

LA-UR-22-22505

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Title: IDEA ID No. 856 – Los Alamos National Laboratory, Permit #2195,
Exemption Notice for TA-68 New Portable Process Generator

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Intended for: Environmental Regulatory Document
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Los Alamos National Laboratory
PO Box 1663, K491
Los Alamos, NM 87545
505-667-4218

**Environment, Safety, Health, Quality, Safeguards,
and Security (ESHQSS)**

Symbol: ESHQSS: 22-017
LAUR: 22-22505
Locates: N/A
Date: **MAR 22 2022**

Permitting Section
New Mexico Environment Department, Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

**Subject: IDEA ID No. 856 – Los Alamos National Laboratory, Permit #2195, Exemption
Notice for TA-68 New Portable Process Generator**

To Whom It May Concern:

In accordance with the requirements of 20.2.72 NMAC Section 219 A.1.e for administrative permit revisions, Los Alamos National Laboratory (LANL) is providing notification to incorporate an exempt source as defined in Section 202.B.

The applicable exemption is Section 202.B.5 which states:

Any emissions unit, operation, or activity that has a potential emission rate of no more than one-half (1/2) ton per year of any pollutant for which a national or New Mexico ambient air quality standard has been set or one-half (1/2) ton per year of any VOC.

The exempt source is a process related, diesel-fired generator set:

Generator Unit

Manufacturer: WhisperWatt
Size: 10 kW
Model: DCA-10SPXU4
Serial No.: 8710763
Date of Manf: 2021

Engine

Manufacturer: Kubota
Size: 18.4 HP
Model: D1503
Serial No.: 7MD6183
Date of Manf: 2021

This unit is portable and will be used sporadically to provide power for process related research in various remote areas within TA-68 Water Canyon. We have included a Specification Sheet from the Owner's Manual, and a spreadsheet with emission calculations showing the emissions for this unit are no more than ½ ton per year for each pollutant.

Regarding Title V applicability, because this portable generator has an engine rated capacity of 18.4 horsepower/hour, it qualifies as an insignificant source under 20 NMAC 2.70, Title V Operating Permits. The specific language from the NMED List of Insignificant Activities for the NM Operating Permit Program (list dated March 24, 2005) is:

6. *Portable engines and portable turbines that have a design capacity (based on sea level specifications) or a physically derated capacity less than or equal to:*
- 200 HP engine if fueled by diesel or natural gas.

We request this exempt unit be placed on the Air Quality Permit #2195 as an administrative revision (2195 R-87). If you have any questions, please feel free to contact Marjorie Stockton (Triad) at (505) 665-3289.

In accordance with Section 203.A.12, I hereby certify on behalf of LANL that the information submitted in this notification is as complete, true, and accurate as possible, to the best of my personal knowledge.

Sincerely,

STEVEN STORY
(Affiliate)

Digitally signed by
STEVEN STORY (Affiliate)
Date: 2022.03.22 07:58:07
-06'00'

Steven L. Story
Group Leader

Attachment(s): Attachment 1 Air Quality Administrative Revision for New Portable Process Generator
Attachment 2 Emissions Estimate and Spec Sheet for New Portable Process Generator

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ATTACHMENT 1
**Air Quality Administrative Revision for New
Portable Process Generator**

ESHQSS: 22-017

LA-UR-22-22505

Date: MAR 22 2022

Permitting Administrative Multi-Form

Use for NSR administrative permit revisions (including GCPs), TV administrative amendments, TV responsible official notifications, and other submittals required by a permit condition. Refer to Section 4 for instructions, acronyms, and mailing addresses.

For Department use only:		For Department use only:
Reviewed by:		Received Date
Permit revision number:		
Date:		
<input type="checkbox"/> Approved <input type="checkbox"/> Completed <input type="checkbox"/> Denied		

