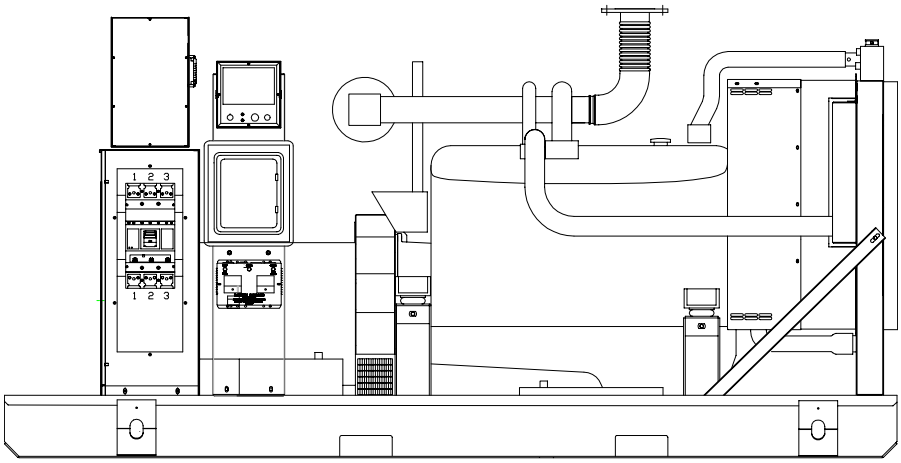
MG 150

Generac Modular Power System (MPS)

Standby Power Rating

150KW 60 Hz

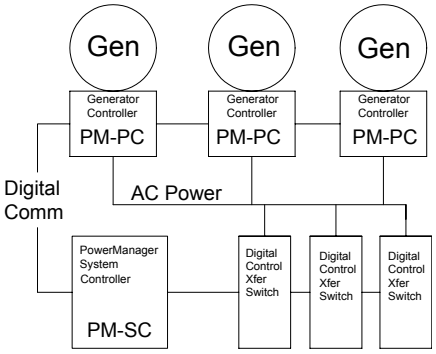


Power Matched

GENERAC 13.3GTA ENGINE

Turbocharged/Aftercooled
Gas Engine Generator
Meets EPA Emission Regulations

PowerManager® Digital Control Platform



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.

- **PARALLELING SYSTEM FEATURES:**
  - ✓ AUTO SYNCHRONIZATION
  - ✓ ISOCHRONOUS LOAD SHARING
  - ✓ REVERSE POWER PROTECTION
  - ✓ MAXIMUM POWER PROTECTION
  - ✓ ELECTRICALLY OPERATED MECHANICALLY HELD TRANSFER SYSTEM
  - ✓ REDUNDANT OPERATION AND INCREASED RELIABILITY
  - ✓ UL2200 LISTED

- **POWERMANAGER DIGITAL CONTROL PLATFORM™.** The PowerManager Digital Control Platform (PM-DCP) is a powerful control system built around a 32-bit, industrial microprocessor. Standard factory programming controls the entire engine/generator system, while allowing the PM-DCP, with its onboard PLC, to be customized to meet any application requirement. The system is available on single unit gas, diesel or bi-fuel installations as well as Modular Power Systems (MPS) from 350 kW - 3000 kW.

- **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 a GENERAC POWER SYSTEM.

- **ECONOMICAL NATURAL GAS POWER.** Low cost operation due to modern gas engine technology. Better fuel utilization plus lower cost per kW provide real savings.

- **LONGER ENGINE LIFE.** Generac heavy-duty natural gas engines provide long and reliable operating life.

- **GENERAC TRANSFER SWITCHES, POWERMANAGER™ 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 PowerManager™ controls for total system compatibility.

