QT025A | 2.4L | 25 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating

25 kW, 31 kVA, 60 Hz

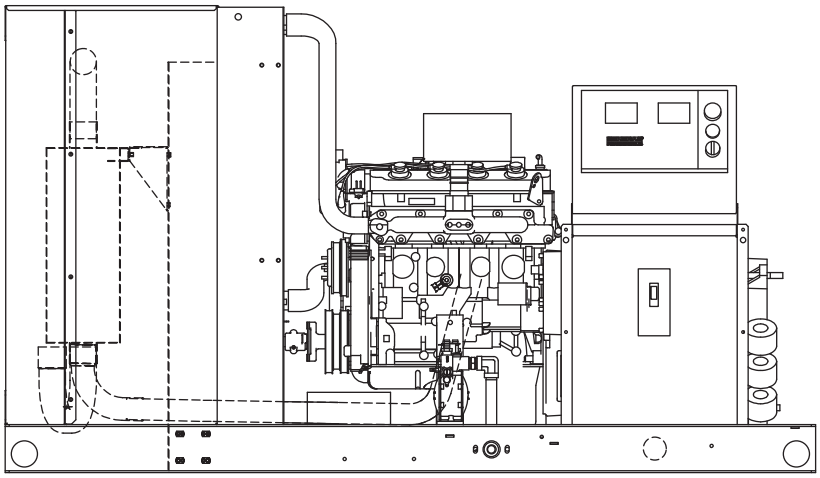


Image used for illustration purposes only

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.

- UL2200, UL6200, UL1236, UL489
- CSA C22.2, B149
- BS5514 and DIN 6271
- SAE J1349
- NFPA 37, 70, 99, 110
- NEC700, 701, 702, 708
- ISO 3046, 7637, 8528, 9001
- NEMA ICS10, MG1, 250, ICS6, AB1
- ANSI C62.41
- ASCE 7, ICC-ES AC-156

Powering Ahead

Generac ensures superior quality by designing and manufacturing most of its generator components, such as alternators, enclosures, control systems and communications software. Generac also makes its own spark-ignited engines, and you'll find them on every Generac gaseous-fueled generator. We engineer and manufacture them from the block up — all at our facilities throughout Wisconsin. Applying natural gas and LP-fueled engines to generators requires advanced engineering expertise to ensure reliability, durability and necessary performance. By designing specifically for these dry, hotter-burning fuels, the engines last longer and require less maintenance. Building our own engines also means we control every step of the supply chain and delivery process, so you benefit from single-source responsibility.

Plus, Generac Industrial Power's distribution network provides all parts and service so you don't have to deal with third-party suppliers. It all leads to a positive owner experience and higher confidence level. Generac spark-ignited engines give you more options in commercial and industrial generator applications as well as extended run time from utility-supplied natural gas.

QT025A | 2.4L | 25 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer (Enclosed Units Only)

FUEL SYSTEM

- Fuel Lockoff Solenoid
- Secondary Fuel Regulator
- Flexible Fuel Lines
- NPT Fuel Connection on Frame
- Primary and Secondary Fuel Shutoff

COOLING SYSTEM

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- 120 VAC Coolant Heater

ELECTRICAL SYSTEM

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- Fault Protection
- 10A UL Listed Float/Equalize Battery Charger
- Main Line Circuit Breaker
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Sealed Bearings
- Full Load Capacity Alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping (Enclosed Units Only)
- Standard Factory Testing
- 2 Year Limited Warranty
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosure)
- Gasketed Doors
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Lockable Handles
- Rhino Coat™ - Textured Polyester Powder Coat Paint

CONTROL SYSTEM

Digital H Control Panel- Dual 4x20 Display

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- Power Output (kW)
- Power Factor
- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

AVAILABLE OPTIONS

ENCLOSURE

- ○ Sound Attenuated Enclosure
- ○ Steel Enclosure
- ○ Aluminum Enclosure

QT025A | 2.4L | 25 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Engine Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - in^3 (L)	146.4 (2.4)
Bore - in (mm)	3.41 (86.61)
Stroke - in (mm)	3.94 (100.08)
Compression Ratio	9.5:1
Intake Air Method	Naturally Aspirated
Number of Main Bearings	5
Connecting Rods	Forged Steel
Cylinder Head	Aluminum
Cylinder Liners	No
Ignition	High Energy
Piston Type	Alumuim Alloy
Crankshaft Type	Cast Steel
Lifter Type	Overhead Cam
Intake Valve Material	Steel Alloy
Exhaust Valve Material	Hardened Steel
Hardened Valve Seats	Yes

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow Spin-on Cartridge
Crankcase Capacity - qt (L)	4.0 (3.8)

Cooling System

Cooling System Type	Pressurized Closed Recovery
Fan Type	Pusher
Fan Speed - RPM	1,980
Fan Diameter - in (mm)	18 (457)

Fuel System

Fuel Type	Natural Gas, Propane Vapor
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure - in H_2O (kPa)	5 - 14 (1.2 - 3.5) (Contact Factory for Details)

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	K0025124Y21
Poles	4
Field Type	Revolving
Insulation Class - Rotor	F
Insulation Class - Stator	H
Total Harmonic Distortion	<5% (3-Phase Only)
Telephone Interference Factor (TIF)	<50
Standard Excitation	Direct

Bearings	Sealed Ball
Coupling	Direct via Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Full Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

QT025A | 2.4L | 25 kW

INDUSTRIAL SPARK-IGNITED GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS - NATURAL GAS/PROPANE VAPOR

		Standby
Single-Phase 120/240 VAC @1.0pf	25 kW	Amps: 104
Three-Phase 120/208 VAC @0.8pf	25 kW	Amps: 87
Three-Phase 120/240 VAC @0.8pf	25 kW	Amps: 75
Three-Phase 277/480 VAC @0.8pf	25 kW	Amps: 38

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip

120/240 VAC 1Ø	30%	277/480 VAC 3Ø	30%	120/208 VAC 3Ø	30%
0G2134001R	12	0G2136001R	50	0G2135001R	50

FUEL CONSUMPTION RATES*

Natural Gas – scfm (m^3/hr)		Propane Vapor – scfm (m^3/hr)	
Percent Load	Standby	Percent Load	Standby
25%	140 (3.9)	25%	56 (1.6)
50%	220 (6.2)	50%	87 (2.5)
75%	300 (8.5)	75%	119 (3.4)
100%	380 (10.8)	100%	151 (4.3)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (Fan Air Flow Across Radiator)	cfm (m^3/min)	1,500 (42.48)
Coolant Flow	gpm (Lpm)	42 (160)
Coolant System Capacity	gal (L)	2.5 (9.5)
Maximum Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)		See Bulletin No. 0199270SSD
Maximum Additional Radiator Backpressure	in H_2O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power - cfm (m^3/min)	70 (2.0)

ENGINE

		Standby
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	40
Piston Speed	ft/min (m/min)	1,182 (360.3)
BMEP	psi (kPa)	120 (827)

EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m^3/min)	220 (6.2)
Maximum Allowable Backpressure (Post Silencer)	inHg (kPa)	1.5 (5.1)
Exhaust Temperature (Rated Output - Post Silencer)	°F (°C)	975 (524)

** Refer to “Emissions Data Sheet” for maximum bHP for EPA and SCAQMD permitting purposes.

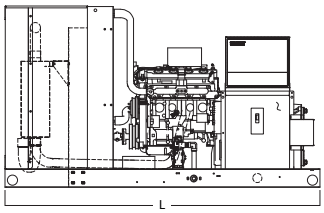
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.
Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.
Standby – See Bulletin 10000018933

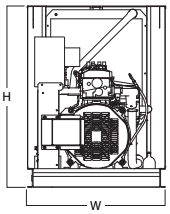
QT025A | 2.4L | 25 kW

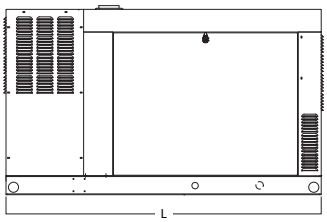
INDUSTRIAL SPARK-IGNITED GENERATOR SET

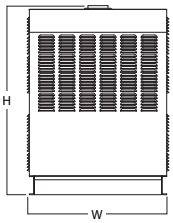
EPA Certified Stationary Emergency

DIMENSIONS AND WEIGHTS*









OPEN SET

L x W x H - in (mm)	77.0 (1,956) x 43.0 (864) x 34.0 (1,092)
Weight - lbs (kg)	1,163 (528)

SOUND ATTENUATED ENCLOSURE

L x W x H - in (mm)	77.0 (1,956) x 46.0 (864) x 34.0 (1,168)
Weight - lbs (kg)	1,414 (641)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.

