



Diesel Generator Set

MTU 6R0225 DS350

350 kWe/60 Hz/Standby/208 - 600V

System ratings

| Voltage (L-L) | 240V † | 240V | 208V † | 240V † | 380V † | 480V † | 600V † |
|----------------------|----------------------------|----------------------------|----------------|------------------|----------------|----------------|--------------|
| Phase | 1 | 1 | 3 | 3 | 3 | 3 | 3 |
| PF | 1 | 1 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Hz | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| kW | 275 | 300 | 350 | 350 | 350 | 350 | 350 |
| kVA | 275 | 300 | 438 | 438 | 438 | 438 | 438 |
| Amps | 1,146 | 1,250 | 1,214 | 1,053 | 665 | 526 | 421 |
| skVA@30% voltage dip | 584 | 584 | 930 | 930 | 767 | 1,238 | 1,102 |
| Generator model | 572RSL4027 | 572RSL4027 | 433CSL6216 | 433CSL6216 | 433CSL6216 | 433CSL6216 | 433PSL6248 |
| Temp rise | 130 °C/40 °C | 150 °C/40 °C | 130 °C/40 °C | 130 °C/40 °C | 130 °C/40 °C | 130 °C/40 °C | 130 °C/40 °C |
| Connection | 12 LEAD DOUBLE DELTA | 12 LEAD DOUBLE DELTA | 12 LEAD WYE | 12 LEAD DELTA | 12 LEAD WYE | 12 LEAD WYE | 4 LEAD WYE |

† UL 2200 offered

Certifications and standards

- Emissions
 - EPA Tier 3 certified
- Generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004
- Seismic certification - optional
 - IBC certification
 - OSHPD Pre-approval
- UL 2200 - optional (refer to *System ratings* for availability)
- CSA - optional
 - CSA C22.2 No. 100
 - CSA C22.2 No. 14
- Performance Assurance Certification (PAC)
 - Generator set tested to ISO 8528-5 for transient response
 - Verified product design, quality and performance integrity
 - All engine systems are prototype and factory tested
- Power rating
 - Accepts rated load in one step per NFPA 110
 - Permissible average power output during 24 hours of operation is approved up to 85%.

Standard features*

- MTU is a single source supplier
- Global product support
- 2 year standard warranty
- 6135HF84 diesel engine
 - 13.5 liter displacement
 - Common rail fuel injection
 - 4-cycle
- Engine-generator resilient mounted
- Complete range of accessories
- Cooling system
 - Integral set-mounted
 - Engine-driven fan
- Generator
 - Brushless, rotating field generator
 - 2/3 pitch windings
 - 300% short circuit capability with Permanent Magnet Generator (PMG)
 - ◊ PMG standard for 570 frame and larger
 - ◊ PMG optional for 430 frame and smaller
- Digital control panel(s)
 - UL recognized, CSA certified, NFPA 110
 - Complete system metering
 - LCD display

Standard equipment*

Engine

- Air cleaner
- Oil pump
- Oil drain extension and S/O valve
- Full flow oil filter
- Open crankcase ventilation
- Jacket water pump
- Thermostat
- Blower fan and fan drive
- Radiator - unit mounted
- Electric starting motor - 24V
- Governor – electronic isochronous
- Base - formed steel
- SAE flywheel and bell housing
- Charging alternator - 24V
- Battery rack and cables
- Flexible fuel connectors
- Flexible exhaust connection
- EPA certified engine

Generator

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting
- Sustained short circuit current of up to 300% of the rated current for up to 10 seconds
- Self-ventilated and drip-proof
- Superior voltage waveform
- Digital, solid state, volts-per-hertz regulator
- No load to full load regulation
- Brushless alternator with brushless pilot exciter
- 4 pole, rotating field
- 130 °C maximum standby temperature rise
- 1-bearing, sealed
- Flexible coupling
- Full amortisseur windings
- 125% rotor balancing
- 3-phase voltage sensing
- ±0.25% voltage regulation (570 frame)
- ±1% voltage regulation (430 frame)
- 100% of rated load - one step
- 5% maximum total harmonic distortion

Digital control panel(s)

- Digital metering
- Engine parameters
- Generator protection functions
- Engine protection
- CANBus ECU communications
- Windows®-based software
- Multilingual capability
- Remote communications to RDP-110 remote annunciator
- Programmable input and output contacts
- UL recognized, CSA certified, CE approved
- Event recording
- IP 54 front panel rating with integrated gasket
- NFPA 110 compatible