GENERAC®

APPLICATION & ENGINEERING DATA

MG150

GENERATOR SPECIFICATIONS

TYPE ..... Four-pole, revolving field
ROTOR INSULATION ..... Class H
STATOR INSULATION ..... Class H
TOTAL HARMONIC DISTORTION ..... <3%
TELEPHONE INTERFERENCE FACTOR (TIF) ..... <30
SHORT CIRCUIT CURRENT 300%
ALTERNATOR ..... Self-ventilated and drip-proof
BEARINGS (PRE-LUBED & SEALED) 1
COUPLING ..... Direct, Flexible Disc
LOAD CAPACITY (STANDBY) 100%

NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J1349, ISO3046 and DIN6271 standards.

EXCITATION SYSTEM

PERMANENT MAGNET EXCITER ..... Eighteen pole exciter ✓
Magnetically coupled DC current ✓
Mounted outboard of main bearing ✓
REGULATION ..... Digital Solid-state ✓
±0.25% regulation ✓

CONTROL SYSTEM PM-PC (See Note 5)

The Generac PowerManager™ Paralleling control is mounted at the generator set and monitors all engine and alternator parameters:

- High/Low Battery
- High Oil Temp
- Low Oil Pressure
- Low Coolant Level
- Overspeed/Underspeed
- Sensor Failures
- Over/Under Voltage
- Sensor Failures
- High/Low Frequency
- Pre-alarm Hi Oil Temp
- Pre-alarm Lo Oil Pressure
- Overcrank
- Pre-alarm Hi Coolant
- Critical Low Fuel
- Lo Fuel Pressure

The instrumentation screen displays the following:

- AC volts
- Frequency
- Power Factor
- Coolant level
- Fuel level(%)
- Oil Pressure
- AC amps
- kW
- Coolant Temp
- Run time hours
- Battery Voltage
- Engine Speed

■ Serial Communication to the PowerManager Integrated Controller or System Controller via RS485 connection
■ Programmable
■ Built in Synchronizer for paralleling control and protection
■ Digital Voltage Regulator for concise control
■ Three Pole 1000amp paralleling switch
- Rated 600 volts
- UL Recognized device
- Electrically Operated - Mechanically held
- Built in arc supression

■ Mainline Circuit Breaker
Mounted in series with paralleling switch
■ Generator Connection Box
Mounted on right side (facing rear) 12" x 22" x 36"
Access from side, top, bottom to paralleling switch

ENGINE SPECIFICATIONS

MAKE ..... GENERAC
MODEL 13.3GTA
CYLINDERS ..... 6 in-line
DISPLACEMENT ..... 13.3 Liter (811 cu. in.)
BORE ..... 137 mm (5.39 in.)
STROKE ..... 150 mm (5.91 in.)
COMPRESSION RATIO 10.5:1
INTAKE AIR ..... Turbocharged/Aftercooled
NUMBER OF MAIN BEARINGS 7
CONNECTING RODS ..... 6-Carbon Steel
CYLINDER HEAD ..... Cast Iron with Overhead Valve
CYLINDER LINERS ..... Wet/Replaceable
IGNITION ..... Altronic CD1
PISTONS ..... Heat-Resistant Alloy with 4 Rings
CRANKSHAFT ..... Induction-Hardened, Die-Forged Carbon Steel

VALVE TRAIN

LIFTER TYPE ..... Solid
INTAKE VALVE MATERIAL ..... Special Heat Resistant Steel
EXHAUST VALVE MATERIAL ..... Inconel Alloy High Temp.
HARDENED VALVE SEATS ..... Hight Temp. Alloy Stellite Faced

ENGINE GOVERNOR

ELECTRONIC ..... Standard
STEADY STATE REGULATION ..... ±0.25%

LUBRICATION SYSTEM

TYPE OF OIL PUMP ..... Gear Driven
OIL FILTER ..... Full flow, cartridge
CRANKCASE CAPACITY ..... 27 Liters (7.13 gal.)