SPEC SHEET

Generac Power Systems, Inc. | P.O. Box 8 | Waukesha, WI 53189
P: (262) 544-4811

Part No. 0173110SBY
Rev. G 01/24/2022

0J7003

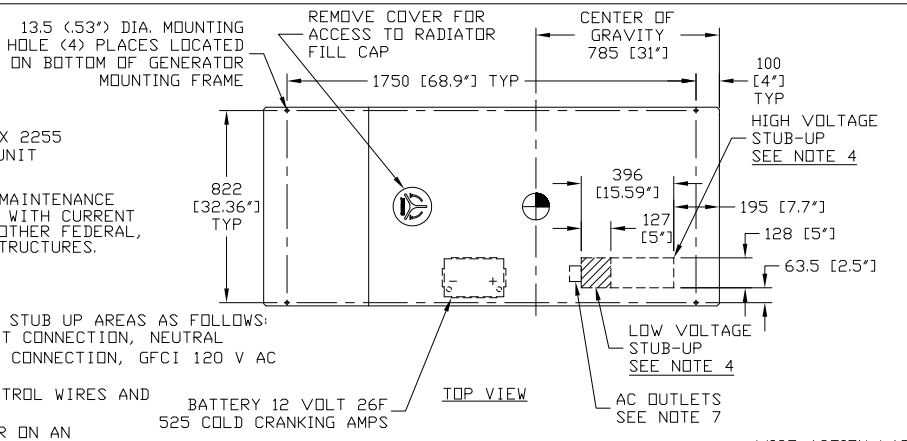
WEIGHT DATA
2.4L 25 KW 642KG (1414 LB)
WOODEN SHIPPING SKIDS INCREASE OVERALL WEIGHT - 42KG (98 LB)

NOTES:

1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1155 (45.5") WIDE X 2255 (88.8") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
3) CIRCUIT BREAKER INFORMATION:
   SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL
4) REMOVE THE CIRCUIT BREAKER BOX FRONT COVER TO ACCESS THE STUB UP AREAS AS FOLLOWS:
   -HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION, GFCI 120 V AC OUTLET CONNECTION.
   -LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES AND ACCESSORY RELAY CONNECTION (QTY 4)

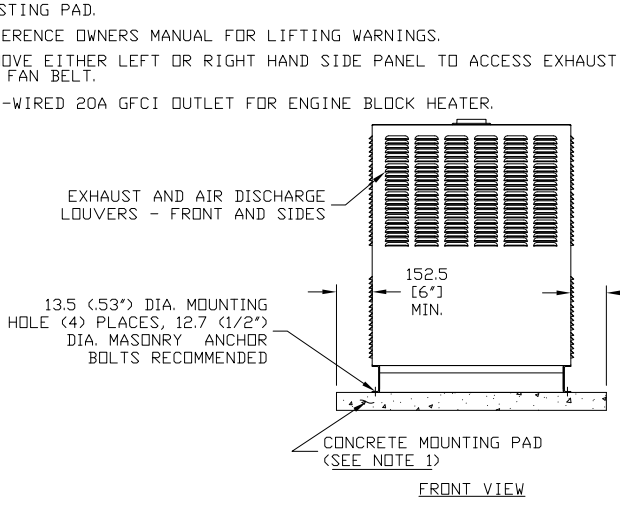
4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.

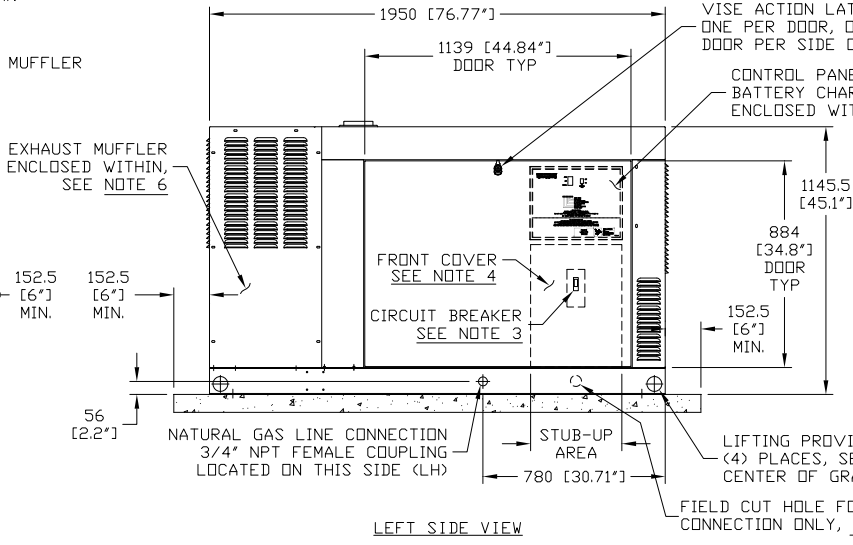
5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLER AND FAN BELT.
7) PRE-WIRED 20A GFCI OUTLET FOR ENGINE BLOCK HEATER.

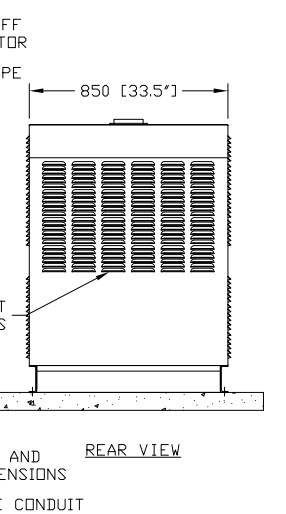


SERVICE ITEM ACCESSIBILITY CHART	
SERVICE ITEM	2.4L
OIL FILL CAP	EITHER DOOR
OIL DIP STICK	THRU RIGHT DOOR
OIL FILTER	THRU RIGHT DOOR
OIL DRAIN HOSE	THRU RIGHT DOOR
RADIATOR DRAIN HOSE	THRU LEFT DOOR
AIR CLEANER ELEMENT	EITHER DOOR
SPARK PLUGS	THRU RIGHT DOOR
MUFFLER	SEE NOTE 6
FAN BELT	SEE NOTE 6
BATTERY	THRU LEFT DOOR
AC OUTLET(S)	THRU LEFT DOOR

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS







INSTALLATION DRAWING

QTA 25

2.4L (25 KW) - G2

-

ENCLOSURE - C2

ISSUE DATE 09/21/11

GENERAC POWER SYSTEMS
Waukesha
P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME	0J7003.DWG	SIZE	B
SCALE	1 = 20	FIRST USE	QTA SERIES
DWG NO.	0J7003	REV	A