Section 1: General Information – Required for All Submittals

1	Facility Name: Los Alamos National Laboratory					
2	Preparer/Consultant Name: Vincent A. Carretti	Title: Environmental Professional – Air Quality				
3	Email: vcarretti@lanl.gov	Phone: (505) 665-1658				
4	Address: P.O. Box 1663, MS J978, Los Alamos, NM 87545					
5	Air Permit Contact: Marjorie B. Stockton	Title: Meteorology & Air Quality Team Leader				
6	Email: mstockton@lanl.gov	Phone: (505) 665-3289				
7	Address: P.O. Box 1663, MS J978, Los Alamos, NM 87545					
8	Check all boxes below for which this submittal applies:	AI #: 856	Permit #: 2195			
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; border: none; vertical-align: top;"> <input checked="" type="checkbox"/> NSR Construction Permit (20.2.72 NMAC) <input type="checkbox"/> TV Operating Permit (20.2.70 NMAC) </td> <td style="width: 33%; border: none; vertical-align: top;"> <input type="checkbox"/> NOI (20.2.73 NMAC) (Sections 2-B, 2-D) <input checked="" type="checkbox"/> Notice of Exemption (20.2.72.202.B NMAC) (Section 2-F) </td> <td style="width: 33%; border: none; vertical-align: top;"> <input type="checkbox"/> PSD Permit (20.2.74 NMAC) <input type="checkbox"/> Nonattainment Permit (20.2.79 NMAC) </td> </tr> </table>				<input checked="" type="checkbox"/> NSR Construction Permit (20.2.72 NMAC) <input type="checkbox"/> TV Operating Permit (20.2.70 NMAC)	<input type="checkbox"/> NOI (20.2.73 NMAC) (Sections 2-B, 2-D) <input checked="" type="checkbox"/> Notice of Exemption (20.2.72.202.B NMAC) (Section 2-F)	<input type="checkbox"/> PSD Permit (20.2.74 NMAC) <input type="checkbox"/> Nonattainment Permit (20.2.79 NMAC)
<input checked="" type="checkbox"/> NSR Construction Permit (20.2.72 NMAC) <input type="checkbox"/> TV Operating Permit (20.2.70 NMAC)	<input type="checkbox"/> NOI (20.2.73 NMAC) (Sections 2-B, 2-D) <input checked="" type="checkbox"/> Notice of Exemption (20.2.72.202.B NMAC) (Section 2-F)	<input type="checkbox"/> PSD Permit (20.2.74 NMAC) <input type="checkbox"/> Nonattainment Permit (20.2.79 NMAC)				

Section 2: Details of Submittal

Only print and submit the pages necessary for your submittal. Print double sided head-to-toe, flip on short end (tablet). The Permit Section responds to all TV Administrative amendments and responds only to denials of NSR administrative revisions. Courier proof of delivery is required if you want confirmation that the Department received this submittal. Check the box(es) applicable to this submittal:

- | | |
|---|--|
| <input type="checkbox"/> 2-A(i) & 2-A(ii): Identical Engine or Turbine Replacements
<input type="checkbox"/> 2-B: Owner, Operator, and Name Changes to NOIs or Construction Permits
<input type="checkbox"/> 2-C: Ownership or Operational Control Changes for Title V Permits
<input type="checkbox"/> 2-D: Closing a Facility or Removing Units from a Permit or Canceling an NOI
<input type="checkbox"/> 2-E: Correct Typographical Error | <input checked="" type="checkbox"/> 2-F: Reporting Exempt Equipment for Minor Construction Permits or for No Permit Required (NPR) Facilities
<input type="checkbox"/> 2-G: Add Minor NSR Exempt Equipment to Construction Permits for PSD or Nonattainment Sources
<input type="checkbox"/> 2-H: Title V Responsible Official Designations
<input type="checkbox"/> 2-I: Submittals to the Permit Programs Manager |
|---|--|

[Section 3: Certification – Required for All Changes](#)

Section 4: Form Instructions

Section 2-F: Reporting Exempt Equipment for Minor Construction Permits or for No Permit Required (NPR) Facilities

Certain equipment can be added to minor construction permits as exempt equipment under 20.2.72.202.B NMAC as an administrative permit revision. (This exemption does not apply to facilities subject to 20.2.70 NMAC (TV), 20.2.74 NMAC (PSD), or 20.2.79 NMAC Nonattainment Sources. In those cases, use Section 2-G of this form.)

Construction permit Part 72 exemptions are not the same as operating permit TV insignificant activities (20.2.70.7.Q NMAC). If you have a TV permit and want to claim [Title V insignificant activities](#), they may be required to have authorization through a construction permit. Only the insignificant activities that meet the requirements of 20.2.72.202.B NMAC may be added using this form for an administrative permit revision.