Application data

Engine

| | |
|------------------------------------|------------|
| Manufacturer | John Deere |
| Model | 6135HF84 |
| Type | 4-cycle |
| Arrangement | 6-inline |
| Displacement: L (in ³) | 13.5 (824) |
| Bore: cm (in) | 13.2 (5.2) |
| Stroke: cm (in) | 16.5 (6.5) |
| Compression ratio | 16:1 |
| Rated rpm | 1,800 |
| Engine governor | JDEC |
| Maximum power: kWm (bhp) | 460 (617) |
| Speed regulation | ± 0.25% |
| Air cleaner | dry |

Liquid capacity (Lubrication)

| | |
|---------------------------------------|-------------|
| Total oil system: L (gal) | 40 (10.57) |
| Engine jacket water capacity: L (gal) | 18 (4.76) |
| System coolant capacity: L (gal) | 47.7 (12.6) |

Electrical

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|--|-----|
| Electric volts DC | 24 |
| Cold cranking amps under -17.8 °C (0 °F) | 950 |

Fuel system

| | |
|--------------------------------|--------------------|
| Fuel supply connection size | -10 JIC 37° female |
| Fuel return Connection size | -6 JIC 37° female |
| Maximum fuel Lift: m (ft) | 2.4 (8) |
| Recommended fuel | diesel #2 |
| Total fuel flow: L/hr (gal/hr) | 190 (50) |

Fuel consumption

| | |
|--|----------|
| At 100% of power rating: L/hr (gal/hr) | 110 (29) |
| At 75% of power rating: L/hr (gal/hr) | 91 (24) |
| At 50% of power rating: L/hr (gal/hr) | 63 (17) |

Cooling - radiator system

| | |
|---|--------------|
| Ambient capacity of radiator: °C (°F) | 50 (122) |
| Maximum restriction of cooling air: intake and discharge side of radiator: kPa (in. H ₂ O) | 0.124 (0.5) |
| Water pump capacity: L/min (gpm) | 400 (106) |
| Heat rejection to coolant: kW (BTUM) | 208 (11,839) |
| Heat rejection to air to air: kW (BTUM) | 94 (5,350) |
| Heat radiated to ambient: kW (BTUM) | 48.1 (2,735) |
| Fan power: kW (hp) | 24 (32.2) |

Air requirements

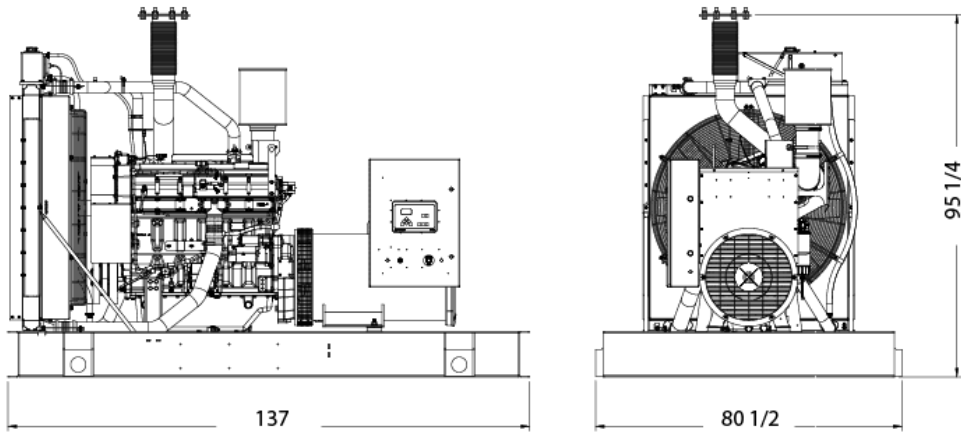
| | |
|---|---------------|
| Aspirating: *m ³ /min (SCFM) | 28.2 (996) |
| Air flow required for radiator cooled unit: *m ³ /min (SCFM) | 833 (29,433) |
| Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 °F rise: *m ³ /min (SCFM) | 164.4 (5,842) |

* Air density = 1.184 kg/m³ (0.0739 lbm/ft³)

Exhaust system

| | |
|--|--------------|
| Gas temp. (stack): °C (°F) | 527 (981) |
| Gas volume at stack temp: m ³ /min (CFM) | 73.8 (2,606) |
| Maximum allowable back pressure at outlet of engine, before piping: kPa (in. H ₂ O) | 7.5 (30) |

Weights and dimensions



Drawing above for illustration purposes only, based on standard open power 480 volt generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

| System | Dimensions (L x W x H) | Weight (dry/less tank) |
|-----------------------|---|---------------------------------|
| Open power unit (OPU) | 3,480 x 2,045 x 2,418 mm (137 x 80.5 x 95.2 in) | 3,464-4,105 kg (7,637-9,050 lb) |

Weights and dimensions are based on open power units and are estimates only. Consult the factory for accurate weights and dimensions for your specific generator set.