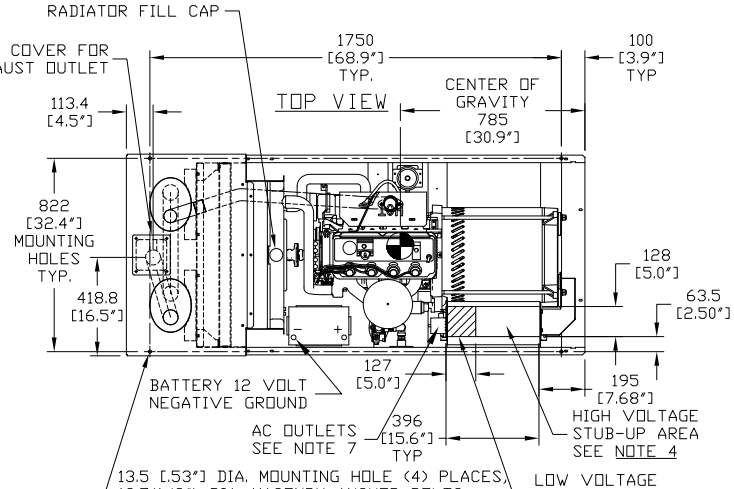
0J7003A

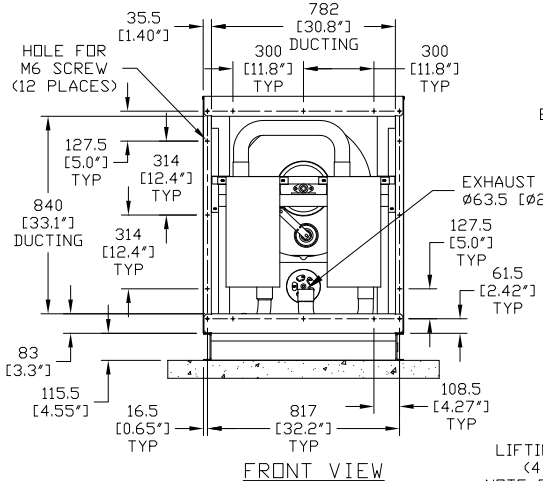
NOTES:
1) MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1155 (45.5") WIDE X 2255 (88.8") LONG.
2) ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE AND LOCAL CODES FOR MINIMUM DISTANCES FROM OTHER STRUCTURES.
3) CIRCUIT BREAKER INFORMATION: SEE SPECIFICATION SHEET WITHIN OWNERS MANUAL.
4) REMOVE THE CIRCUIT BREAKER BOX FRONT COVER TO ACCESS THE STUB UP AREAS AS FOLLOWS:
   -HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION, GFCI 120 V AC OUTLET CONNECTION.
   -LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES AND ACCESSORY RELAY CONNECTION (QTY 4)
4A) FIELD CUT HOLE IS ONLY REQUIRED FOR MOUNTING OF GENERATOR ON AN EXISTING PAD.
5) REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
6) REMOVE EITHER LEFT OR RIGHT HAND SIDE PANEL TO ACCESS EXHAUST MUFFLERS.
7) PRE-WIRED 20A GFCI OUTLET FOR ENG BLOCK HEATER.

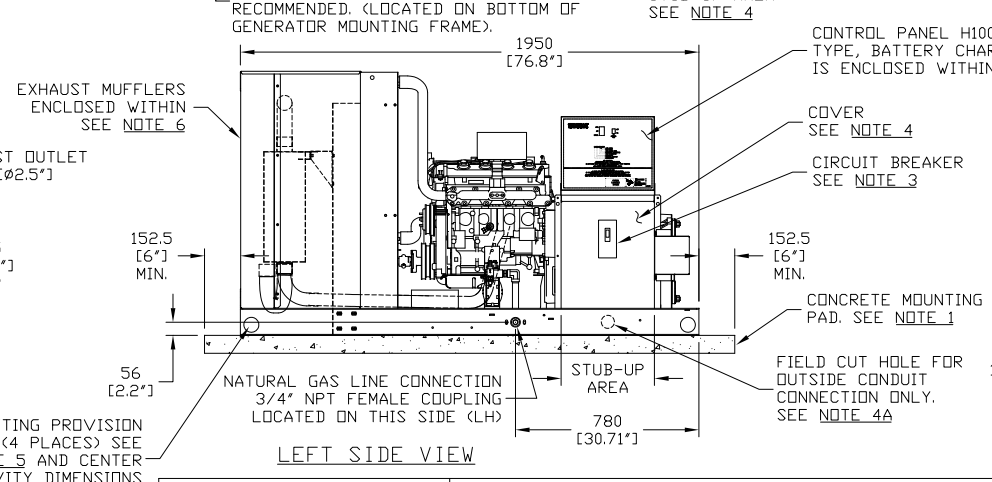
SERVICE ITEM ACCESSIBILITY CHART

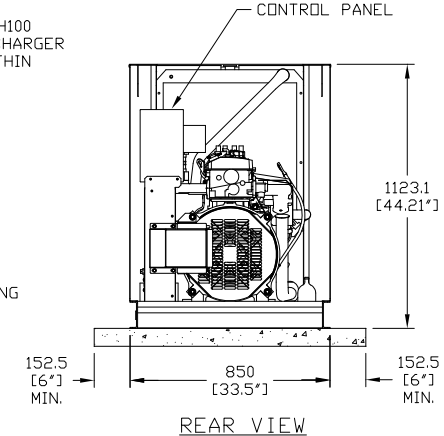
SERVICE ITEM	2.4L
OIL FILL CAP	EITHER SIDE
OIL DIP STICK	RIGHT SIDE
OIL FILTER	RIGHT SIDE
OIL DRAIN HOSE	RIGHT SIDE
RADIATOR DRAIN HOSE	LEFT SIDE
AIR CLEANER ELEMENT	EITHER SIDE
SPARK PLUGS	RIGHT SIDE
MUFFLERS	SEE NOTE 6
FAN BELT	EITHER SIDE
BATTERY	LEFT SIDE
AC OUTLET(S)	LEFT SIDE

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS









WEIGHT DATA
2.4L 25KW 528KG (1,163 LB)
WOODEN SHIPPING SKIDS INCREASE OVERALL WEIGHT 42KG (98LB)

INSTALLATION DRAWING

2.4L C2

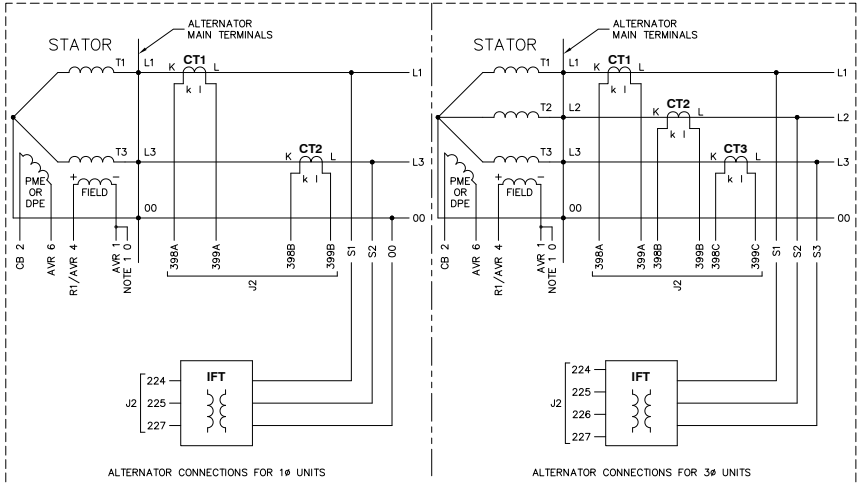
INDUSTRIAL QTA

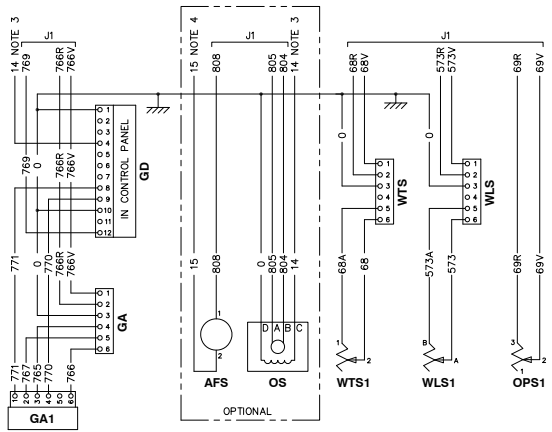
OPEN GENSET

9/21/11

GENERAC POWER SYSTEMS
Waukesha
P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME	0J7003A-B.DWG	SIZE	B
SCALE	1 = 20	FIRST USE	IQTA
DWG NO.	0J7003A	REV	B