The Potential to Emit (PTE) of regulated air contaminants from minor permit exempt equipment count toward the facility's total emissions under the PSD, nonattainment, and TV regulations therefore, the addition of equipment using this form could possibly result in the facility becoming PSD, Nonattainment, or TV major.

Check the box(es) to indicate if your facility has a permit or is a no permit required (NPR) facility, check the box(es) for the equipment being added, and complete the table(s), if applicable. Include attachments as required.

☒ Administrative Revision: This facility has a minor construction permit as designated in Section 1 of this application. This form is being submitted to add a piece(s) of equipment that qualifies as exempt under 20.2.72.202.B NMAC.

or

☐ Notice of Exemption: This facility does not require a 20.2.72 NMAC permit, so it is designated as a no permit required (NPR) facility. This exemption form is being submitted to record that this equipment qualifies as exempt under 20.2.72.202.B NMAC. (This exemption does not apply to (cannot be added to) NOI (20.2.73 NMAC), TV (20.2.70 NMAC), PSD (20.2.74 NMAC), or nonattainment (20.2.79 NMAC) facilities.)

AQB used to require either the Notice of Exemption Form or Exemption Application Form for these facilities. This form replaces both of those forms.

Only fill out the information in this table if your facility is an NPR facility, we already have the information for permitted sites.

Facility Name:	Plant primary SIC Code (4 digits):
	Plant NAICS code (6 digits):
Facility Street Address (If no facility street address, provide directions from a prominent landmark):	
Company Name:	Phone:
Company Mailing Address:	
Air Contact:	Title:
Email:	Phone:

The facility is: <input type="text"/> (distance) miles <input type="text"/> (direction) of <input type="text"/> (nearest New Mexico town or tribal community).	Zip Code:	County:
Status of land (check one): <input type="checkbox"/> Private <input type="checkbox"/> Indian/Pueblo <input type="checkbox"/> Federal BLM <input type="checkbox"/> Federal Forest Service <input type="checkbox"/> State Land <input type="checkbox"/> Bernalillo County		

Section 2-F: Reporting Exempt Equipment for Minor Construction Permits or for No Permit Required (NPR) Facilities, continued

Minor Construction Permit (Part 72) or NPR Exempt Equipment

The equipment checked in this section meets the requirements of the exemption in 20.2.72.202 NMAC, will comply with all applicable federal requirements in 40 CFR Part 60 (NSPS) or 40 CFR Part 63 (MACT), and appropriate records will be created and retained for two (2) years (or five (5) years if a TV source):

Standby Generators

☐ Standby generators which are operated only during the unavoidable loss of commercial utility power and less than 500 hours per year. (20.2.72.202.B(3) NMAC). Potentially applicable federal regulations: 40 CFR 63 Subpart ZZZZ and 40 CFR 60 Subparts JJJJ or IIII. Emission rates from emergency standby generators should be calculated assuming operation throughout the year (i.e., 8760 hours per year) to verify that it does not make your facility PSD, Nonattainment, or TV major.

Standby Generator Manufacturer	Serial Number	Date of Manufacture	Date of Installation¹	Capacity (hp)
Name of commercial power provider ² :				

¹ Date of installation is the date the engine is placed and secured at the location where it is intended to be operated.

² Commercial power is purchased from a utility company, which specifically does not include power generated on-site for the sole purpose of the user.

Abrasive Blasting

☐ Enclosed abrasive blasting operations; if no visible emissions from the building. (20.2.72.202.B(7) NMAC). Potentially applicable federal regulations: 40 CFR 63 Subpart XXXXXX - National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories. More information: www.env.nm.gov/air-quality/ind-sector-info/.

Surface Coating

☐ Surface coating of equipment, including spray painting, roll coating, and painting with aerosol spray cans and all coating and clean-up solvent; if VOCs from paints and solvents do not exceed ten (10) pounds per hour and two (2) tons per year. (20.2.72.202.B(6) NMAC). Potentially applicable federal regulations (more information: www.env.nm.gov/air-quality/ind-sector-info/):

40 CFR 63 Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources or

40 CFR 63 Subpart XXXXXX - National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories.

Volatile Organic Compound (VOC) Handling and or Storage

☐ VOC emissions resulting from the handling or storing of any VOC emission source; if vapor pressure is less than two tenths (0.2) PSI at the storage and handling temperatures. (20.2.72.202.B(2) NMAC).

