SD400

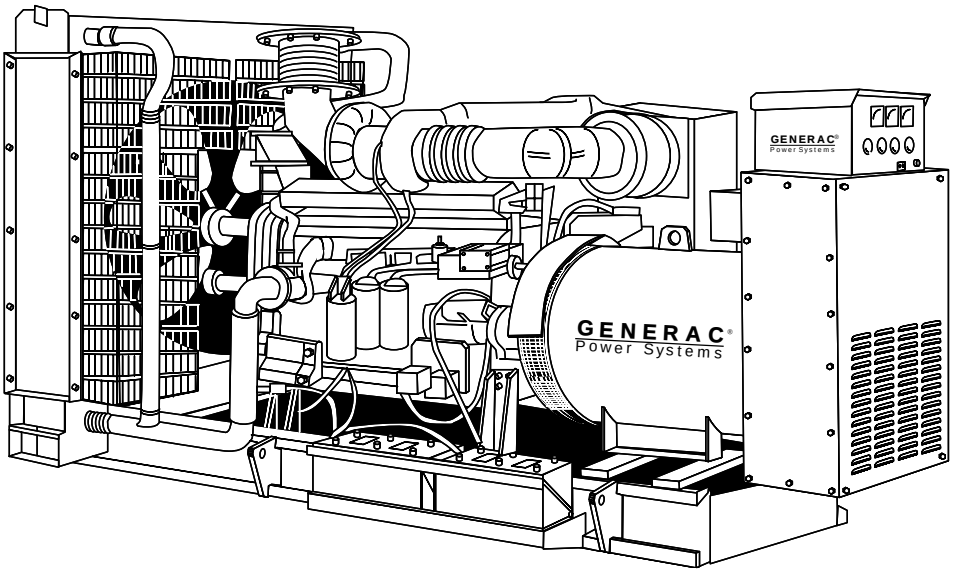
Liquid Cooled Diesel Engine Generator Sets

Continuous Standby Power Rating

400KW 60 Hz / 420KVA 50Hz

Prime Power Rating

336KW 60 Hz / 380KVA 50Hz



Power Matched

GENERAC 14.6DTA ENGINE

Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING

- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.

- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
LOAD CAPACITY (PRIME) 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

☐ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates the excitation system from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22.4 and NEMA MG1-1.65.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is tropicalized, self-ventilated and drip-proof constructed.
- Optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S6B3-PTA
CYLINDERS 6
DISPLACEMENT - liter/(cu. in.) 14.6 (890.9)
BORE - mm/(in.) 135 (5.31)
STROKE - mm/(in.) 170 (6.69)
COMPRESSION RATIO 14.2:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

☐ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
CRANKCASE CAPACITY - liter/(gal.) 50 (13.2)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pres. Closed Recovery
WATER PUMP ..... Pre-Lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 6
DIAMETER OF FAN - mm/(in.) 800 (31.5)
COOLANT HEATER ..... 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM Spec.)
FUEL FILTER ..... Paper Element Type
FUEL INJECTION PUMP ..... Bosch P Type x 1
FUEL PUMP ..... Bosch/Piston Type
INJECTORS ..... Bosch Multi-Hole
ENGINE TYPE ..... In-Line Six Cylinder
FUEL LINE (Supply) ..... 1/2"FNPT
FUEL RETURN LINE ..... 1/2"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 6.0 kW at 24V
RECOMMENDED BATTERY ..... 2 x 12V
GROUND POLARITY ..... Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

OPERATING DATA

	STANDBY		PRIME	
	SD400		SD400	
GENERATOR OUTPUT VOLTAGE/KW—60Hz		Rated AMP		Rated AMP
120/208V, 3-phase, 0.8 pf	400	1390	336	1167
120/240V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	400	1204	336	1012
277/480V, 3-phase, 0.8 pf	400	602	336	506
600V, 3-phase, 0.8 pf	400	482	336	405
GENERATOR OUTPUT VOLTAGE/KVA-50Hz		Rated AMP		Rated AMP
220/380V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	420	639	380	578
230/400V, 3-phase, 0.8 pf	420	607	380	549
240/415V, 3-phase, 0.8 pf	420	585	380	529
MOTOR STARTING				
Locked rotor kva at 30% instantaneous voltage dip	415V	480V	415V	480V
with standard alternator; 60 Hz-kva		1100		1100
with standard alternator; 50 Hz-kva	840		840	
FUEL				
Fuel consumption—60 Hz Load	25%	50% 75% 100%	25%	50% 75% 100%
gal./hr.	6.85	13.70 20.55 27.4	5.76	11.53 17.29 23.05
liters/hr.	25.92	51.85 77.77 103.69	21.81	43.63 65.44 87.25
Fuel consumption—50 Hz gal./hr.	5.74	11.48 17.22 22.96	5.18	10.36 15.54 20.71
liters/hr.	21.72	43.45 65.17 86.89	19.60	39.20 58.80 78.40
Fuel pump lift in.	55		55	
COOLING				
Coolant capacity System - lit./gal.	85(22.42)		85(22.42)	
Engine - lit./gal.	30 (7.9)		30 (7.9)	
Radiator - lit./gal.	55 (14.52)		55 (14.52)	
Coolant flow/min. 60 Hz - lit./gal.	500 (132)		500 (132)	
50 Hz - lit./gal.	430 (114)		430 (114)	
Heat rejection to coolant BTU/hr.	863,820		776,340	
Inlet air 60 Hz - m^3/min. (cfm)	540 (19067)		540 (19067)	
50 Hz - m^3/min. (cfm)	450 (15890)		450 (15890)	
Ambient temperature °C (°F)	45 (113)		45 (113)	
Air on to RAD °C (°F)	50 (122)		50 (122)	
Max. external pressure drop on radiator in. H_2O	1.0		1.0	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz - m^3/min. (cfm)	35 (1236)		31 (1095)	
50 Hz - m^3/min. (cfm)	30 (1059)		27 (953)	
EXHAUST				
Exhaust flow at rated output				
60 Hz - m^3/min. (cfm)	92 (3249)		82 (2895)	
50 Hz - m^3/min. (cfm)	80 (2825)		72 (2542)	
Maximum recommended back pressure Kpa (" Hg)	5.7 (1.7)		5.7 (1.7)	
Exhaust temperature at rated output °C (°F)	490 (914)		475 (887)	
Exhaust outlet size mm.	150		150	
ENGINE				
Rated RPM 60 Hz	1800		1800	
50 Hz	1500		1500	
HP at rated KW 60 Hz	574		483	
50 Hz	481		434	
Piston speed 60 Hz - m/sec. (ft./min)	10.2 (2008)		10.2 (2008)	
50 Hz - m/sec. (ft./min)	8.5 (1673)		8.5 (1673)	
BMEP 60 Hz - PSI	274		249	
50 Hz- PSI	294		266	
DERATION FACTORS				
Temperature				
5% for every 10°C above - C°	40		40	
2.77% for every 10°F above - F°	104		104	
Altitude				
1.1% for every 100 m above - m	1500		1500	
3.5% for every 1000 ft. above - ft.	5000		5000	

STANDARD ENGINE & SAFETY FEATURES

SD400

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain
- Factory-Installed Cool Flow Radiator
- Closed Coolant System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation between unit base and structure
- 24 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Isochronous Governor
- Jacket water heater
- Flexible fuel lines (stainless steel braid)

CONTROL CONSOLE OPTIONS

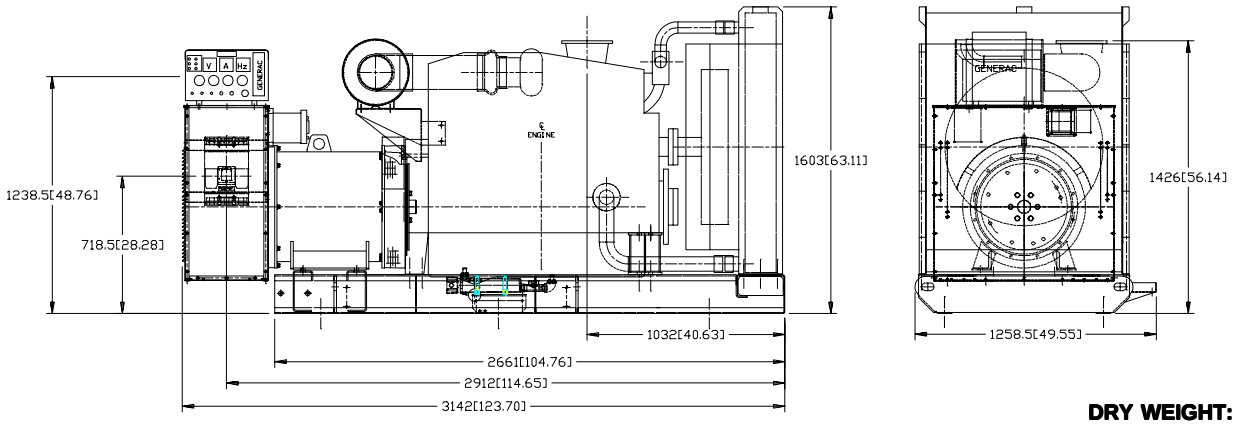
- **STANDARD "C" OPTION PANEL**
  - A leading control system standard in the power generation industry. (see bulletin # SBY, 15116)
- ***RAMPOWER 232* DIGITAL GENERATOR CONTROL PANEL**
  - Access to fully digital generator instrumentation via modem, a laptop computer or locally at the front control panel for tighter control of the power generator system. (see bulletin # SBY, 15721)

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - Radiator Duct Adapter
  - Optional coolant systems (consult factory)
  - High ambient radiator (50°C / 122 °F)
  - Low ambient radiator (40°C / 104 °F)
- **OPTIONAL FUEL ACCESSORIES**
  - Base Tank Low Fuel Alarm
  - Primary Fuel Filter
  - Primary Fuel Filter with Heater
  - Fuel tanks (single/double wall)_____
  - Electric fuel transfer pump system
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - 10A Dual Rate Battery Charger
  - Battery, 24 Volt
  - Battery warmer
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - Alternator Upsizing (consult factory)
  - Alternator Heater
  - Main Line Circuit Breaker_____
    (factory installed up to 1200 Amp.)
- **OPTIONAL EXHAUST ACCESSORIES**
  - Critical Exhaust Silencer
  - Residential Exhaust Silencer
  - Industrial Exhaust Silencer
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - Automatic Transfer Switch (100 Amp - 2600 Amp)
  - Weather Protective Enclosure (Locking Type)
  - Sound Attenuating Outdoor Enclosure
  - 3 Light Remote Annunciator ("C" panel only)
  - 5 Light Remote Annunciator ("C" panel only)
  - 18 Light Remote Annunciator (all panels)
  - Unit Vibration Isolators (Spring)
  - Oil Make-Up System
  - Oil Heater
  - 5 Year Warranty (Basic/Extended)
  - Export Boxing

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.

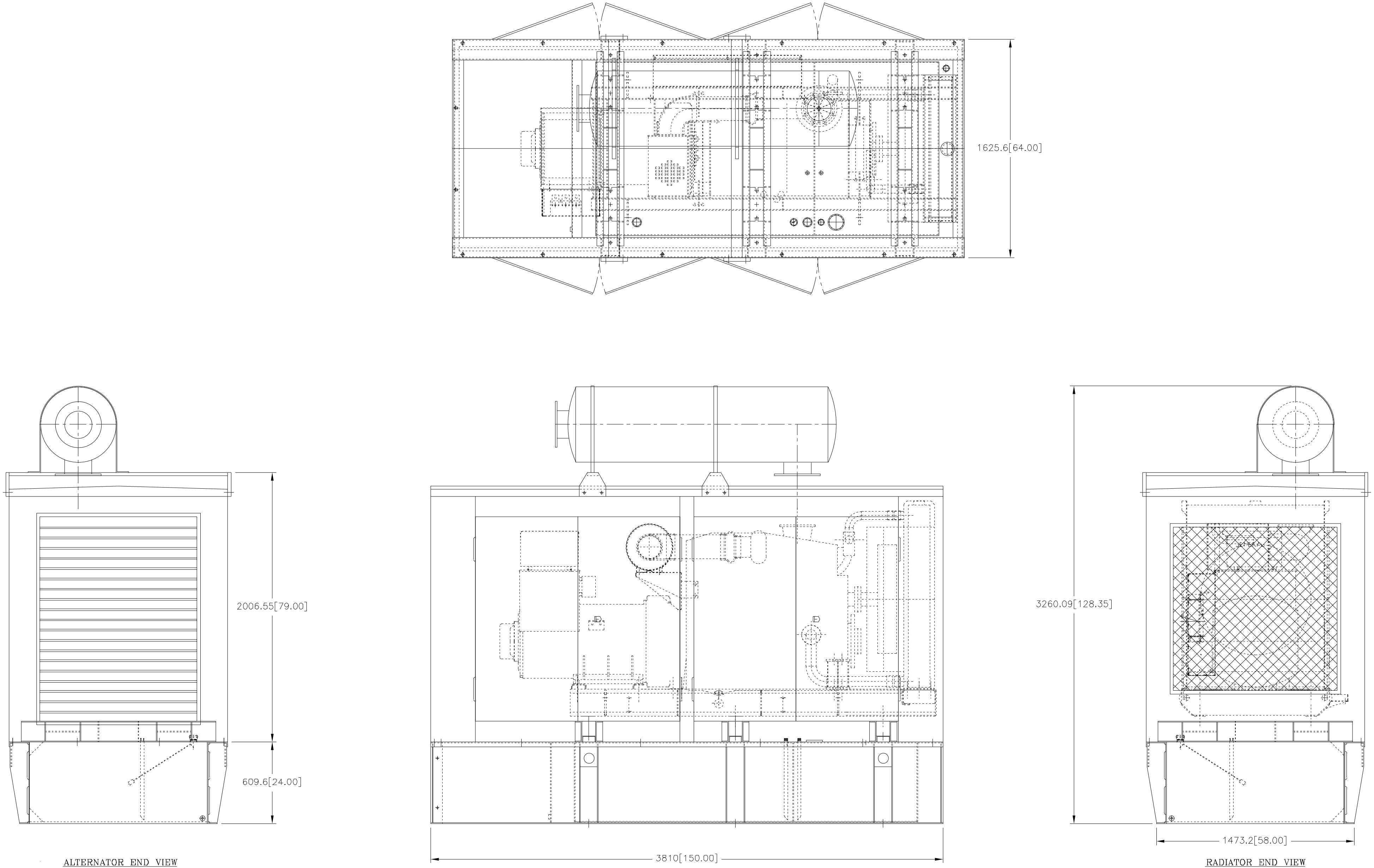


DRY WEIGHT: 6275 lbs.

GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

414/544-4811 • FAX 414/544-0770

400KW



EST. WT.	
FINAL WT.	

DO NOT SCALE

ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED :
ALL XX DIM. --- ±.4 MM
ALL XX.X DIM.-- ±.4 MM
ALL XX.XX DIM.- ±.15 MM
ALL ANGLES ---- ±1°

DRAWING TITLE 400KW INSTALLATION with TANK & ENCLOSURE

MATERIAL

DWN	DATE	MFG	DATE
CHKD	DATE	APPD	DATE
RELEASED FOR PRODUCTION	BY		DATE

GENERAC CORP
Eagle
P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME | SIZE E

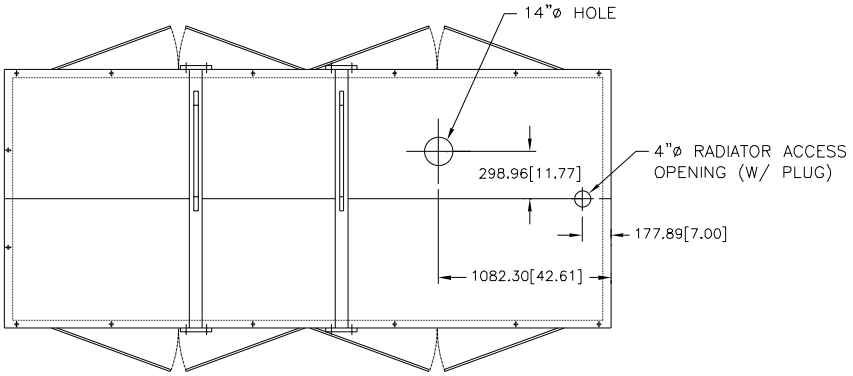
SCALE | FIRST USE

DWG NO. TYPICAL 400KW | REV

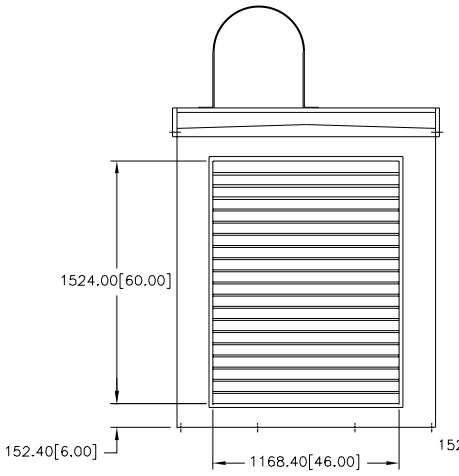
400STENC

NOTES:

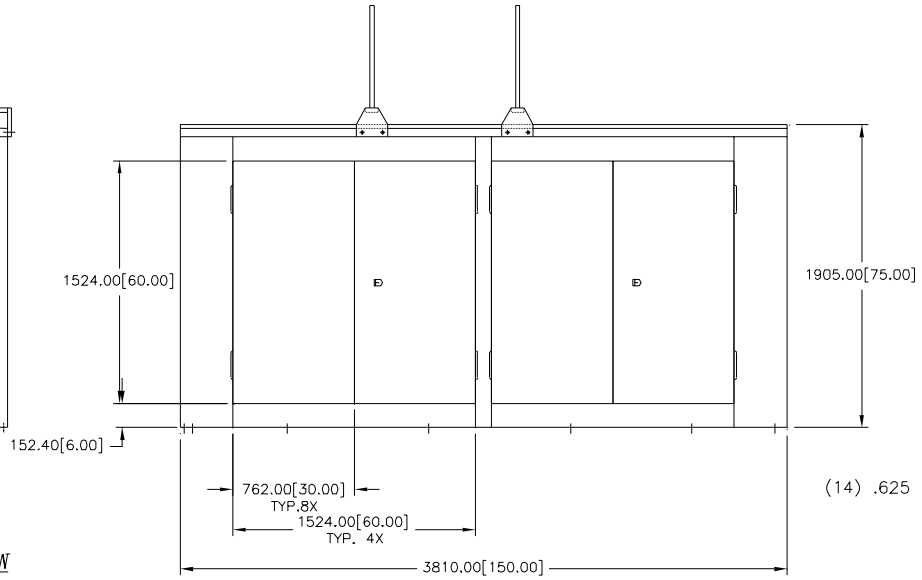
1. ALL DIMENSIONS ARE IN INCHES.
2. ENCLOSURE IS OF BOLT TOGETHER CONSTRUCTION.
3. ENCLOSURE IS OF STEEL CONSTRUCTION.
4. HINGED, LOCKABLE SOLID ACCESS DOORS HAVE TWO POINT LATCHES.
5. 2.0" BOTTOM FLANGE WITH MOUNTING HOLES.
6. (2) MUFFLER BRACKETS PROVIDED.
7. STAINLESS STEEL HARDWARE, LIFT-OFF HINGES.
8. (4) LIFTING EYES PROVIDED. LOCATED @ CORNERS
9. POWDER COAT FINISH GENERAC TAN(P/N 96340)
10. FOR ENGINE TYPE... GENERAC SD400 (14.6L)
11. APPROXIMATE WEIGHT TO BE SPECIFIED.



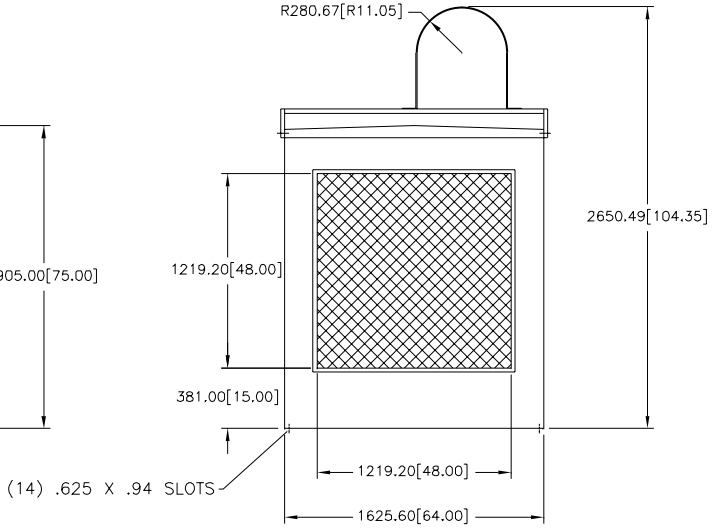
PLAN VIEW
SLOTS SHOWN ON BOTTOM FLANGE



GENERATOR END VIEW



SIDE VIEW

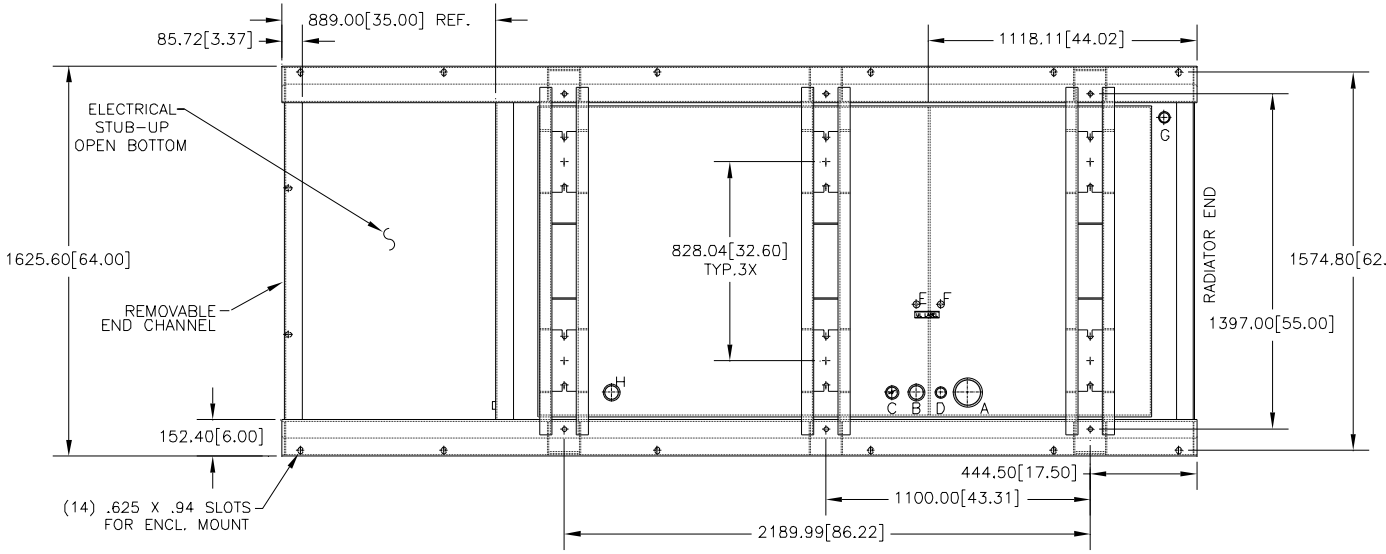


RADIATOR END VIEW

EST. WT.		DRAWING TITLE	400KW STANDARD ENCLOSURE
FINAL WT.		MATERIAL	
DO NOT SCALE		DWN / DATE / MFG / DATE	
ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994		CHKD / DATE / APPD / DATE	
UNLESS OTHERWISE SPECIFIED: ALL XX DIM. --- ±1 MM; ALL XX.X DIM. --- ±.5 MM; ALL XX.XX DIM. --- ±.13 MM; ALL ANGLES --- ±1°		RELEASED FOR PRODUCTION / BY / DATE	
		FILE NAME	SIZE D
		SCALE	FIRST USE
		DWG NO.	TYPICAL 400STENC
		REV	

GENERAC CORP
Engine
P.O. BOX 8
WAUKESHA, WIS. 53187

400STTNK



TOP VIEW

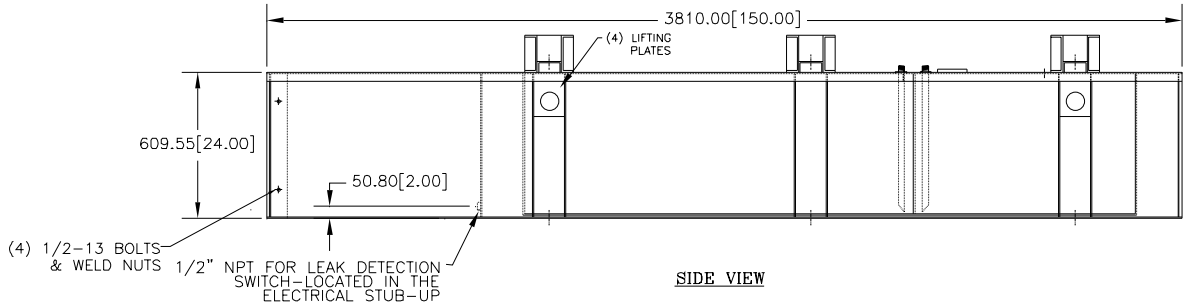
TOP COVER NOT SHOWN FOR CLARITY

NOTES:

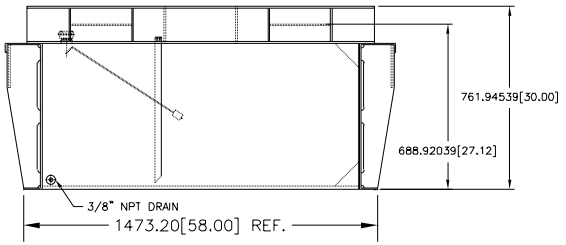
1. BAFFLE TO SEPARATE HOT & COLD SIDE OF TANK.
2. SIDE & END CHANNEL – 7 GA. TANK TOP, BOTTOM, & END – 10 GA.
3. BOTTOM TANK FLOOR SUPPORTS NOT SHOWN TIE ROD STIFFENERS NOT SHOWN.
4. EXTERIOR: PRIME & PAINT BLACK INTERIOR: RUST PREVENTIVE COATING
5. SUB BASE WEIGHT..... 3,000 LB. MAX.
6. ENGINE WET WEIGHT..... 5,000 LB. MAX. ENGINE TYPE..... GENERAC SD400
7. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FITTINGS:

A. 4" NPT FOR EMERGENCY VENT PER NFPA
B. 2" NPT FOR FILL
C. 1-1/2" NPT FOR LEVEL GAUGE
D. 1-1/4" NPT FOR NORMAL VENT
E. 1/2" NPT DIP TUBE-FUEL RETURN
F. 1/2" NPT DIP TUBE-FUEL SUPPLY
G. 1-1/4" NPT W/ PIPE PLUG
H. 2" NPT FOR LOW LEVEL SWITCH



SIDE VIEW



RADIATOR END VIEW

EST. WT. / FINAL WT.	DRAWING TITLE: 400KW STANDARD BASETANK	GENERAC CORP Eagle, P.O. BOX 8, WAUKESHA, WIS. 53187	
DO NOT SCALE. ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: ALL XX DIM. ± .4 MM; ALL XXX DIM. ± .13 MM; ALL ANGLES ± 1°	MATERIAL	FILE NAME	SIZE D
	DWN / DATE / MFG / DATE	SCALE	FIRST USE
	CHKD / DATE / APPD / DATE	DWG NO. TYPICAL 400STTNK	REV
	RELEASED FOR PRODUCTION / BY / DATE		

SD500

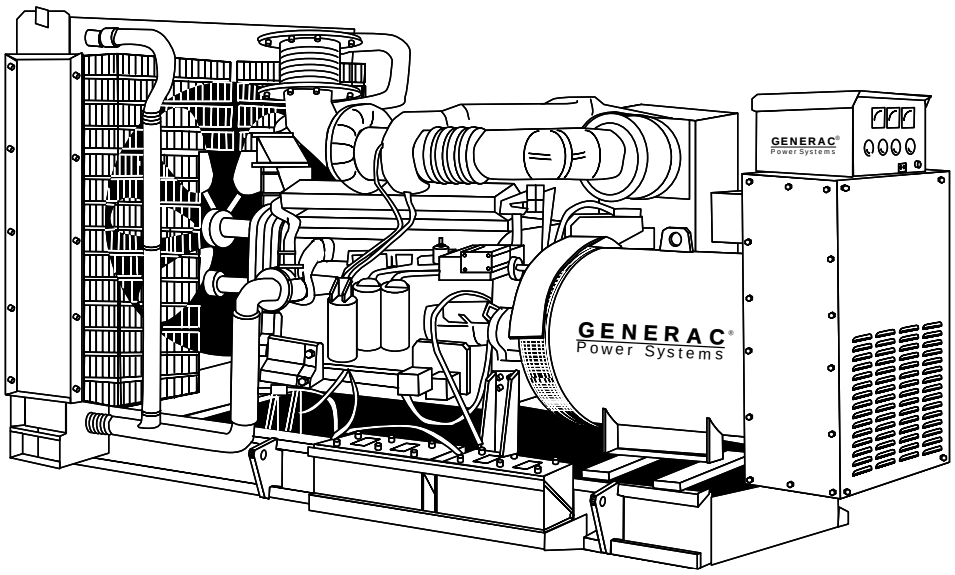
Liquid Cooled Diesel Engine Generator Sets

Continuous Standby Power Rating

500KW 60 Hz / 500KVA 50Hz

Prime Power Rating

416KW 60 Hz / 455KVA 50Hz



Power Matched

GENERAC 18.5DTA ENGINE

Turbocharged / Aftercooled

FEATURES

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  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING

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- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.