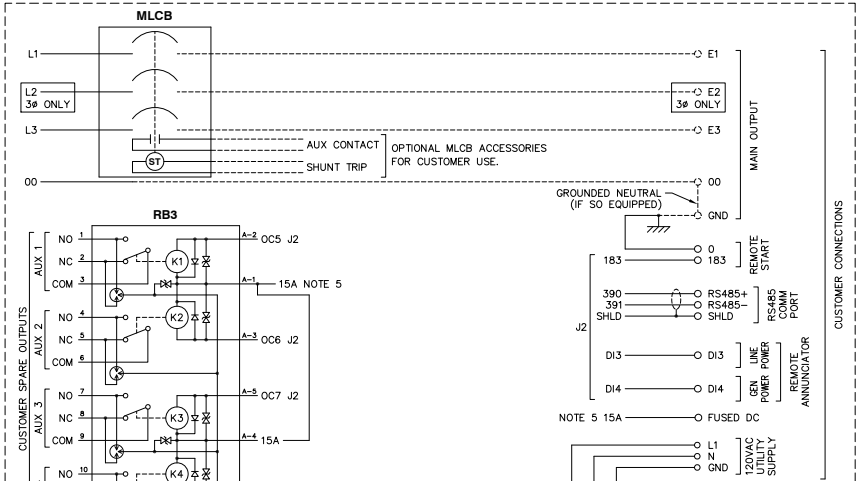
SCHEMATIC - DIAGRAM

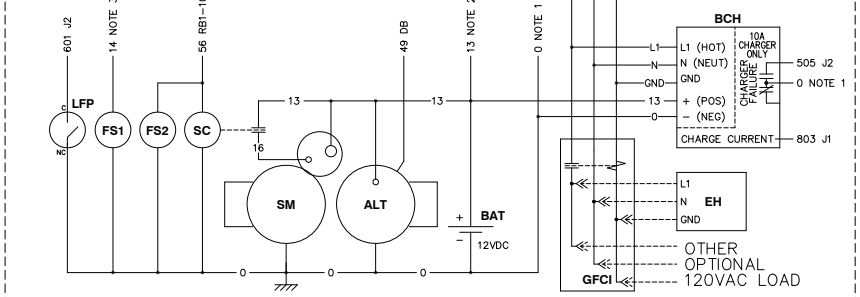
G2.4L G2 QTA

REVISION: -A-

DATE: 10/10/11

DRAWING #: 0J7176





LEGEND

00 – NEUTRAL	CP – COIL PACK	IFT – INTERFACE TRANSFORMER	RB_ – RELAY BOARD
AFS – AIR/FUEL SOLENOID	CT_ – CURRENT TRANSFORMER	IM – INTERFACE MODULE	SC – STARTER CONTACTOR
AH1 – ALARM HORN	DB – DIODE BRIDGE	J_ – ENGINE CONTROL MODULE CONN.	SHLD – SHIELD
ALT – DC CHARGE ALTERNATOR	EH – ENGINE BLOCK HEATER	LFP – LOW FUEL PRESSURE	SM – STARTER MOTOR
AVR – AUTOMATIC VOLTAGE REGULATOR	ES1 – EMERGENCY STOP SWITCH	MLCB – MAIN LINE CIRCUIT BREAKER	SP_ – SPARK PLUG
BAT – BATTERY	F_ – FUSE	MOD – MODEM CONNECTOR	ST – SHUNT TRIP
BCH – BATTERY CHARGER	FS_ – FUEL SOLENOID	MPU_ – MAGNETIC PICKUP	SW1 – OFF/AUTO/MANUAL SWITCH
CAM – CAMSHAFT SENSOR	GA_ – GOVERNOR ACTUATOR	OPS1 – OIL PRESSURE SENDER	WLS_ – WATER LEVEL SENSOR
CB – CIRCUIT BREAKER	GD – GOVERNOR DRIVER	OS – OXYGEN SENSOR	WTS_ – WATER TEMPERATURE SENDER
CIM – CAM INTERFACE MODULE	GFCI – GROUND FAULT CIRCUIT INTERRUPT	PME – PERMANENT MAGNET EXCITER	
COM – COMMUNICATION CONNECTOR	ICM – IGNITION CONTROL MODULE	R1 – RESISTOR	

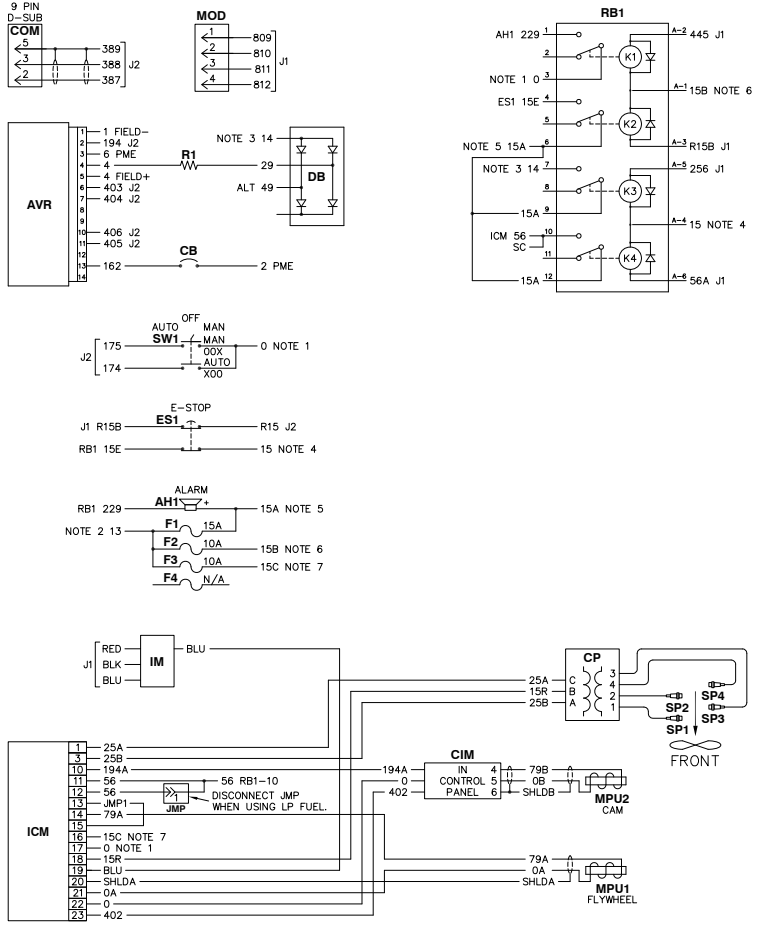
SCHEMATIC - DIAGRAM

G2.4L G2 QTA

REVISION: -A-

DATE: 10/10/11

DRAWING #: 0J7176



SCHEMATIC - DIAGRAM

G2.4L G2 QTA

REVISION: -A-

DATE: 10/10/11

PAGE 3 OF 4

DRAWING #: 0J7176

GD CONNECTOR

PIN	WIRE	TO	FUNCTION
1	0	GND	NOTE 1
4	14	RB1-7	NOTE 3
8	771	GA-1	THROTTLE DRIVE LO
9	770	GA-4	THROTTLE DRIVE HI
10	0	GND	NOTE 1
12	769	J1-33	THROTTLE PWM

AVR CONNECTOR

PIN	WIRE	TO	FUNCTION
1	1	FIELD	- FIELD
2	194	J2-31	+12VDC
3	6	PME	PME OUTPUT
4	4	R1	+ FIELD
5	4	FIELD	+ FIELD
6	403	J2-8	GATE TRIGGER B
7	404	J2-20	GATE TRIGGER A
10	406	J2-30	ZERO CROSSING I/P
11	405	J2-19	ISOLATED GROUND
13	162	CB	PME OUTPUT (AFTER CB)

ICM CONNECTOR

	PIN	WIRE	TO	FUNCTION
	1	25A	CP-C	IGNITION COIL DRIVE A
	3	25B	CP-A	IGNITION COIL DRIVE B
	10	194A	CIM-3	CIM POWER
	11	56	RB1-10	STARTER RELAY OUT
#	12	56	JMP-1	STARTER RELAY OUT (# SEE NOTE)
	13	JMP1	ICM-15	2.4L ENGINE SEL RETURN
	14	79A	MPU1-3	FLYWHEEL SENSOR +
	15	JMP1	ICM-13	2.4L ENGINE SELECT
	16	15C	F3	NOTE 7
	17	0	GND	NOTE 1
	18	15R	CP-B	IGNITION COIL PWR
	19	BLU	IM	FLYWHEEL SIGNAL OUT
	20	SHLDA	MPU1-1	FLYWHEEL SENSOR DRAIN
	21	0A	MPU1-2	FLYWHEEL SENSOR -
	22	0	CIM-2	CIM PWR RETURN
	23	402	CIM-1	CAM SIGNAL

#NOTE: DISCONNECT JMP WHEN USING LP FUEL.