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 ..... 30 in.
COOLANT HEATER ..... 2-240V, 1000 W

FUEL SYSTEM

FUEL
❒ Natural Gas ..... Standard
CARBURETOR ..... Down draft
SECONDARY FUEL REGULATOR ..... Nat. Gas
AUTOMATIC FUEL LOCKOFF SOLENOID ..... Standard
OPERATING FUEL PRESSURE SYSTEMS ..... 7" to 15" H_2O
MINIMUM BTU / ft^3 875
INPUT PIPE SIZE ..... 1 1/2" NPT

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR ..... 20 Amps at 24 V
STARTER MOTOR ..... 24 V
RECOMMENDED BATTERY ..... 925 CCA (2) - 12 V, 135 A.H., 4D
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: 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).

MG150

OPERATING DATA		STANDBY	
		MG150	
GENERATOR OUTPUT VOLTAGE/KW-60Hz		**N.G.**	**Rated AMP**
120/208V, 3-phase, 0.8 pf	NOTE: Consult your Generac dealer for additional voltages.	150	520
277/480V, 3-phase, 0.8 pf		150	225
600V, 3-phase, 0.8 pf		150	180
MOTOR STARTING KVA			
Maximum at 35% instantaneous voltage dip		**208V**	**480V**
with standard alternator — 60 Hz		348 kVA	464 kVA
with optional alternator — 60 Hz		900 kVA	1356 kVA
FUEL		**N.G.**	
Fuel consumption—60 Hz—100% Load*			
	ft.^{3} hr.	1850	
COOLING			
Coolant capacity	System - US gal.	7.7	
	Engine - US gal.	5.6	
	Radiator - US gal.	2.1	
Coolant flow/min.	60 Hz - US gal.	45	
Heat rejection to coolant		558,000	
Inlet air	60 Hz - cfm	17,400	
Max. operating air temperature on radiator	°F	140	
Max. operating ambient temperature	°F	122	
Max. external pressure drop on radiator	" H_2O	0.5	
COMBUSTION AIR REQUIREMENTS			
Flow at rated power	60 Hz - cfm	480	
EXHAUST			
Exhaust flow at rated output	60 Hz - cfm	1490	
Max recommended back pressure	Hg	1.5"	
Exhaust temp at rated output	°F	1210	
Exhaust outlet size	I.D. (flange)	4"	
ENGINE			
Rated RPM	60 Hz	1800	
HP at rated KW**	60 Hz	309	
Piston speed	60 Hz - ft./min.	1773	
BMEP	60 Hz – psi	168	
DERATION FACTORS			
Temperature			
2.77% for every 10°F above - °F		110	
Altitude			
3.5% for every 1000 ft. above - ft.		7500	

* Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

** Refer to "Emissions Data Sheets" for maximum bHP for EPA and SCAQMD permitting purposes.

Notes:

1. Motor Starting kVA adds directly for each generator on the bus. With Generac's PowerManager® Control System, the load is shared proportionally.
2. Maximum distance between Generator Sets is determined by the voltage drop of the power conductors and the maximum distance allowed for the RS485 connection. If the Distance between units exceeds **500** feet, consult factory for wire and communication recommendations.
3. Fuel consumption like motor starting kVA is additive. Each Generator will proportionally share the load and the fuel consumption will be based on the percentage of load shared.
4. A complete MPS system requires a PowerManager Paralleling Controller (PM-PC), a PowerManager System Controller (PM-SC), and switch(es) from Generac Power System's GTS line of digitally controlled transfer switches. In addition, Generac Power Systems' Genlink® Communications Software provides remote monitoring and user interface with the Power Manager Digital Control Platform.
5. Values given are maximum temperatures to which power adjustment factors can be applied. Consult your Generac representative if operating conditions exceed these maximums.
6. MPS Gensets are available for Standby Applications Only, at this time.