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GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

SD500

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
LOAD CAPACITY (PRIME) 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

☐ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates the excitation system from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22.4 and NEMA MG1-1.65.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is tropicalized, self-ventilated and drip-proof constructed.
- Optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S6A3-PTA
CYLINDERS 6
DISPLACEMENT - liter/(cu. in.) 18.5 (1131.9)
BORE - mm/(in.) 150 (5.91)
STROKE - mm/(in.) 175 (6.89)
COMPRESSION RATIO 14.5:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

☐ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
CRANKCASE CAPACITY - liter/(gal.) 80 (21.1)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pres. Closed Recovery
WATER PUMP ..... Pre-Lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 6
DIAMETER OF FAN - mm/(in.) 1010 (39.8)
COOLANT HEATER ..... 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM Spec.)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION PUMP ..... Bosch P Type x 1
FUEL PUMP ..... Bosch/Piston Type
INJECTORS ..... Bosch Multi-Hole
ENGINE TYPE ..... In-Line Six Cylinder
FUEL LINE (Supply) ..... 1/2"FNPT
FUEL RETURN LINE ..... 1/2"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 6.0 kW at 24V
RECOMMENDED BATTERY ..... 2 x 12V
GROUND POLARITY ..... Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

OPERATING DATA

	STANDBY	PRIME
	SD500	SD500
GENERATOR OUTPUT VOLTAGE/KW—60Hz	Rated AMP	Rated AMP
120/208V, 3-phase, 0.8 pf	500 1737	416 1445
120/240V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	500 1505	416 1252
277/480V, 3-phase, 0.8 pf	500 753	416 626
600V, 3-phase, 0.8 pf	500 602	416 501
GENERATOR OUTPUT VOLTAGE/KVA-50Hz	Rated AMP	Rated AMP
220/380V, 3-phase, 0.8 pf	500 761	455 692
230/400V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	500 723	455 658
240/415V, 3-phase, 0.8 pf	500 696	455 634
MOTOR STARTING	415V 480V	415V 480V
Locked rotor kva at 30% instantaneous voltage dip		
with standard alternator; 60 Hz-kva	1100	1100
with standard alternator; 50 Hz-kva	1050	1050
FUEL	25% 50% 75% 100%	25% 50% 75% 100%
Fuel consumption—60 Hz Load		
gal./hr.	8.39 16.78 25.17 33.57	6.95 13.91 20.86 27.81
liters/hr.	31.76 63.52 95.28 127.05	26.32 52.64 78.96 105.28
Fuel consumption—50 Hz gal./hr.	6.79 13.58 20.37 27.15	6.15 12.30 18.46 24.61
liters/hr.	25.69 51.39 77.08 102.78	23.29 46.57 69.86 93.14
Fuel pump lift in.	55	55
COOLING		
Coolant capacity System - lit./gal.	110 (29)	110 (29)
Engine - lit./gal.	45 (11.9)	45 (11.9)
Radiator - lit./gal.	65 (17.16)	65 (17.16)
Coolant flow/min. 60 Hz - lit./gal.	650 (172)	650 (172)
50 Hz - lit./gal.	580 (153)	580 (153)
Heat rejection to coolant BTU/hr.	1,104,600	983,820
Inlet air 60 Hz - m^3/min. (cfm)	720 (25423)	720 (25423)
50 Hz - m^3/min. (cfm)	540 (19067)	540 (19067)
Ambient temperature °C (°F)	45 (113)	45 (113)
Air on to RAD °C (°F)	50 (122)	50 (122)
Max. external pressure drop on radiator in. H_2O	0.5	0.5
COMBUSTION AIR REQUIREMENTS		
Flow at rated power 60 Hz - m^3/min. (cfm)	44 (1554)	40 (1412)
50 Hz - m^3/min. (cfm)	38 (1342)	33 (1165)
EXHAUST		
Exhaust flow at rated output		
60 Hz - m^3/min. (cfm)	117 (4131)	105 (3708)
50 Hz - m^3/min. (cfm)	101 (3566)	88 (3107)
Maximum recommended back pressure Kpa (" Hg)	5.6 (1.7)	5.6 (1.7)
Exhaust temperature at rated output °C (°F)	515 (959)	490 (914)
Exhaust outlet size mm.	200	200
ENGINE		
Rated RPM 60 Hz	1800	1800
50 Hz	1500	1500
HP at rated KW 60 Hz	712	590
50 Hz	576	522
Piston speed 60 Hz - m/sec. (ft./min)	10.5 (2067)	10.5 (2067)
50 Hz - m/sec. (ft./min)	8.8 (1732)	8.8 (1732)
BMEP 60 Hz - PSI	289	240
50 Hz - PSI	297	250
DERATION FACTORS		
Temperature		
5% for every 10°C above - C°	40	40
2.77% for every 10°F above - F°	104	104
Altitude		
1.1% for every 100 m above - m	1500	1500
3.5% for every 1000 ft. above - ft.	5000	5000

STANDARD ENGINE & SAFETY FEATURES

SD500

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain
- Factory-Installed Cool Flow Radiator
- Closed Coolant System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation between unit base and structure
- 24 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Isochronous Governor
- Jacket water heater
- Flexible fuel lines (stainless steel braid)

CONTROL CONSOLE OPTIONS

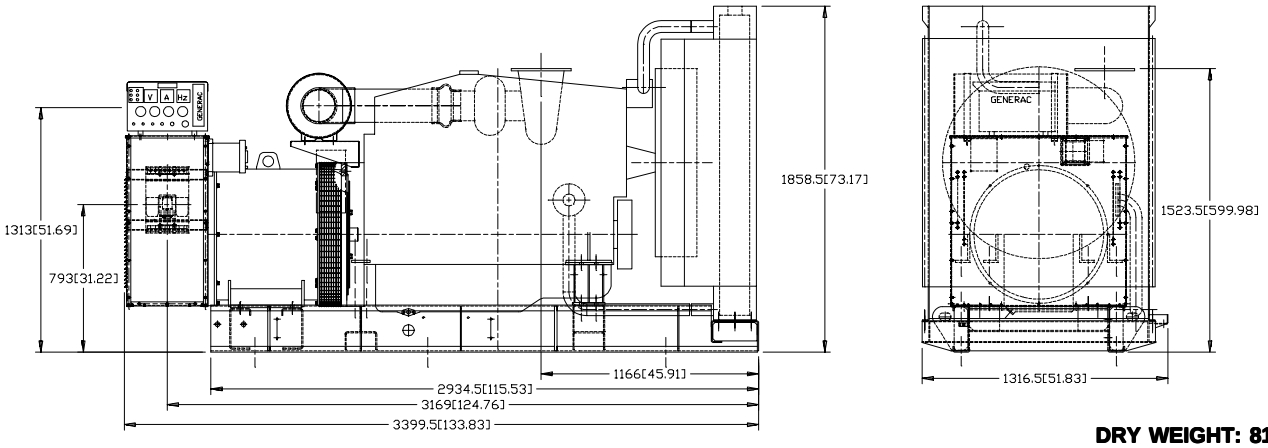
- **STANDARD "C" OPTION PANEL**
  - A leading control system standard in the power generation industry. (see bulletin # SBY, 15116)
- ***RAMPOWER 232* DIGITAL GENERATOR CONTROL PANEL**
  - Access to fully digital generator instrumentation via modem, a laptop computer or locally at the front control panel for tighter control of the power generator system. (see bulletin # SBY, 15721)

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - Radiator Duct Adapter
  - Optional coolant systems (consult factory)
  - High ambient radiator (50°C / 122 °F)
  - Low ambient radiator (40°C / 104 °F)
- **OPTIONAL FUEL ACCESSORIES**
  - Base Tank Low Fuel Alarm
  - Primary Fuel Filter
  - Primary Fuel Filter with Heater
  - Fuel tanks (single/double wall)_____
  - Electric fuel transfer pump system
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - 10A Dual Rate Battery Charger
  - Battery, 24 Volt
  - Battery warmer
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - Alternator Upsizing (consult factory)
  - Alternator Heater
  - Main Line Circuit Breaker_____
    (factory installed up to 1200 Amp.)
- **OPTIONAL EXHAUST ACCESSORIES**
  - Critical Exhaust Silencer
  - Residential Exhaust Silencer
  - Industrial Exhaust Silencer
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - Automatic Transfer Switch (100 Amp - 2600 Amp)
  - Weather Protective Enclosure (Locking Type)
  - Sound Attenuating Outdoor Enclosure
  - 3 Light Remote Annunciator ("C" panel only)
  - 5 Light Remote Annunciator ("C" panel only)
  - 18 Light Remote Annunciator (all panels)
  - Unit Vibration Isolators (Spring)
  - Oil Make-Up System
  - Oil Heater
  - 5 Year Warranty (Basic/Extended)
  - Export Boxing

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.

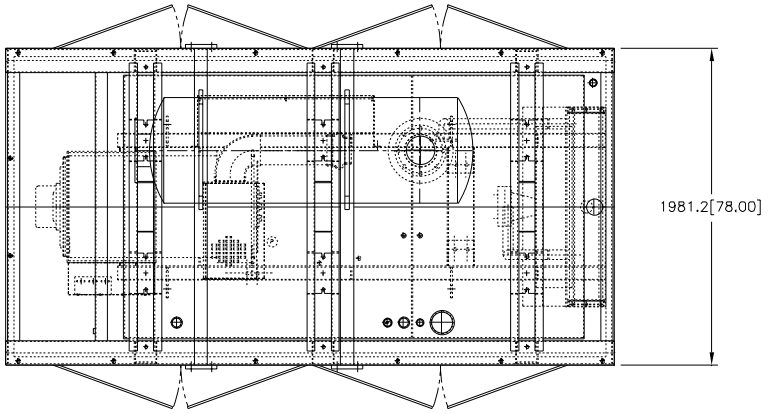


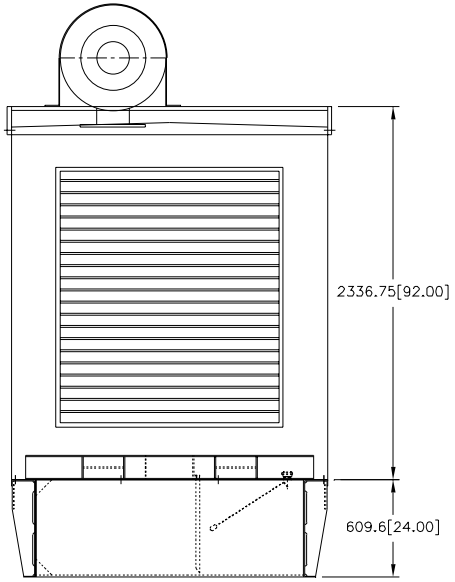
DRY WEIGHT: 8175 lbs.

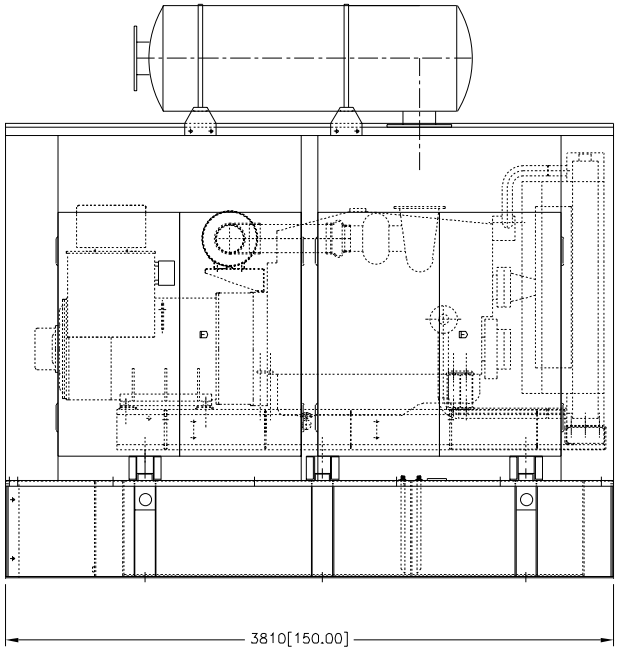
GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

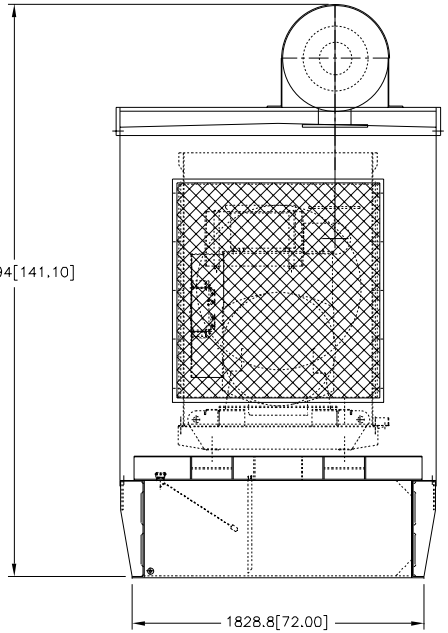
414/544-4811 • FAX 414/544-0770

500KW









EST. WT. / FINAL WT.	DRAWING TITLE: 500KW with TANK and ENCLOSURE	GENERAC CORP Eagle P.O. BOX 8 WAUKESHA, WIS. 53187	
DO NOT SCALE	MATERIAL	FILE NAME	SIZE E
UNLESS OTHERWISE SPECIFIED: ALL XX DIM. ---- ±.4 MM; ALL XX.X DIM. ---- ±.2 MM; ALL XX.XX DIM. ---- ±.10 MM; ALL ANGLES ---- ±1°	DWN / DATE / MFG / DATE	SCALE	FIRST USE
	CHKD / DATE / APPD / DATE	DWG NO. TYPICAL 500KW	REV
	RELEASED FOR PRODUCTION / BY / DATE		

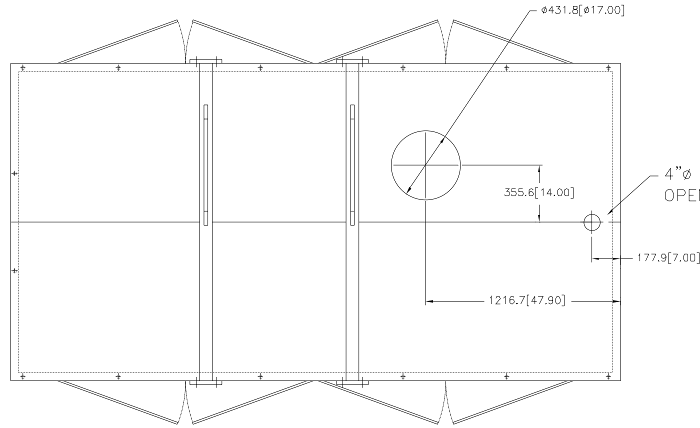
3 4 5 6 7 8 9 10

A D E F G H

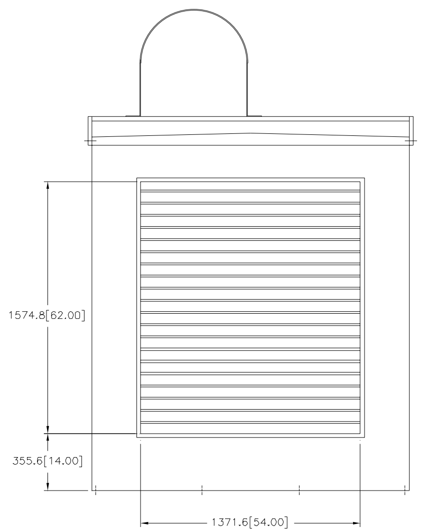
500STENC

NOTES:

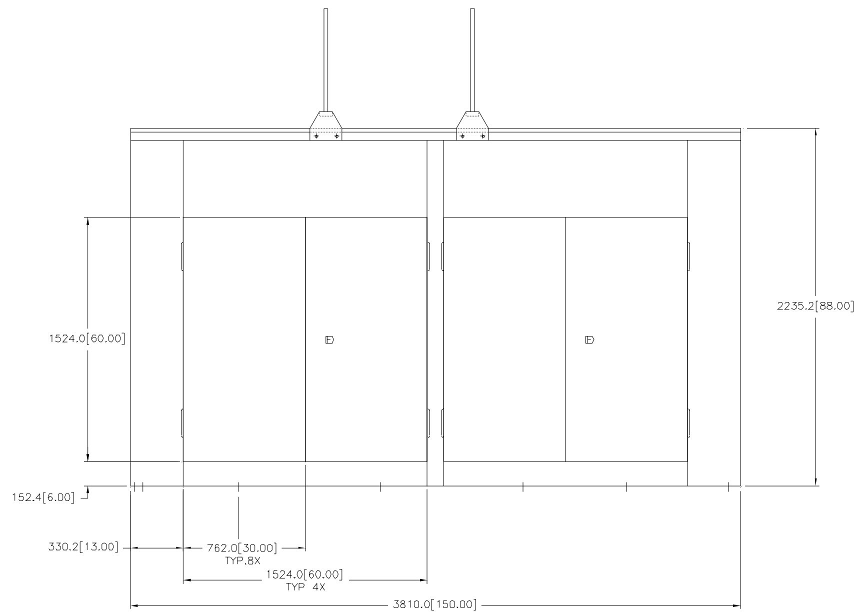
1. ALL DIMENSIONS ARE IN INCHES.
2. ENCLOSURE IS OF BOLT TOGETHER CONSTRUCTION.
3. ENCLOSURE IS OF STEEL CONSTRUCTION.
4. HINGED, LOCKABLE SOLID ACCESS DOORS HAVE TWO POINT LATCHES.
5. 2.0" BOTTOM FLANGE WITH MOUNTING HOLES.
6. (2) MUFFLER BRACKETS PROVIDED.
7. STAINLESS STEEL HARDWARE, LIFT-OFF HINGES.
8. (4) LIFTING EYES PROVIDED. LOCATED @ CORNERS
9. POWDER COAT FINISH GENERAC TAN(P/N 96340)
10. FOR ENGINE TYPE... GENERAC SD500 (18.5L)
11. APPROXIMATE WEIGHT TO BE SPECIFIED.



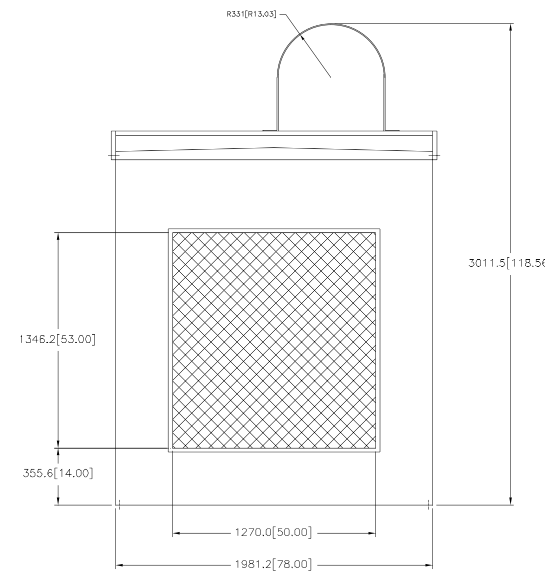
PLAN VIEW
SLOTS SHOWN ON BOTTOM FLANGE



GENERATOR END VIEW



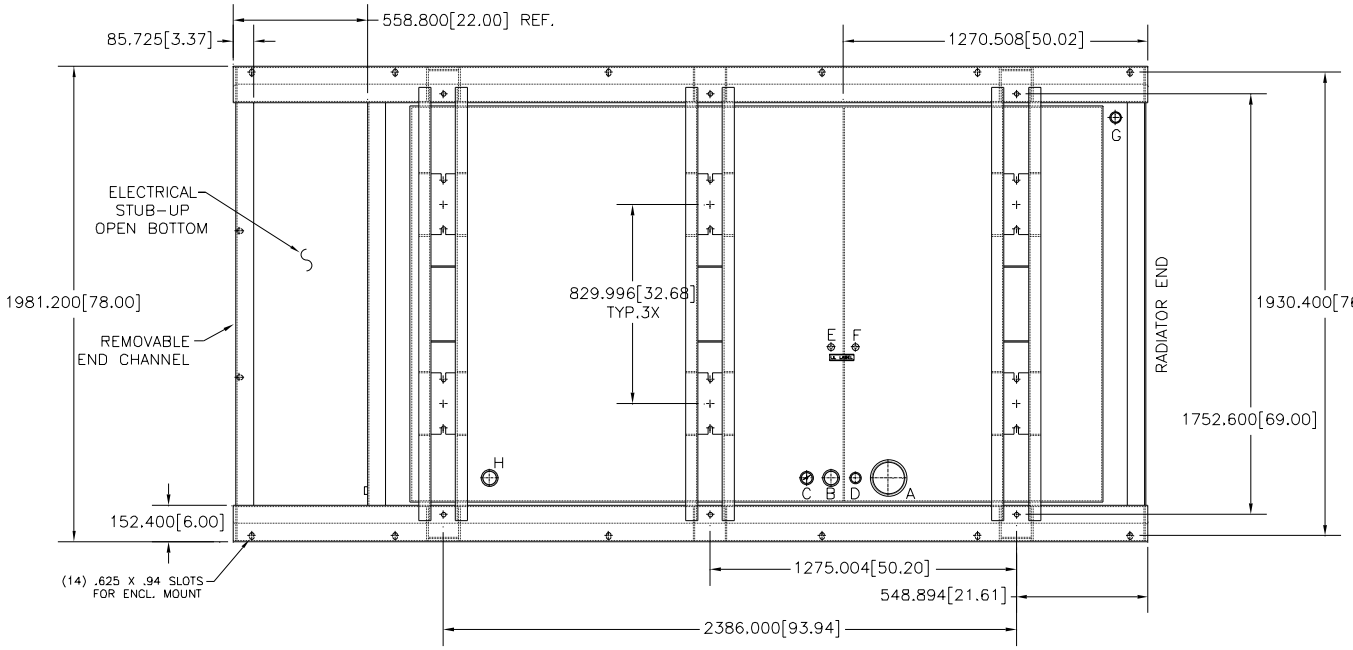
SIDE VIEW



RADIATOR END VIEW

EST. WT.	DRAWING TITLE 500KW STANDARD ENCLOSURE		GENERAC CORP Eagle P.O. BOX 8 WAUKESHA, WIS. 53187
FINAL WT.	MATERIAL		FILE NAME / SIZE D
DO NOT SCALE ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994 UNLESS OTHERWISE SPECIFIED : ALL XX DIM. --- ±.4 MM ALL XX.X DIM.-- ±.4 MM ALL XX.XX DIM.- ±.15 MM ALL ANGLES ---- ±1°	DWN / DATE	MFG / DATE	SCALE / FIRST USE T6
	CHKD / DATE	APPD / DATE	DWG NO. TYPICAL 500STENC / REV
	RELEASED FOR PRODUCTION / BY	DATE	

500STTNK



TOP VIEW

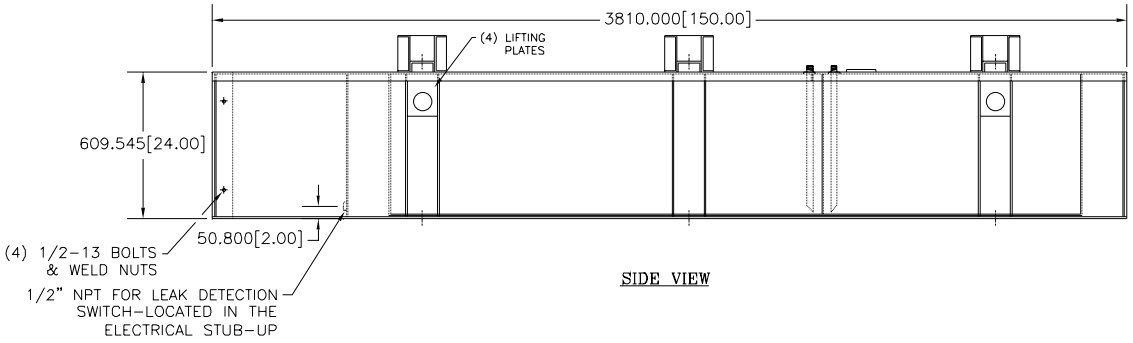
TOP COVER NOT SHOWN FOR CLARITY

NOTES:

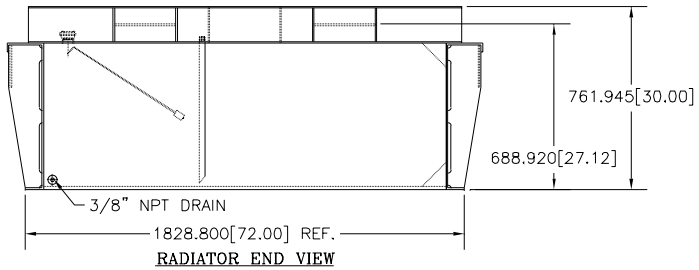
1. BAFFLE TO SEPARATE HOT & COLD SIDE OF TANK.
2. SIDE & END CHANNEL – 7 GA. TANK TOP, BOTTOM, & END – 10 GA.
3. BOTTOM TANK FLOOR SUPPORTS NOT SHOWN TIE ROD STIFFENERS NOT SHOWN.
4. EXTERIOR: PRIME & PAINT BLACK INTERIOR: RUST PREVENTIVE COATING
5. SUB BASE WEIGHT..... 3,000 LB. MAX.
6. ENGINE WET WEIGHT..... 8,000 LB. MAX. ENGINE TYPE..... GENERAC SD500
7. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FITTINGS:

A. 5" NPT FOR EMERGENCY VENT PER NFPA
B. 2" NPT FOR FILL
C. 1-1/2" NPT FOR LEVEL GAUGE
D. 1-1/4" NPT FOR NORMAL VENT
E. 1/2" NPT DIP TUBE-FUEL RETURN
F. 1/2" NPT DIP TUBE-FUEL SUPPLY
G. 1-1/4" NPT W/ PIPE PLUG
H. 2" NPT FOR LOW LEVEL SWITCH



SIDE VIEW



RADIATOR END VIEW

DRAWING TITLE	500KW STANDARD BASETANK	GENERAC CORP	
MATERIAL		P.O. BOX 8 WAUKESHA, WIS. 53187	
DWN / DATE / MFG / DATE		FILE NAME	SIZE D
CHKD / DATE / APPD / DATE		SCALE	FIRST USE
RELEASED FOR PRODUCTION / BY / DATE		DWG NO. TYPICAL 500STTNK	REV

DO NOT SCALE

ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED :

ALL XX DIM. ± .4 MM
ALL XXX DIM. ± .13 MM
ALL ANGLES ± 1°

SD625

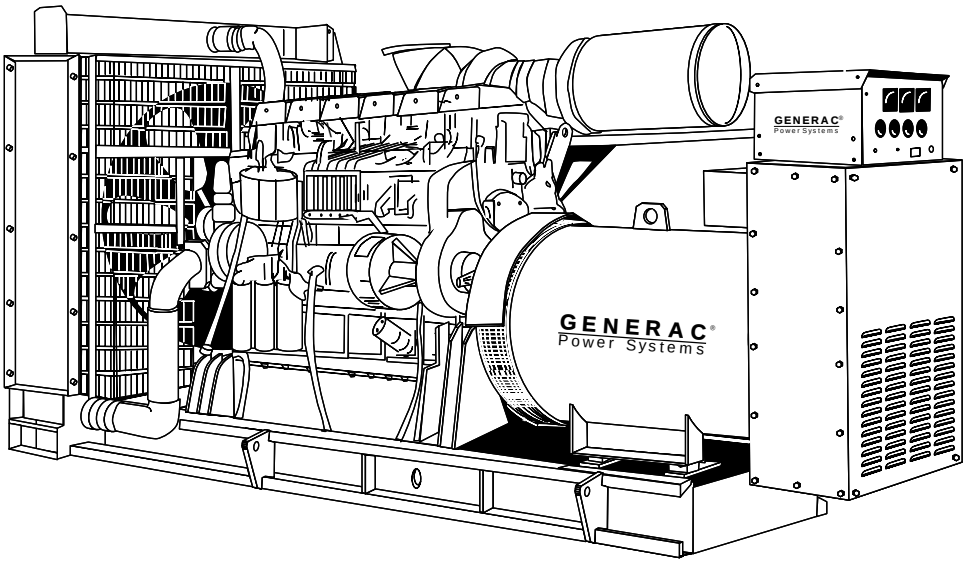
Liquid Cooled Diesel Engine Generator Sets

Continuous Standby Power Rating

625KW 60 Hz / 659KVA 50 Hz

Prime Power Rating

547KW 60 Hz / 590KVA 50 Hz



Power Matched

GENERAC 24.5DTA ENGINE

Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING

- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.

- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

SD625

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
LOAD CAPACITY (PRIME) 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

☐ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates the excitation system from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22.4 and NEMA MG1-1.65.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is tropicalized, self-ventilated and drip-proof constructed.
- Optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S6R-PTA
CYLINDERS 6
DISPLACEMENT - liter/(cu. in.) 24.5 (1495.0)
BORE - mm/(in.) 170 (6.69)
STROKE - mm/(in.) 180 (7.09)
COMPRESSION RATIO 14.0:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

☐ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
CRANKCASE CAPACITY - liter(gal.) 100 (26.4)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pres. Closed Recovery
WATER PUMP ..... Pre-Lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 6
DIAMETER OF FAN - mm/(in.) 1010 (39.8)
COOLANT HEATER ..... 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM Spec.)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION PUMP ..... Bosch P Type x 1
FUEL PUMP ..... Bosch/Piston Type
INJECTORS ..... Bosch Multi-Hole
ENGINE TYPE ..... In-Line Six Cylinder
FUEL LINE (Supply) ..... 1/2"FNPT
FUEL RETURN LINE ..... 1/2"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 7.5 kW at 24V
RECOMMENDED BATTERY ..... 2 x 12V
GROUND POLARITY ..... Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

OPERATING DATA

	STANDBY		PRIME	
	SD625		SD625	
GENERATOR OUTPUT VOLTAGE/KW—60Hz		Rated AMP		Rated AMP
120/208V, 3-phase, 0.8 pf	625	2171	547	1900
120/240V, 3-phase, 0.8 pf	625	1882	547	1647
277/480V, 3-phase, 0.8 pf	625	941	547	823
600V, 3-phase, 0.8 pf	625	753	547	659
NOTE: Consult your Generac dealer for additional voltages.				
GENERATOR OUTPUT VOLTAGE/KVA-50Hz		Rated AMP		Rated AMP
220/380V, 3-phase, 0.8 pf	659	1002	590	897
230/400V, 3-phase, 0.8 pf	659	952	590	853
240/415V, 3-phase, 0.8 pf	659	918	590	822
NOTE: Consult your Generac dealer for additional voltages.				
MOTOR STARTING				
Locked rotor kva at 30% instantaneous voltage dip	415V	480V	415V	480V
with standard alternator; 60 Hz-kva		1450		1450
with standard alternator; 50 Hz-kva	1300		1300	
FUEL				
Fuel consumption—60 Hz Load	25%	50% 75% 100%	25%	50% 75% 100%
gal./hr.	9.89	19.78 29.67 39.56	8.64	17.27 25.91 34.54
liters/hr.	37.43	74.86 112.30 149.73	32.68	65.37 98.05 130.74
Fuel consumption—50 Hz gal./hr.	8.33	16.67 25.00 33.33	7.50	15.01 22.51 30.02
liters/hr.	31.54	63.08 94.62 126.16	28.40	56.81 85.21 113.61
Fuel pump lift in.	55		55	
COOLING				
Coolant capacity System - lit./gal.	134 (35.4)		134 (35.4)	
Engine - lit./gal.	50 (13.2)		50 (13.2)	
Radiator - lit./gal.	84 (22.2)		84 (22.2)	
Coolant flow/min. 60 Hz - lit./gal.	800 (211)		800 (211)	
50 Hz - lit./gal.	670 (177)		670 (177)	
Heat rejection to coolant BTU/hr.	1,346,000		1,223,460	
Inlet air 60 Hz - m^3/min. (cfm)	720 (25423)		720 (25423)	
50 Hz - m^3/min. (cfm)	582 (20550)		582 (20550)	
Ambient temperature °C (°F)	45 (113)		45 (113)	
Air on to RAD °C (°F)	50 (122)		50 (122)	
Max. external pressure drop on radiator in. H_2O	0.5		0.5	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz - m^3/min. (cfm)	54 (1907)		49 (1730)	
50 Hz - m^3/min. (cfm)	46 (1624)		42 (1483)	
EXHAUST				
Exhaust flow at rated output				
60 Hz - m^3/min. (cfm)	143 (5049)		130 (4590)	
50 Hz - m^3/min. (cfm)	122 (4308)		110 (3884)	
Maximum recommended back pressure Kpa (" Hg)	5.6 (1.7)		5.6 (1.7)	
Exhaust temperature at rated output °C (°F)	550 (1022)		540 (1004)	
Exhaust outlet size mm.	200		200	
ENGINE				
Rated RPM 60 Hz	1800		1800	
50 Hz	1500		1500	
HP at rated KW 60 Hz	883		771	
50 Hz	744		670	
Piston speed 60 Hz - m/sec. (ft./min)	10.8 (2126)		10.8 (2126)	
50 Hz - m/sec. (ft./min)	9 (1772)		9 (1772)	
BMEP 60 Hz - PSI	273		235	
50 Hz - PSI	270		243	
DERATION FACTORS				
Temperature				
5% for every 10°C above - C°	40		40	
2.77% for every 10°F above - F°	104		104	
Altitude				
1.1% for every 100 m above - m	1500		1500	
3.5% for every 1000 ft. above - ft.	5000		5000	

STANDARD ENGINE & SAFETY FEATURES

SD625

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain
- Factory-Installed Cool Flow Radiator
- Closed Coolant System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation between unit base and structure
- 24 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Isochronous Governor
- Jacket water heater
- Flexible fuel lines (stainless steel braid)
- Secondary Fuel Filter

CONTROL CONSOLE OPTIONS

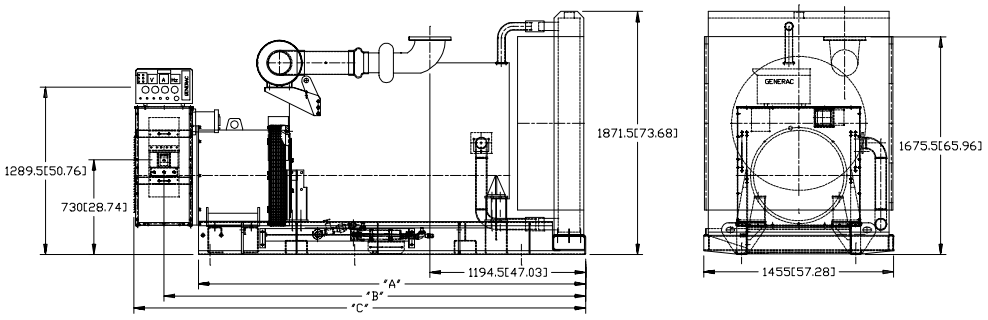
- **STANDARD "C" OPTION PANEL**
  - A leading control system standard in the power generation industry. (see bulletin # SBY, 15116)
- ***RAMPOWER 232* DIGITAL GENERATOR CONTROL PANEL**
  - Access to fully digital generator instrumentation via modem, a laptop computer or locally at the front control panel for tighter control of the power generator system. (see bulletin # SBY, 15721)

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - Radiator Duct Adapter
  - Optional coolant systems (consult factory)
  - High ambient radiator (50°C / 122 °F)
  - Low ambient radiator (40°C / 104 °F)
- **OPTIONAL FUEL ACCESSORIES**
  - Base Tank Low Fuel Alarm
  - Primary Fuel Filter
  - Primary Fuel Filter with Heater
  - Fuel tanks (single/double wall)_____
  - Electric fuel transfer pump system
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - 10A Dual Rate Battery Charger
  - Battery, 24 Volt
  - Battery warmer
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - Alternator Upsizing (consult factory)
  - Alternator Heater
  - Main Line Circuit Breaker_____ (factory installed up to 1200 Amp.)
- **OPTIONAL EXHAUST ACCESSORIES**
  - Critical Exhaust Silencer
  - Residential Exhaust Silencer
  - Industrial Exhaust Silencer
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - Automatic Transfer Switch (100 Amp - 2600 Amp)
  - Weather Protective Enclosure (Locking Type)
  - Sound Attenuating Outdoor Enclosure
  - 3 Light Remote Annunciator ("C" panel only)
  - 5 Light Remote Annunciator ("C" panel only)
  - 18 Light Remote Annunciator (all panels)
  - Unit Vibration Isolators (Spring)
  - Oil Make-Up System
  - Oil Heater
  - 5 Year Warranty (Basic/Extended)
  - Export Boxing

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



RIGHT SIDE VIEW RADIATOR END VIEW

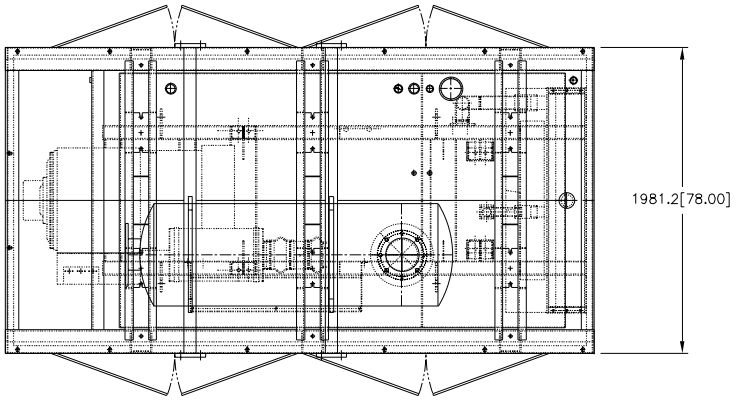
VOLTAGE	277/480	600	120/208	120/240
DIM "A"	3224.5[126.94]	3224.5[126.94]	2972[117.00]	2972[117.00]
DIM "B"	3528.5[138.91]	3528.5[138.91]	3236.5[127.42]	3236.5[127.42]
DIM "C"	3759[147.99]	3759[147.99]	3467[136.50]	3467[136.50]

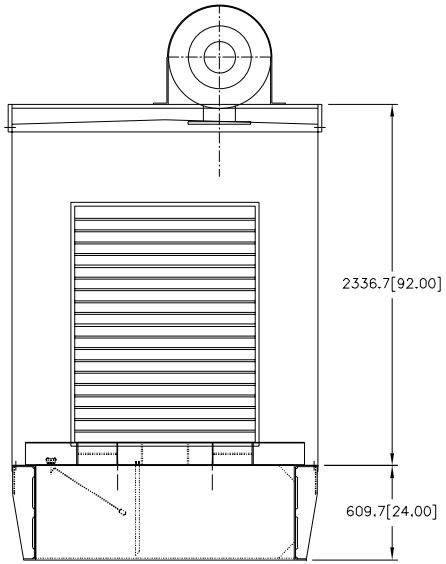
DRY WEIGHT: 10,050 lbs.

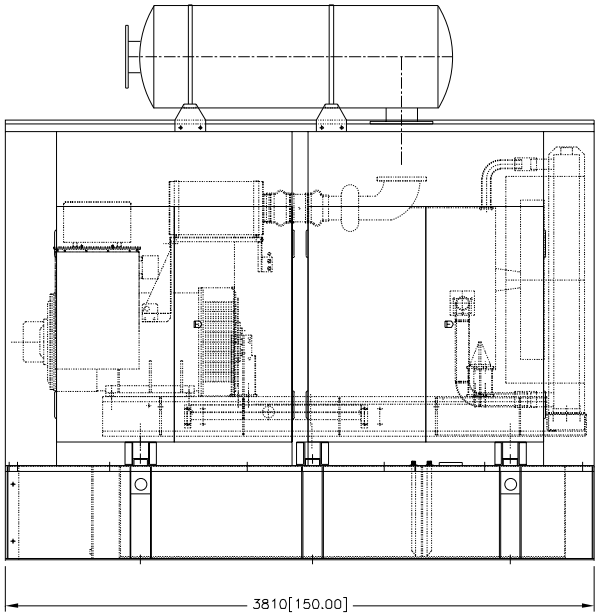
GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

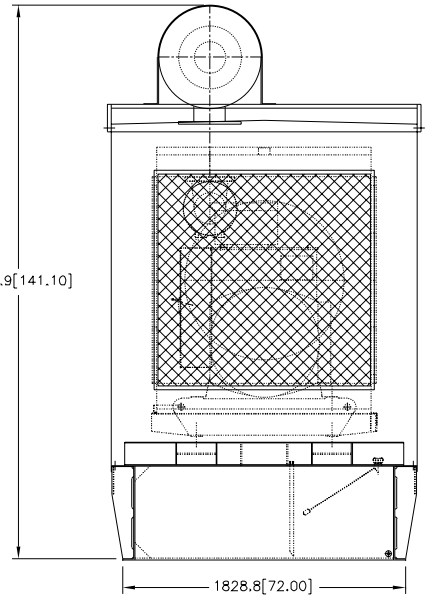
414/544-4811 • FAX 414/544-0770

625KW









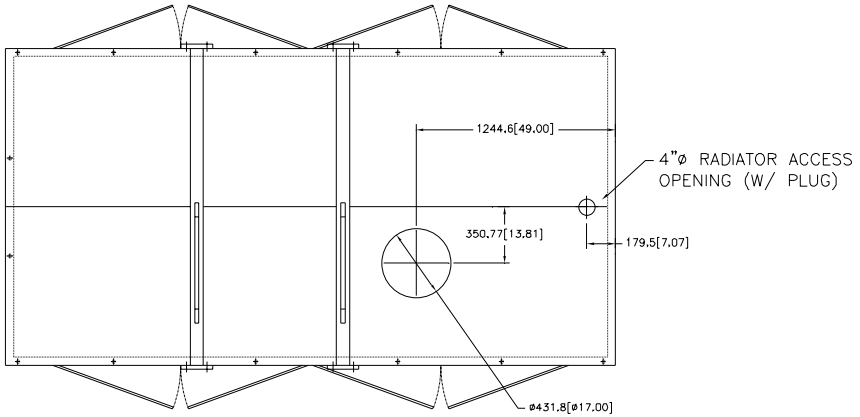
RADIATOR END VIEW

DRAWING TITLE	625KW with TANK AND ENCLOSURE	GENERAC CORP	
DO NOT SCALE	MATERIAL	P.O. BOX 8 WAUKESHA, WIS. 53187	
ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994	DWN / DATE / MFG / DATE	FILE NAME	SIZE E
UNLESS OTHERWISE SPECIFIED : ALL XX DIM. +/- .4 MM ALL X.XX DIM. +/- .13 MM ALL X.X/X DIM. +/- .15 MM ALL ANGLES +/- .5°	CHKD / DATE / APPD / DATE	SCALE	FIRST USE
	RELEASED FOR PRODUCTION / BY / DATE	DWG NO. TYPICAL 625KW	REV

625STENC

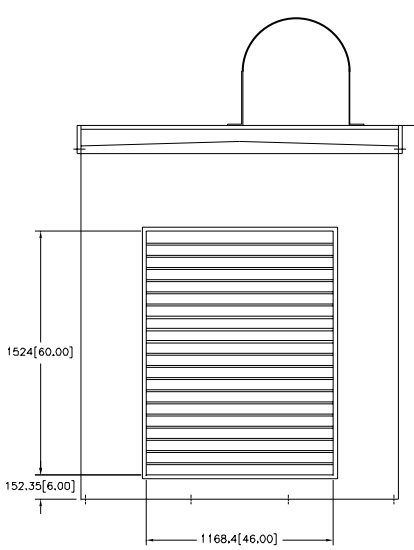
NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. ENCLOSURE IS OF BOLT TOGETHER CONSTRUCTION.
3. ENCLOSURE IS OF STEEL CONSTRUCTION.
4. HINGED, LOCKABLE SOLID ACCESS DOORS HAVE TWO POINT LATCHES.
5. 2.0" BOTTOM FLANGE WITH MOUNTING HOLES.
6. (2) MUFFLER BRACKETS PROVIDED.
7. STAINLESS STEEL HARDWARE, LIFT-OFF HINGES.
8. (4) LIFTING EYES PROVIDED. LOCATED @ CORNERS
9. POWDER COAT FINISH GENERAC TAN(P/N 96340)
10. FOR ENGINE TYPE... GENERAC SD625 (24.6L)
11. APPROXIMATE WEIGHT TO BE SPECIFIED.

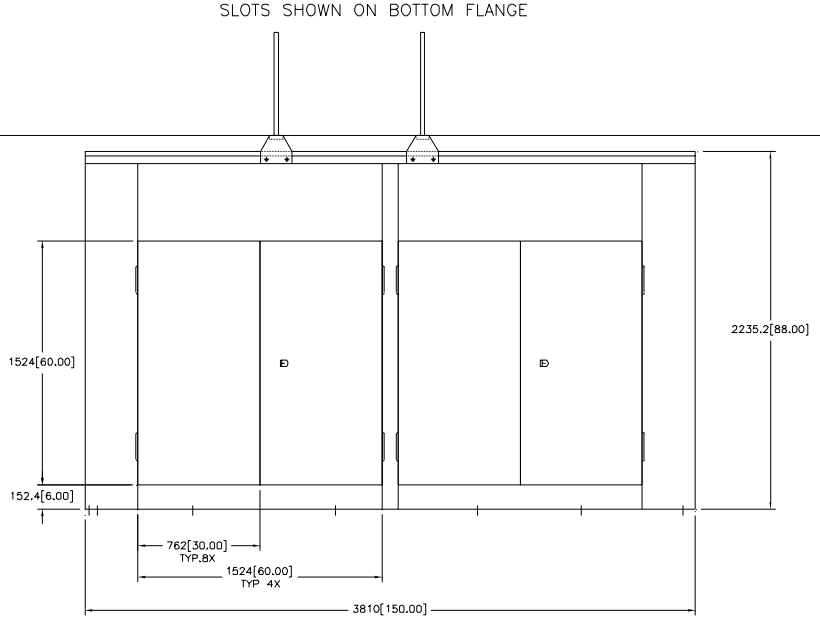


PLAN VIEW

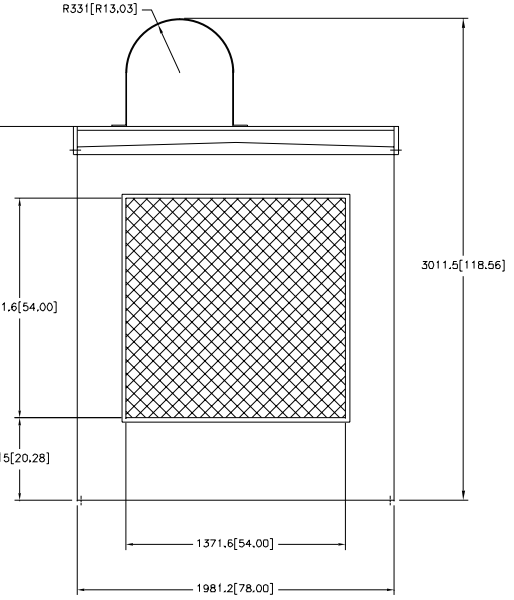
SLOTS SHOWN ON BOTTOM FLANGE



GENERATOR END VIEW



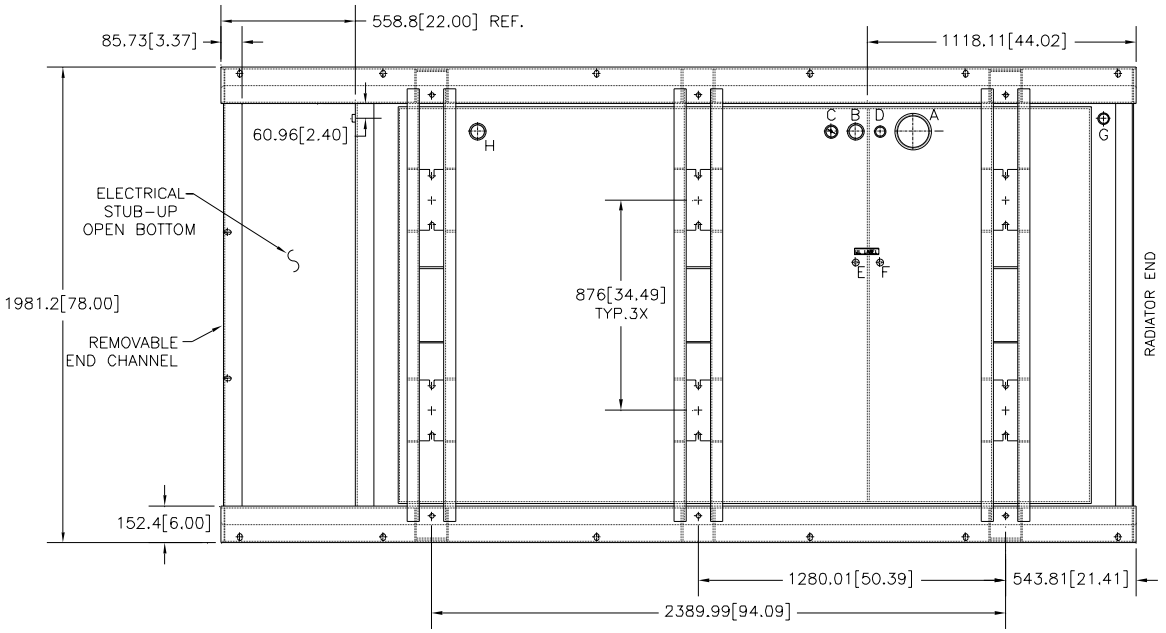
SIDE VIEW



RADIATOR END VIEW

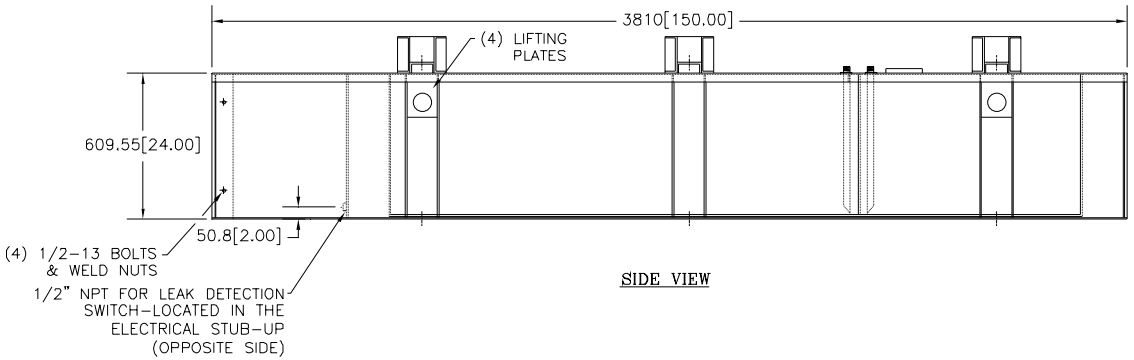
EST. WT. / FINAL WT.	DRAWING TITLE: 625KW STANDARD ENCLOSURE			GENERAC CORP (Engine) P.O. BOX 8 WAUKESHA, WIS. 53187	
DO NOT SCALE	MATERIAL			FILE NAME	SIZE D
ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994	DWN / DATE / MFG / DATE			SCALE	FIRST USE
UNLESS OTHERWISE SPECIFIED: ALL XX DIM. ± .4 MM; ALL XXX DIM. ± .13 MM; ALL ANGLES ± 1°	CHKD / DATE / APPD / DATE			DWG NO. TYPICAL 625STENC	REV
	RELEASED FOR PRODUCTION / BY / DATE				

625STTNK

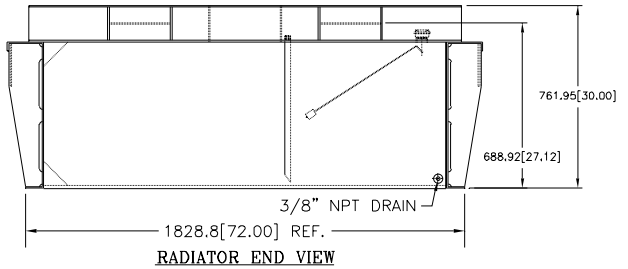


TOP VIEW

TOP COVER NOT SHOWN FOR CLARITY



SIDE VIEW



RADIATOR END VIEW

NOTES:

1. BAFFLE TO SEPARATE HOT & COLD SIDE OF TANK.
2. SIDE & END CHANNEL – 7 GA. TANK TOP, BOTTOM, & END – 10 GA.
3. BOTTOM TANK FLOOR SUPPORTS NOT SHOWN TIE ROD STIFFENERS NOT SHOWN.
4. EXTERIOR: PRIME & PAINT BLACK INTERIOR: RUST PREVENTIVE COATING
5. SUB BASE WEIGHT..... 3,000 LB. MAX.
6. ENGINE WET WEIGHT..... 10,000 LB. MAX. ENGINE TYPE..... GENERAC SD625
7. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FITTINGS:

A. 5" NPT FOR EMERGENCY VENT PER NFPA
B. 2" NPT FOR FILL
C. 1-1/2" NPT FOR LEVEL GAUGE
D. 1-1/4" NPT FOR NORMAL VENT
E. 1/2" NPT DIP TUBE-FUEL RETURN
F. 1/2" NPT DIP TUBE-FUEL SUPPLY
G. 1-1/4" NPT W/ PIPE PLUG
H. 2" NPT FOR LOW LEVEL SWITCH

EST. WT.
FINAL WT.

DO NOT SCALE

ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED :

ALL XX DIM. ± .4 MM
ALL XXX DIM. ± .4 MM
ALL ANGLES ± .5°

DRAWING TITLE 625KW STANDARD BASETANK

MATERIAL

DWN	DATE	MFG	DATE
CHKD	DATE	APPD	DATE
RELEASED FOR PRODUCTION	BY		DATE

GENERAC CORP
Engine
P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME
SIZE D
SCALE
FIRST USE
DWG NO. TYPICAL 625STTNK
REV

SD800

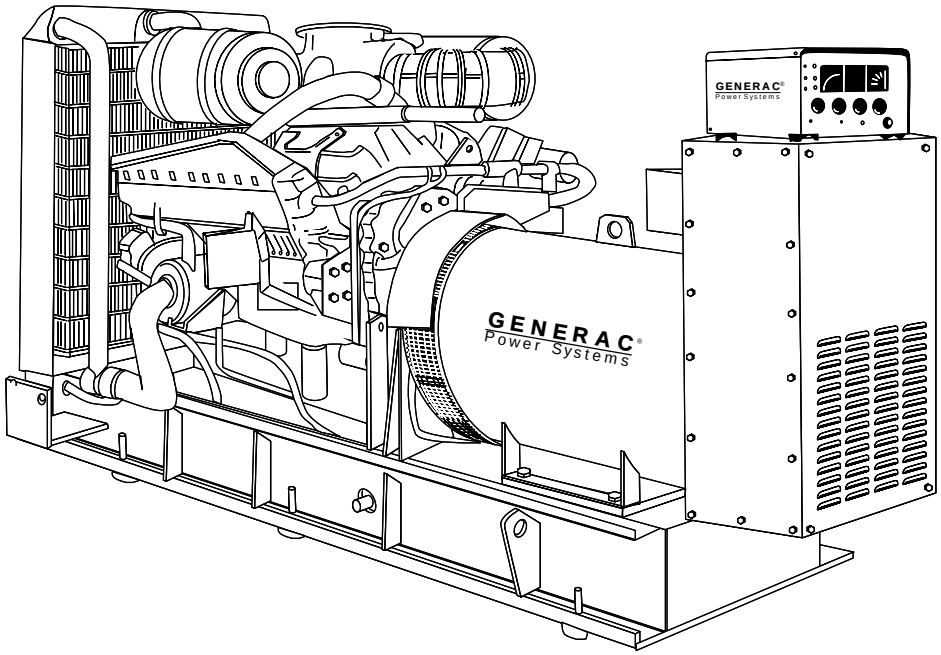
Liquid Cooled Diesel Engine Generator Sets

Continuous Standby Power Rating

800KW 60 Hz / 860KVA 50Hz

Prime Power Rating

690KW 60 Hz / 780KVA 50Hz



Power Matched

GENERAC 33.9DTA ENGINE

Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING

- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.

- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
LOAD CAPACITY (PRIME) 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

☐ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates the excitation system from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22.4 and NEMA MG1-1.65.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is tropicalized, self-ventilated and drip-proof constructed.
- Optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S12A2-PTA
CYLINDERS 12
DISPLACEMENT - liter/(cu. in.) 33.9 (2070.4)
BORE - mm/(in.) 150 (5.91)
STROKE - mm/(in.) 160 (6.30)
COMPRESSION RATIO 14.5:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

☐ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
CRANKCASE CAPACITY - liter(gal.) 120 (31.7)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pres. Closed Recovery
WATER PUMP ..... Pre-Lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 6
DIAMETER OF FAN - mm/(in.) 1250 (49.2)
COOLANT HEATER ..... 2 x 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM Spec.)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION PUMP ..... Bosch P Type x 2
FUEL PUMP ..... Bosch/Piston Type
INJECTORS ..... Bosch Multi-Hole
ENGINE TYPE ..... Vee Type Twelve Cylinder
FUEL LINE (Supply) ..... 1/2"FNPT
FUEL RETURN LINE ..... 1/2"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 2 x 6.0 kW at 24V
RECOMMENDED BATTERY ..... 2 x 12V
GROUND POLARITY ..... Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

OPERATING DATA

	STANDBY		PRIME	
	SD800		SD800	
GENERATOR OUTPUT VOLTAGE/KW-60Hz		Rated AMP		Rated AMP
120/208V, 3-phase, 0.8 pf	800	2779	690	2397
120/240V, 3-phase, 0.8 pf	800	2408	690	2077
277/480V, 3-phase, 0.8 pf	800	1204	690	1039
600V, 3-phase, 0.8 pf	800	963	690	831
NOTE: Consult your Generac dealer for additional voltages.				
GENERATOR OUTPUT VOLTAGE/KVA-50Hz		Rated AMP		Rated AMP
220/380V, 3-phase, 0.8 pf	860	1308	780	1186
230/400V, 3-phase, 0.8 pf	860	1243	780	1127
240/415V, 3-phase, 0.8 pf	860	1198	780	1086
NOTE: Consult your Generac dealer for additional voltages.				
MOTOR STARTING				
Locked rotor kva at 30% instantaneous voltage dip	415V	480V	415V	480V
with standard alternator; 60 Hz-kva		2150		2150
with standard alternator; 50 Hz-kva	1900		1900	
FUEL				
Fuel consumption—60 Hz Load	25%	50% 75% 100%	25%	50% 75% 100%
gal./hr.	13.79	27.58 41.38 55.17	11.91	23.82 35.73 47.63
liters/hr.	52.20	104.41 156.61 208.81	45.07	90.15 135.22 180.30
Fuel consumption—50 Hz gal./hr.	11.79	23.57 35.36 47.15	10.69	21.39 32.08 42.77
liters/hr.	44.61	89.23 133.84 178.46	40.47	80.95 121.42 161.90
Fuel pump lift in.	55		55	
COOLING				
Coolant capacity System - lit./gal.	184 (48.6)		184 (48.6)	
Engine - lit./gal.	100 (26.4)		100 (26.4)	
Radiator - lit./gal.	84 (22.2)		84 (22.2)	
Coolant flow/min. 60 Hz - lit./gal.	1100 (291)		1100 (291)	
50 Hz - lit./gal.	1000 (264)		1000 (264)	
Heat rejection to coolant BTU/hr.	1,852,680		1,647,240	
Inlet air 60 Hz - m^3/min. (cfm)	1380 (48728)		1380 (48728)	
50 Hz - m^3/min. (cfm)	1140 (40253)		1140 (40253)	
Ambient temperature °C (°F)	45 (113)		45 (113)	
Air on to RAD °C (°F)	50 (122)		50 (122)	
Max. external pressure drop on radiator in. H_2O	0.5		0.5	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz - m^3/min. (cfm)	74 (2613)		66 (2330)	
50 Hz - m^3/min. (cfm)	64 (2260)		58 (2048)	
EXHAUST				
Exhaust flow at rated output				
60 Hz - m^3/min. (cfm)	197 (6956)		175 (6179)	
50 Hz - m^3/min. (cfm)	168 (5932)		153 (5402)	
Maximum recommended back pressure Kpa (" Hg)	4.3 (1.3)		4.3 (1.3)	
Exhaust temperature at rated output °C (°F)	469 (876)		457 (856)	
Exhaust outlet size mm.	200		200	
ENGINE				
Rated RPM 60 Hz	1800		1800	
50 Hz	1500		1500	
HP at rated KW 60 Hz	1135		980	
50 Hz	970		880	
Piston speed 60 Hz - m/sec. (ft./min)	9.6 (1890)		9.6 (1890)	
50 Hz - m/sec. (ft./min)	8 (1575)		8 (1575)	
BMEP 60 Hz - PSI	242		216	
50 Hz - PSI	255		232	
DERATION FACTORS				
Temperature				
5% for every 10°C above - C°	40		40	
2.77% for every 10°F above - F°	104		104	
Altitude				
1.1% for every 100 m above - m	1500		1500	
3.5% for every 1000 ft. above - ft.	5000		5000	

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SD800

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- Fan Guard
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  - Electric fuel transfer pump system
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  - Battery, 24 Volt
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  - Alternator Heater
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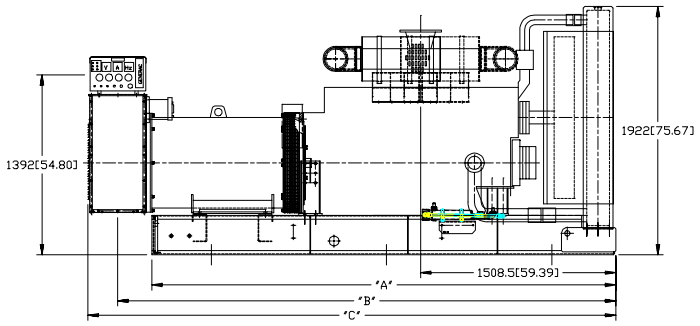
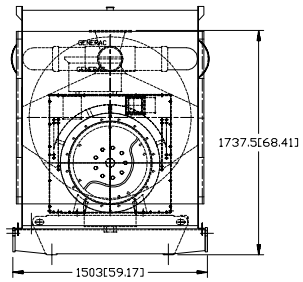
  - Industrial Exhaust Silencer
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - Automatic Transfer Switch (100 Amp - 2600 Amp)
  - Weather Protective Enclosure (Locking Type)
  - Sound Attenuating Outdoor Enclosure
  - 3 Light Remote Annunciator ("C" panel only)
  - 5 Light Remote Annunciator ("C" panel only)
  - 18 Light Remote Annunciator (all panels)
  - Unit Vibration Isolators (Spring)
  - Oil Make-Up System
  - Oil Heater
  - 5 Year Warranty (Basic/Extended)
  - Export Boxing

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.