Fuel Burning Equipment

☐ Fuel burning equipment used solely for heating buildings for personal comfort or producing hot water for personal use; if gaseous or liquid fuel and rated 5 MMBtu or less, or if distillate oil and 1 MMBtu or less. (20.2.72.202.B(1) NMAC).

Repositioning Sources at Plant

☐ Repositioning or relocating sources of air emissions or emissions points within the plant site, but only when such change in physical configuration does not increase air emissions or the ambient impacts. (20.2.72.B(4) NMAC). Attach an updated plot plan. Permittees must ensure that relocation of any emissions source within the plant site does **not** increase the ambient impact and will not result in an exceedance of any National Ambient Air Quality Standard (NAAQS), New Mexico Ambient Air Quality Standard (NMAAQs), or PSD Increment. If not sure, please contact the Modeling Section Manager (505-476-4300).

Emissions Exempted Based on Quantity

☒ Any emissions unit, operation, or activity that has the potential to emit no more than one-half (1/2) ton per year of any regulated new source review pollutant. Units, operations, or activities of similar function shall be combined when calculating the emission rate. (20.2.72.202.B(5) NMAC).

Unit Description	Serial Number	Capacity (size)	Regulated Pollutants Emitted ³	PER ⁴ tpy
TA-68 New Portable Process Generator Generator: WhisperWatt Engine: Kubota	Generator: 8710763 Engine: 7MD6183	Generator: 10 kW Engine: 18.4 HP	NO _x , SO ₂ , PM, CO, VOC	NO _x = 0.5 TPY SO ₂ = 0.13 TPY PM= 0.03 TPY CO= 0.5 TPY VOC= 0.03 TPY

³ Particulate Matter (PM, PM₁₀, PM_{2.5}); Sulfur Dioxide (SO₂); Carbon Monoxide (CO); Nitrogen Dioxide (NO₂); Hydrogen Sulfide (H₂S); Lead (Pb); Total Reduced Sulfur; and Volatile Organic Compounds (VOC).

⁴ Potential emission rate, as defined in 20.2.72 NMAC. The PER is the worst-case emission rate of the facility without controls or other limitations (unless the controls or limitations are federally enforceable) and as if the facility were operating continuously 8760 hours per year (24 hour/day, 365 days/year).

Section 3: Certification – Required for All Submittals

Company Name: Triad National Security, LLC

I, Steven L. Story, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this 22 day of March, 2022, upon my oath or affirmation, before a

notary of the State of New Mexico.

StL Story

Signature¹

3/22/2022

Date

Steven L. Story

Printed Name

Group Leader

Title

Scribed and sworn before me on this 22 day of March, 2022.

My authorization as a notary of the State of New Mexico expires on the

12 day of June, 2023.

Barbara J. Bushong

Notary's Signature

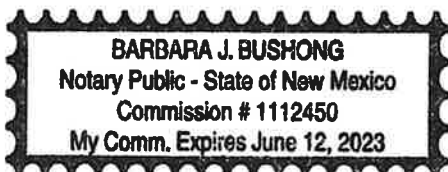
March 22, 2022

Date

Barbara J. Bushong

Notary's Printed Name

¹ For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC:



ATTACHMENT 2
Emissions Estimate and Spec Sheet for
New Portable Process Generator

ESHQSS: 22-017

LA-UR-22-22505

Date: MAR 22 2022

Diesel Fired Generator

EPA Tier 4 Emissions Standards (8-19 kw engine)

	(g/kwh)	(g/bhp-hr)
NMHC + NOx	7.5	5.60
CO	6.6	4.9
Sox*		0.93
PM	0.40	0.3

Per CARB Policy: When the non-methane hydrocarbon (NMHC) and nitrogen oxide (NOx) emission factor is combined, assume a breakdown of 5% and 95%, respectively