ENGINE CONTROL MODULE CONNECTIONS

J1

PIN	WIRE	TO	FUNCTION
3	810	MOD-2	MODEM SIGNAL RETURN
4	805	OS-A	OXYGEN SENSOR RTN (OPTION)
5	804	OS-B	OXYGEN SENSOR + (OPTION)
9	RED	IM	+12VDC
10	R15B	RB1A-3/ES1	OVERSPEED/WATCHDOG
11	256	RB1A-5	FUEL RELAY
12	0	GND	NOTE 1
14	811	MOD-3	MODEM DATA CARRIER DETECT
15	68V	WTS-1	COOLANT TEMPERATURE +
16	803	BCH	BATTERY CHARGER CURRENT
17	766R	GA-2	THROTTLE POSITION RTN
18	766V	GA-1	THROTTLE POSITION +
19	69R	OPS1-3	OIL PRESSURE RTN
20	69V	OPS1-2	OIL PRESSURE +
21	808	AFS-1	AIR/FUEL SOLENOID (OPTION)
23	56A	RB1A-6	STARTER RELAY
24	BLK	IM	MPU1 SIGNAL (-)
25	BLU	IM	MPU1 SIGNAL (+)
26	812	MOD-4	MODEM ENABLE
29	573R	WLS-2	COOLANT LEVEL RTN
30	573V	WLS-1	COOLANT LEVEL +
31	68R	WTS-2	COOLANT TEMPERATURE RTN
32	809	MOD-1	MODEM 12V POWER
33	769	GD-12	THROTTLE PWM
34	445	RB1A-2	ALARM RELAY
35	15B	F2	NOTE 6

J2

	PIN	WIRE	TO	FUNCTION
	1	391	CUST CON	RS485-
	2	388	COM-3	RS232 TX (GENLINK)
	3	DI3	CUST CON	LINE POWER SIGNAL
	4	183	CUST CON	REMOTE START
	5	174	SW1	"AUTO" START
	6	224	IFT	VOLTAGE SENSE GEN AØ
	7	227	IFT	VOLTAGE SENSE RTN
	8	403	AVR-6	AVR GATE TRIGGER B
*	9	399C	CT3	GEN CØ CURRENT -
*	10	398C	CT3	GEN CØ CURRENT +
	11	399A	CT1	GEN AØ CURRENT -
	12	398A	CT1	GEN AØ CURRENT +
	13	390	CUST CON	RS485+
	14	387	COM-2	RS232 RX (GENLINK)
	15	601	LFP	LOW FUEL PRESSURE
	16	R15	ES1	EMERGENCY STOP
*	17	226	IFT	VOLTAGE SENSE GEN CØ
	19	405	AVR-11	AVR GROUND
	20	404	AVR-7	AVR GATE TRIGGER A
	21	OC8	RB3A-6	SPARE OUTPUT 4
	22	OC6	RB3A-3	SPARE OUTPUT 2
	23	OC5	RB3A-2	SPARE OUTPUT 1
	24	SHLD	CUST CON	RS485 DRAIN
	25	389	COM-5	RS232 COM (GENLINK)
	26	DI4	CUST CON	GENERATOR POWER SIGNAL
	27	505	BCH	BATTERY CHARGER FAIL
	28	175	SW1	"MANUAL" START
	29	225	IFT	VOLTAGE SENSE GEN BØ
	30	406	AVR-10	AVR ZERO CROSSING I/P
	31	194	AVR-2	AVR +12VDC
	33	OC7	RB3A-5	SPARE OUTPUT 3
	34	399B	CT2	GEN BØ CURRENT-
	35	398B	CT2	GEN BØ CURRENT+

* - CONNECTIONS NOT USED IN 1Ø UNITS.

NOTES:

1) WIRE# 0 IS CHASSIS GROUND (BATTERY-) UNLESS NOTED OTHERWISE.
2) WIRE# 13 IS UNFUSED +12VDC (BATTERY+).
3) WIRE# 14 IS FUSED +12VDC WHEN GENERATOR IS CRANKING OR RUNNING.
4) WIRE# 15 IS FUSED +12VDC WHEN E-STOP IS NOT ACTIVATED.
5) WIRE# 15A IS FUSED +12VDC FOR GENERAL USE.
6) WIRE# 15B IS FUSED +12VDC FOR THE ENGINE CONTROL MODULE.
7) WIRE# 15C IS FUSED +12VDC FOR THE IGNITION.

SCHEMATIC - DIAGRAM

G2.4L G2 QTA

REVISION: -A-

DATE: 10/10/11

PAGE 4 OF 4

DRAWING #: 0J7176

LEGEND

AFS	– AIR/FUEL SOLENOID	ICM	– IGNITION CONTROL MODULE
AH1	– ALARM HORN	IFT	– INTERFACE TRANSFORMER
ALT	– DC CHARGE ALTERNATOR	IM	– INTERFACE MODULE
AVR	– AUTOMATIC VOLTAGE REGULATOR	J_	– ELECTRONIC CONTROL MODULE CONNECTOR
BCC	– BATTERY CHARGER CONNECTOR	LFP_	– LOW FUEL PRESSURE SWITCH
BCH	– BATTERY CHARGER	MLCB	– MAIN LINE CIRCUIT BREAKER
CB	– CIRCUIT BREAKER DPE	MOD	– MODEM CONNECTOR
CIM	– CAM INTERFACE MODULE	MPU_	– MAGNETIC PICKUP
CO	– CROSSOVER CONNECTOR	NB	– NEUTRAL BLOCK
COM	– COMMUNICATIONS PORT	OPS1	– OIL PRESSURE SENDER
CP	– COIL PACK	OS	– OXYGEN SENSOR
CT_	– CURRENT TRANSFORMER	R1	– RESISTOR
DB	– DIODE BRIDGE	RB_	– RELAY BOARD
ES1	– EMERGENCY STOP SWITCH	RB_A	– RELAY BOARD CONNECTOR
F_	– FUSE	SC	– START CONTACTOR
FS_	– FUEL SOLENOID	SM	– STARTER MOTOR
FSP	– FUEL SOLENOID PLUG	SP_	– SPARK PLUG
FSR	– FUEL SOLENOID RECEPTACLE	SW1	– OFF/AUTO/MANUAL SWITCH
GA_	– GOVERNOR ACTUATOR	SWC	– OPERATOR SWITCH CONNECTOR
GD	– GOVERNOR DRIVER	TB_	– TERMINAL BLOCKS
GFCI	– GROUND FAULT CURRENT INTERRUPT	WLS_	– COOLANT LEVEL SENDER
GND	– GROUND BAR CONNECTION	WTS_	– COOLANT TEMPERATURE SENDER

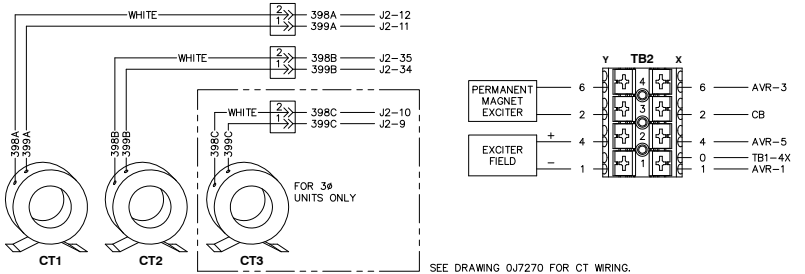
NOTE: ALL WIRES 18 AWG 300V UL LISTED UNLESS SHOWN OTHERWISE

AWG SIZE

12

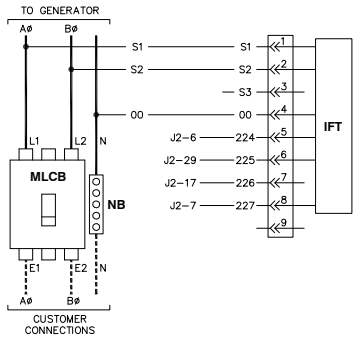
NOTE: ALL WIRES ON THIS PAGE ARE 600V RATED

COMPONENTS LOCATED IN CUSTOMER CONNECTION BOX

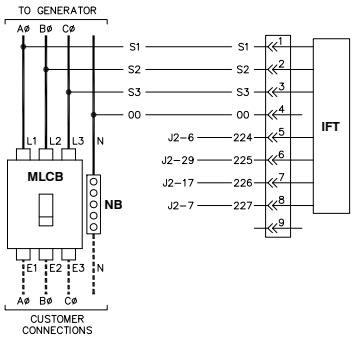


SEE DRAWING 0J7270 FOR CT WIRING.