STANDARD ENGINE & SAFETY FEATURES

MG150

- 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
- 24 Volt, Solenoid-activated Starter Motor
- Air Cleaner
- Fan Guard
- Control Console
- Isochronous Governor
- Jacket water heater
- Autosynchronizer
- Isochronous Load Sharing Module
- Reverse Power Protection Relay
- Dead Bus Sensing
- Sync Check Relay
- Main Line Circuit Breaker
- 2 Year Warranty
- Engine Coolant Heater

GENERATOR CONNECTIONS

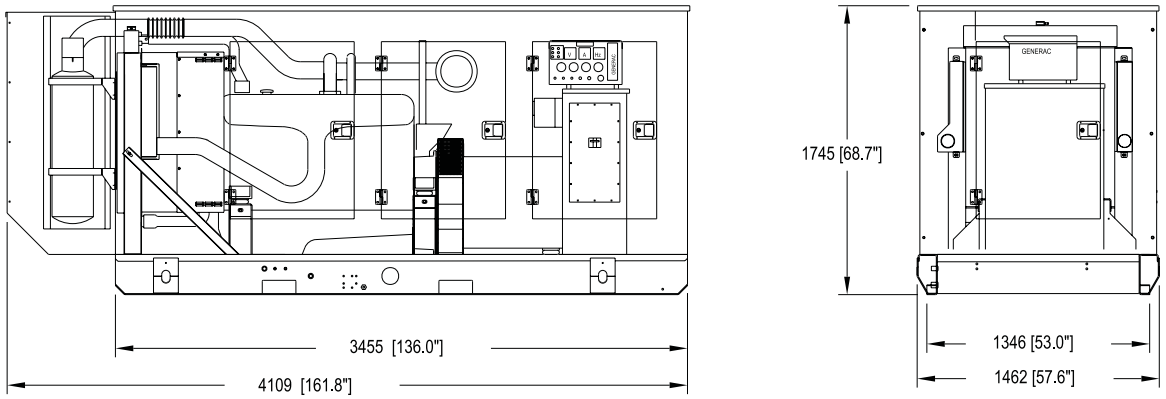
1. 4 Wire load connections on Paralleling Contactor: Each phase will accept (4) #6 to 350MCM aluminum or copper conductor.
2. 2 wire shielded cable (RS485) to Power Manager System Control or Power Manager Integral Control
3. 2 wire Twisted pair from Transfer switch (when multiple transfer switches are used) Can also go to the Power Manager System Controller
4. 120 Volt 15 amp input circuit for Battery Charger.
5. 240 Volt 20 amp input for Coolant Heater.

OPTIONS

- **OPTIONAL COOLING SYSTEM ACCESSORIES**
  - ❍ **Radiator Duct Adapter**
- **OPTIONAL FUEL ACCESSORIES**
  - ❍ **Flex Fuel Lines**
  - ❍ **Low Pressure Alarm**
- **OPTIONAL ELECTRICAL ACCESSORIES**
  - ❍ **10A Dual Rate Battery Charger**
  - ❍ **Battery, 24 Volt**
  - ❍ **Battery warmer**
- **OPTIONAL ALTERNATOR ACCESSORIES**
  - ❍ **Alternator Heater**
- **OPTIONAL EXHAUST ACCESSORIES**
  - ❍ **Critical Exhaust Silencer**
- **GENERAC POWERMANAGER™ INTEGRATED**
  - ❍ **Controller and ATS Note 5 - See Spec 0167390SBY for additional information**
- **GENERAC POWERMANAGER™ SYSTEM**
  - ❍ **Controller Note 5 for Multiple Transer Switches See Spec 0167380SBY for Additional Information**
- **ADDITIONAL OPTIONAL EQUIPMENT**
  - ❍ **20 Light Remote Annunciator**
  - ❍ **Remote Relay Panels**
  - ❍ **Oil Make-Up System**
  - ❍ **Oil Heater**
  - ❍ **GenLink® Communications Software**
- **OPTIONAL ENCLOSURES**
  - ❍ **Weather Protective**
  - ❍ **Sound Attenuated**
  - ❍ **Aluminum and Stainless Steel**

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.



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