

GENERATOR SPECIFICATIONS

TYPE.....	Synchronous
ROTOR INSULATION.....	Class F
STATOR INSULATION.....	Class F
TOTAL HARMONIC DISTORTION.....	<5%
TELEPHONE INTERFERENCE FACTOR (TIF).....	<50
ALTERNATOR OUTPUT LEADS 3 PHASE.....	4 wire
BEARINGS.....	Sealed Ball
COUPLING.....	Flexible Disc
LOAD CAPACITY (STANDBY RATING).....	20 kW
EXCITATION SYSTEM.....	Direct

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

VOLTAGE REGULATOR

TYPE.....	Electronic
SENSING.....	Single Phase
REGULATION.....	± 1%
FEATURES.....	V/F Adjustable Adjustable Voltage and Gain LED Indicators

GENERATOR FEATURES

- Revolving field heavy duty generator
- Directly connected to the engine
- Operating temperature rise 120 °C above a 40 °C ambient
- Insulation is Class F rated at 130 °C rise
- All models are fully prototyped tested

CONTROL PANEL FEATURES

- SEVEN LED INDICATOR LIGHTS
 - System ready
 - Low fuel pressure
 - Low battery
 - Low oil pressure
 - High coolant temp/low coolant temp
 - Overspeed
 - Overcrank
- ADDITIONAL FUNCTIONS
 - Utility sensing
 - Delay on utility failure for engine start
 - Engine warm-up before transfer
 - Delay to retransfer to utility
 - Engine cooldown timer
 - Exerciser not set
- INTERNAL FUNCTIONS:
 - 3 position switch (auto, off and manual)
 - 2 wire start for any transfer switch
 - Communicates with the Generac RTS transfer switch
 - Built-in 7 day exerciser
 - Selectable engine speed at exercise
 - Governor controller is built into the master control board
 - Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

MAKE.....	Generac
MODEL.....	In line
CYLINDERS.....	4
DISPLACEMENT.....	1.6 Liter
BORE.....	3.15
STROKE.....	3.13
COMPRESSION RATIO.....	9.75:1
INTAKE AIR SYSTEM.....	Naturally Aspirated
VALVE SEATS.....	Replaceable
LIFTER TYPE.....	Hydraulic

GOVERNOR SPECIFICATIONS

TYPE.....	Electronic
FREQUENCY REGULATION.....	Isochronous
STEADY STATE REGULATION.....	± 0.25
ADJUSTMENTS	
Speed.....	Yes
Droop.....	Yes

ENGINE LUBRICATION SYSTEM

OIL PUMP.....	Gear
OIL FILTER.....	Full flow spin-on cartridge
CRANKCASE CAPACITY.....	4 Quarts

ENGINE COOLING SYSTEM

TYPE.....	Closed
WATER PUMP.....	Belt driven
FAN SPEED.....	2550
FAN DIAMETER.....	15 inches
FAN MODE.....	Pusher

FUEL SYSTEM

FUEL TYPE.....	Natural gas, propane vapor
CARBURETOR.....	Down Draft
SECONDARY FUEL REGULATOR.....	Standard
FUEL SHUT OFF SOLENOID.....	Standard
OPERATING FUEL PRESSURE.....	.5" - 14" H ₂ O

ELECTRICAL SYSTEM

BATTERY CHARGE ALTERNATOR.....	12V 30 Amp
STATIC BATTERY CHARGER.....	2 Amp
RECOMMENDED BATTERY.....	Group 26, 525CCA
SYSTEM VOLTAGE.....	12 Volts

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). (All ratings in accordance with BS5514, ISO3046, ISO8528 and DIN6271).

OPERATING DATA

		STANDBY 20 kW				
KW RATING		20				
ENGINE SIZE		1.6 Liter 4 cyl. inline				
GENERATOR OUTPUT VOLTAGE/KW - 60Hz 120/240V, single phase, 1.0 pf		KW 20	AMP 83.3	CB Size 100		
GENERATOR LOCKED ROTOR KVA AVAILABLE @ VOLTAGE DIP OF 35% single phase		34				
ENGINE FUEL CONSUMPTION 60 Hz (Natural Gas) (Propane Vapor)		Exercise Cycle	25% Load	50% Load	75% Load	100% Load
Natural Gas ft ³ /hr. LP Vapor ft ³ /hr. (gal/hr.)		60 24 (0.65)	124 49 (1.35)	188 75 (2.05)	250 99 (2.73)	315 125 (3.44)
ENGINE COOLING						
Air flow (inlet air including alternator and combustion air)		ft ³ /min.		1,528		
System coolant capacity		US gal.		2.0		
Heat rejection to coolant		BTU/hr.		107,000		
Max. operating air temp. on radiator		°C (°F)		60 (150)		
Max. ambient temperature		°C (°F)		50 (140)		
COMBUSTION AIR REQUIREMENTS						
Flow at rated power 60 Hz		cfm		91		
SOUND EMISSIONS IN DBA						
Exercising at 7 meters		62				
Full load at 7 meters		72				
EXHAUST						
Exhaust flow at rated output 60 Hz		cfm		177		
Exhaust temp. at muffler outlet		°F		910		
ENGINE PARAMETERS						
Rated synchronous RPM		60 Hz		3600		
HP at rated KW		60 Hz		34.8		
POWER ADJUSTMENT FOR AMBIENT CONDITIONS						
Temperature Deration		3% for every 10 °C above - °C 1.65% for every 10 °F above - °F		40 104		
Altitude Deration		1% for every 100 m above - m 3% for every 1000 ft. above - ft.		914 3000		
TRANSFER SWITCH SPECIFICATIONS <i>If so equipped</i>						
No. of Poles		2				
Current Rating (amps)		100				
Voltage Rating		250				
Utility Voltage Monitor (Fixed)		Pickup		80%		
		Dropout		60%		
Enclosure - NEMA 3R		Standard				
Return to Utility		15 Seconds				
Exercise 15 minute weekly		Standard				
UL 1008 Listed		Standard				
Dimensions (H" x W" x D")		20 x 15 x 7				
Weight		35 lbs.				

RATING: All three phases units are rated at 0.8 power factor. All single phase units are rated at 1.0 power factor. STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice. KW rating is based on LPG Fuel and may derate with natural gas. Maximum wattage and current are subject to and limited by such factors as fuelBtu content, ambient temperature, altitude, engine power and condition, etc.