CONNECTIONS FOR 1Ø UNIT

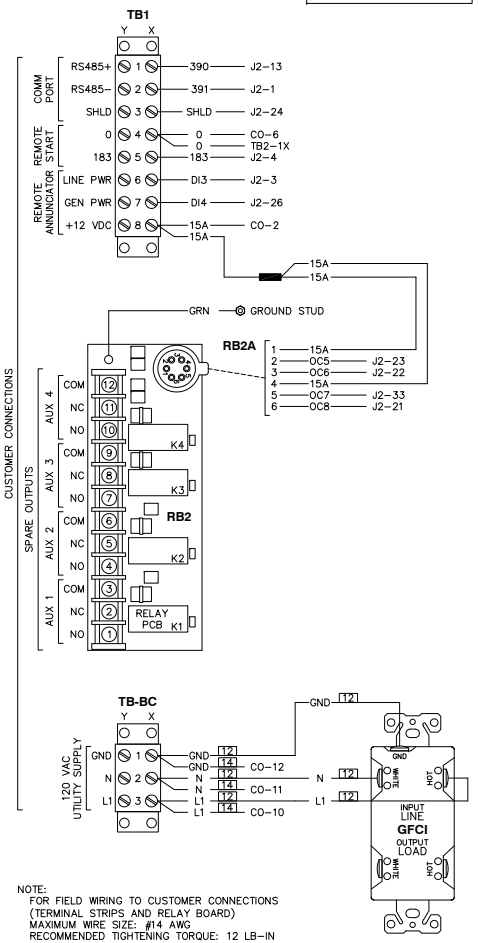


CONNECTIONS FOR 3Ø UNIT

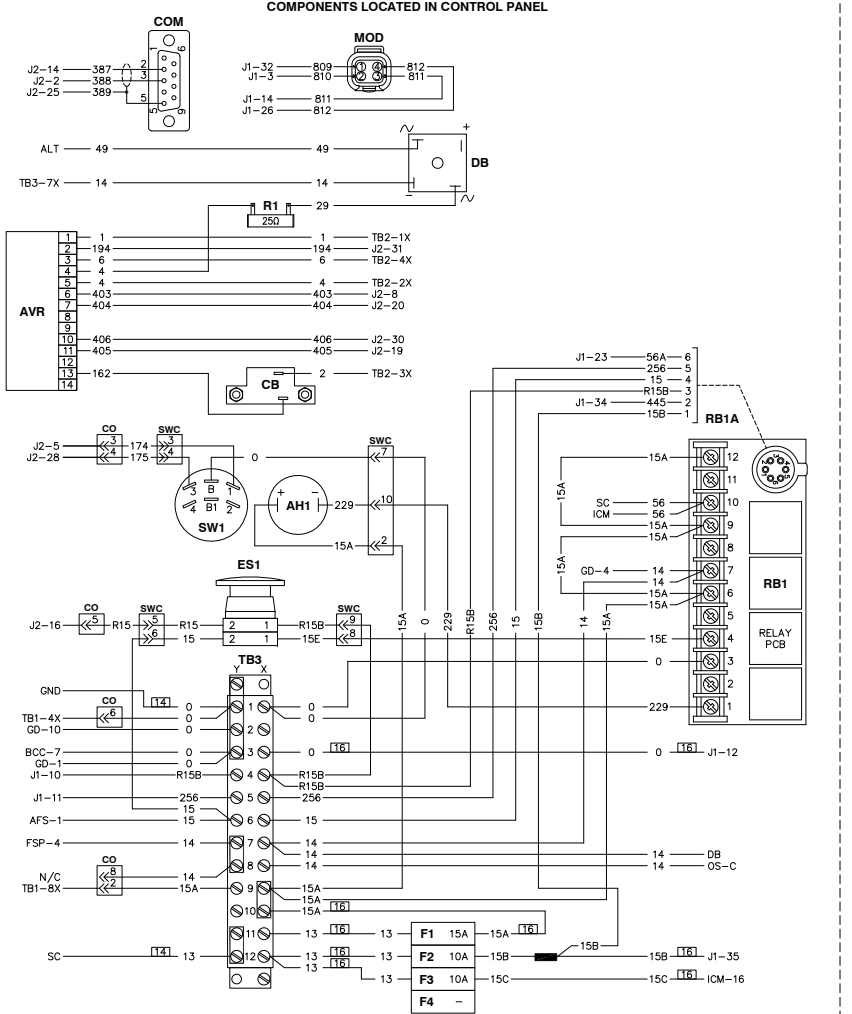


COMPONENTS LOCATED IN CUSTOMER CONNECTION BOX

NOTE: ALL WIRES ON THIS PAGE ARE 600V RATED

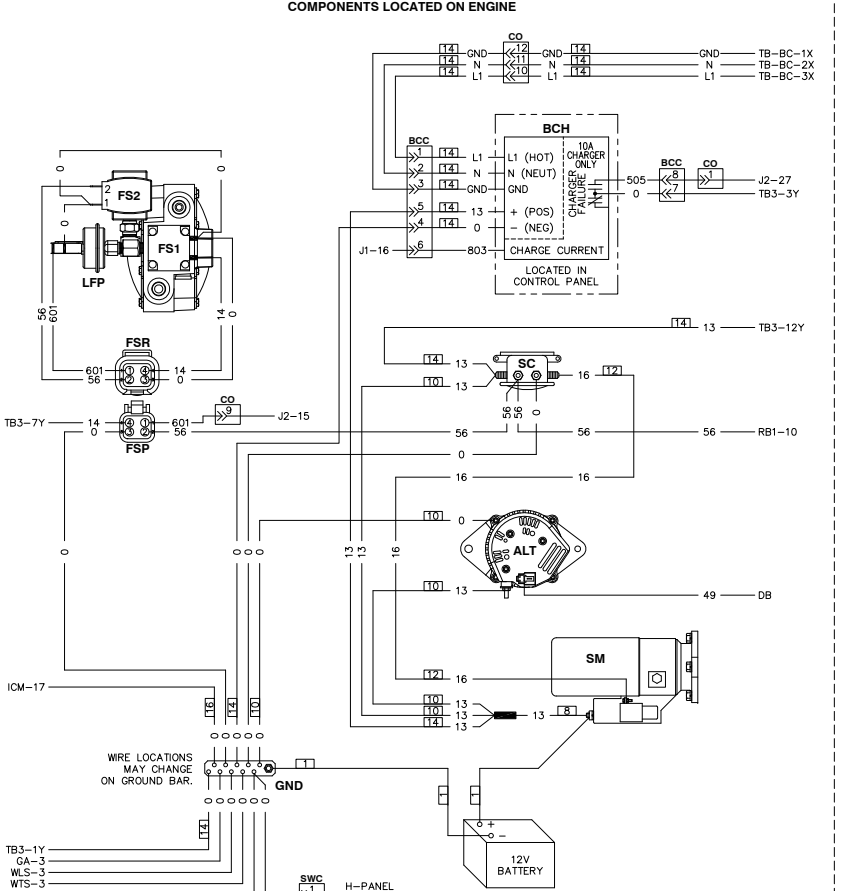


NOTE:
FOR FIELD WIRING TO CUSTOMER CONNECTIONS (TERMINAL STRIPS AND RELAY BOARD)
MAXIMUM WIRE SIZE: #14 AWG
RECOMMENDED TIGHTENING TORQUE: 12 LB-IN