RIGHT SIDE VIEW



RADIATOR END VIEW

VOLTAGE	277/480	600	120/208	120/240
DIM "A"	3405[134.05]	3583[141.06]	3583[141.06]	3583[141.06]
DIM "B"	3668.5[144.43]	3846[151.44]	3846[151.44]	3846[151.44]
DIM "C"	3899[153.50]	4077[160.51]	4077[160.51]	4077[160.51]

DRY WEIGHT: 12,050 lbs.

GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

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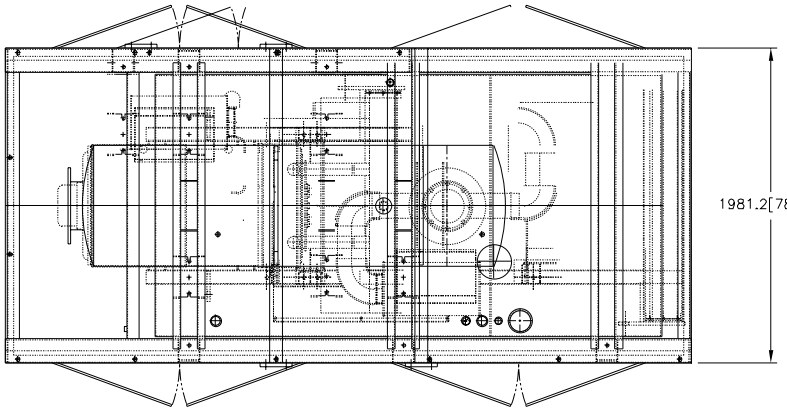
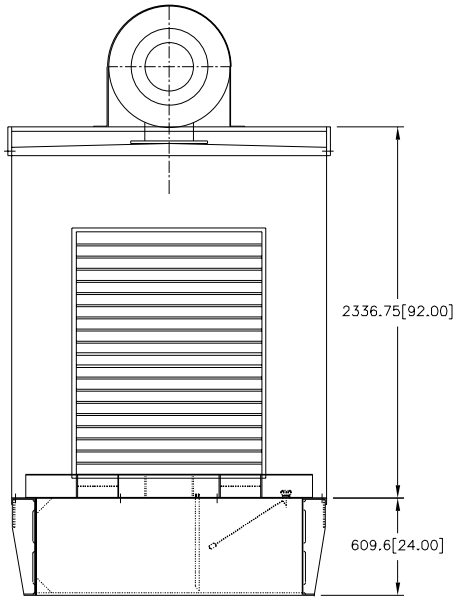
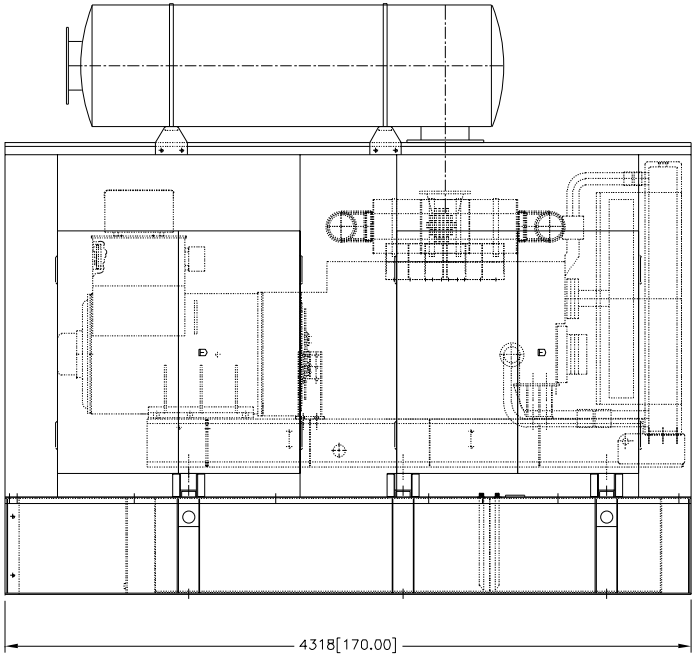
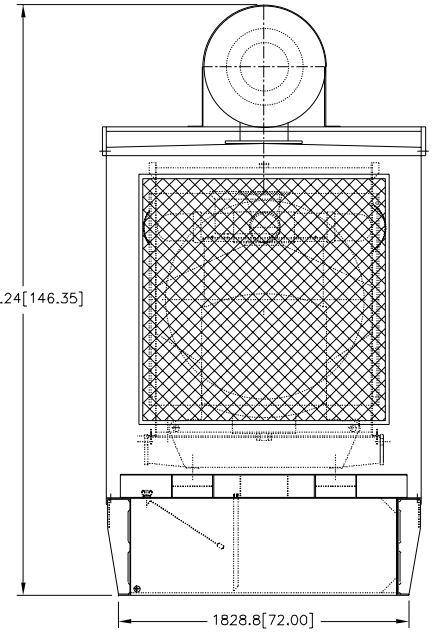
800KW









RADIATOR END VIEW

EST. WT.		DRAWING TITLE	800KW with ENCLOSURE and TANK
FINAL WT.		MATERIAL	
DO NOT SCALE		DRN / DATE / MFG / DATE	
ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994		CHKD / DATE / APPD / DATE	
UNLESS OTHERWISE SPECIFIED: ALL XX DIM. ---- ±.4 MM; ALL X.XX DIM. ---- ±.13 MM; ALL XX.XX DIM. ---- ±.10 MM; ALL ANGLES ---- ±1°		RELEASED FOR PRODUCTION / BY / DATE	

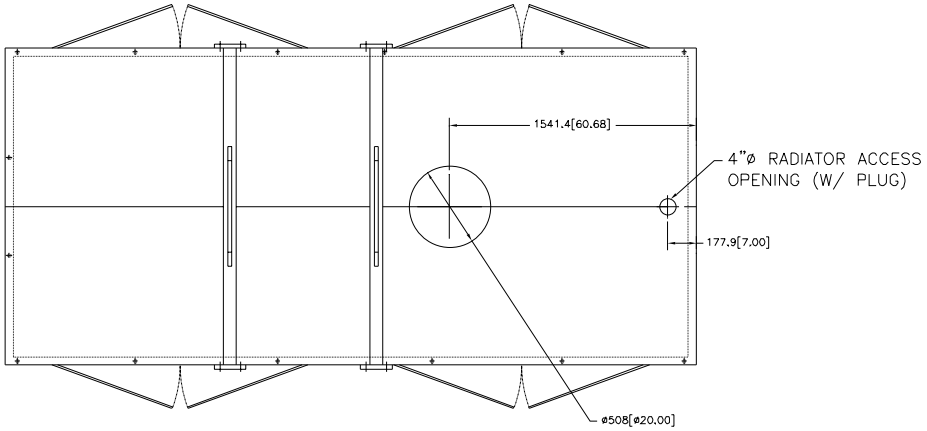
GENERAC CORP
Magtec
P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME | SIZE E
SCALE | FIRST USE
DWG NO. TYPICAL 800KW | REV

800STENC

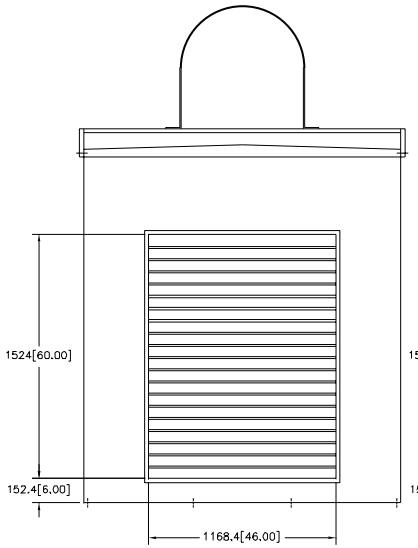
NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. ENCLOSURE IS OF BOLT TOGETHER CONSTRUCTION.
3. ENCLOSURE IS OF STEEL CONSTRUCTION.
4. HINGED, LOCKABLE SOLID ACCESS DOORS HAVE TWO POINT LATCHES.
5. 2.0" BOTTOM FLANGE WITH MOUNTING HOLES.
6. (2) MUFFLER BRACKETS PROVIDED.
7. STAINLESS STEEL HARDWARE, LIFT-OFF HINGES.
8. (4) LIFTING EYES PROVIDED. LOCATED @ CORNERS
9. POWDER COAT FINISH GENERAC TAN(P/N 96340)
10. FOR ENGINE TYPE... GENERAC SD800 (33.9L)
11. APPROXIMATE WEIGHT TO BE SPECIFIED.

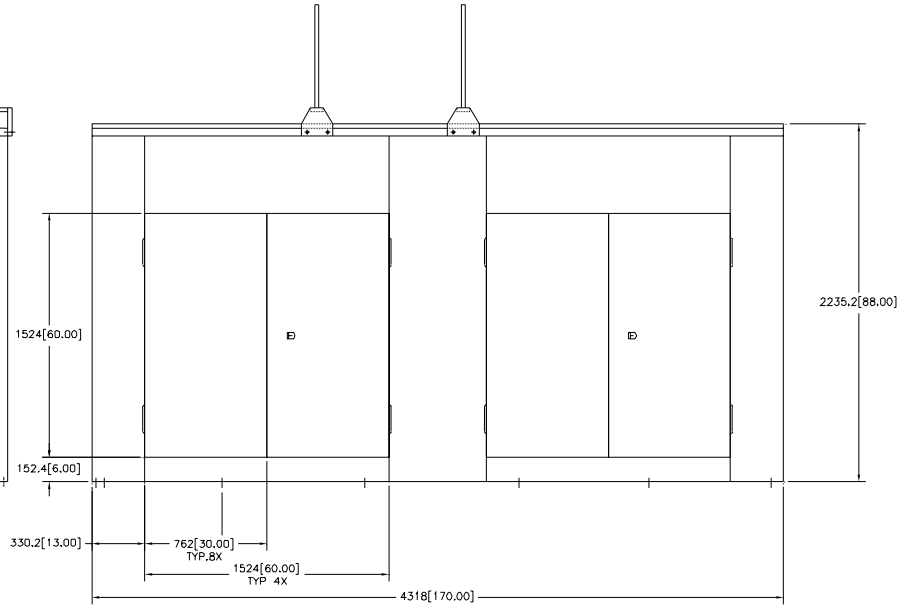


PLAN VIEW

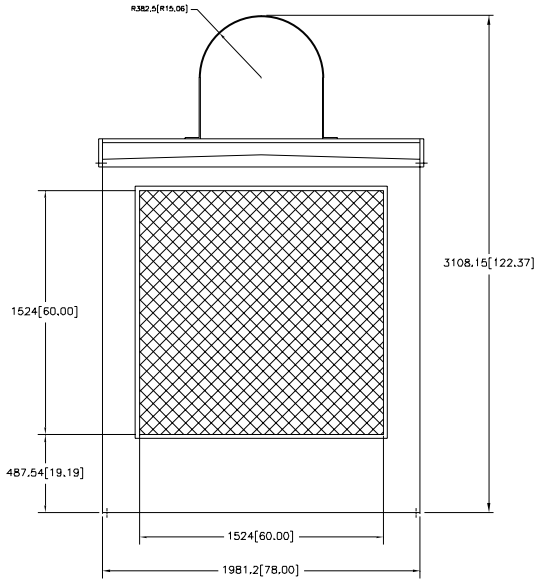
SLOTS SHOWN ON BOTTOM FLANGE



GENERATOR END VIEW



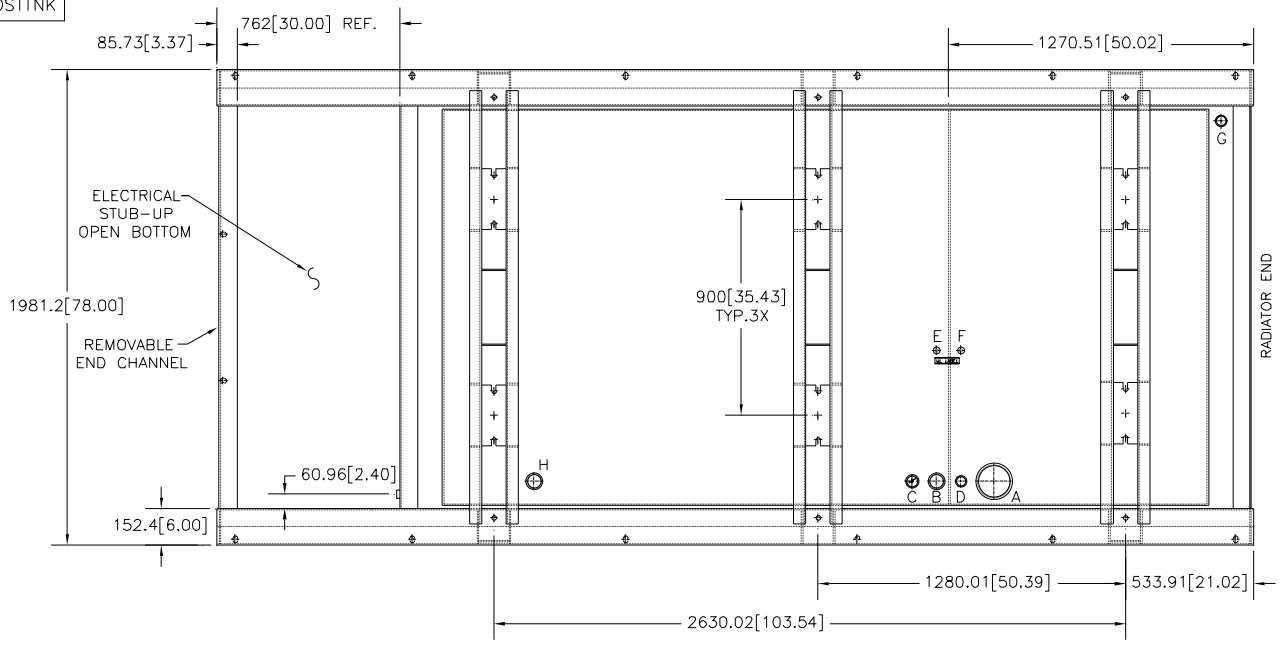
SIDE VIEW



RADIATOR END VIEW

EST. WT.		DRAWING TITLE	800KW with STANDARD ENCLOSURE			GENERAC CORP	
FINAL WT.						P.O. BOX 8 WAUKESHA, WIS. 53187	
DO NOT SCALE		MATERIAL				FILE NAME	SIZE D
ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994		DWN	DATE	MFG	DATE	SCALE	FIRST USE T6
UNLESS OTHERWISE SPECIFIED :		CHKD	DATE	APPD	DATE	DWG NO. TYPICAL 800STENC	REV
ALL XX DIM. ---- ±.4 MM ALL XXX DIM. ---- ±.13 MM ALL ANGLES ---- ±1°		RELEASED FOR PRODUCTION	BY		DATE		

800STTNK



TOP VIEW

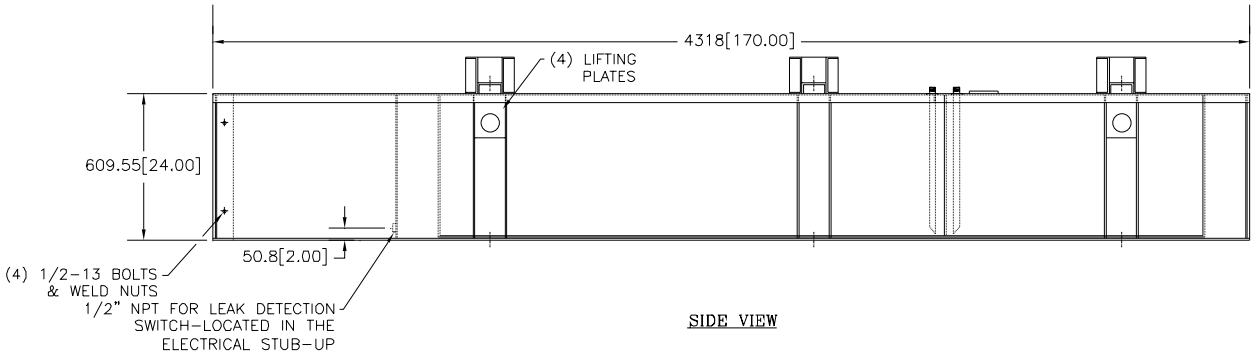
TOP COVER NOT SHOWN FOR CLARITY

NOTES:

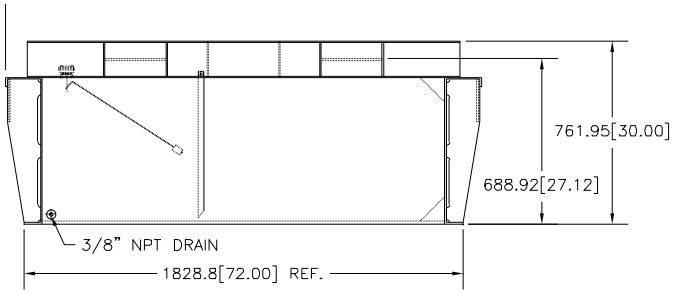
1. BAFFLE TO SEPARATE HOT & COLD SIDE OF TANK.
2. SIDE & END CHANNEL – 7 GA. TANK TOP, BOTTOM, & END – 10 GA.
3. BOTTOM TANK FLOOR SUPPORTS NOT SHOWN TIE ROD STIFFENERS NOT SHOWN.
4. EXTERIOR: PRIME & PAINT BLACK INTERIOR: RUST PREVENTIVE COATING
5. SUB BASE WEIGHT..... 3,000 LB. MAX.
6. ENGINE WET WEIGHT..... 8,000 LB. MAX. ENGINE TYPE..... GENERAC SD800
7. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FITTINGS:

A. 5" NPT FOR EMERGENCY VENT PER NFPA
B. 2" NPT FOR FILL
C. 1-1/2" NPT FOR LEVEL GAUGE
D. 1-1/4" NPT FOR NORMAL VENT
E. 1/2" NPT DIP TUBE-FUEL RETURN
F. 1/2" NPT DIP TUBE-FUEL SUPPLY
G. 1-1/4" NPT W/ PIPE PLUG
H. 2" NPT FOR LOW LEVEL SWITCH



SIDE VIEW



RADIATOR END VIEW

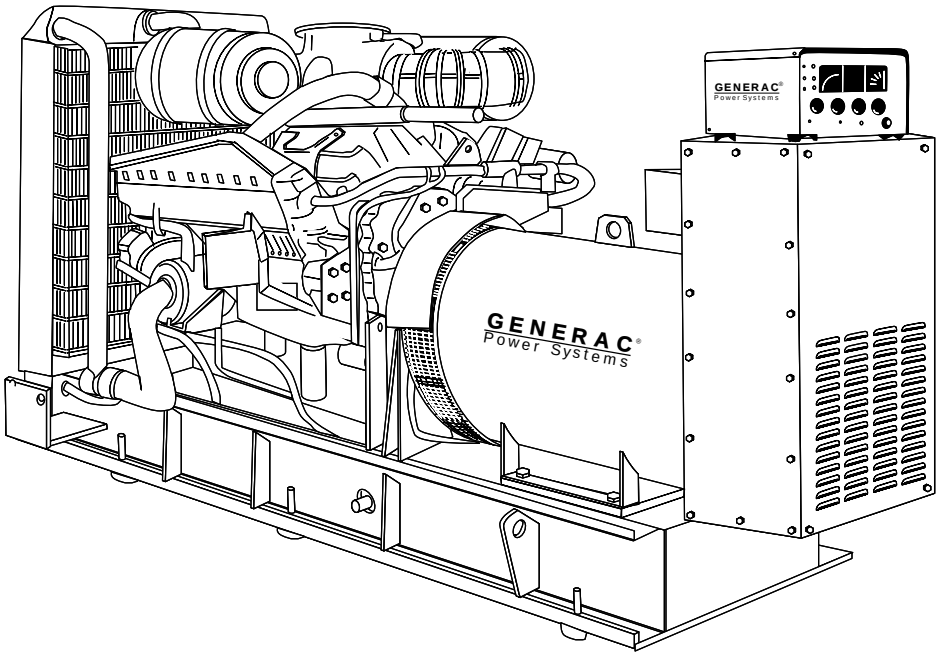
EST. WT. / FINAL WT.	DRAWING TITLE 800kw STANDARD BASETANK			GENERAC CORP Eagle P.O. BOX 8 WAUKESHA, WIS. 53187	
DO NOT SCALE. ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: ALL XX DIM. ± .4 MM; ALL XXX DIM. ± .13 MM; ALL ANGLES ± 1°	MATERIAL			FILE NAME	SIZE D
	DWN / DATE / MFG / DATE			SCALE	FIRST USE
	CHKD / DATE / APPD / DATE			DWG NO. TYPICAL 800STTNK	REV
	RELEASED FOR PRODUCTION / BY / DATE				

SD1020

Liquid Cooled Diesel Engine Generator Sets

Continuous Standby Power Rating
1020KW 60 Hz / 1110KVA 50 Hz

Prime Power Rating
925KW 60 Hz / 1000KVA 50 Hz



Power Matched
GENERAC 37.0DTA ENGINE
Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ ELECTRO-MAGNETIC INTERFERENCE
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY
  - ✓ SHORT CIRCUIT TESTING

- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER.** Low cost operation due to modern diesel engine technology. Better fuel utilization plus lower cost per gallon provide real savings.

- **LONGER ENGINE LIFE.** Generac heavy-duty diesels provide long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES.** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®
POWER SYSTEMS

APPLICATION & ENGINEERING DATA

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
LOAD CAPACITY (PRIME)* 110%

** Average load over a 24-hour period shall not exceed 70% of the prime rating, of which no more than 2 hours are between 100 - 110% of the prime rating.*

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

☐ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates the excitation system from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22.4 and NEMA MG1-1.65.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip with an oscillograph.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is tropicalized, self-ventilated and drip-proof constructed.
- Optional main-line circuit breakers capable of handling full output capacity.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S12H-PTA
CYLINDERS 12
DISPLACEMENT - liter/(cu. in.) 37.0 (2263)
BORE - mm/(in.) 150 (5.91)
STROKE - mm/(in.) 175 (6.89)
COMPRESSION RATIO 14.0:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

☐ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
SYSTEM CAPACITY - liter(gal.) 200 (52.8)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pres. Closed Recovery
WATER PUMP ..... Pre-Lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 8
DIAMETER OF FAN - mm/(in.) 1517 (59.7)
COOLANT HEATER ..... 2 x 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM Spec.)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION SYSTEM ..... Mitsubishi Unit Injected
ENGINE TYPE ..... Vee Type Twelve Cylinder
FUEL LINE (Supply) ..... 1/2"FNPT
FUEL RETURN LINE ..... 1/2"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 2 x 7.5 kW at 24V
RECOMMENDED BATTERY ..... 2 x 12V
GROUND POLARITY ..... Negative

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

OPERATING DATA

	STANDBY		PRIME	
	SD1020		SD1020	
GENERATOR OUTPUT VOLTAGE/KW-60Hz		**Rated AMP**		**Rated AMP**
120/208V, 3-phase, 0.8 pf	1020	3543	925	3213
120/240V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	1020	3071	925	2785
277/480V, 3-phase, 0.8 pf	1020	1535	925	1392
600V, 3-phase, 0.8 pf	1020	1228	925	1114
GENERATOR OUTPUT VOLTAGE/KVA-50Hz		**Rated AMP**		**Rated AMP**
220/380V, 3-phase, 0.8 pf	1110	1688	1000	1521
230/400V, 3-phase, 0.8 pf NOTE: Consult your Generac dealer for additional voltages.	1110	1604	1000	1445
240/415V, 3-phase, 0.8 pf	1110	1546	1000	1393
MOTOR STARTING				
Locked rotor kva at 30% instantaneous voltage dip	**415V**	**480V**	**415V**	**480V**
with standard alternator; 60 Hz-kva (PMG)		3200		3200
with standard alternator; 50 Hz-kva (PMG)	2500		2500	
FUEL				
Fuel consumption—60 Hz Load	**25%** **50%** **75%** **100%**		**25%** **50%** **75%** **100%**	
gal./hr.	15.76 31.51 47.27 63.03		14.29 28.57 42.86 57.14	
liters/hr.	59.64 119.28 178.92 238.56		54.07 108.14 162.21 216.28	
Fuel consumption—50 Hz gal./hr.	14.00 28.00 42.00 56.00		12.70 25.40 38.09 50.79	
liters/hr.	52.99 105.98 158.97 211.96		48.06 96.12 144.18 192.24	
Fuel pump lift in.	55		55	
COOLING				
Coolant capacity System - lit./gal.	274 (72.3)		274 (72.3)	
Engine - lit./gal.	100 (26.4)		100 (26.4)	
Radiator - lit./gal.	174 (45.9)		174 (45.9)	
Coolant flow/min. 60 Hz - lit./gal.	1450 (383)		1450 (383)	
50 Hz - lit./gal.	1200 (317)		1200 (317)	
Heat rejection to coolant BTU/hr.	2,308,740		2,102,640	
Inlet air 60 Hz - m^3/min. (cfm)	1800 (63558)		1800 (63558)	
50 Hz - m^3/min. (cfm)	1800 (63558)		1800 (63558)	
Ambient temperature °C (°F)	45 (113)		45 (113)	
Air on to RAD °C (°F)	50 (122)		50 (122)	
Max. external pressure drop on radiator in. H_2O	0.5		0.5	
COMBUSTION AIR REQUIREMENTS				
Flow at rated power 60 Hz - m^3/min. (cfm)	93 (3272)		84 (2980)	
50 Hz - m^3/min. (cfm)	83 (2921)		75 (2665)	
EXHAUST				
Exhaust flow at rated output				
60 Hz - m^3/min. (cfm)	245 (8660)		223 (7887)	
50 Hz - m^3/min. (cfm)	219 (7731)		200 (7053)	
Maximum recommended back pressure Kpa (" Hg)	4.3 (1.3)		4.3 (1.3)	
Exhaust temperature at rated output °C (°F)	469 (876)		457 (856)	
Exhaust outlet size mm.	200		200	
ENGINE				
Rated RPM 60 Hz	1800		1800	
50 Hz	1500		1500	
HP at rated KW 60 Hz	1448		1314	
50 Hz	1334		1194	
Piston speed 60 Hz - m/sec. (ft./min)	10.5 (2067)		10.5 (2067)	
50 Hz - m/sec. (ft./min)	8.8 (1723)		8.8 (1723)	
BMEP 60 Hz - PSI	292		266	
50 Hz - PSI	319		291	
DERATION FACTORS				
Temperature				
5% for every 10°C above - C°	40		40	
2.77% for every 10°F above - F°	104		104	
Altitude				
1.1% for every 100 m above - m	1500		1500	
3.5% for every 1000 ft. above - ft.	5000		5000	

STANDARD ENGINE & SAFETY FEATURES

SD1020

- High Coolant Temperature Automatic Shutdown
- Low Coolant Level Automatic Shutdown
- Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Shutdown (Solid-state)
- Crank Limiter (Solid-state)
- Oil Drain Extension
- Radiator Drain
- Factory-Installed Cool Flow Radiator
- Closed Coolant System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Vibration Isolation between unit base and structure
- 24 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Isochronous Governor
- Jacket water heater
- Flexible fuel lines
- Secondary Fuel Filter

CONTROL CONSOLE OPTIONS

- **STANDARD "C" OPTION PANEL**
  - A leading control system standard in the power generation industry. (see bulletin # SBY, 15116)
- ***RAMPOWER 232* DIGITAL GENERATOR CONTROL PANEL**
  - Access to fully digital generator instrumentation via modem, a laptop computer or locally at the front control panel for tighter control of the power generator system. (see bulletin # SBY, 15721)

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - Radiator Duct Adapter
  - Optional coolant systems (consult factory)
  - High ambient radiator (50°C / 122 °F)
  - Low ambient radiator (40°C / 104 °F)
- **OPTIONAL FUEL ACCESSORIES**
  - Base Tank Low Fuel Alarm
  - Primary Fuel Filter
  - Primary Fuel Filter with Heater
  - Fuel tanks (single/double wall)_____
  - Electric fuel transfer pump system
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - 10A Dual Rate Battery Charger
  - Battery, 24 Volt
  - Battery warmer
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - Alternator Upsizing (consult factory)
  - Alternator Heater
  - Main Line Circuit Breaker_____
    (factory installed up to 1200 Amp.)
- **OPTIONAL EXHAUST ACCESSORIES**
  - Critical Exhaust Silencer
  - Residential Exhaust Silencer
  - Industrial Exhaust Silencer
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - Automatic Transfer Switch (100 Amp - 2600 Amp)
  - Weather Protective Enclosure (Locking Type)
  - Sound Attenuating Outdoor Enclosure
  - 3 Light Remote Annunciator ("C" panel only)
  - 5 Light Remote Annunciator ("C" panel only)
  - 18 Light Remote Annunciator (all panels)
  - Unit Vibration Isolators (Spring)
  - Oil Make-Up System
  - Oil Heater
  - 5 Year Warranty (Basic/Extended)
  - Export Boxing

Distributed by:

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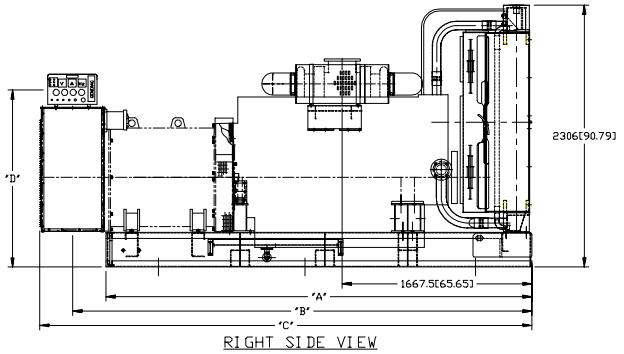
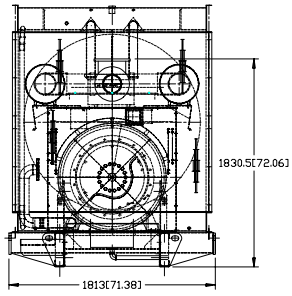


RIGHT SIDE VIEW



RADIATOR END VIEW

VOLTAGE	277/480	120/208	120/240	600
DIM "A"	3881.5[152.81]	3741.5[147.30]	3741.5[147.30]	3741.5[147.30]
DIM "B"	4117[162.08]	4035.5[1583.88]	4035.5[1583.88]	4035.5[1583.88]
DIM "C"	4347.5[171.16]	4324[170.24]	4324[170.24]	4324[170.24]
DIM "D"	1469[57.83]	1557[61.30]	1557[61.30]	1557[61.30]

DRY WEIGHT: 16,650 lbs.

GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

414/544-4811 • FAX 414/544-0770

SD1200

Liquid Cooled Diesel Engine Generator Sets

This Specification Sheet has not yet been released

GENERAC®
POWER SYSTEMS, INC.

SD1350

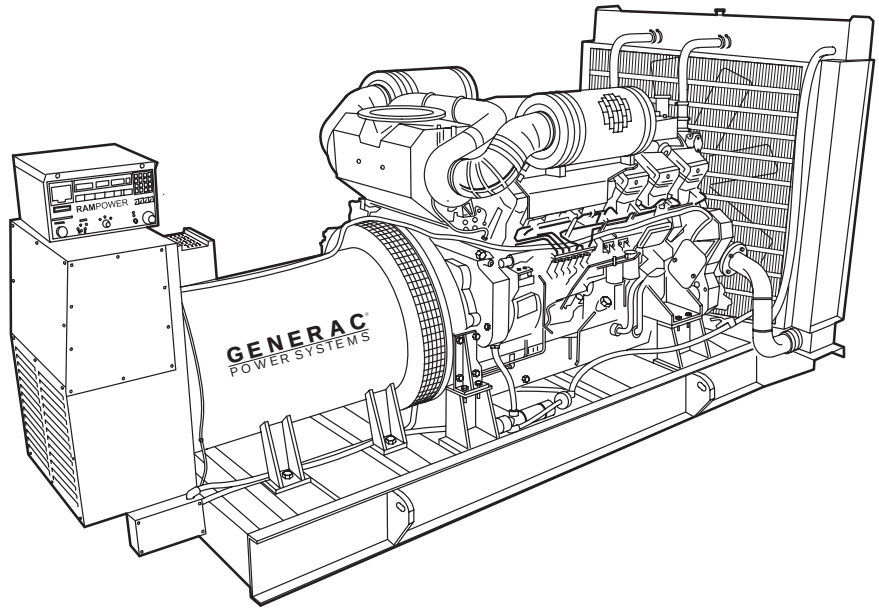
Liquid Cooled Diesel Engine Generator Sets

Standby Power Rating

1350KW 60 Hz / 1500KVA 50 Hz

Prime Power Rating

1225KW 60 Hz / 1375KVA 50 Hz



GENERAC 49.0DTA ENGINE

Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ NEMA MG1-22 COMPLIANCE
  - ✓ SYSTEM TORSIONAL ACCEPTANCE
  - ✓ LOAD ACCEPTANCE & TRANSIENT PERFORMANCE
  - ✓ HIGH SPECIFICATION COOLING SYSTEM
  - ✓ COMPREHENSIVE FACTORY PERFORMANCE TESTING

- **3-PHASE SENSING, PMG POWERED VOLTAGE REGULATION:** This state-of-the-art voltage regulation system provides optimum response to varying load conditions, including excellent motor starting ability and superior performance on non-linear loading.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER:** Low cost operation due to modern diesel engine technology. Better fuel utilization equates to lower life-cycle operational costs.

- **LONGER ENGINE LIFE:** Mitsubishi heavy-duty industrial diesel engines provide a long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES:** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. The GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

SD1350

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR (MAX) 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (HEAVY DUTY) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
OVERLOAD CAPACITY (PRIME)* 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, and ISO3046 standards.

EXCITATION SYSTEM

❒ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates excitation power from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓
Optional Var/PF control ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22 and NEMA MG1-1.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is constructed with a tropicalization coating as standard.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S12R-PTA
CYLINDERS 12
DISPLACEMENT - liter/(cu. in.) 49.0 (2992)
BORE - mm/(in.) 170 (6.69)
STROKE - mm/(in.) 180 (7.09)
COMPRESSION RATIO 13.1:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

❒ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
SYSTEM CAPACITY - liter(gal.) 180 (47.6)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pressurized Closed Recovery
WATER PUMP ..... Pre-lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 8
DIAMETER OF FAN - mm/(in.) 1524 (60)
COOLANT HEATER ..... 2 x 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM-D975 Specification)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION SYSTEM ..... Mitsubishi Type PS6 x 2
FUEL PUMP ..... Mitsubishi/Piston Type
INJECTORS ..... Mitsubishi/Multi-Hole
ENGINE TYPE ..... Vee Type Twelve Cylinder
FUEL LINE (Supply) ..... 3/4"FNPT
FUEL RETURN LINE ..... 3/4"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 2 x 7.5 kW at 24V
RECOMMENDED BATTERY ..... 4 x 12V
GROUND POLARITY ..... Negative

*Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, and ISO3046). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, and ISO8528).

OPERATING DATA

	STANDBY	PRIME
	SD1350	SD1350
GENERATOR RATING / KW-60Hz	Rated AMP	Rated AMP
277/480V, 3-phase, 0.8 pf (NOTE: Consult your Generac dealer for additional voltages.)	1350 2029	1225 1841
600V, 3-phase, 0.8 pf	1350 1625	1225 1473
GENERATOR RATING / KVA-50Hz	Rated AMP	Rated AMP
220/380V, 3-phase, 0.8 pf (NOTE: Consult your Generac dealer for additional voltages.)	1500 2279	1375 2089
230/400V, 3-phase, 0.8 pf	1500 2165	1375 1984
240/415V, 3-phase, 0.8 pf	1500 2087	1375 1913
MOTOR STARTING	415V 480V	415V 480V
Locked rotor kva at 30% instantaneous voltage dip with standard alternator; 60 Hz-kva (PMG)	3550	3550
with standard alternator; 50 Hz-kva (PMG)	2900	2900
FUEL	25% 50% 75% 100%	25% 50% 75% 100%
Fuel consumption—60 Hz Load		
gal./hr.	34.2 58.9 86.4 93.7	33.5 57.8 84.7 91.9
liters/hr.	129.5 223.2 327.2 354.9	126.9 218.8 320.7 347.8
Fuel consumption—50 Hz gal./hr.	28.5 49.2 72.2 75.5	28.0 48.2 70.7 74.0
liters/hr.	108.1 186.4 273.2 285.9	106.0 182.7 267.8 280.3
Fuel pump lift in.	55	55
COOLING		
Coolant capacity System - lit./gal.	355 (94.0)	355 (94.0)
Engine - lit./gal.	125 (33.0)	125 (33.0)
Radiator - lit./gal.	230 (61.0)	230 (61.0)
Coolant flow/min. 60 Hz - lit./gal.	1850 (489)	1850 (489)
50 Hz - lit./gal.	1650 (436)	1650 (436)
Heat rejection to coolant BTU/hr.	3,013,200	2,729,160
Inlet air 60 Hz - m^3/min. (cfm)	1800 (63558)	1800 (63558)
50 Hz - m^3/min. (cfm)	1500 (52965)	1500 (52965)
Ambient temperature °C (°F)	45 (113)	45 (113)
Air on to RAD °C (°F)	50 (122)	50 (122)
Max. external pressure drop on radiator in. H_2O	0.5	0.5
COMBUSTION AIR REQUIREMENTS		
Flow at rated power 60 Hz - m^3/min. (cfm)	121 (4273)	110 (3884)
50 Hz - m^3/min. (cfm)	105 (3728)	96 (3390)
EXHAUST		
Exhaust flow at rated output		
60 Hz - m^3/min. (cfm)	320 (11299)	290 (10240)
50 Hz - m^3/min. (cfm)	279 (9851)	253 (8933)
Maximum recommended back pressure Kpa (" Hg)	5.8 (1.74)	5.8 (1.74)
Exhaust temperature at rated output °C (°F)	560 (1040)	550 (1022)
Exhaust outlet size mm.	304	304
ENGINE		
Rated RPM 60 Hz	1800	1800
50 Hz	1500	1500
HP at rated KW 60 Hz	1905	1731
50 Hz	1704	1563
Piston speed 60 Hz - m/sec. (ft./min)	10.8 (2126)	10.8 (2126)
50 Hz - m/sec. (ft./min)	9.0 (1772)	9.0 (1772)
BMEP 60 Hz - PSI	290	264
50 Hz - PSI	311	283
POWER ADJUSTMENT FOR AMBIENT CONDITIONS		
Temperature		
-5% for every 10°C above - C°	40	40
-2.77% for every 10°F above - F°	104	104
Altitude		
-1.1% for every 100 m above - m	1500	1500
-3.5% for every 1000 ft. above - ft.	5000	5000

STANDARD ENGINE & SAFETY FEATURES

SD1350

- High Coolant Temperature Pre-alarm and Shutdown
- Low Coolant Level Pre-alarm and Shutdown
- Low Oil Pressure Pre-alarm and Shutdown
- Overspeed Shutdown
- Crank Limiter
- Factory-Installed Cool Flow Radiator
- Closed Coolant System
- Radiator Duct Adapter
- Radiator Drain
- Fan Guard
- Isochronous Governor
- Jacket Water Heater
- 24 Volt, Solenoid-activated Starter Motor
- Control Console ("E" Option Panel)
- Air Cleaner
- 3-Phase Sensing, True RMS Voltage Regulator
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Secondary Fuel Filter
- Flexible Fuel Lines
- Oil Drain Extension
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Stainless Steel Flexible Exhaust Connection
- Unit Vibration Isolators (Spring)

CONTROL CONSOLE OPTIONS

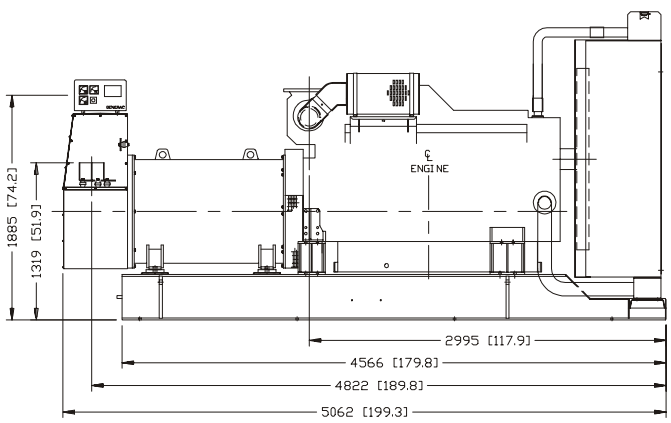
- **STANDARD "E" OPTION PANEL** (see Generac Bulletin #SBY, 16111)
- ***RAMPOWER 232*** **DIGITAL GENERATOR CONTROL PANEL** (see Generac Bulletin #SBY, 16111)

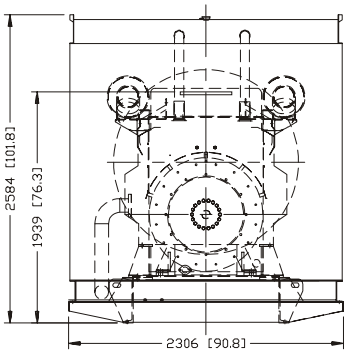
OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - ❍ Remote Radiator/Heat Exchanger
  - ❍ Additional Cooling Systems (consult factory)
  - ❍ High ambient radiator (consult factory)
  - ❍ Low ambient radiator (consult factory)
- **OPTIONAL FUEL SYSTEM ACCESSORIES**
  - ❍ Low Fuel Alarm
  - ❍ Fuel Prefiltration System
  - ❍ Primary Fuel Filter with Heater
  - ❍ UL Listed Fuel Tanks (single/double wall)_____
  - ❍ Electric Fuel Transfer Pump System
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - ❍ 10 - 50A Dual Rate Battery Charger
  - ❍ Battery, 24 Volt
  - ❍ Battery warmer
  - ❍ Main Line Circuit Breaker
  - ❍ NEMA 3R Main Line Circuit Breaker Enclosure
- **OPTIONAL EXHAUST ACCESSORIES**
  - ❍ Industrial Exhaust Silencer
  - ❍ Residential Exhaust Silencer
  - ❍ Critical Exhaust Silencer
  - ❍ Exhaust Outlet Options
    - Straight Extension with Screen
    - 90° Elbow with Rain Cap (Standard with Exhaust Silencer)
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - ❍ Alternator Upsizing (consult factory)
  - ❍ Alternator Heater
- **ADDITIONAL EQUIPMENT**
  - ❍ Automatic Transfer Switch (100 Amp - 2600 Amp)
  - ❍ Weather Protective Enclosure
  - ❍ Sound Attenuating Outdoor Enclosure
  - ❍ 20 Light Remote Annunciator
  - ❍ Serial Signal Relay Board (V/F Contacts)
  - ❍ Oil Make-Up System
  - ❍ Oil Heater
  - ❍ 5 Year Warranty (Basic/Extended)
  - ❍ Export Boxing

Distributed by:

Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.





DRY WEIGHT: 21,526 lbs.

GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • WAUKESHA, WI 53187

262/544-4811 • FAX 262/544-0770

Bulletin 0160950SBY / Printed in USA 6.99, 9.99, 10.99

SD1500

Liquid Cooled Diesel Engine Generator Sets

This Specification Sheet has not yet been released

GENERAC®
POWER SYSTEMS, INC.

SD1635

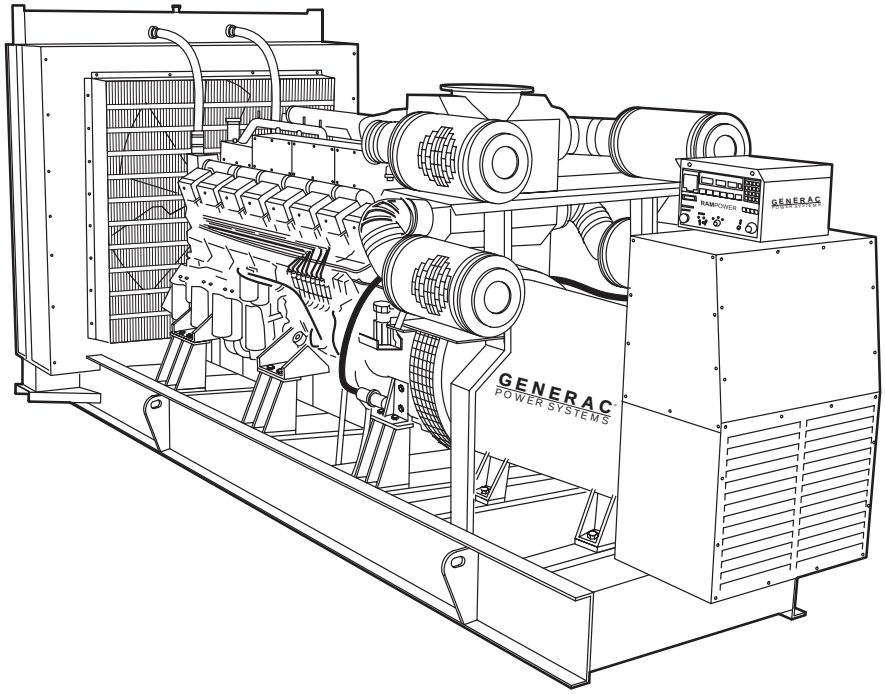
Liquid Cooled Diesel Engine Generator Sets

Standby Power Rating

1635KW 60 Hz / 1850KVA 50 Hz

Prime Power Rating

1450KW 60 Hz / 1700KVA 50 Hz



GENERAC 65.3DTA ENGINE

Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ NEMA MG1-22 COMPLIANCE
  - ✓ SYSTEM TORSIONAL ACCEPTANCE
  - ✓ LOAD ACCEPTANCE & TRANSIENT PERFORMANCE
  - ✓ HIGH SPECIFICATION COOLING SYSTEM
  - ✓ COMPREHENSIVE FACTORY PERFORMANCE TESTING

- **3-PHASE SENSING, PMG POWERED VOLTAGE REGULATION:** This state-of-the-art voltage regulation system provides optimum response to varying load conditions, including excellent motor starting ability and superior performance on non-linear loading.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER:** Low cost operation due to modern diesel engine technology. Better fuel utilization equates to lower life-cycle operational costs.

- **LONGER ENGINE LIFE:** Mitsubishi heavy-duty industrial diesel engines provide a long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES:** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. The GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

SD1635

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR (MAX) 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (HEAVY DUTY) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
OVERLOAD CAPACITY (PRIME)* 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, and ISO3046 standards.

EXCITATION SYSTEM

❒ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates excitation power from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓
Optional Var/PF control ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22 and NEMA MG1-1.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is constructed with a tropicalization coating as standard.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S16R-PTA
CYLINDERS 16
DISPLACEMENT - liter/(cu. in.) 65.3 (3989)
BORE - mm/(in.) 170 (6.69)
STROKE - mm/(in.) 180 (7.09)
COMPRESSION RATIO 14.0:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 9
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

❒ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
SYSTEM CAPACITY - liter(gal.) 230 (60.8)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pressurized Closed Recovery
WATER PUMP ..... Pre-lubed, Self Sealing
TYPE OF FAN ..... Pusher
NUMBER OF FAN BLADES 6
DIAMETER OF FAN - mm/(in.) 1530 (60.2)
COOLANT HEATER ..... 2 x 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM-D975 Specification)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION PUMP ..... Mitsubishi Type PS8 x 2
FUEL PUMP ..... Mitsubishi/Piston Type
INJECTORS ..... Mitsubishi/Multi-Hole
ENGINE TYPE ..... Vee Type Sixteen Cylinder
FUEL LINE (Supply) ..... 3/4"FNPT
FUEL RETURN LINE ..... 3/4"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 2 x 7.5 kW at 24V
RECOMMENDED BATTERY ..... 4 x 12V
GROUND POLARITY ..... Negative

*Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, and ISO3046). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, and ISO8528).

OPERATING DATA

	STANDBY	PRIME
	SD1635	SD1635
GENERATOR RATING / KW-60Hz		
277/480V, 3-phase, 0.8 pf (NOTE: Consult your Generac dealer for additional voltages.)	1635 / Rated AMP 2458	1450 / Rated AMP 2180
600V, 3-phase, 0.8 pf	1635 / 1966	1450 / 1744
GENERATOR RATING / KVA-50Hz		
220/380V, 3-phase, 0.8 pf (NOTE: Consult your Generac dealer for additional voltages.)	1850 / Rated AMP 2810	1700 / Rated AMP 2583
230/400V, 3-phase, 0.8 pf	1850 / 2670	1700 / 2454
240/415V, 3-phase, 0.8 pf	1850 / 2574	1700 / 2365
MOTOR STARTING		
Locked rotor kva at 30% instantaneous voltage dip	415V / 480V	415V / 480V
with standard alternator; 60 Hz-kva (PMG)	4600	4600
with standard alternator; 50 Hz-kva (PMG)	5300	5300
FUEL		
Fuel consumption—60 Hz Load	25% / 50% / 75% / 100%	25% / 50% / 75% / 100%
gal./hr.	43.5 / 71.3 / 108.3 / 112.2	42.7 / 69.9 / 106.1 / 110.0
liters/hr.	164.9 / 269.9 / 409.9 / 425.0	161.6 / 264.5 / 401.7 / 416.5
Fuel consumption—50 Hz gal./hr.	36.3 / 59.5 / 90.4 / 91.6	35.6 / 58.3 / 88.6 / 89.8
liters/hr.	137.7 / 225.4 / 342.3 / 346.8	135.0 / 220.9 / 335.5 / 340.0
Fuel pump lift in.	55	55
COOLING		
Coolant capacity System - lit./gal.	420 (111.0)	420 (111.0)
Engine - lit./gal.	170 (44.9)	170 (44.9)
Radiator - lit./gal.	250 (66.1)	250 (66.1)
Coolant flow/min. 60 Hz - lit./gal.	1850 (489)	1850 (489)
50 Hz - lit./gal.	1650 (436)	1650 (436)
Heat rejection to coolant BTU/hr.	3,548,820	3,201,840
Inlet air 60 Hz - m^3/min. (cfm)	1950 (68855)	1950 (68855)
50 Hz - m^3/min. (cfm)	1500 (52965)	1500 (52965)
Ambient temperature °C (°F)	45 (113)	45 (113)
Air on to RAD °C (°F)	50 (122)	50 (122)
Max. external pressure drop on radiator in. H_2O	0.5	0.5
COMBUSTION AIR REQUIREMENTS		
Flow at rated power 60 Hz - m^3/min. (cfm)	143 (5049)	129 (4555)
50 Hz - m^3/min. (cfm)	129 (4555)	118 (4167)
EXHAUST		
Exhaust flow at rated output		
60 Hz - m^3/min. (cfm)	377 (13312)	340 (12005)
50 Hz - m^3/min. (cfm)	342 (12076)	312 (11017)
Maximum recommended back pressure Kpa (" Hg)	5.8 (1.74)	5.8 (1.74)
Exhaust temperature at rated output °C (°F)	560 (1040)	540 (1004)
Exhaust outlet size mm.	340	340
ENGINE		
Rated RPM 60 Hz	1800	1800
50 Hz	1500	1500
HP at rated KW 60 Hz	2279	2064
50 Hz	2132	1944
Piston speed 60 Hz - m/sec. (ft./min)	10.8 (2126)	10.8 (2126)
50 Hz - m/sec. (ft./min)	9.0 (1772)	9.0 (1772)
BMEP 60 Hz - PSI	18.2 (259)	16.5 (235)
50 Hz - PSI	20.2 (287)	18.5 (263)
POWER ADJUSTMENT FOR AMBIENT CONDITIONS		
Temperature		
-5% for every 10°C above - C°	40	40
-2.77% for every 10°F above - F°	104	104
Altitude		
-1.1% for every 100 m above - m	1500	1500
-3.5% for every 1000 ft. above - ft.	5000	5000

STANDARD ENGINE & SAFETY FEATURES

SD1635

- High Coolant Temperature Pre-alarm and Shutdown
- Low Coolant Level Pre-alarm and Shutdown
- Low Oil Pressure Pre-alarm and Shutdown
- Overspeed Shutdown
- Crank Limiter
- Factory-Installed Cool Flow Radiator
- Closed Coolant System
- Radiator Duct Adapter
- Radiator Drain
- Fan Guard
- Isochronous Governor
- Jacket Water Heater
- 24 Volt, Solenoid-activated Starter Motor
- Control Console ("E" Option Panel)
- Air Cleaner
- 3-Phase Sensing, True RMS Voltage Regulator
- Battery Charge Alternator
- Battery Cables
- Battery Tray
- Secondary Fuel Filter
- Flexible Fuel Lines
- Oil Drain Extension
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Stainless Steel Flexible Exhaust Connection
- Unit Vibration Isolators (Spring)

CONTROL CONSOLE OPTIONS

- **STANDARD "E" OPTION PANEL** (see Generac Bulletin #SBY, 16111)
- ***RAMPOWER 232* DIGITAL GENERATOR CONTROL PANEL** (see Generac Bulletin #SBY, 16111)

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - ❍ Remote Radiator/Heat Exchanger
  - ❍ Additional Cooling Systems (consult factory)
  - ❍ High ambient radiator (consult factory)
  - ❍ Low ambient radiator (consult factory)
- **OPTIONAL FUEL SYSTEM ACCESSORIES**
  - ❍ Low Fuel Alarm
  - ❍ Fuel Prefiltration System
  - ❍ Primary Fuel Filter with Heater
  - ❍ UL Listed Fuel Tanks (single/double wall)_____
  - ❍ Electric Fuel Transfer Pump System
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - ❍ 10 - 50A Dual Rate Battery Charger
  - ❍ Battery, 24 Volt
  - ❍ Battery warmer
  - ❍ Main Line Circuit Breaker
  - ❍ NEMA 3R Main Line Circuit Breaker Enclosure
- **OPTIONAL EXHAUST ACCESSORIES**
  - ❍ Industrial Exhaust Silencer
  - ❍ Residential Exhaust Silencer
  - ❍ Critical Exhaust Silencer
  - ❍ Exhaust Outlet Options
    - Straight Extension with Screen
    - 90° Elbow with Rain Cap (Standard with Exhaust Silencer)
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - ❍ Alternator Upsizing (consult factory)
  - ❍ Alternator Heater
- **ADDITIONAL EQUIPMENT**
  - ❍ Automatic Transfer Switch (100 Amp - 2600 Amp)
  - ❍ Weather Protective Enclosure
  - ❍ Sound Attenuating Outdoor Enclosure
  - ❍ 20 Light Remote Annunciator
  - ❍ Serial Signal Relay Board (V/F Contacts)
  - ❍ Oil Make-Up System
  - ❍ Oil Heater
  - ❍ 5 Year Warranty (Basic/Extended)
  - ❍ Export Boxing

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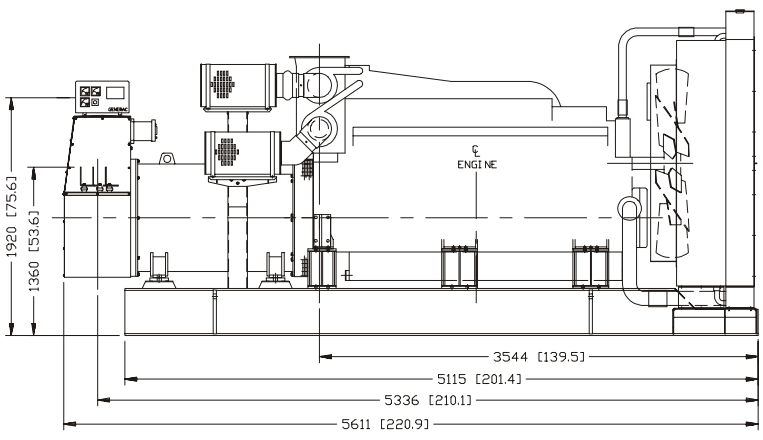
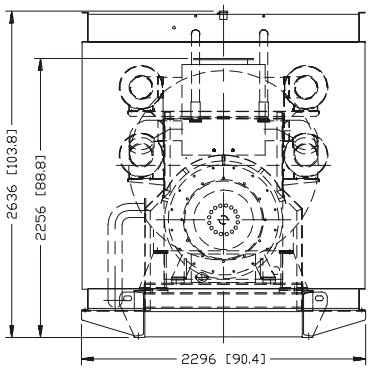
Design and specifications subject to change without notice. Dimensions shown are approximate. Contact your Generac dealer for certified drawings. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.





DRY WEIGHT: 25,514 lbs.

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SD1825

Liquid Cooled Diesel Engine Generator Sets

This Specification Sheet has not yet been released

GENERAC®
POWER SYSTEMS, INC.

SD2000

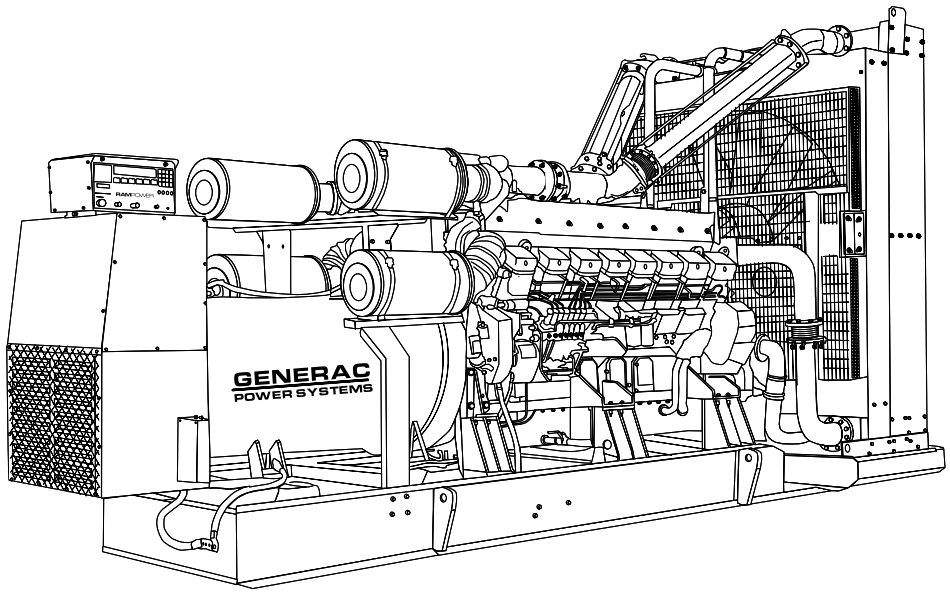
Liquid Cooled Diesel Engine Generator Sets

Standby Power Rating

2000kW 60 Hz / 2250KVA 50 Hz

Prime Power Rating

1800kW 60 Hz / 2000KVA 50 Hz



GENERAC 65.3 DTA ENGINE

Turbocharged / Aftercooled

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.

- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ NEMA MG1-22 COMPLIANCE
  - ✓ SYSTEM TORSIONAL ACCEPTANCE
  - ✓ LOAD ACCEPTANCE & TRANSIENT PERFORMANCE
  - ✓ HIGH SPECIFICATION COOLING SYSTEM
  - ✓ COMPREHENSIVE FACTORY PERFORMANCE TESTING

- **3-PHASE SENSING, PMG POWERED VOLTAGE REGULATION:** This state-of-the-art voltage regulation system provides optimum response to varying load conditions, including excellent motor starting ability and superior performance on non-linear loading.

- **SINGLE SOURCE SERVICE RESPONSE** from Generac's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own an GENERAC POWER SYSTEM.

- **ECONOMICAL DIESEL POWER:** Low cost operation due to modern diesel engine technology. Better fuel utilization equates to lower life-cycle operational costs.

- **LONGER ENGINE LIFE:** Mitsubishi heavy-duty industrial diesel engines provide a long and reliable operating life.