*SOx emission factor from AP-42, Table 3.3-1

Size of Engine

	10	kw
Derated for altitude:	7.84	kw
	18.4	bhp
Derated for altitude:	14.54	hp

Can derate for altitude 3% per 1,000 ft above sea level

21.6% derating at 7,200 ft

EMISSIONS FOR 1 10 kw ENGINE (8760 hr/yr)

	lb/hr	tpy
NOx	0.123	0.5
CO	0.114	0.5
SOx	0.030	0.13
PM	0.007	0.03
NMHC (VOC)	0.006	0.03



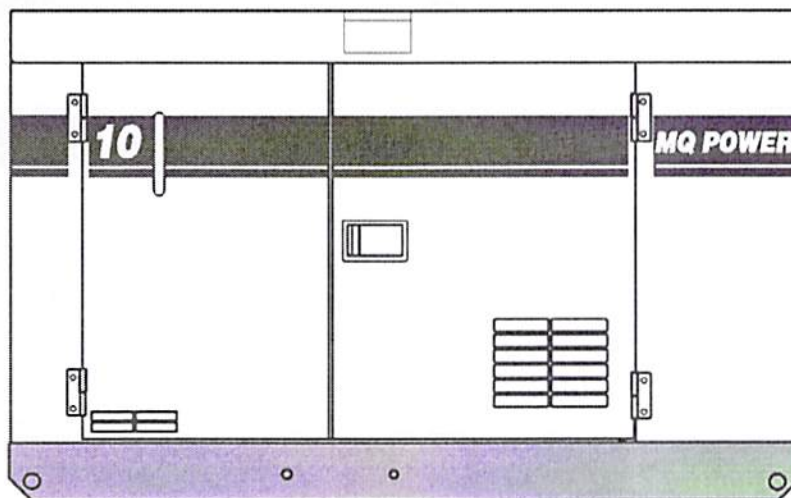
DCA10SPXU4C Generator

WhisperWatt™

Prime Rating — 10 kW (10 kVA)

Standby Rating — 11 kW (11 kVA)

Single-Phase, 60 Hertz, 1.0 PF



STANDARD FEATURES

- Heavy duty, 4-cycle, liquid cooled, direct injection diesel engine provides maximum reliability.
- EPA emissions certified — Tier 4 Final emissions compliant.
- Single-side Maintenance Design — Quick, direct access to all filters. External fluid drain extensions allow fast, easy service. Ideal for confined applications.
- Automatic safety shutdown system monitors the water temperature, engine oil pressure, battery charge. Warning lights indicate abnormal conditions.
- Electronic Governor Control — isochronous control, maintains frequency to within $\pm 0.25\%$ from no load to full load.
- Full load acceptance of standby nameplate rating in a single step.
- Sound attenuated, weather resistant, steel housing provides operation at 61 dB(A) at 23 feet. Fully lockable enclosure allows safe unattended operation.
- E-coat and powder coat paint provides durability and weather protection.
- Internal Fuel Tank — Holds 16.4 gallons (62 liters).
- Brushless generator design — reduces service and maintenance requirements.
- Complete power panel. Fully covered; single-phase terminals and single phase receptacles allow fast and convenient hookup for most applications including temporary power boxes, tools and lighting equipment. All are NEMA standard.
- Complete generator analog instrumentation includes voltage regulator control, ammeter phase selector switch, voltmeter phase selector switch, AC voltmeter, AC ammeter, frequency meter, panel light, key switch and circuit breaker.
- Mainline circuit breaker — OSHA and NEC compliant, 45 Amp rating.



DCA10SPXU4C

Generator

SPECIFICATIONS

Generator Specifications	
Design	Revolving field, self-ventilated Drip-proof, single bearing
No. of Poles	4-pole
Excitation	Brushless with AVR
Number of Leads	4
Generator RPM	1800
Voltage Regulation (No load to full load)	±0.5%
Power Factor	1.0
Winding Pitch	5/6
Frequency	60 Hz
Armature Connection	Series
Insulation	Class F
Sound Level dB(A) Full load at 23 feet	61

Engine Specifications	
Make / Model	Kubota/ D1503
Emissions	EPA Tier 4 Certified
Design	3-cylinder, 4-cycle, Liquid Cooled, Direct Injection
Displacement	1499 cc
Bore x Stroke	3.23 in x 3.63 in (83 mm x 92.4 mm)
SAE Gross Horsepower	24.8 hp (18.5 kW)
HP at Rated Speed	18.4 hp (13.7 kW)
Compression Ratio	21.6 : 1
Engine Speed	1800 rpm
Starting System	Electric
Battery	12V 70Ah x 1
Oil Capacity	1.48 gal (5.6 L)
Coolant Capacity	1.85 gal (7.0 L)