WIRING - DIAGRAM
G2.4L G2 QTA
DRAWING #: 0J7177

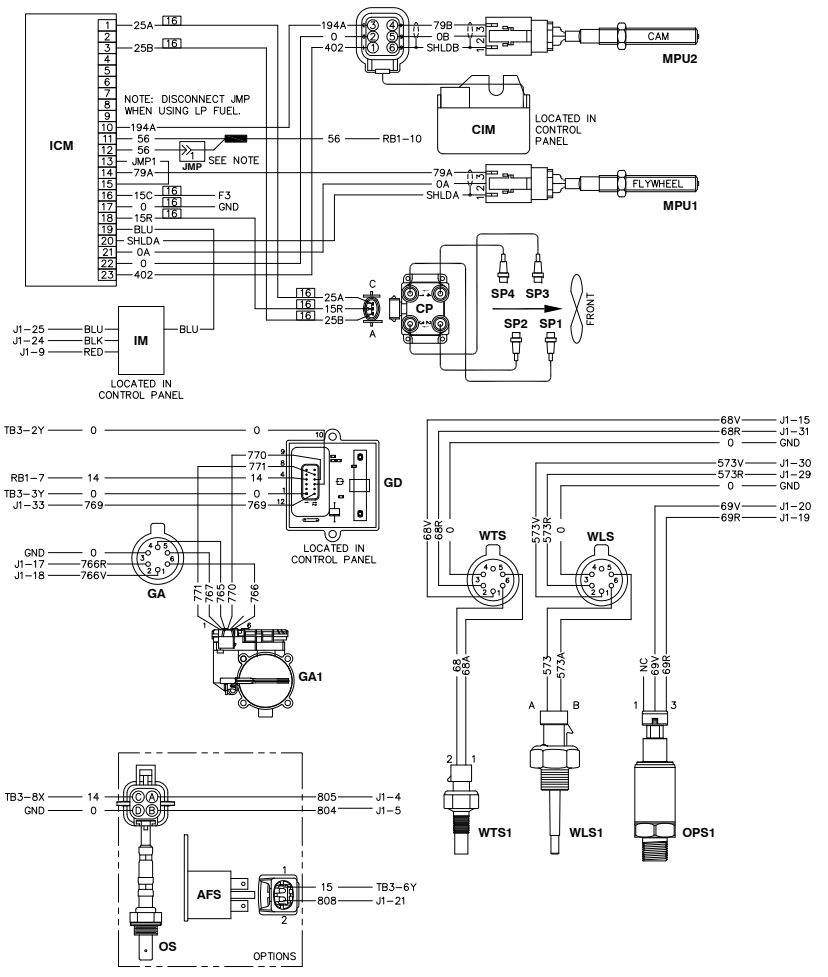
REVISION: -A-
DATE: 9/23/11



WIRING - DIAGRAM
G2.4L G2 QTA
DRAWING #: 0J7177

REVISION: -A-
DATE: 9/23/11

COMPONENTS LOCATED ON ENGINE



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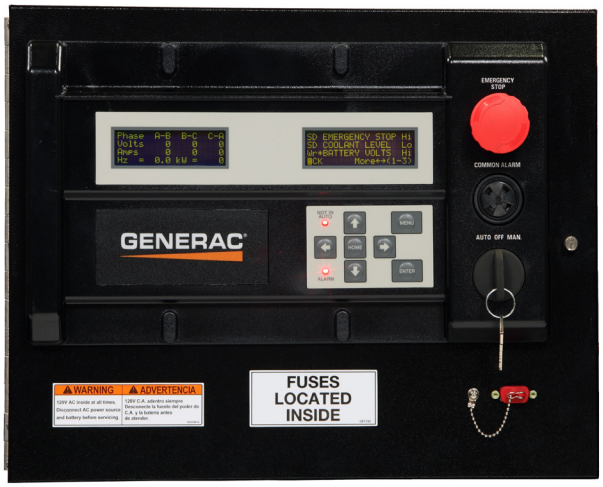
H-100 CONTROL PANEL



The Quiet-Test™ H-100 Control Panel is a digital microprocessor electronic controller that integrates all engine and transfer switch functions into a single control system.

- Digital Controls for All Saftey Shutdowns
- Isochronous Governor Control
- Digital 3 Phase Sensing Voltage Regulator
- Sealed Digital Circuit Board
- Mates with HTS Transfer Switch and Any 2-wire Start ATS
- Alarm and Event Logging
- Built-in Diagnostics
- Internal PLC

Features

- Two 4-line x 20 Displays
- Full System Status
- 3 Phase Sensing Digital Voltage Regulator
- Remote Ports
  - RS-232
  - RS-485
  - CANbus
- Waterproof Connections
- Built -in PLC
- Full Range Standby Operation
- Full System Status
  - 3 Phase AC Volts
  - 3 Phase Amps
  - kW
  - Power Factor
  - Reactive Power
  - Oil Pressure
  - Water Temperature
  - Water Level
  - Oil Temperature (Optional)
  - Fuel Pressure
  - Engine Speed
  - Battery Voltage
  - Alternator Frequency
  - Time
  - Date
  - Transfer Switch Status
  - Run Hours
  - Service Reminders
  - Trending
  - Fault History (Alarm Log)
  - I^2T Function for Full Generator Protection
- Remote Communications
- Programmable Auto Crank
- Shutdowns
  - Overvoltage
  - Overspeed
  - Low Oil Pressure
  - High Coolant Temperature
  - Low Coolant Level
- Emergency Stop
- On/Off/Manual Switch
- Not in Auto Flashing Light
- Audible Alarm for Fault Condition
- Transfer Switch Logic Communicates with HTS Transfer Switch
- Selectable Low Speed Exercise
- Temperature Range: -40° to +70°C

Codes and Standards

- UL 508
- Configurable to NFPA 110, Level 1 or 2

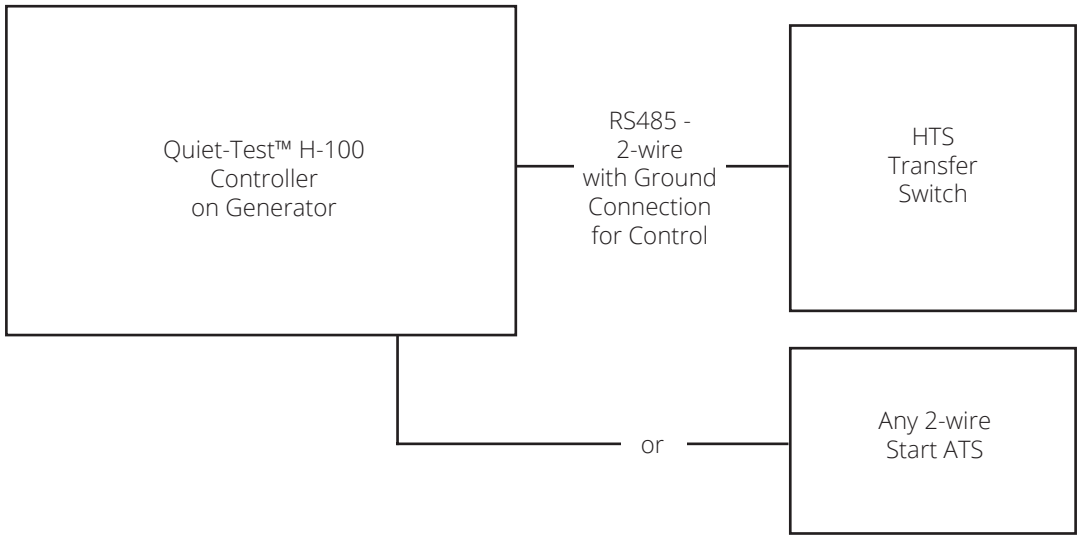
The generator set parameters can be manipulated and monitored without standing in front of the control panel with GenLink® software. The Generac H-100 control panel also wmonitors and controls transfer switch functions when used with the HTS transfer switch.