- **GENERAC TRANSFER SWITCHES AND ACCESSORIES:** Long life and reliability is synonymous with GENERAC POWER SYSTEMS. The GENERAC product line includes its own transfer systems, accessories, and controls for total system compatibility.

GENERAC®

POWER SYSTEMS

APPLICATION & ENGINEERING DATA

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
LINE-TO-LINE HARMONIC FACTOR (MAX) 5%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <50
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (HEAVY DUTY) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%
OVERLOAD CAPACITY (PRIME)* 110%

NOTE: Emergency loading in compliance with NFPA 99, NFPA 110, paragraph 5-13.2.6. Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, and ISO3046 standards.

EXCITATION SYSTEM

❒ PERMANENT MAGNET EXCITER ..... ±0.25% regulation ✓
(standard) Enhances motor starting capabilities ✓
Isolates excitation power from non-linear loads ✓
Sustains short circuit current (300% for 10 seconds) ✓
Mounted outboard of main bearing (for easy maintenance) ✓
REGULATION ..... Solid-state ✓
3-phase sensing ✓
Optional Var/PF control ✓

GENERATOR FEATURES

- Four pole, revolving field generator, directly connected to the engine shaft through a heavy-duty, flexible disc for permanent alignment.
- Generator meets temperature rise standards for class "H" insulation as defined by NEMA MG1-22 and NEMA MG1-1.
- All models have passed a three-phase symmetrical short circuit test to assure system protection and reliability.
- Unit tested for motor-starting ability by measuring instantaneous voltage dip.
- All models utilize an advanced wire harness design for reliable interconnection within the circuitry.
- Magnetic circuit, including amortisseur windings, and 2/3 pitch stator design, provides a minimal level of waveform distortion and an electromagnetic interference level which meets accepted requirements for standard AM radio, TV, and marine radio telephone applications.
- Voltage waveform deviation, total harmonic content of the AC waveform, and T.I.F. (Telephone Influence Factor) have been evaluated to acceptable standards in accordance with NEMA MG1-22.
- Alternator is constructed with a tropicalization coating as standard.
- System Torsional acceptability confirmed during Prototype Testing.

ENGINE SPECIFICATIONS

MAKE ..... Mitsubishi
MODEL S16R-PTA-A2
CYLINDERS 16
DISPLACEMENT - liter/(cu. in.) 65.3 (3989)
BORE - mm/(in.) 170 (6.69)
STROKE - mm/(in.) 180 (7.09)
COMPRESSION RATIO 13.5:1
INTAKE AIR ..... Turbocharged/Aftercooled (Jacket Water)
NUMBER OF MAIN BEARINGS 9
CONNECTING RODS ..... I-Beam Section
CYLINDER HEAD ..... Individual Cylinder Heads/Four Valves
PISTONS ..... Open Chamber/Oil Cooled
CRANKSHAFT ..... Counter Weighted Type

VALVE TRAIN

LIFTER TYPE ..... Plain Bearing/Single Cam
HARDENED VALVE SEATS ..... Yes

ENGINE GOVERNOR

❒ ELECTRONIC / ISOCHRONOUS ..... Standard
STEADY STATE FREQUENCY REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear
OIL FILTER ..... Full Flow Cartridge
SYSTEM CAPACITY - liter(gal.) 230 (60.8)

COOLING SYSTEM

TYPE OF SYSTEM ..... Pressurized Closed Recovery
WATER PUMP ..... Pre-Lubed, Self Sealing
TYPE OF FAN ..... Pusher
COOLANT HEATER ..... 2 x 240V(2500W)

FUEL SYSTEM

FUEL ..... No. 2 Diesel Fuel
(Fuel should conform to ASTM-D975 Specification)
FUEL FILTER ..... Full Flow Cartridge
FUEL INJECTION SYSTEM ..... Mitsubishi Type PS8 x 2
FUEL PUMP ..... Mitsubishi/Piston Type
INJECTORS ..... Mitsubishi/Multi-Hole
ENGINE TYPE ..... Vee Type Sixteen Cylinder
FUEL LINE (Supply) ..... 1"FNPT
FUEL RETURN LINE ..... 1"FNPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 30 Amps at 24V
STARTER MOTOR ..... 2 x 7.5 kW at 24V
RECOMMENDED BATTERY ..... 4 x 12V
GROUND POLARITY ..... Negative

*Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, and ISO3046). Prime (Unlimited Running Time): Applicable for supplying electric power in lieu of commercially purchased power. Prime power is the maximum power available at variable load. A 10% overload capacity is available for 1 hour in 12 hours. (All ratings in accordance with BS5514, ISO3046, and ISO8528).

OPERATING DATA

	STANDBY	PRIME
	SD2000	SD2000
GENERATOR RATING / KW-60Hz		
277/480V, 3-phase, 0.8 pf (NOTE: Consult your Generac dealer for additional voltages.)	2000 / 3007	1800 / 2706
600V, 3-phase, 0.8 pf	2000 / 2405	1800 / 2165
GENERATOR RATING / KVA-50Hz		
220/380V, 3-phase, 0.8 pf	2250 / 3418	2000 / 3038
230/400V, 3-phase, 0.8 pf	2250 / 3248	2000 / 2887
240/415V, 3-phase, 0.8 pf	2250 / 3130	2000 / 2782
MOTOR STARTING		
Locked rotor kva at 30% instantaneous voltage dip	415V / 480V	415V / 480V
with standard alternator; 60 Hz-kva (PMG)	5700	5700
with standard alternator; 50 Hz-kva (PMG)	6800	6800
FUEL		
Fuel consumption—60 Hz Load	25% / 50% / 75% / 100%	25% / 50% / 75% / 100%
gal./hr.	51.6 / 88.9 / 130.4 / 141.4	50.6 / 87.2 / 127.8 / 138.6
liters/hr.	195.4 / 336.8 / 493.7 / 535.5	191.5 / 330.0 / 483.8 / 524.7
Fuel consumption—50 Hz gal./hr.	43.1 / 74.3 / 108.9 / 111.8	42.2 / 72.8 / 106.7 / 109.6
liters/hr.	163.2 / 281.2 / 412.2 / 423.1	159.9 / 275.6 / 404.0 / 414.8
Fuel pump lift in.	55	55
COOLING		
Coolant capacity System - lit./gal.	413 (109.1)	413 (109.1)
Engine - lit./gal.	170 (44.9)	170 (44.9)
Radiator - lit./gal.	243 (64.2)	243 (64.2)
Coolant flow/min. 60 Hz - lit./gal.	1850 (489)	1850 (489)
50 Hz - lit./gal.	1300 (343)	1300 (343)
Heat rejection to coolant BTU/hr.	2,288,400	2,059,740
Inlet air 60 Hz - m^3/min. (cfm)	2500 (88,275)	2500 (88275)
50 Hz - m^3/min. (cfm)	2083 (73,550)	2083 (73,550)
Ambient temperature °C (°F)	45 (113)	45 (113)
Air on to RAD °C (°F)	50 (122)	50 (122)
Max. external pressure drop on radiator in. H_2O	0.5	0.5
COMBUSTION AIR REQUIREMENTS		
Flow at rated power 60 Hz - m^3/min. (cfm)	182 (6426)	164 (5791)
50 Hz - m^3/min. (cfm)	159 (5614)	141 (4979)
EXHAUST		
Exhaust flow at rated output		
60 Hz - m^3/min. (cfm)	482 (17019)	434 (15325)
50 Hz - m^3/min. (cfm)	420 (14830)	374 (13206)
Maximum recommended back pressure Kpa (" Hg)	5.8 (1.74)	5.8 (1.74)
Exhaust temperature at rated output °C (°F)	650 (1202)	600 (1112)
Exhaust outlet size mm.	340	340
ENGINE		
Rated RPM 60 Hz	1800	1800
50 Hz	1500	1500
HP at rated KW 60 Hz	2822	2540
50 Hz	2540	2258
Piston speed 60 Hz - m/sec. (ft./min)	10.8 (2126)	10.8 (2126)
50 Hz - m/sec. (ft./min)	9.0 (1772)	9.0 (1772)
BMEP 60 Hz - PSI	311	280
50 Hz - PSI	336	299
POWER ADJUSTMENT FOR AMBIENT CONDITIONS		
Temperature		
-5% for every 10°C above - C°	40	40
-2.77% for every 10°F above - F°	104	104
Altitude		
-1.1% for every 100 m above - m	1500	1500
-3.5% for every 1000 ft. above - ft.	5000	5000

STANDARD ENGINE & SAFETY FEATURES

SD2000

- ■ High Coolant Temperature Pre-alarm and Shutdown
- ■ Low Coolant Level Pre-alarm and Shutdown
- ■ Low Oil Pressure Pre-alarm and Shutdown
- ■ Overspeed Shutdown
- ■ Crank Limiter
- ■ Factory-Installed Cool Flow Radiator
- ■ Closed Coolant System
- ■ Radiator Duct Adapter
- ■ Radiator Drain
- ■ Fan Guard
- ■ Isochronous Governor
- ■ Jacket Water Heater
- ■ 24 Volt, Solenoid-activated Starter Motor
- ■ Control Console ("E" Option Panel)
- ■ Air Cleaner
- ■ 3-Phase Sensing, True RMS Voltage Regulator
- ■ Battery Charge Alternator
- ■ Battery Cables
- ■ Battery Tray
- ■ Secondary Fuel Filter
- ■ Flexible Fuel Lines
- ■ Oil Drain Extension
- ■ UV/Ozone Resistant Hoses
- ■ Rubber-Booted Engine Electrical Connections
- ■ Stainless Steel Flexible Exhaust Connection
- ■ Unit Vibration Isolators (Spring Type)

CONTROL CONSOLE OPTIONS

- ■ **STANDARD "E" OPTION PANEL** (see Generac Bulletin 0161110SBY)
- ■ ***RAMPOWER 232* DIGITAL GENERATOR CONTROL PANEL** (see Generac Bulletin 0161110SBY)

OPTIONS

- ■ **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - ❍ Remote Radiator/Heat Exchanger
  - ❍ Additional Cooling Systems (consult factory)
  - ❍ High ambient radiator (consult factory)
  - ❍ Low ambient radiator (consult factory)
- ■ **OPTIONAL FUEL SYSTEM ACCESSORIES**
  - ❍ Low Fuel Alarm
  - ❍ Fuel Prefiltration System
  - ❍ Primary Fuel Filter with Heater
  - ❍ UL Listed Fuel Tanks (single/double wall)_____
  - ❍ Electric Fuel Transfer Pump System
- ■ **OPTIONAL ELECTRICAL ACCESSORIES**
  - ❍ 10 - 50A Dual Rate Battery Charger
  - ❍ Battery, 24 Volt
  - ❍ Battery warmer
  - ❍ Main Line Circuit Breaker
  - ❍ NEMA 3R Main Line Circuit Breaker Enclosure
- ■ **OPTIONAL EXHAUST ACCESSORIES**
  - ❍ Industrial Exhaust Silencer
  - ❍ Residential Exhaust Silencer
  - ❍ Critical Exhaust Silencer
  - ❍ Exhaust Outlet Options
    - Straight Extension with Screen
    - 90° Elbow with Rain Cap (Standard with Exhaust Silencer)
- ■ **OPTIONAL ALTERNATOR ACCESSORIES**
  - ❍ Alternator Upsizing (consult factory)
  - ❍ Alternator Heater
- ■ **ADDITIONAL EQUIPMENT**
  - ❍ Automatic Transfer Switch (100 Amp - 2600 Amp)
  - ❍ Weather Protective Enclosure
  - ❍ Sound Attenuating Outdoor Enclosure
  - ❍ 20 Light Remote Annunciator
  - ❍ Serial Signal Relay Board (V/F Contacts)
  - ❍ Oil Make-Up System
  - ❍ Oil Heater
  - ❍ 5 Year Warranty (Basic/Extended)
  - ❍ Export Boxing

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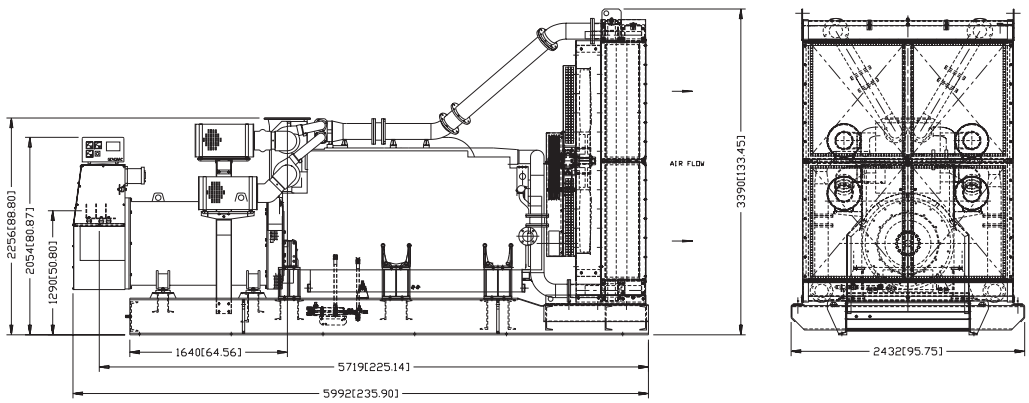

DRY WEIGHT: 29,500 lbs.

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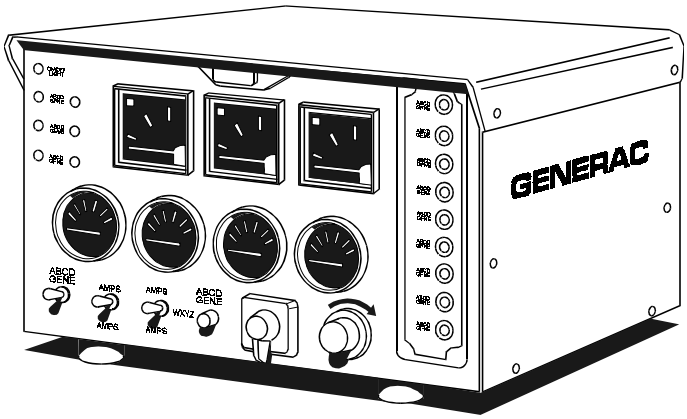
Control Consoles



- **Solid state controls for safety shutdowns, instrumentation, and regulation.**
- **Three models available to fit every need.**
- **Mounted up-front for easy access.**
- **Single PCB for DC control system.**
- **Single voltage regulator for all control panels.**

Instant Information

Generac control consoles combine form and function to monitor your complete power system needs. The proven control console design provides you with precise control for the life of your power system.

Available in three models to fit your exact needs, the control consoles are outfitted with a whole complement of standard features and optional accessories. Each console is equipped with a printed circuit board to protect the generator set against high temperature/low water levels, low oil pressure, overspeed, and overcrank conditions. All shutdowns have visual indicators associated with them.

A voltage regulator is also housed in the panel to provide dependable generator output.

Each control panel is constructed with 16-gauge steel and mounted on vibration isolators. The wire harness design eliminates wiring problems, and the single circuit board simplifies the control panel design.

Full engine instrumentation is standard. Various types of generator output instrumentation are available. Additional control and alarm features are available to meet industry standards such as NFPA-110.

GENERAC®

POWER SYSTEMS

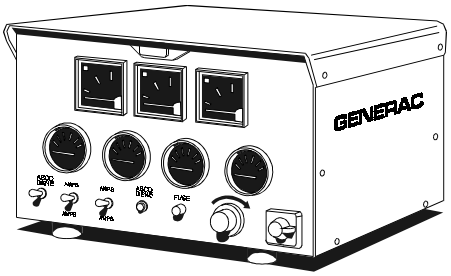
Control Console Features

A
CONTROL CONSOLE
ADDITIONAL STANDARD FEATURES

- Auto/manual start
- Single lamp latched annunciation for:
  — High temp./low water levels
  — Low oil pressure
  — Overspeed
  — Overcrank
- 2 wire start/stop control
- Overcranking & starter protection
- Cyclic cranking
- Full engine instrumentation
- Front panel voltage adjustment
- Wiring harness for electrical connections
- 3 position switch (off/manual/auto)
- Overspeed protection
- Run Time Hourmeter
- Panel light

Optional Accessories

❍ Locking voltage adjust potentiometer
❍ Oil temperature gauge
❍ Oil temperature pre-alarm and shutdown
❍ Engine run relay
❍ 100 dBA alarm horn
❍ Emergency stop button
❍ Over/under voltage relay
❍ Over/under frequency relay
❍ Overcurrent relay

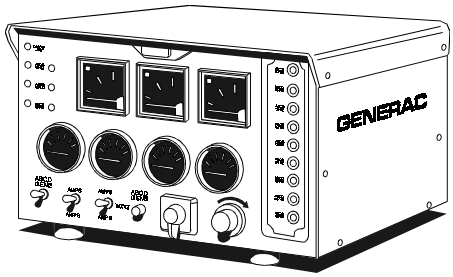


B
CONTROL CONSOLE
ADDITIONAL STANDARD FEATURES

- Auto/manual start
- AC selector switch
- Single lamp latched annunciation for:
  — High temp./low water levels
  — Low oil pressure
  — Overspeed
  — Overcrank
- AC meter package
- AC frequency meter
- 2 wire start/stop control
- Overcranking & starter protection
- Cyclic cranking
- Full engine instrumentation
- Front panel voltage adjustment
- Wiring harness for electrical connections
- 3 position switch (off/manual/auto)
- Overspeed protection
- Run Time Hourmeter
- Panel light

Optional Accessories

❍ Locking voltage adjust potentiometer
❍ Oil temperature gauge
❍ Oil temperature pre-alarm and shutdown
❍ Engine run relay
❍ 100 dBA alarm horn
❍ Emergency stop button
❍ Over/under voltage relay
❍ Over/under frequency relay
❍ Overcurrent relay
❍ Digital AC meter package
❍ Digital wattmeter



C
CONTROL CONSOLE
ADDITIONAL STANDARD FEATURES

- Auto/manual start
- AC phase selector switch
- Individual lamp latched annunciation and shutdown for:
  — High temp./low water levels
  — Sensor loss
  — Low oil pressure
  — Overspeed
  — Overcrank
- AC frequency meter
- 2 wire start/stop control
- Cyclic cranking
- Lamp test/reset switch
- Full engine instrumentation
- Run time hourmeter
- RPM sensor overspeed/starter protection
- Wiring harness for electrical connections
- 3 position switch (off/manual/auto) with red annunciator lamp when not in "auto" mode
- Panel light

Optional Accessories

❍ NFPA alarm package
❍ 5-function dry contact PCB
❍ 6-function "Form C" dry contact PCB
❍ Locking voltage adjust potentiometer
❍ Oil temperature gauge
❍ Oil temperature pre-alarm and shutdown
❍ Engine run relay
❍ 100 dBA alarm horn
❍ Emergency stop button
❍ Over/under voltage relay
❍ Over/under frequency relay
❍ Overcurrent relay
❍ Digital AC meter package
❍ Digital wattmeter

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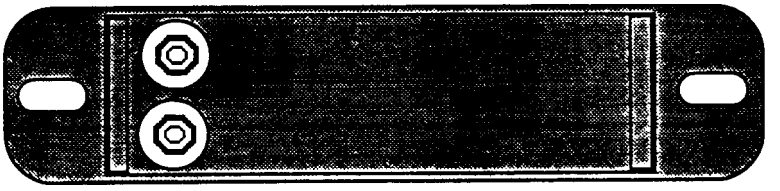
Control Panel Heater



32 Watt Control Panel Heater

- **Low watt density**
- **Only 3.9 watts / square inch**
- **12OV Operation**
- **U.L. Recognized – C.S.A Certified**
- **32 Watt heating element**

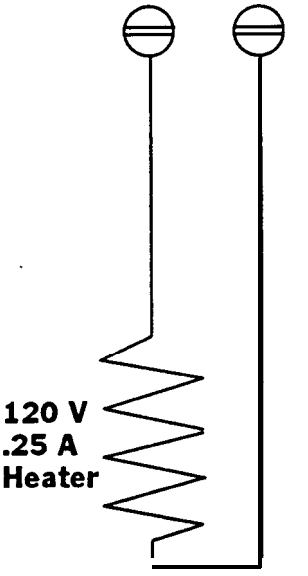
The Control Panel Heater is designed **for installations where there is a possibility of moisture damage to the generator% control panel.**

In certain locations and climatic conditions moisture will condense on the control panel and circuit boards.

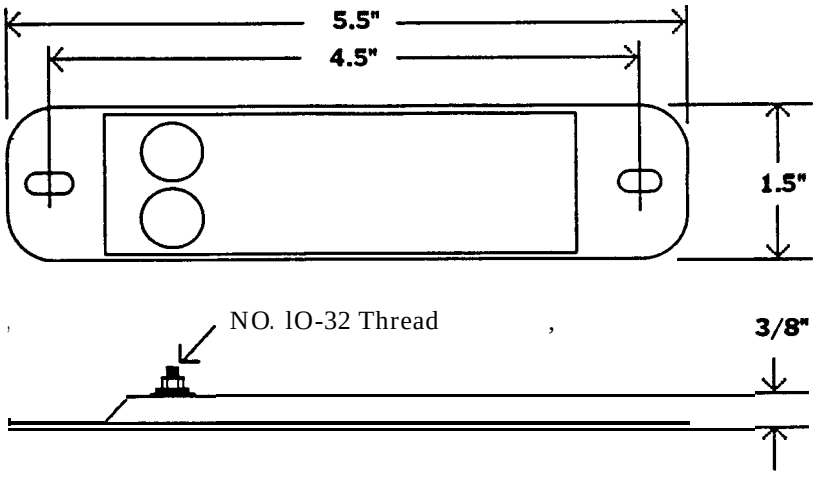
The Control Panel Heater will add sufficient heat to the control panel to raise the temperature of the control panel and its components above the dew point.

To reduce watt density and insure long heater life, a 240V heater is used in a 12OV circuit. In this configuration the heater will generate only 32 watts of heat energy thereby reducing the chance of heater failure and eliminating an over temperature condition inside the control panel.

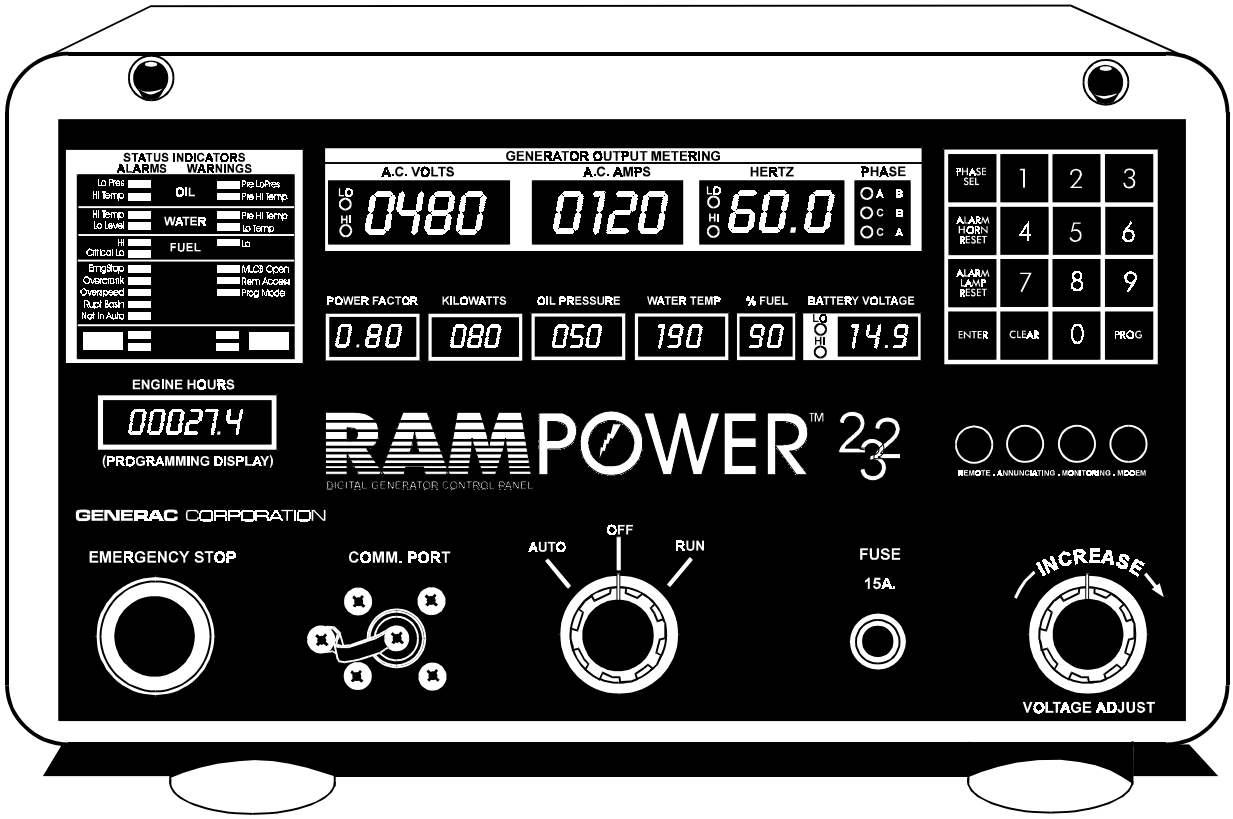
Battery charger AC connection terminal



Schematic Diagram



Digital Control Panel



RAMPOWER 232

Imagine monitoring and manipulating generator set parameters without standing in front of the control panel. The ***RAMPOWER 232*** control console offers the flexibility to access the emergency generator system via a modem, a laptop computer, a computer network or the front control panel. The control console is also capable of remotely starting and stopping the generator set.

This control console integrates all generator set and various automatic transfer switch functions into a single control system. Genlink™, a Windows™ based software program, and a self-programmable microprocessor allow improved reliability and tighter control of the power generator system.

Proactive serviceability is achieved using the ***RAMPOWER 232*** control console. Twenty-nine separate warning and alarm annunciations decrease the time of troubleshooting if a critical situation should arise.

Complete engine and alternator information is displayed simultaneously. The multiple LED readouts allow the operator to oversee the generator set parameters without toggling through each of the features.

With its simple design, user-friendliness and state of the art components, the ***RAMPOWER 232*** control console stands alone in a new era in generator set control consoles.