Fuel System	
Fuel Tank Capacity	16.4 gal (62.0 L)
Fuel Consumption	gal/hr (L/hr)
100% load	0.97 (3.7)
75% load	0.75 (2.8)
50% load	0.58 (2.2)
25% load	0.44 (1.7)

Exhaust System	
Gas Flow (full load)	109.1 cfm (3.09 m ³ /min)
Gas Temperature	1005.8 °F (541 °C)

Cooling System	
Coolant Capacity (with radiator)	1.85 gallons (7 liters)
Ambient Temperature Rating	104°F (40°C)

Amperage	
Rated Voltage	Maximum Amps
1Ø 120 Volt	20 Amps Zigzag 30 Amps (Zigzag)
1Ø 240 Volt	41.6 Amps (Continuous)
Main Line Circuit Breaker Rating	45 Amps

WARRANTY*

Kubota Engine

24 months from date of purchase or 2000 hours (whichever occurs first).

Generator

24 months from date of purchase or 2000 hours (whichever occurs first).

Trailer

12 months excluding normal wear items.

*Refer to the express written, one-year limited warranty sheet for additional information.

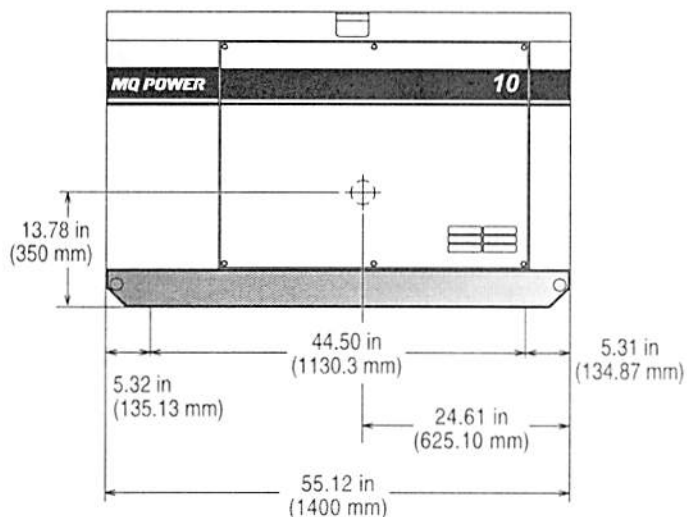
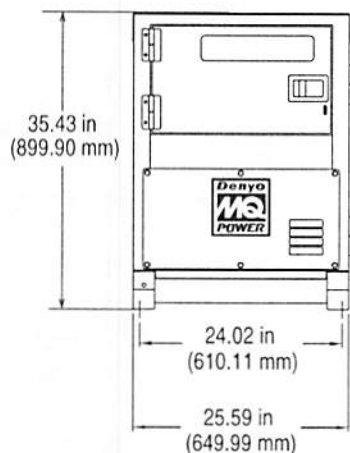
NOTICE

Specifications sheet is subject to change and is not intended for use in installation design.

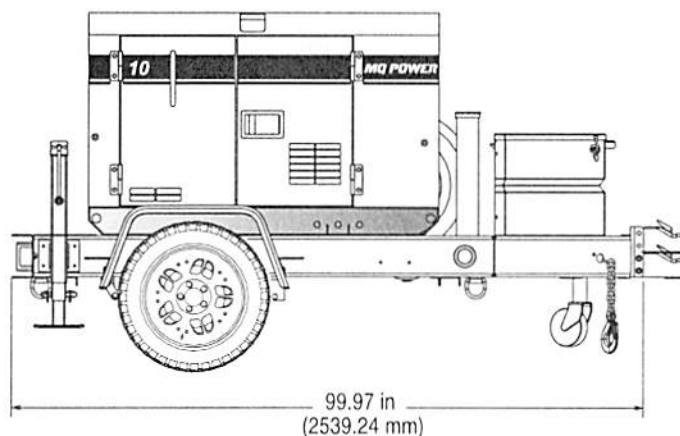
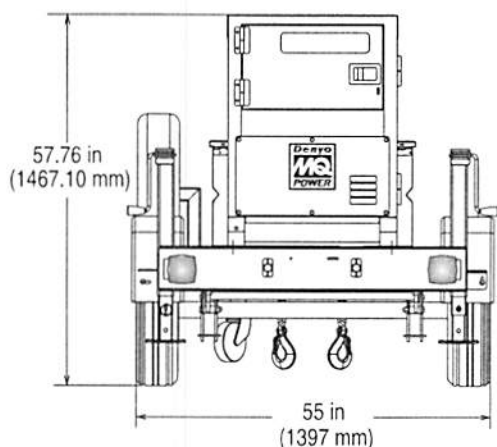


