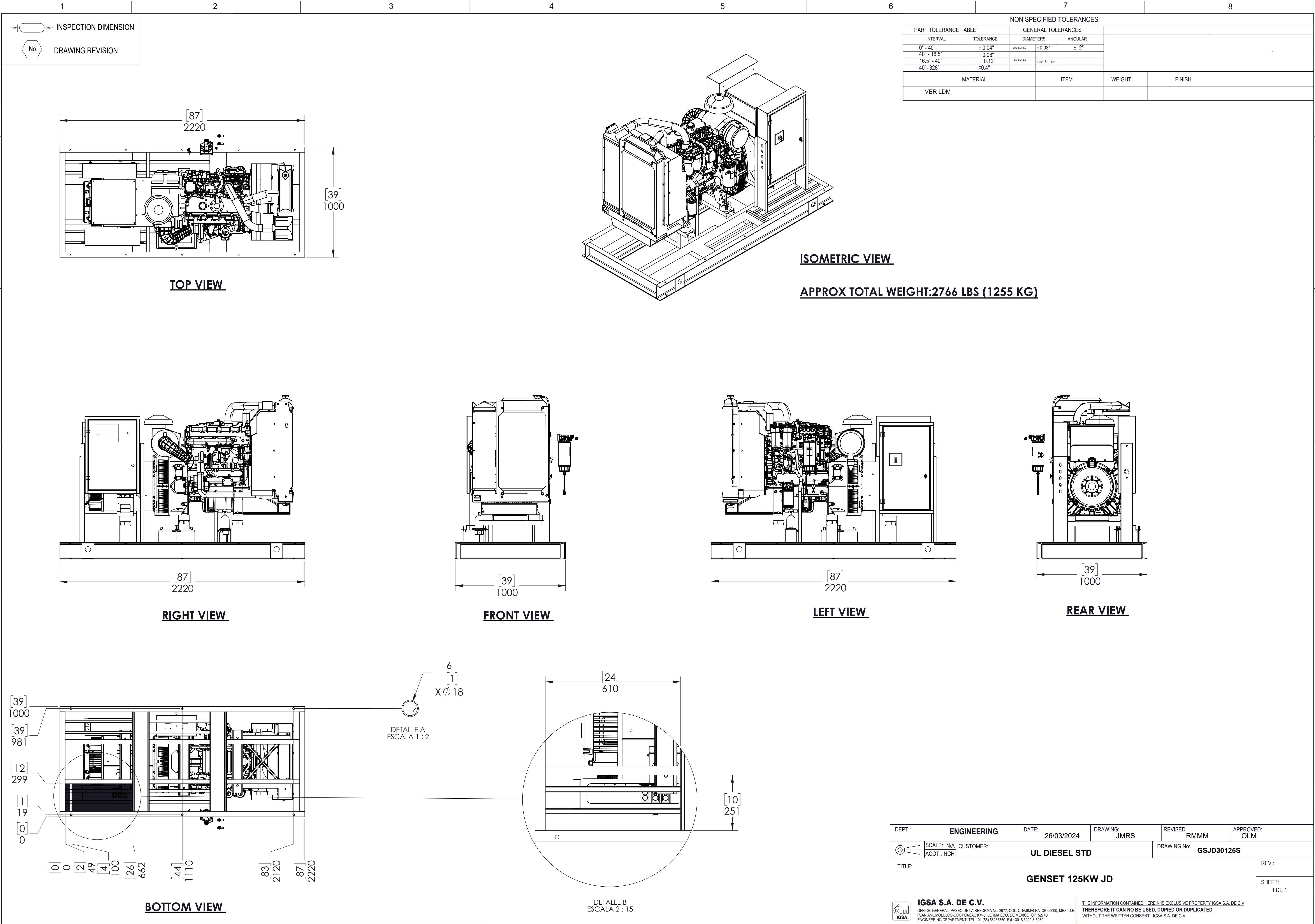
STAMFORD

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UC274F-311-TD-EN-SG-A



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 SPECIAL-PURPOSE TANKS
representative samples of 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.

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Bruce Mahrenholz, Director North American Certification Program
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