- Monitors Utility Voltage
- Monitors Generator Voltage
- Timer for Line Interrupt Delay
- Timer for Engine Warmup
- Timer for Minimum Engine Run Time
- Timer for Return to Utility Position
- Timer for Engine Cooldown
- Built-in Exerciser Timer (7 Day)
- Additional 2-wire Start Controls for Any 2-wire Transfer Switch

Part No. 0172110SBY
Rev. F 02/08/23

H-100 CONTROL PANEL

Typical Control Connection



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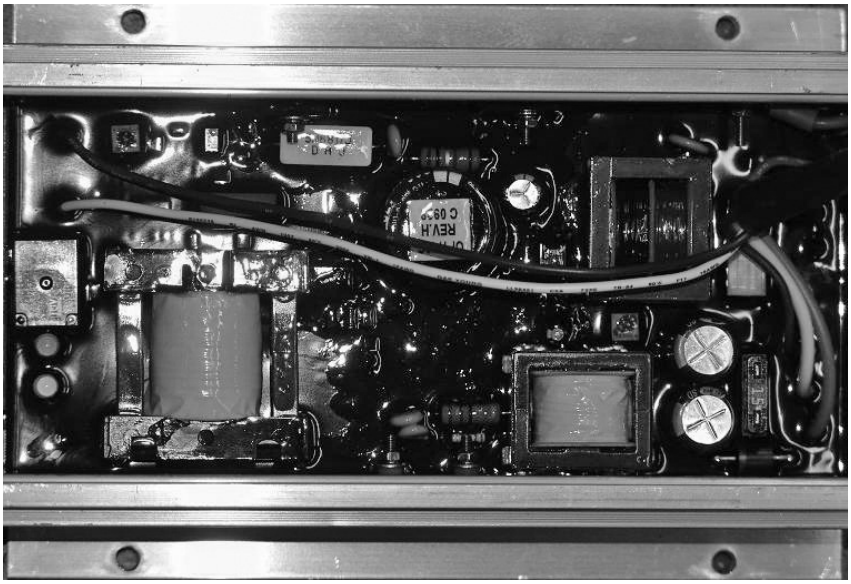
P: (262) 544-4811

Part No. 0172110SBY
Rev. F 02/08/23

BATTERY CHARGER
10 amp



Battery charger shown from inside of control panel enclosure. Connections are made via an attached harness.

The Generac 10 amp 12/24 volt battery charger is designed to work with Generac Industrial Controls and the G8601 to provide the ultimate in automatic battery voltage maintenance.

The 10 amp charger has automatic float and equalize control. It precisely monitors the battery's voltage and automatically activates the correct charging mode. The charge rate is limited and controlled to efficiently and safely maintain ideal battery levels under varying conditions.

The equalize system uses a control circuit to limit charging current to 10 amps. When battery voltage drops below a preset level, charging current increases to 5 amps and then to the 10 amp charge rate if needed. When the battery reaches maximum charge, the charger switches to float mode to supply just enough current to maintain the battery at or above 13/26 volts. Battery voltage and charging current are read at the control panel digital display.

Specifications	10A
Nominal Input	120 VAC
Operating AC Line Voltage Range	108 to 132 VAC
Input AC Line Frequency	50/60 Hz
Battery Fuse	15 A
Nominal Charge Rate	10 A
Equalize Voltage	13.8/27.6 V
Float Voltage	13.0/26.0 V
Current @ Equalize to Float Transition	5 A
Battery Under-voltage shutdown	11/22 V
LED Indicators	Yes
AC Line Voltage	Green LED
Battery Connected and Charging	Yellow LED
Battery Current Drain	30 mA
AC Line Connection	Connector Plug
Battery Connection	Connector Plug
Control Connection	AC Power Fail Form Relay Form C 2 A Rating
CUL Recognized	Yes
NFPA 110 Compliant	Yes
AGM Compatible	Yes
UL1236	Yes
CSA 22.2 No. 107	Yes

Part No.0191900SBY
Rev. G 11/30/23

COOLANT HEATER OPTION
1500 WATT, 120VAC

SPECIFICATIONS:

VOLTAGE: 120VAC

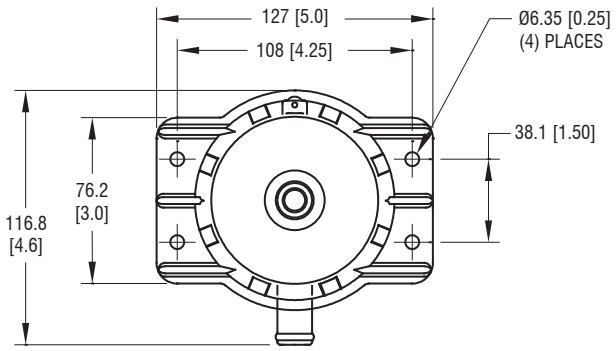
HEAT POWER: 1500W

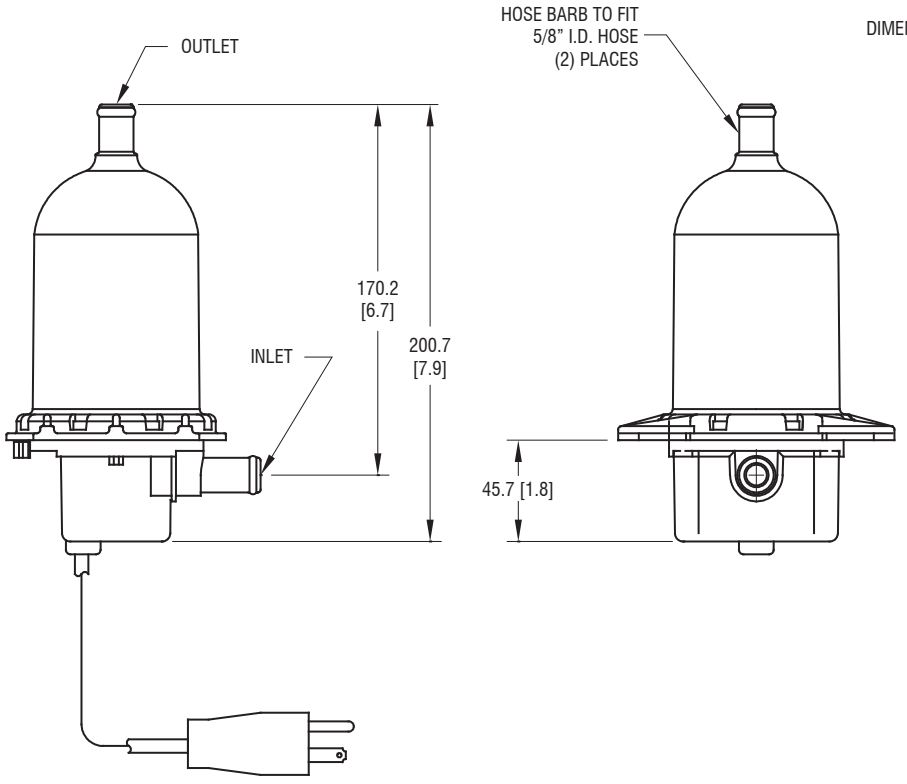
FIXED THERMOSTAT: 80°-100°F

HEATING ELEMENT: INCOLOY 800

MAXIMUM PRESSURE: 90 PSI (620 kPa)

PLUG NEMA STD: 5-15P





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P: (262) 544-4811

Part No. 084918L
05/13/15

SIEMENS

I-T-E® Molded Case Circuit Breakers

Multiples of Circuit Breaker Continuous Current Rating

Time-Current Characteristic Curves
I-T-E® Circuit Breaker

EQ Frame, Types QP, BQ, BL — **2 & 3 Poles**

For application and coordination purposes only. Based on 40°C ambient cold start. Connected with 4 feet of rated wire (75°C) per terminal. Tested in open air with current in all poles.

Types QP, BQ, BL	**60 Hz**	**2-Pole**	**120/240 Volts**
	60 Hz	**3-Pole**	**240 Volts**

Instantaneous Trip Table

Rating Amperes	Fixed Instantaneous Trip Amperes
15, 25-35	350-700
20	450-700
40	350-550

Interrupting Rating

Breaker Type	Symmetrical RMS Amperes		
	120V	120/240V	240V
2-Pole	—	10,000	—
3-Pole	—	10,000	—

①Single pole test data at 25°C in accordance with NEMA standards.
0-30 amperes—50 seconds
31-50 amperes—80 seconds
②Sample instantaneous shown (20 Amp 2&3 Pole). For other instantaneous values, see table.

Maximum Single Pole Trip Time at 25°C ①
50 Seconds @ 300%

Minimum

Maximum

Low Instantaneous②

High Instantaneous②

Maximum Clearing Time

TIME IN SECONDS

1 CYCLE

I-T-E® Molded Case Circuit Breakers
Multiples of Circuit Breaker Continuous Current Rating

Siemens Energy & Automation, Inc.
Alpharetta, Georgia 30202