Sound data

| Unit type | Standby full load |
|---|-------------------|
| 275 kW (Single-Phase Only) Level 0: Open Power Unit dB(A) | 88.5 |
| 300 kW (Single-Phase Only) Level 0: Open Power Unit dB(A) | 88.3 |
| 350 kW Level 0: Open Power Unit dB(A) | 89.1 |

Sound data is provided at 7 m (23 ft). Generator set tested in accordance with ISO 8528-10 and with infinite exhaust.

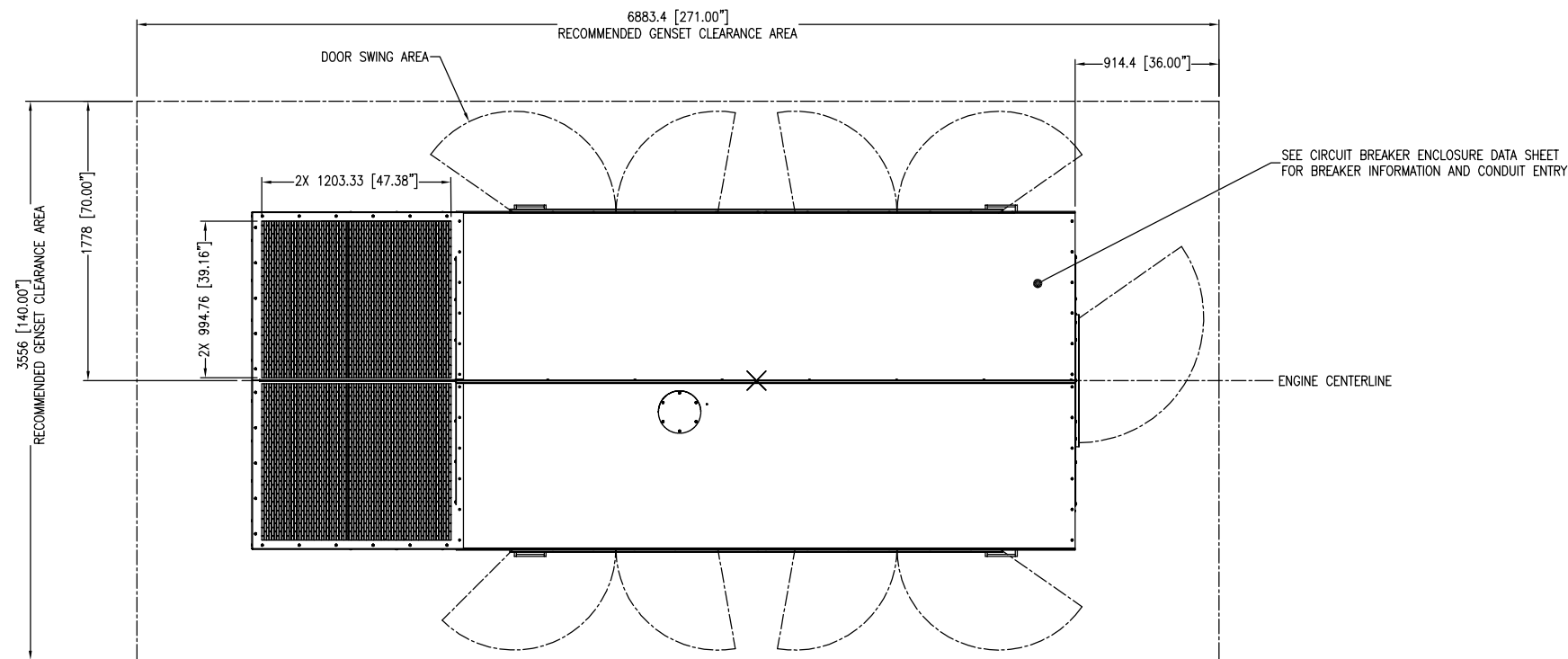
Emissions data

| NO _x + NMHC | CO | PM |
|------------------------|------|------|
| 3.8 | 0.51 | 0.03 |

All units are in g/hp-hr and shown at 100% load (not comparable to EPA weighted cycle values). Emission levels of the engine may vary with ambient temperature, barometric pressure, humidity, fuel type and quality, installation parameters, measuring instrumentation, etc. The data was obtained in compliance with US EPA regulations. The weighted cycle value (not shown) from each engine is guaranteed to be within the US EPA standards.