DCA10SPXU4C Generator

SKID-MOUNT DIMENSIONS



TRAILER-MOUNT DIMENSIONS



DCA10SPXU4C Weights*

Dry Weight	1,112 lbs (504 kg)
Wet Weight	1,300 lbs (590 kg)
Max. Lifting Point Capacity	2,000 lbs (907 kg)

* Weights do not include options.

DCA10SPXU4C and TRLRMPXF Weights*

Dry Weight (with TRLRMPXF)	1,620 lbs. (735 kg)
Wet Weight (with TRLRMPXF)	1,808 lbs. (820 kg)

Generator can be placed on MQ Trailer Models TRLRMP, TRLRMPXF and TRLR75XF2.

NOTICE

Features and Specifications are subject to change without notice.



MULTIQUIP
6141 Katella Avenue Suite 200
Cypress, CA 90630
310-537-3700
E-MAIL: mq@multiquip.com
WEBSITE: www.multiquip.com



DCA10SPXU4C

Generator

MQ POWER DECIBEL LEVELS

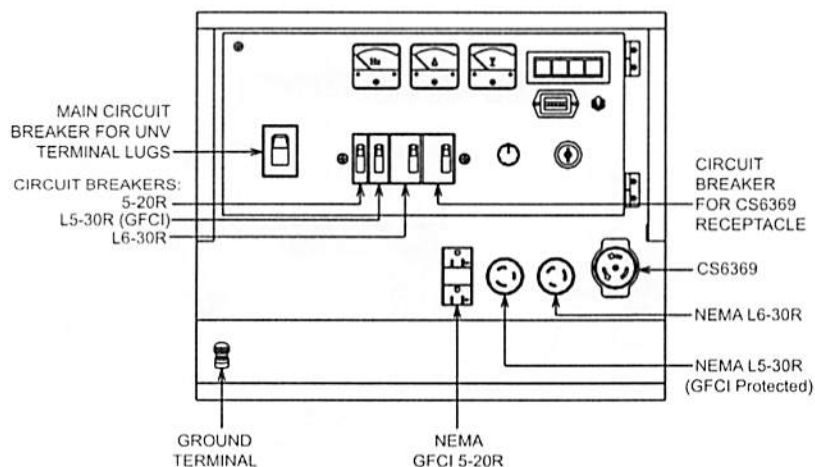
Our soundproof housing allows substantially lower operating noise levels than competitive designs. DIS100SSK4F is at home on construction sites, in residential neighborhoods, and at hospitals — just about anywhere.

- 90 — Subway / truck traffic
- 80 — Average city traffic
- 70 — Inside car at 60 mph
- 62.0 — **DIS100SSK4F at 23 feet**
- 60 — Air conditioner at 20 feet
- 50 — Normal conversation

62.0
DECIBELS

OPTIONAL FEATURES

- **Automatic start/stop control** — automatically starts and monitors generator during power failure when used in conjunction with a transfer switch.
- **Jacket water heater** — for easy starting in cold climates.
- **Solid state battery charger** — provides fully automatic and self-adjusting charging to the generator's battery system.
- **Fuel/water filter** — effectively separates damaging condensation from fuel.
- **Emergency stop switch** — when manually activated, shuts down generator in the event of an emergency.
- **Single-wall or double-wall sub-base fuel tanks** — additional fuel cell for extended run time. Available in a variety of configurations.
- **Trailer mounted package** — highway legal trailer with single axle configuration. Extra capacity fuel tank is also available.



Generator Control Panel