GENERAC®

POWER SYSTEMS

RAMPOWER 232 INDICATORS

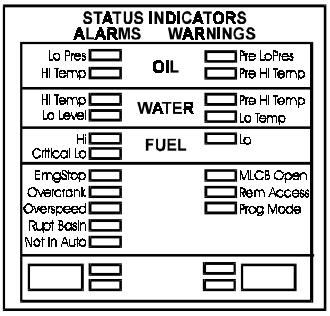
ALARM INDICATORS - Red LED

PROGRAMMABLE ALARM INDICATORS

- **Low Oil Pressure** - Engine Shut Down
- **High Radiator Water Temperature** - Engine Shut Down

FACTORY SET ALARM INDICATORS

- **Low Water Level** - Engine Shut Down
- **High Fuel Level**
  - May be programmed based on optional fuel percentage display.
- **Critical Low Fuel Level**
  - May be programmed based on optional fuel percentage display.
- **Ruptured Fuel Tank**
- **Emergency Stop Alarm**
- **Overcrank and Overspeed**
- **Auto Start Mode**
  - Panel switch is not set to the auto start mode.
- **Modem Communication Currently Active**



WARNING INDICATORS - Yellow LED

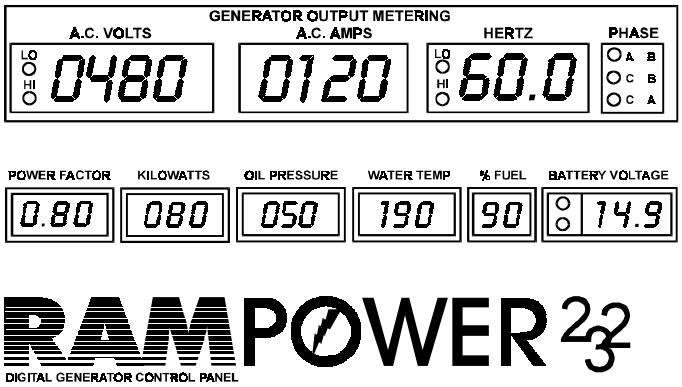
PROGRAMMABLE WARNING INDICATORS

- **Pre-Low Oil Pressure**
- **Low Radiator Water Temperature**
- **Pre-High Radiator Water Temperature**
- **Programming Display**

FACTORY SET WARNING INDICATORS

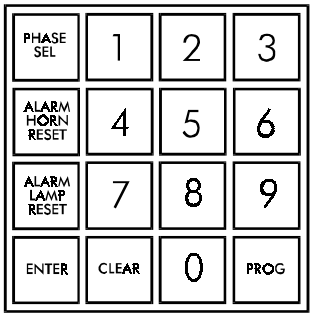
- **Low Fuel**
- **Control Panel in Programming Mode**
- **Circuit Breaker Open**
  - When Aux contacts on MLCB ordered

RAMPOWER 232 OUTPUT METERING



- **AC Voltage Display**
  - Four digit display
  - Phase currently displayed is indicated by two red LEDs
  - Programmable high or low voltage shutdown displayed by two LEDs
- **AC Current Display**
  - Three selectable phases
- **Frequency Display**
  - Precise frequency generated to one tenth a hertz
  - Programmable high or low frequency shutdown displayed by two LEDs
- **Power Factor Display**
- **Power Output Display**
  - Measures the real power output
  - Power output is the sum of all three phases, taking the power factor into account
- **Oil Pressure Display**
  - Range is either 0 to 100 PSI or 0 to 7.03 kg/cm
- **Water Temperature Display**
  - Range is either 0 to 250F or -18 to 121C
- **Fuel Percentage Display**
  - Observes current fuel level (optional)
- **Battery Voltage Display**
  - Range is 0 to 51.2VDC
  - Programmable high or low battery voltage alarm displayed by one or two red LEDs
- **Data Memory Capabilities**
  - Stores trend analysis information
  - Also stores the last fifty alarm conditions
  - Archives generator set output values

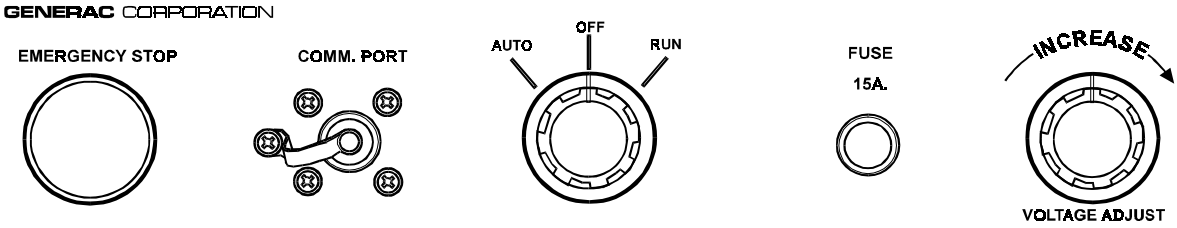
RAMPOWER 232 TOUCH-SENSITIVE KEYPAD



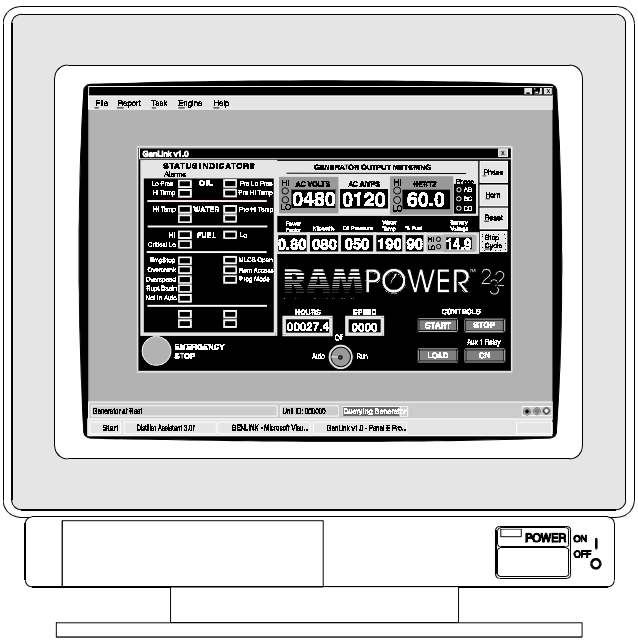
- **Numeric Keys**
- **Clear and Enter Key**
- **Phase Select Key**
  - Three phases to choose from
- **Alarm Lamp Reset Key**
- **Program Key**
- **Emergency Stop Push-Button**
- **Auto-Off-Start Switch**
- **Control Panel Fuse**
  - 15A fuse
- **Voltage Adjustment**

RAMPOWER 232 COMMUNICATION PORTS

- **Modem Port**
  - Optional modem for remote monitoring
- **RS485 Serial Port**
  - Remote monitoring
  - 20 Light Annunciator (optional)
- **RS232 Serial Port**
  - Local access



RAMPOWER 232 IBM COMPATIBLE SOFTWARE



GENLINK™ SOFTWARE

- **Windows™ based program**
  - Monitor the genset remotely
  - Access all operating parameters and shutdowns
  - Monitors the 50 previous annunciator alarm conditions and operating parameters (high and low levels)
  - Remotely start/stop genset
  - Initiate transfer switch operations
  - Program in control panel dial out functions

RAMPOWER 232 CONTROL CONSOLE FEATURES

LED DISPLAYS
- AC Voltage
- AC Current
- Frequency
- Power Factor
- Power Output
- Oil Pressure
- Water Temperature
- Fuel Percentage (optional)
- Battery Voltage
- Run Time Hour-Meter

LED INDICATORS
- Selected Phase
- High and Low AC Voltage
- High and Low Battery Voltage
- High and Low Frequency
- Low and Pre-Low Oil Pressure
- High and Pre-High Water Temperature
- Low Water Level
- Low Water Temperature
- High, Low and Critical Low Fuel
- Emergency Stop
- Overcrank
- Overspeed
- Ruptured Basin
- Not in Automatic Mode
- Status of Main Line Circuit Breaker
- Remote Access
- Program Mode
- Four Additional LEDs

REMOTE START & STOP CAPABILITIES
- Laptop Connection
- RS485 Serial Port
- RS232 Serial Port

DATA MEMORY CAPABILITIES
- Trend Analysis on Engine Systems
- Last 50 Alarm Conditions
- Generator Set Output Values

TOUCH-SENSITIVE KEYPAD
- Numeric Keys 0-9
- Clear & Enter Keys
- Phase Select Key
- Alarm Lamp Reset/Lamp Test Keys
- Program Key

EMERGENCY STOP PUSH-BUTTON

COMMUNICATION PORTS
- RS485 Serial Port
- RS232 Serial Port
- Optional Modem Port (Telco)

3 POSITION SWITCH (AUTO/OFF/RUN)

CONTROL FUSE

FRONT PANEL VOLTAGE ADJUSTMENT

NFPA ALARM PACKAGE - NFPA 110

OVER and UNDER VOLTAGE

OVER and UNDER FREQUENCY

IBM PC COMPATIBLE SOFTWARE

SELF-PROGRAMMABLE MICROPROCESSOR

WIRING HARNESS FOR ELECTRICAL CONNECTIONS

GENERAC'S STANDARD INTERNAL WIRING

VIBRATION ISOLATORS

NEMA 1 ENCLOSURE

ELECTROSTATICALLY APPLIED POLYESTER POWDER PAINT

RAMPOWER 232 OPTIONAL ACCESSORIES

- Over Current Relay
- Locking Voltage Adjust Potentiometer
- Modem
- Windows™ based Genlink™ Software
- 20 Light Remote Annunciator
- 100 dBA Alarm Horn
- Oil Temperature Gauge
- High and Pre-High Oil Temperature
- Electronic Fuel Level Indication

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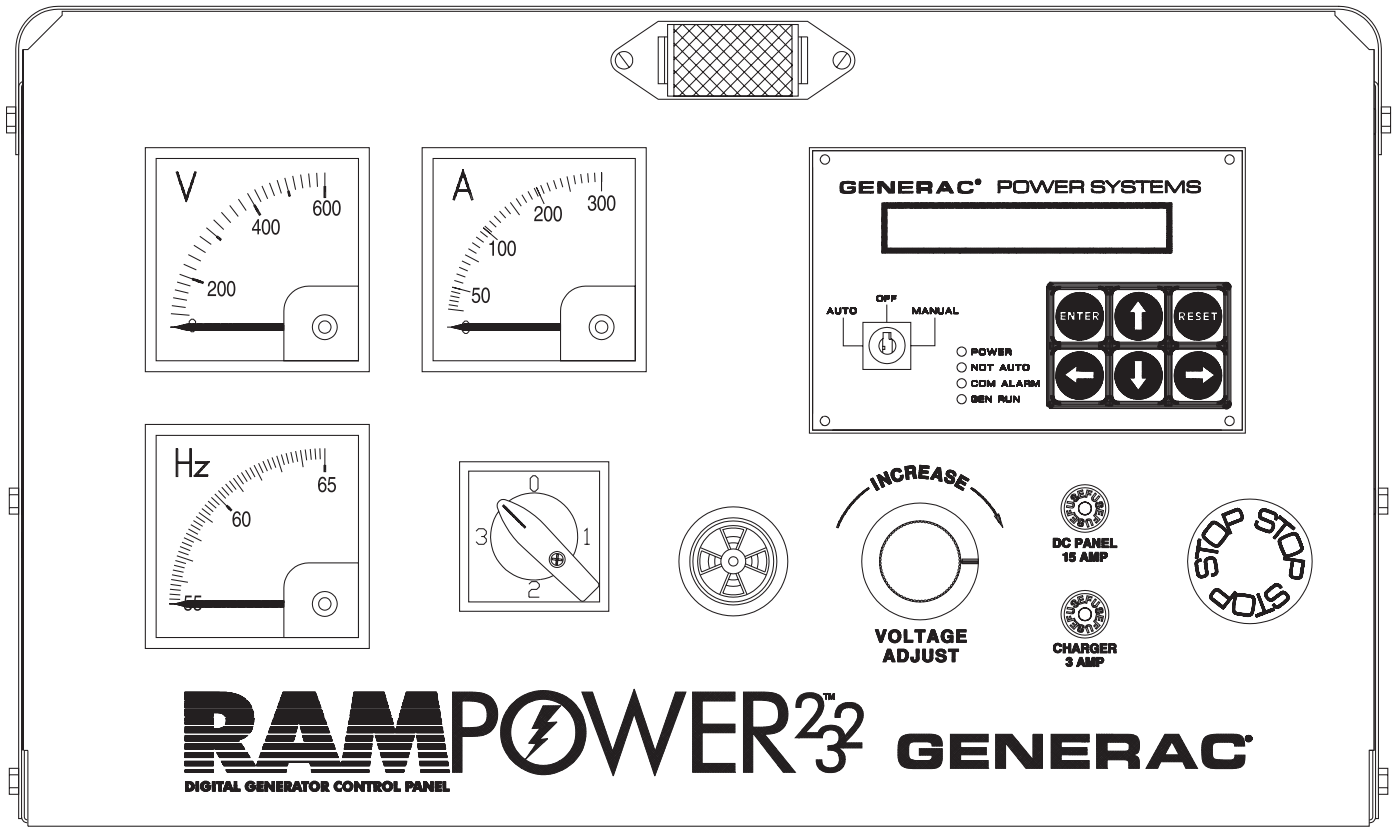
Bulletin SBY15721/Printed in USA 9.96, 10.96, 11.96, 4.97, 4.98

"E"
Control Panel



RAMPOWER 232 "E"

The ***RAMPOWER 232 "E"*** control panel provides an economical control option that combines the advantages of digital technology with traditional analog meters for voltage, current, and frequency. Generator control and monitoring can be performed from the control panel or remotely via a computer and modem. The control automatically displays alarm messages to simplify and expedite troubleshooting, prevent downtime, or restore operation.

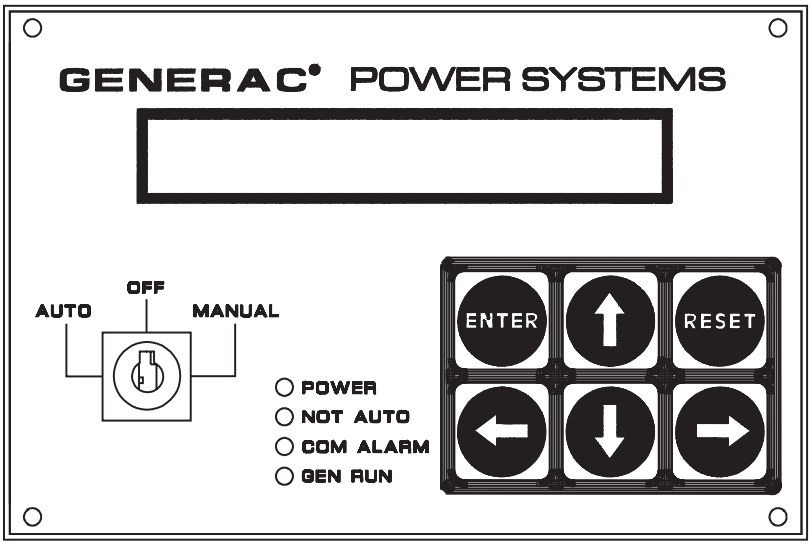
The hybrid design of the "E" Control Panel provides advanced monitoring and communications at a more economical cost than a fully digital control panel.

GENERAC®
POWER SYSTEMS

"E" CONTROL PANEL MONITORING/METERING

- **Coolant Temperature**
- **Oil Pressure**
- **Oil Temperature** (requires optional sender)
- **Engine Speed** (RPM)
- **Generator Voltage**
- **Generator Current**
- **Generator Frequency** (Hz)
- **Battery Voltage**
- **Fuel Level** (requires optional sender)
- **Two User Programmable Analog Inputs**
- **Eight User Programmable Digital Inputs**

"E" CONTROL PANEL DISPLAY



- **Six Button Keypad**
  To scroll between pages,
  and scroll within pages.

- **24 x 2 Character LCD Backlit Display**
  For viewing data, parameters, and alarms.

- **Seven Display Pages**
  1) Software Version
  2) Generator Command
  3) Generator Status
  4) Alarm Message
  5) Alarm Log
  6) Instrumentation
  7) Parameter Entry

- **Auto/Off/Manual Key Switch**

- **Four LEDs**
  - Generator Running
  - Common Alarm
  - Not In Auto
  - Battery Power OK

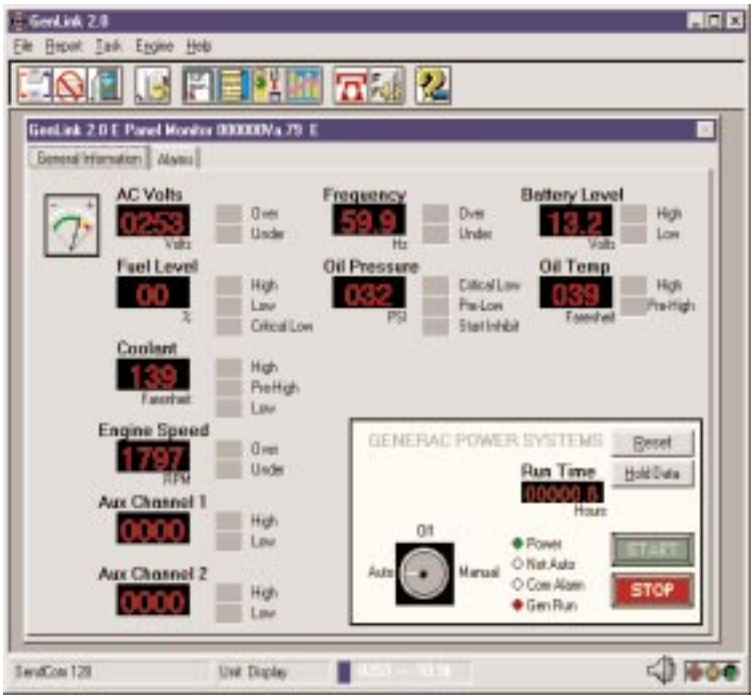
"E" CONTROL PANEL COMMUNICATIONS

- **Serial Communications via Customer Supplied Modem**
- **Serial Port - can be configured as RS232 or RS485**
- **Genlink Software can interrogate the control to monitor the conditions of the inputs, the alarm messages, and the alarm log**
- **Generator Start/Stop (if generator is in auto mode)**

"E" CONTROL PANEL ALARMS

- **Each analog and digital input has a user definable alarm associated with it.**
  - **8 Digital Inputs**
  - **2 Analog Inputs**
- **Alarm log stores the last 50 alarms in non-volatile memory.**
- **Three Alarm Types:**
  - Non-latched
  - Latched
  - Shutdown

GENLINK SOFTWARE (OPTIONAL)



GENLINK™ SOFTWARE

- **Windows™ based program**
  - Monitor the genset remotely
  - Access all operating parameters and shutdowns
  - Monitors the 50 previous annunciator alarm conditions and operating parameters (high and low levels)
  - Remotely start/stop genset
  - Initiate transfer switch operations
  - Programmable control panel dial out functions

STANDARD "E" CONTROL FEATURES

Analog Volt Meter

Analog Ammeter

Analog Frequency Meter

Phase Selector Switch

Digital Display and Keypad

Alarms on all Analog and Digital Inputs

Emergency Stop Push-Button

Front Panel Voltage Adjustment (±5%)

3 Position Keyed Switch (auto/off/manual)

Control Fuse

Meets NFPA 99 and
NFPA 110 Requirements

NEMA 1 Enclosure

Vibration Isolators

Panel Light

Horn Alarm

ALARM MESSAGES

Pre-Low Oil Pressure Warning
Low Oil Pressure Shutdown Alarm
Pre-High Coolant Temperature Warning
High Coolant Temperature Shutdown Alarm
Low Coolant Temperature Warning
Pre-High Oil Temperature Warning
High Oil Temperature Shutdown Alarm
Low Battery Voltage Warning
Overspeed Alarm
Underspeed
Over Crank Alarm
Over Voltage
Under Voltage
Over Frequency
Under Frequency
High Fuel Warning
Low Fuel Warning
Low Fuel Shutdown Alaarm
User Analog Alarms
Low Coolant Level Alarm
Emergency Stop
RPM Sensor Failure Alarm
Start Inhibit - Oil Pressure
Oil Pressure Sensor Failure
Oil Temperature Sensor Failure
Coolant Temperature Sensor Failure
User Digital Input Alarms
High Battery Voltage Warning

"E" CONTROL OPTIONAL ACCESSORIES

- **Genlink Software™**
- **Dry Contracts (eight function)**
- **20 Light Annunciator**

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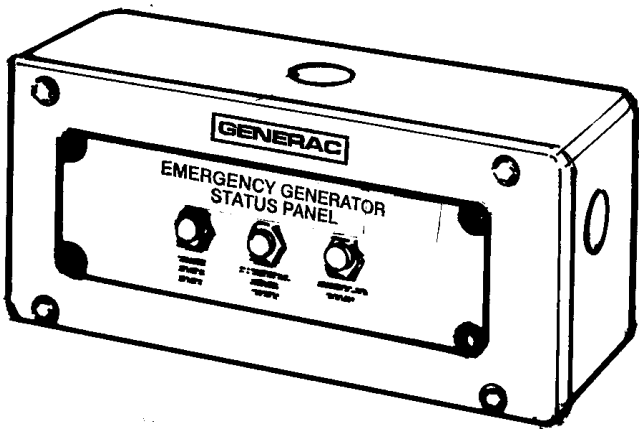
Bulletin SBY16131/Printed in USA 5.99, 6.99

3 Light Remote Annunciator



- **For use with the Generac Automatic Transfer Switch and a C-style generator control console**
- **NEMA 1 steel enclosure**
- **12 Volt DC input**
- **Surface mount**

Instant Information

The Generac 3 Light Remote Annunciator provides a valuable reference when used with the Generac Automatic Transfer Switch and Standby Generator with a C-style control console.

The annunciator, remotely located inside a monitoring station, allows the operator to effectively see the transfer switch and generator operational status. When the Utility Power Supply light is on, the utility is supplying the station power. When the Emergency Power Supply light is on, not only is the generator operating, but the transfer switch has completed the power switchover. If for any reason the generator is not operating or will not start, the Generator Fault light will illuminate.

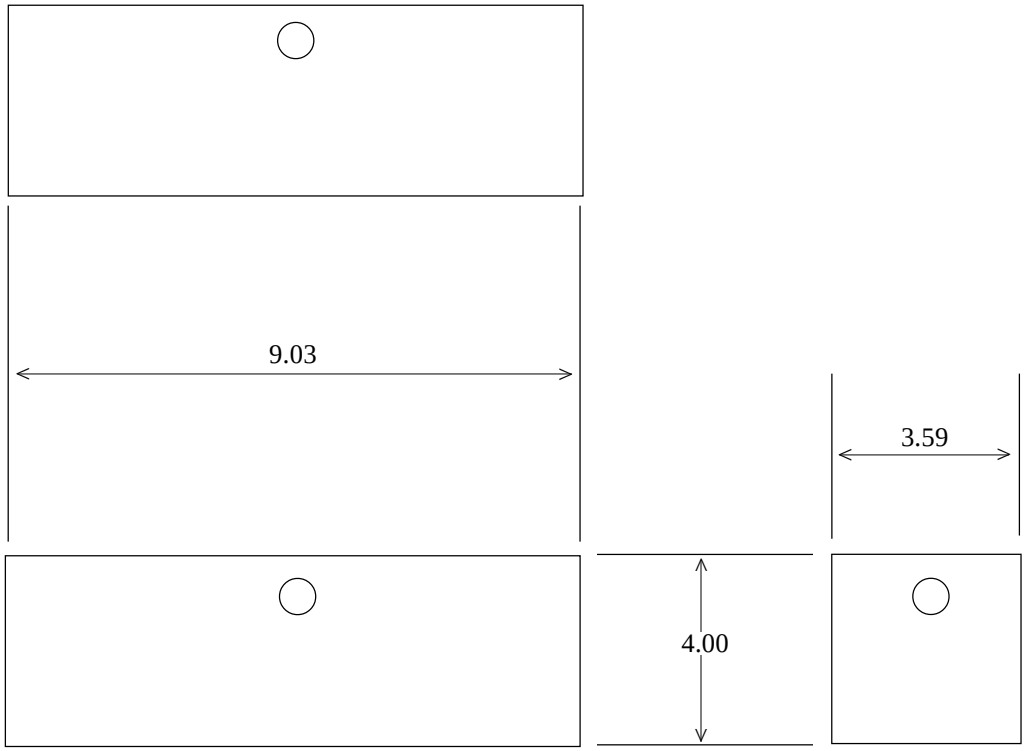
Safety and Convenience

The Generac 3 Light Remote Annunciator informs the operator and keeps a constant watch over the emergency power status. This can prove to be extremely valuable when the generator is part of a network of centrally-monitored systems, or remotely located. Unnecessary checks can be avoided and valuable time conserved.

GENERAC®
POWER SYSTEMS

Dimensions (inches)

Model 8848-0, 3 Light Remote Annunciator



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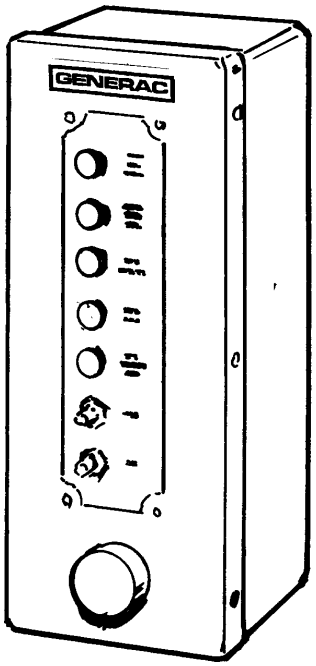
Bulletin S23220 / Printed in USA 6.97, 3.98

5 Light Remote Annunciator



- **For use with the Generac Standby Generator C-Type Control Console**
- **Built-in Alarm**
- **NEMA 1 Steel Enclosure**
- **12 Volt DC Input**
- **Surface Mount**

Instant Information

When used with the C-Type control console, Generac's 5 Light Remote Annunciator provides convenient and accurate status of engine functions.

The generator engine status determines whether or not the alternator can perform. And in the event of an engine shutdown, it is vital to know what caused the shutdown to occur.

This annunciator wil provide the operator with five important indicators that will help while restoring the generator to operational status.

The Low Oil Pressure and High Coolant Temperature lights indicate fluid conditions. Overcrank indicates the starter has completed its cycle crank, while overspeed signals engine speed condition. RPM sensor loss indicates signal loss from the flywheel magnetic pickup RPM gauge. The reset button reactivates the main control panel circuit board after a test or alarm.

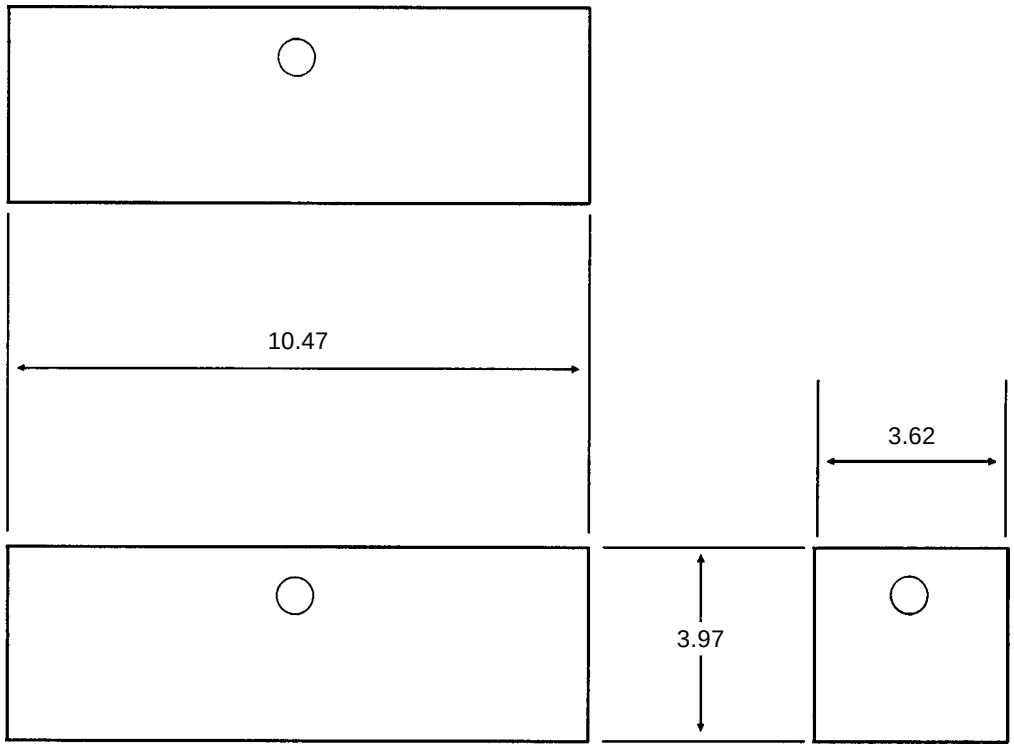
The alarm horn will sound when the generator has stopped as a result of any monitored condition.

GENERAC®

POWER SYSTEMS

DIMENSION (inches)

Modelo 8617-2, 5 Light Remote Annunciator



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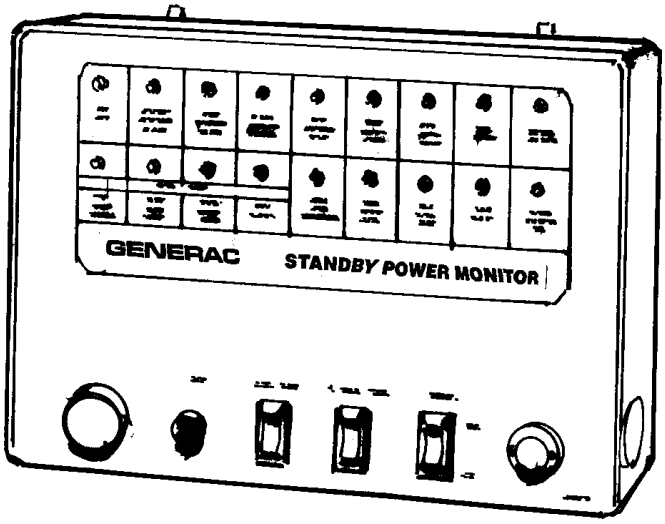
Bulletin S28120 / Printed in USA 4.97, 6.97

18 Light Programmable Remote Annunciator



- **For use with the Generac Automatic Transfer Switch and a C-style generator control panel.**
- **Solid-state LED lamps.**
- **Available in flush and surface mount configurations.**
- **Built-in alarm with silence switch.**
- **Conforms to NFPA requirements for essential electrical systems for health care facilities.**
- **12/24 Volt DC input.**
- **Selectable audible alarms.**

Continuous Monitoring

When the Generac 18 Light Remote Annunciator is used to remotely monitor the standby generator set, it will provide enough information at a glance to avoid unnecessary maintenance trips.

Two pre-alarms are included for High Water Temperature (above 220°F) and Low Oil Pressure (18 - 20 PSI) that will indicate an impending critical situation. The High Water Temperature/Low Coolant Level and Low Oil Pressure alarms will be activated only after the pre-alarms have. Low Water Temperature indicates the engine's temperature is 70°F or less. Low Fuel indicates low fuel level in the daytank or basetank. High and Low Battery Voltage indicators operate directly off of the battery's voltage sensing board. Overspeed indicates an engine overspeed condition, and Overcrank signals that the starter has completed its cycle crank and the engine has not started. Sensor Loss indicates a problem in the engine speed monitoring system.

Generator Power indicates that the transfer switch is in the emergency position. The Line Power light means the transfer switch is in the utility position. System Ready is constant as long as the annunciator has power. The Not In Auto light informs you that the unit is not aligned for automatic operation. Rearm Horn will silence the audible alarm but not reset the lamp. Any subsequent alarms will activate the horn. The alarm on/off switch will silence the alarm.

An optional Remote Start Switch is available for the generator set. Selectable audible alarms are available for High and Low Battery Voltage and Low Fuel, the High Water Temperature, Low Oil Pressure, and Low Water Temperature pre-alarms, and the two auxiliary alarms.

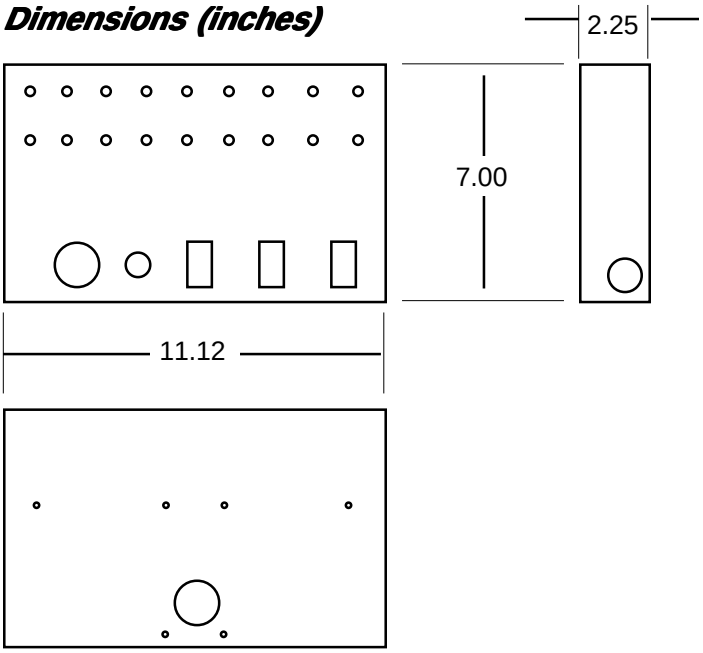
**System is on as long as generator shutdowns have not occurred. Use the Test/Reset button to check or reset alarms.*

GENERAC®

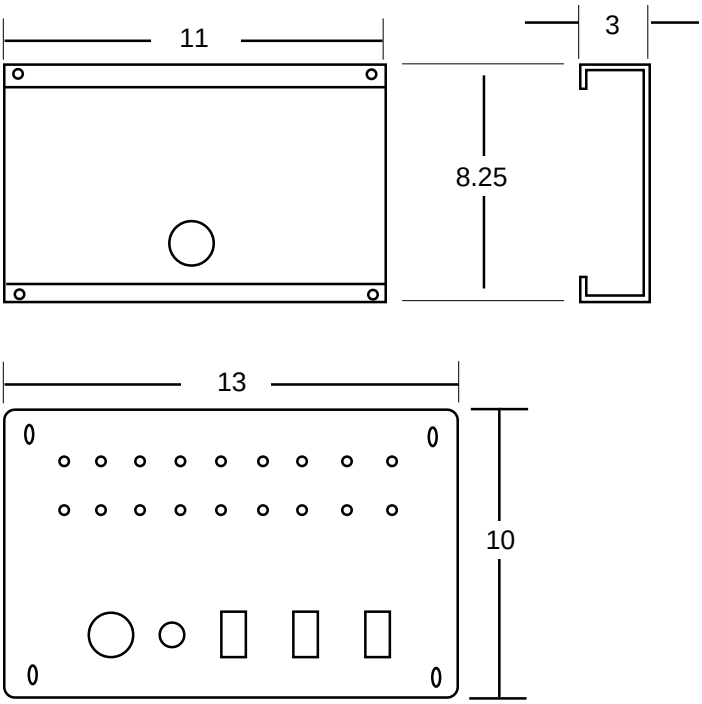
POWER SYSTEMS

Specifications

Dimensions (inches)



Surface mount, Model 9555



Flush mount, Model 9556

Annunciator Light	Lamp Color	Audible Alarm		Annunciator Light	Lamp Color	Audible Alarm
Pre-High Water	Yellow	Select		Overspeed	Red	Yes
Pre-Low Oil	Yellow	Select		Low Battery Voltage	Yellow	Select
High Water Temperature	Red	Yes		Overcrank	Red	Yes
Low Oil Pressure	Red	Yes		Generator Power	Yellow	Yes
Low Water Temperature	Yellow	Select*		Line Power	Green	No
Low Fuel	Yellow	Select		System Ready	Green	No
High Battery Voltage	Yellow	Select		Horn Switch Off	Red	No
Not in Auto	Red	Yes		Generator Run	Yellow	Select
Sensor Loss	Red	Yes		Battery Charger Failure	Yellow	Select

* Select with DIP switch on PC board.