Rating definitions and conditions

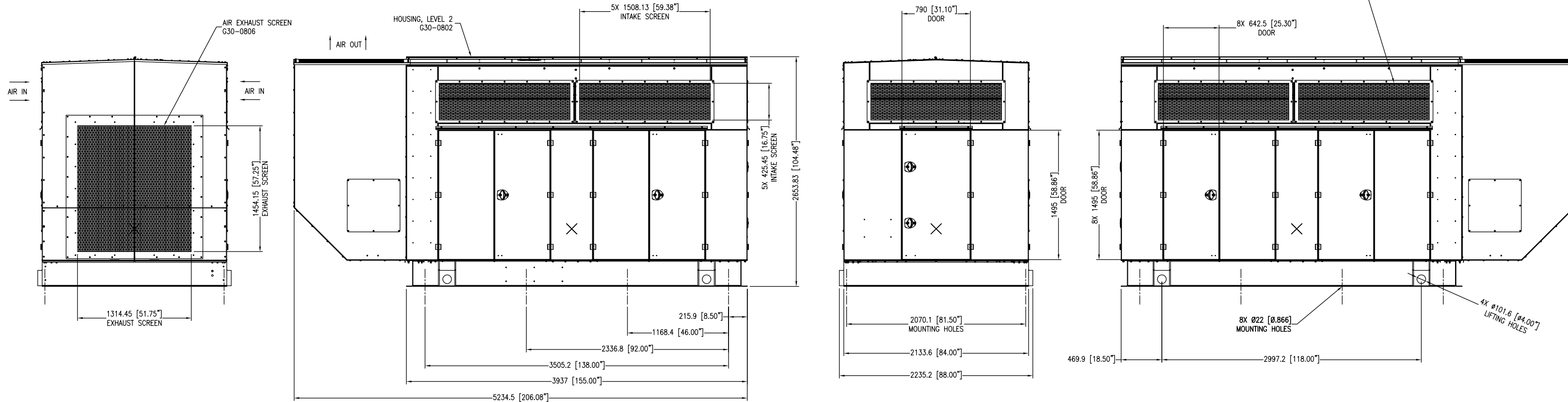
- Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO 8528-1, ISO-3046-1, BS 5514, and AS 2789. Average load factor: ≤ 85%.
- Consult your local MTU Distributor for derating information.




| | | DRAWING OPTIONS | |
|---------------------------|--------------|--|------------------|
| GROUP | DRAWING CODE | DESCRIPTION | SELECTED OPTIONS |
| HOUSING OPTIONS, EXTERIOR | G30-0801 | HOUSING, LEVEL 1 | |
| | G30-0802 | HOUSING, LEVEL 2 | ✓ |
| | G30-0803 | HOUSING, LEVEL 3 | |
| | G30-0804 | AIR INTAKE SCREENS (W/O MOTORIZED LOUVERS) | ✓ |
| | G30-0805 | AIR INTAKE MOTORIZED LOUVERS | |
| | G30-0806 | AIR EXHAUST SCREEN (W/O GRAVITY LOUVER) | ✓ |
| | G30-0807 | AIR EXHAUST GRAVITY LOUVER | |
| HOUSING OPTIONS, INTERIOR | G30-0901 | INTERIOR HOUSING LIGHTS | |
| | G30-0902 | SPACE HEATER | |

Reference the Drawing Options table and within the Layer Properties turn on/off the Drawing Codes that may or may not apply to your configuration.

Note: Some options may not be referenced. Only options which visibly change the drawing are selectable.