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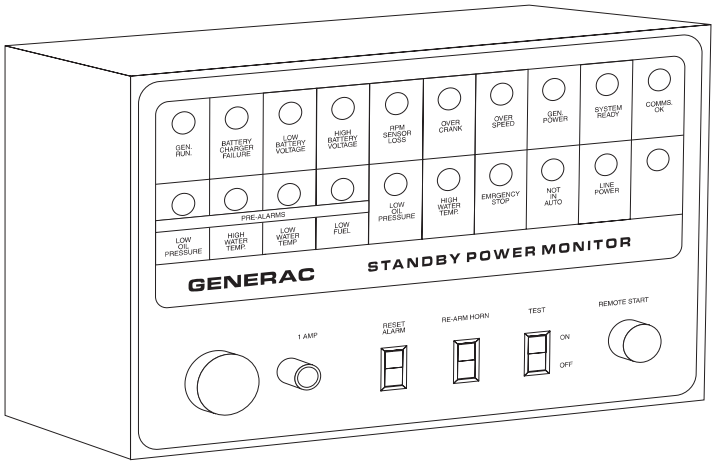
Bulletin SBY15059 / USA 10.92, 3.95, 6.97, 4.99

20 Light Programmable Remote Annunciator



- **For use with the Generac Automatic Transfer Switch and a D/E generator control panel.**
- **Solid-state LED lamps.**
- **Available in flush and surface mount configurations.**
- **Built-in alarm with silence switch.**
- **Conforms to NFPA requirements for essential electrical systems for health care facilities.**
- **Complies with NFPA-110 and NFPA-99.**
- **12/24 Volt DC input.**
- **Generator remote start capabilities.**

Continuous Monitoring

When the Generac 20 Light Remote Annunciator is used to remotely monitor the standby generator set, it will provide enough information at a glance to avoid unnecessary maintenance trips.

Four pre-alarms are included for High Water Temperature (above 220°F), Low Water Temperature (below 70°F), Low Fuel, and Low Oil Pressure (18 - 20 PSI) that will indicate an impending critical situation. The High Water Temperature/Low Coolant Level and Low Oil Pressure shutdown alarms will be activated only after the pre-alarms have. High and Low Battery Voltage indicators operate from the battery's voltage sensing board. Overspeed indicates an engine overspeed condition, and Overcrank signals that the starter has completed its cycle crank and the engine has not started. Sensor Loss indicates a problem in the engine speed monitoring system.

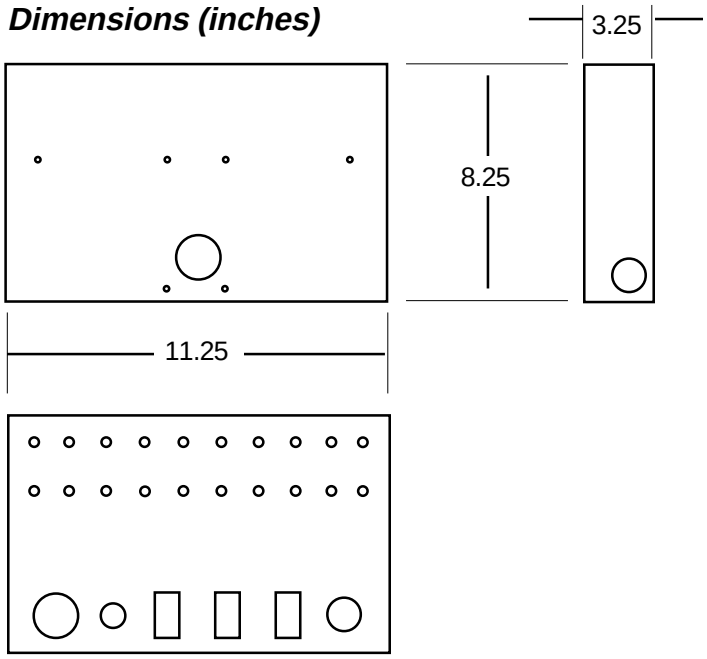
Generator Power indicates that the transfer switch is in the emergency position. The Line Power light means the transfer switch is in the utility position. System Ready is constant providing the generator is set to 'Auto', battery power is present and no alarms are on. The Not In Auto light informs you that the unit is not aligned for automatic operation. Re-arm Horn will silence the audible alarm but not reset the lamp. Any subsequent alarms will activate the horn. The alarm on/off switch will silence the alarm.

The Communication OK light is on as long as there is proper communication between the RAP and the D/E panel.

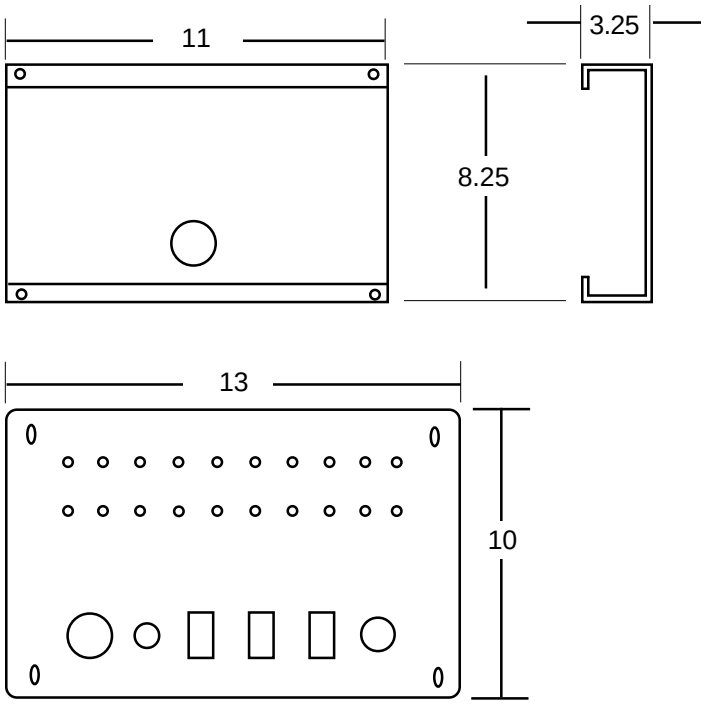
An optional Remote Start Switch is available for the generator set.

GENERAC®
POWER SYSTEMS

Dimensions (inches)



Surface mount, Model 984-0



Flush mount, Model 985-0

Annunciator Light	Light Color	Audible Alarm	Latched	Annunciator Light	Light Color	Audible Alarm	Latched
Generator Run	Yellow	No	No	Pre-Low Oil Pressure	Yellow	Yes	Yes
Battery Charger AC Fail.	Yellow	Yes	No	Pre-High Water Temp	Yellow	Yes	Yes
Low Battery Voltage	Yellow	Yes	No	Pre-Low Water Temp	Yellow	Yes	Yes
High Battery Voltage	Yellow	No	No	Pre-Low Fuel	Yellow	Yes	Yes
RPM Sensor Loss	Red	Yes	N/A	Low Oil Pressure	Red	Yes	N/A
Overcrank	Red	Yes	N/A	High Water Temp	Red	Yes	N/A
Overspeed	Red	Yes	N/A	Emergency Stop	Red	Yes	N/A
Generator Power	Yellow	No	No	Not in Auto	Red	Yes	No
System Ready	Green	No	N/A	Line Power	Green	No	N/A
Communication OK	Green	Yes	N/A	Spare	Green	No	N/A

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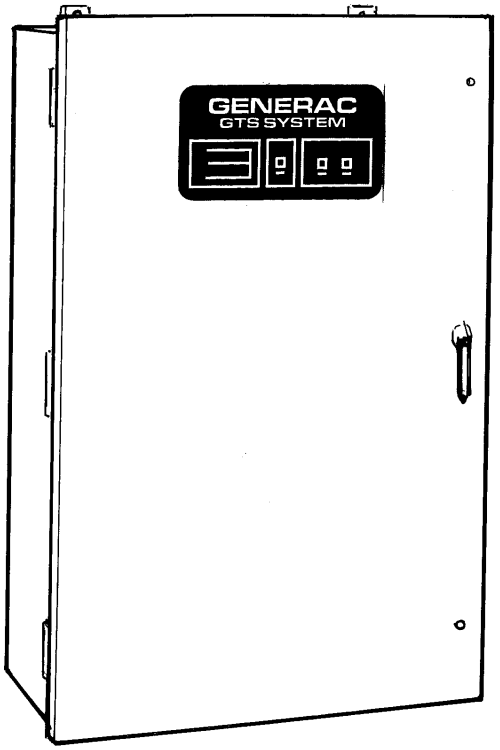
Bulletin SBY15972 / Printed in USA 6.98, 11.98

Automatic Transfer Switches
105 - 420 Amps, 250 VAC



- **Standard time delay neutral will reduce switchover problems.**
- **CPU microprocessor control regulates switch functions with minimal adjustments.**
- **Control switches located on the front of the door for ease of operation.**
- **All switches are UL 1008 listed and CSA certified.**
- **Electrically-operated, mechanically-held contacts for fast, positive connections.**
- **Rated for all classes of load, 100% equipment rated, both inductive and resistive with no derations.**
- **2, 3, and 4 Pole 250 VAC contactors.**
- **160 millisecond transfer time.**

Standard Features

- Single coil design, electrically operated and mechanically held
- Weekly exerciser
- SPDT auxiliary contacts
- Main contacts are silver plated or silver alloy to resist welding and sticking
- Conformal coating protects all printed circuit boards
- Indicating lights for switch position—Normal, Emergency, and Standby Operating
- NEMA 1 enclosure with hinged door and key-locking handle
- Three-position switch—Fast Test, Auto, Normal Test

Optional Accessories

NEMA 12 dustproof enclosure •
NEMA 3R rainproof enclosure •
Inphase Monitoring/Logic Control, adjustable switch settings with LED indications •
4-pole contactor for neutral isolation •
Programmable exerciser •
Exterior AC meter package •
Two (2) sets of auxiliary contacts •

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POWER SYSTEMS

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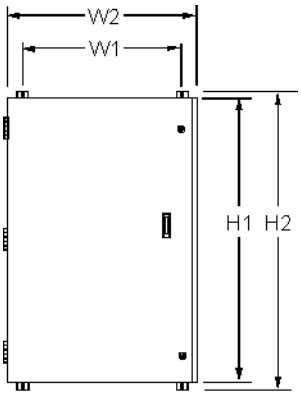
GTS Control Systems

	CPU CONTROL	LOGIC CONTROL w / Inphase Monitor
Utility Voltage		
Dropout	70-95% (Adj.)	70-95% (Adj.)
Pickup	70-95% (Adj.)	70-95% (Adj.)
Line Interrupt	0.1-10 Sec. (Adj.)	0.1-10 Sec. (Adj.)
Engine Minimum Run	10 Min. (Fixed)	5-30 Min. (Adj.)
Engine Warmup	30 Sec. (Fixed)	5 Sec.-3 Min. (Adj.)
Return to Utility	30 Sec. (Fixed)	1-30 Min. (Adj.)
Engine Cooldown	10 Min. (Fixed)	1-30 Min. (Adj.)
Standby Voltage		70-90% (Adj.)
Standby Frequency		80-90% (Adj.)
Time Delay Neutral	5 Sec. (Fixed)	0.1-10 Sec. (Adj.)
Transfer on Exercise	On/Off Switch	On/Off Switch
Warmup Timer Bypass	On/Off Switch	On/Off Switch
Time Delay Neutral Bypass	On/Off Switch	On/Off Switch
Inphase Monitor		On/Off Switch

250 Volt GTS Series

GTS Rated Amps	105	150	200	300	420
Fuse Protected					
Available RMS Symmetrical Fault Current @ 250 Volts	200,000	200,000	200,000	200,000	200,000
Protective Device Continuous Rating (Max) Amp	200	200	400	400	600
Fuse Class	J,T	J,T	J,T	J,T	J,T
Circuit Breaker Protected					
Available RMS Symmetrical Fault Current @ 250 Volts	10,000	10,000	10,000	14,000	22,000
Protective Device Continuous Rating (Max) Amp	200	200	400	400	600



Mechanical Dimensions

Current Rating	Height		Width		Depth	Weight
	H1	H2	W1	W2		(lbs.)
105	36	37.25	18.4	24.75	10	170
150	36	37.25	18.4	24.75	10	200
200	48	49.25	24.4	30.75	12	250
300	48	49.25	24.4	30.75	12	300
420	48	49.25	24.4	30.75	12	300

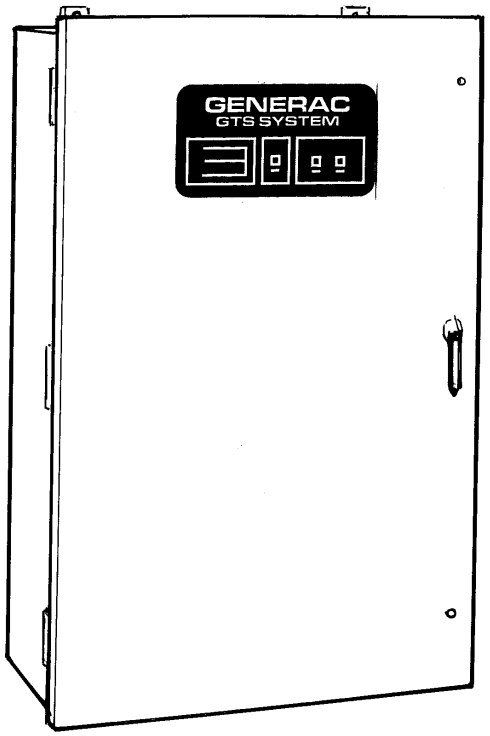
Terminal Wire Ranges**

GTS Rated Amps	Switch Terminal	Neutral Bar	Ground Lug
105	1X-2/0-14	4X-2/0-14	1X-2/0-14
150	1X-2/0-14	4X-2/0-14	1X-2/0-14
200	1X-350MCM-6	4X-350MCM-6	1X-350MCM-6
300	1X-350MCM-6	4X-350MCM-6	1X-350MCM-6
420	2X-250MCM-6	6X-500MCM/1X-350MCM-6	1X-350MCM-6

** Consult factory for optional terminals.

Bulletin S94600 / Printed in USA 11.97, 12.97, 3.99

Automatic Transfer Switches
100 - 400 Amps, 600 VAC "W" Series



- **Standard time delay neutral will reduce switchover problems.**
- **Logic control with inphase monitor regulates switch functions and allows adjustable switch settings with LED indications.**
- **Control switches located on the front of the door for ease of operation.**
- **All switches are UL 1008 listed and CSA certified.**
- **Electrically-operated, mechanically-held contacts for fast, positive connections.**
- **Rated for all classes of load, 100% equipment rated, both inductive and resistive with no derations.**
- **2, 3, and 4 Pole 600 VAC contactors.**
- **160 millisecond transfer time.**

Standard Features

- Single coil design, electrically operated and mechanically held
- Weekly exerciser
- SPDT auxiliary contacts
- Main contacts are silver plated or silver alloy to resist welding and sticking
- Conformal coating protects all printed circuit boards
- Indicating lights for switch position—Normal, Emergency, and Standby Operating
- NEMA 1 enclosure with hinged door and key-locking handle
- Three-position switch—Fast Test, Auto, Normal Test

Optional Accessories

NEMA 12 dustproof enclosure •
NEMA 3R rainproof enclosure •
4-pole contactor for neutral isolation •
Quickchange multi-voltage panel •
Programmable exerciser •
Exterior AC meter package •
Two (2) sets of auxiliary contacts •

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GTS Control Systems

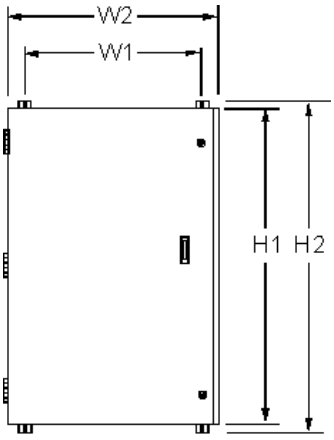
	LOGIC CONTROL w / Inphase Monitor
Utility Voltage	
Dropout	70-95% (Adj.)
Pickup	70-95% (Adj.)
Line Interrupt	0.1-10 Sec. (Adj.)
Engine Minimum Run	5-30 Min. (Adj.)
Engine Warmup	5 Sec.-3 Min. (Adj.)
Return to Utility	1-30 Min. (Adj.)
Engine Cooldown	1-30 Min. (Adj.)
Standby Voltage	70-90% (Adj.)
Standby Frequency	80-90% (Adj.)
Time Delay Neutral	0.1-10 Sec. (Adj.)
Transfer on Exercise	On/Off Switch
Warmup Timer Bypass	On/Off Switch
Time Delay Neutral Bypass	On/Off Switch
Inphase Monitor	On/Off Switch

600 Volt GTS Series

GTS Rated Amps	100	150	200	300	400
Fuse Protected					
Available RMS Symmetrical Fault Current	200,000	200,000	200,000	200,000	200,000
Protective Device Continuous Rating (Max) Amp	200	400	400	600	600
Fuse Class	J,T	J,T	J,T	J,T	J,T
Circuit Breaker Protected					
Available RMS Symmetrical Fault Current	14,000	25,000	25,000	35,000	35,000
Protective Device Continuous Rating (Max) Amp	150	300	300	600	600

* Tested per UL 1008 and CSA Standards

* Current ratings are listed @ 480 VAC



Mechanical Dimensions

Current Rating	Height		Width		Depth	Weight
	H1	H2	W1	W2		(lbs.)
100	36	37.25	18.4	24.75	10	180
150	48	49.25	24.4	30.75	12	265
200	48	49.25	24.4	30.75	12	265
300	48	49.25	24.4	30.75	12	325
400	48	49.25	24.4	30.75	12	325

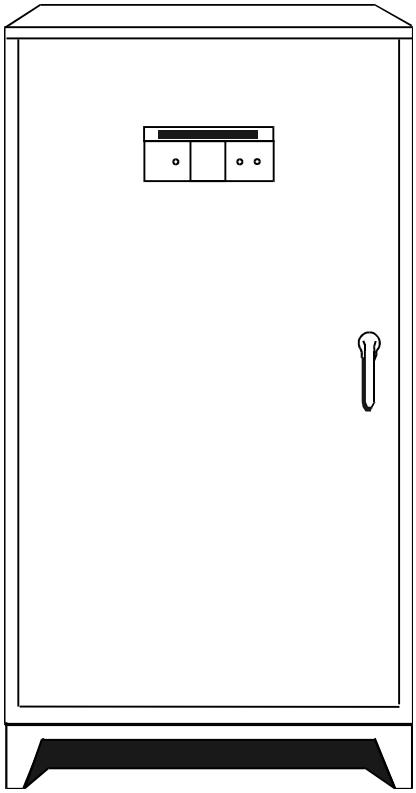
Terminal Wire Ranges**

GTS Rated Amps	Switch Terminal	Neutral Bar	Ground Lug
100	1X-2/0-14	4X-2/0-14	1X-2/0-14
150	1X-2/0-14	4X-2/0-14	1X-2/0-14
200	1X-350MCM-6	4X-350MCM-6	1X-350MCM-6
300	2X-250MCM-1/0 or 1X-600MCM-4	4X-350MCM-6	1X-350MCM-6
400	2X-250MCM-1/0 or 1X-600MCM-4	6X-500MCM/1X-350MCM-6	1X-350MCM-6

** Consult factory for optional terminals.

Bulletin S94700 / Printed in USA 11.97, 12.97, 7.98

Automatic Transfer Switches
600 - 1000 Amps, 600 VAC



- **Standard time delay neutral will reduce switchover problems.**
- **CPU microprocessor control regulates switch functions with minimal adjustments.**
- **Control switches located on the front of the door for ease of operation.**
- **All switches are UL 1008 listed and CSA certified.**
- **Electrically-operated, mechanically-held contacts for fast, positive connections.**
- **Rated for all classes of load, 100% equipment rated, both inductive and resistive with no derations.**
- **2, 3, and 4 Pole 600 VAC contactors.**
- **160 millisecond transfer time.**

Standard Features

- Single coil design, electrically operated and mechanically held
- Weekly exerciser
- SPDT auxiliary contacts
- Main contacts are silver plated or silver alloy to resist welding and sticking
- Conformal coating protects all printed circuit boards
- Indicating lights for switch position—Normal, Emergency, and Standby Operating
- NEMA 12 enclosure with hinged door and key-locking handle
- Three-position switch—Fast Test, Auto, Normal Test

Optional Accessories

NEMA 3R rainproof enclosure •
Inphase Monitoring / Logic Control, adjustable switch settings with LED indications •
4-pole contactor for neutral isolation •
Quickchange multi-voltage panel •
Programmable exerciser •
Exterior AC meter package •
Two (2) sets of auxiliary contacts •

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GTS Control Systems

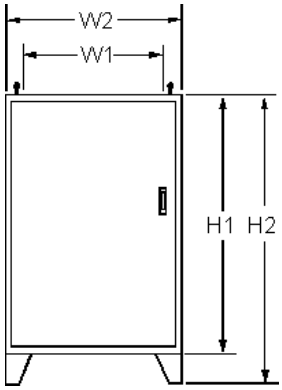
	CPU CONTROL	LOGIC CONTROL w / Inphase Monitor
Utility Voltage		
Dropout	70-95% (Adj.)	70-95% (Adj.)
Pickup	70-95% (Adj.)	70-95% (Adj.)
Line Interrupt	0.1-10 Sec. (Adj.)	0.1-10 Sec. (Adj.)
Engine Minimum Run	10 Min. (Fixed)	5-30 Min. (Adj.)
Engine Warmup	30 Sec. (Fixed)	5 Sec.-3 Min. (Adj.)
Return to Utility	30 Sec. (Fixed)	1-30 Min. (Adj.)
Engine Cooldown	10 Min. (Fixed)	1-30 Min. (Adj.)
Standby Voltage	70-90% (Adj.)	
Standby Frequency	80-90% (Adj.)	
Time Delay Neutral	5 Sec. (Fixed)	0.1-10 Sec. (Adj.)
Transfer on Exercise	On/Off Switch	On/Off Switch
Warmup Timer Bypass	On/Off Switch	On/Off Switch
Time Delay Neutral Bypass	On/Off Switch	On/Off Switch
Inphase Monitor		On/Off Switch

600 Volt GTS Series

GTS Rated Amps	600	800	1000
Fuse Protected			
Available RMS Symmetrical Fault Current	200,000	200,000	200,000
Protective Device Continuous Rating (Max) Amp	800	1200	1600
Fuse Class	L,T	L	L
Circuit Breaker Protected			
Available RMS Symmetrical Fault Current	42,000	65,000	65,000
Protective Device Continuous Rating (Max) Amp	750	1250	1250

* Tested per UL 1008 and CSA Standards

* Current ratings are listed @ 480 VAC



Mechanical Dimensions

Current Rating	Height		Width		Depth	Weight
	H1	H2	W1	W2		(lbs.)
600	60	66	30	36	20	650
800	60	66	30	36	20	700
1000	60	66	30	36	20	700

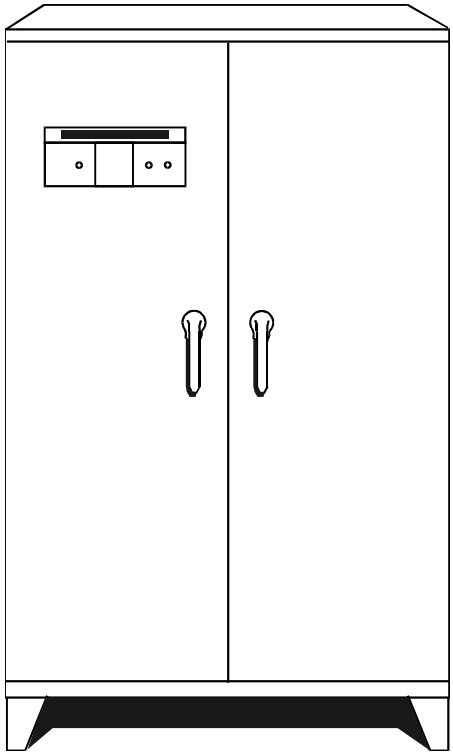
Terminal Wire Ranges**

GTS Rated Amps	Switch Terminal	Neutral Bar	Ground Lug
600	2X-500MCM-1	6X-500 MCM 1X-350MCM-6	1X/350MCM-6
800	4X-500MCM-4/0	9X-400MCM-3/0 1X-350MCM-6	1X-350MCM-6
1000	4X-500MCM-4/0	9X-400MCM-3/0 1X-350MCM-6	1X-350MCM-6

** Consult factory for optional terminals.

Bulletin SBY15255 / Printed in USA 11.97, 12.97, 9.99

Automatic Transfer Switches
1200 - 2600 Amps, 600 VAC



- **Standard time delay neutral will reduce switchover problems.**
- **CPU microprocessor control regulates switch functions with minimal adjustments.**
- **Control switches located on the front of the door for ease of operation.**
- **All switches are UL 1008 listed and CSA certified.**
- **Electrically-operated, mechanically-held contacts for fast, positive connections.**
- **Rated for all classes of load, 100% equipment rated, both inductive and resistive with no derations.**
- **2, 3, and 4 Pole 600 VAC contactors.**
- **160 millisecond transfer time.**

Standard Features

- Single coil design, electrically operated and mechanically held
- Weekly exerciser
- SPDT auxiliary contacts
- Main contacts are silver plated or silver alloy to resist welding and sticking
- Conformal coating protects all printed circuit boards
- Indicating lights for switch position—Normal, Emergency, and Standby Operating
- NEMA 12 enclosure with hinged door and key-locking handle
- Three-position switch—Fast Test, Auto, Normal Test

Optional Accessories

NEMA 3R rainproof enclosure •
Inphase Monitoring / Logic Control, adjustable switch settings with LED indications •
4-pole contactor for neutral isolation •
Quickchange multi-voltage panel •
Programmable exerciser •
Exterior AC meter package •
Two (2) sets of auxiliary contacts •

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GTS Control Systems

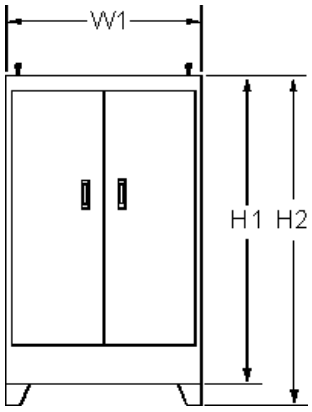
	CPU CONTROL	LOGIC CONTROL w / Inphase Monitor
Utility Voltage		
Dropout	70-95% (Adj.)	70-95% (Adj.)
Pickup	70-95% (Adj.)	70-95% (Adj.)
Line Interrupt	0.1-10 Sec. (Adj.)	0.1-10 Sec. (Adj.)
Engine Minimum Run	10 Min. (Fixed)	5-30 Min. (Adj.)
Engine Warmup	30 Sec. (Fixed)	5 Sec.-3 Min. (Adj.)
Return to Utility	30 Sec. (Fixed)	1-30 Min. (Adj.)
Engine Cooldown	10 Min. (Fixed)	1-30 Min. (Adj.)
Standby Voltage	70-90% (Adj.)	
Standby Frequency	80-90% (Adj.)	
Time Delay Neutral	5 Sec. (Fixed)	0.1-10 Sec. (Adj.)
Transfer on Exercise	On/Off Switch	On/Off Switch
Warmup Timer Bypass	On/Off Switch	On/Off Switch
Time Delay Neutral Bypass	On/Off Switch	On/Off Switch
Inphase Monitor		On/Off Switch

600 Volt GTS Series

GTS Rated Amps	1200	1600	2000	2600
Fuse Protected				
Available RMS Symmetrical Fault Current	200,000	200,000	200,000	200,000
Protective Device Continuous Rating (Max) Amp	2000	2000	2500	4000
Fuse Class	J,T	J,T	J,T	J,T
Circuit Breaker Protected				
Available RMS Symmetrical Fault Current	65,000	65,000	85,000	85,000
Protective Device Continuous Rating (Max) Amp	2000	2000	2500	3500

* Tested per UL 1008 and CSA Standards

* Current ratings are listed @ 480 VAC



Mechanical Dimensions

Current Rating	Height H1	Height H2	Width W1	Width W2	Depth	Weight (lbs.)
1200	72	78	48		24	1100
1600	72	78	48		24	1100
2000	73	80	46		48	1300
2600	73	80	46		48	1700

Terminal Wire Ranges**

GTS Rated Amps	Switch Terminal	Neutral Bar		Ground Lug
1200	4X-750MCM-1/0	9X-400MCM-3/0	1X-350MCM-6	1X-350MCM-6
1600	4X-750MCM-1/0	9X-400MCM-3/0	1X-350MCM-6	1X-350MCM-6
2000	BUS BAR	9X-400MCM-3/0	1X-350MCM-6	1X-350MCM-6
2600	BUS BAR	9X-400MCM-3/0	1X-350MCM-6	1X-350MCM-6

** Consult factory for optional terminals.

Bulletin SBY15256 / Printed in USA 11.97, 12.97, 9.99