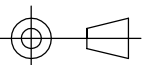
| REVISION | DATE | DESCRIPTION |
|----------|------------|---------------------|
| A | 2020-04-01 | UPDATED TITLE BLOCK |



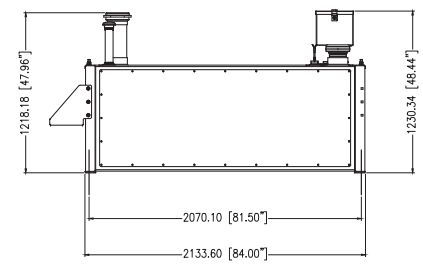
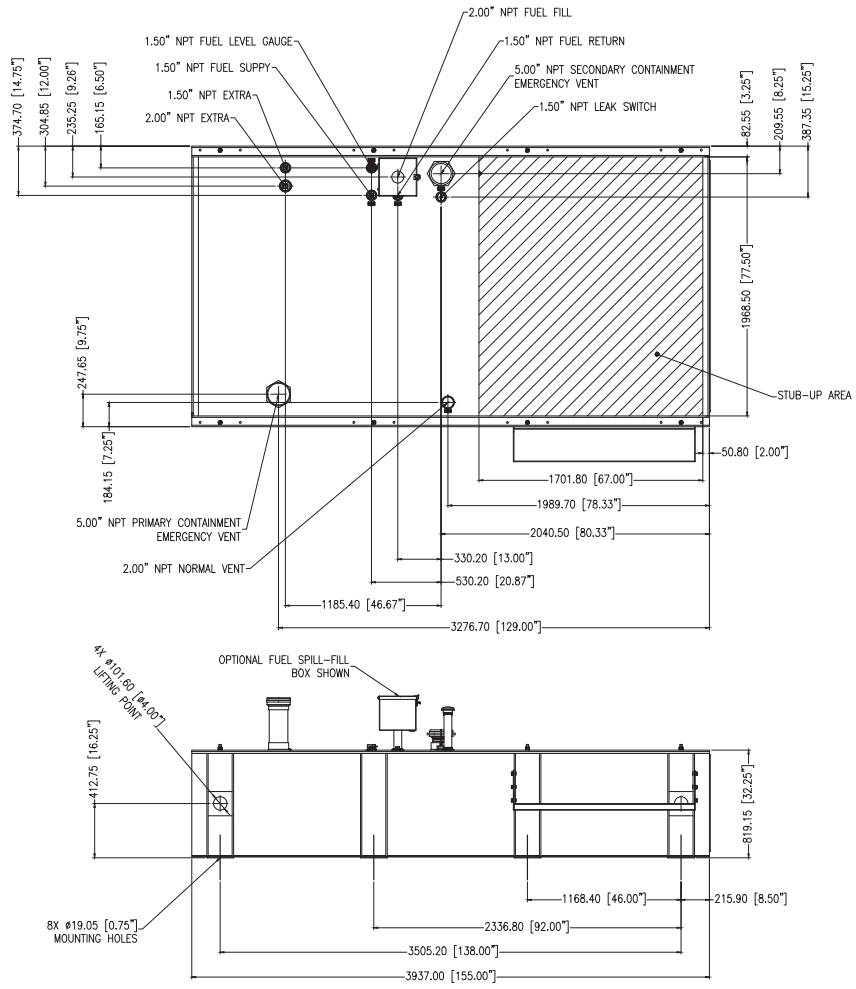
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| APPLICABLE MODELS: MTU 6R0225 DS350 MTU 6R0225 DS400 |
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|  THIRD ANGLE PROJECTION |
| DRAWN TO SCALE |
| DATE CREATED: 2018-11-09 |

| | | |
|---------------------------------------|--|--|
| DIMENSIONAL LAYOUT | | |
| DESCRIPTION: 350-400 kW Genset Housed | | |
| ENGINE: John Deere, JD6135 | WEIGHT (MIN-MAX): 4511-5756 KG 9945-12690 LB | |
| DRAWING NUMBER: XZG3000100137 | SHEET: 1 of 1 | |




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|----------|------------|---|
| | | |
| | | |
| | | |
| B | 2020-04-01 | UPDATED TITLE BLOCK |
| A | 2018-12-06 | Corrected tank capacities to display nominal values |
| REVISION | DATE | DESCRIPTION |



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|--------------------|
| APPLICABLE MODELS: |
| MTU 6R0225 DS350 |
| MTU 6R0225 DS400 |

| | | |
|--|--|-------------------------------------|
|  THIRD ANGLE PROJECTION | DIMENSIONAL LAYOUT | |
| | DESCRIPTION: 350-400 kW, 24hr, 700gal, Std | |
| DRAWN TO SCALE | ENGINE: John Deere, JD6135 | WEIGHT (MIN-MAX): 1304 KG [2875 LB] |
| DIMENSIONS: MM [INCH] | DRAWING NUMBER: XZG3000100138 | SHEET: 3 of 12 |
| DATE CREATED: 2018-11-30 | | |