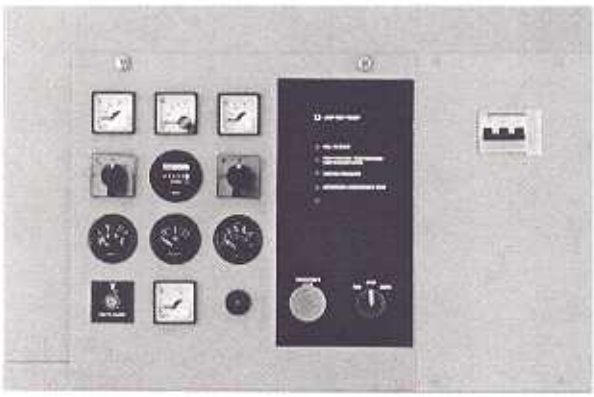
2001K CONTROL PANEL FOR GAS GENERATOR SETS

G12U3 – G25F3, G10U3S – G25F3S



The 2001K control panel is an automatic start/stop control and instrument panel for gas generator sets. The control panel provides for manual or automatic starting and stopping of the generator set and includes operational and protection features. It is designed for remote control of the generator set with a 2-wire control signal from an automatic transfer switch equipped with volt-free, close-for-start contacts.

The design provides for all engine and generator metering and operational protection functions required in most installations.

The result is a fully automatic gas generator set controller designed to meet the demands of today's gas generator set marketplace.

FEATURES

CONSTRUCTION AND FINISH

- Components installed in a heavy duty sheet steel enclosure
- Phosphate chemical pre-coating of steel provides corrosion resistant surface
- Polyester composite powder top-coat forms high gloss and extremely durable finish
- Hinged panel door with twist fastener latches provides easy component access

MOUNTING

- Mounted to generator set baseframe on robust steel stand
- Vibration isolated from generator set
- Located at rear of generator set with excellent panel visibility
- Installed as an integral part of the enclosure on enclosed generator sets

INSTRUMENTATION

- AC instruments are 90°. Deflection, 48 mm square, flush mounted
- AC instruments in accordance with IEC60051 and 60529, DIN43700 and 43701, BSEN60051 and UL94
- Engine gauges are heavy duty, 52 mm diameter, electrically operated

CONTROLS

- Printed circuit board assemblies with field proven circuit elements
- Thoroughly tested during manufacture and final test of generator set
- Multi-pin plug and socket connections for ease in servicing
- Switches and pushbuttons are heavy duty industrial type
- Internal AC and DC panel wiring harnesses pre-formed for uniform routing and enhanced interconnect reliability

LEHX0418-05 (02-05)

STANDARD/OPTIONAL FEATURES

2001K CONTROL PANEL	
STANDARD FEATURES	
Metering	AC voltmeter AC ammeter Combined frequency and tachometer Hours run Lube oil pressure Coolant temperature gauge Battery condition voltmeter Battery charging ammeter
Controls	Run/off/auto control switch Emergency stop button (red) Lamp test pushbutton Voltmeter phase selector switch (7 position) Voltmeter phase selector switch (4 position) Ammeter phase selector switch Cycle cranking (3 cycles with adjustable timing) Voltage adjust potentiometer
Shutdown/Alarm Indicators	Panel mounted audible alarm for all alarms and shutdowns Fail to start shutdown High coolant temperature/low coolant level Low lube oil pressure Overspeed/emergency stop shutdown Low coolant temperature alarm
Remote Signals/Contacts	Terminals for remote start/stop Common fault alarm signal
OPTIONAL FEATURES	
Controls	PBC5 static battery charger 110V AC PBC3UL battery charger UL 3A 120V AC (engine compartment mounted) PBC10UL battery charger UL 10A 120V AC (engine compartment mounted)
Circuit breaker	AUX — Auxiliary contacts SHT2 — Shunt trip (100 amps and above)

Note: Not all combinations of options are available due to space restrictions in the control panel

© 2005 Caterpillar
All rights reserved.
Printed in U.S.A.

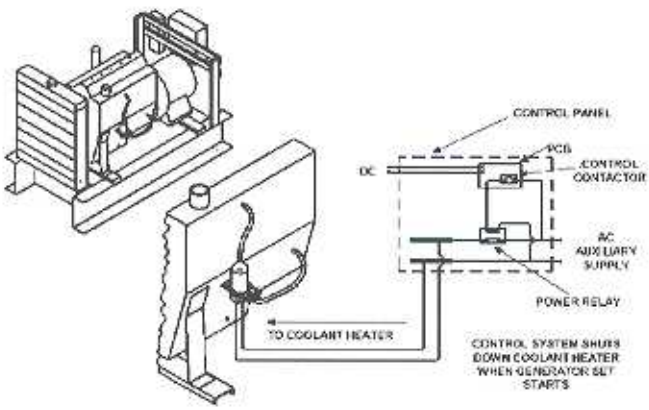
Market: N. America
LEHX0418-05 (02-05)

Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

COOLANT HEATER WHH

Appropriate when the generator set is to be sited in a low ambient environment, the heater maintains the engine coolant at a temperature (typically 100°F (38°C)) which facilitates rapid starting and load acceptance. The heater assembly uses UL compliant components (to UL1030) and has CSA certification which is to both CSA & UL standards.

The heater itself is powered by a 110/120 (VAC 120) volt or 208/240 volt (VAC 240) AC auxiliary supply protected by a safeguard breaker inside the main control panel. A thermostatic controller is included to regulate the output temperature to within safe limits. When the generator set is not running, the heater is automatically connected to the AC supply through a power relay mounted in the control panel. Upon receiving a start signal, the AC supply is automatically disconnected by the power relay and automatically reconnected when the start signal is removed and the engine has stopped.



FEATURES

- Molded from Polyphenylene Sulfide
- Rust free, corrosion resistant with exceptional tensile strength
- Vibration and shock tested to extreme limits to ensure durability
- Compatible with all coolant additives
- Incoloy element for longer service life

VAC 120

3 Phase Generator Set Models Diesel	3 Phase Generator Set Models Gas	Nominal Coolant Heater Power Consumption (Watts)
D13P2–D20P4, D20P1–D75P3	G12U3-G50F3	1000
D90P1 – D150P1, D125P2	G60F3-G125G1	1500
D200P3	NA	1800
Single Phase Generator Set Models Diesel	**Single Phase Generator Set Models Gas**	**Nominal Coolant Heater Power Consumption (Watts)**
D13P2S – D20P4S	G10U3S – G25UH3S	~~1000~~ 500 watts
D20P1S – D60P3S, D25P4S-D100P4S	G20F3S-G45F3S	1000
D75P1S – D100P1S,	G55F3S-G100F3S	1500

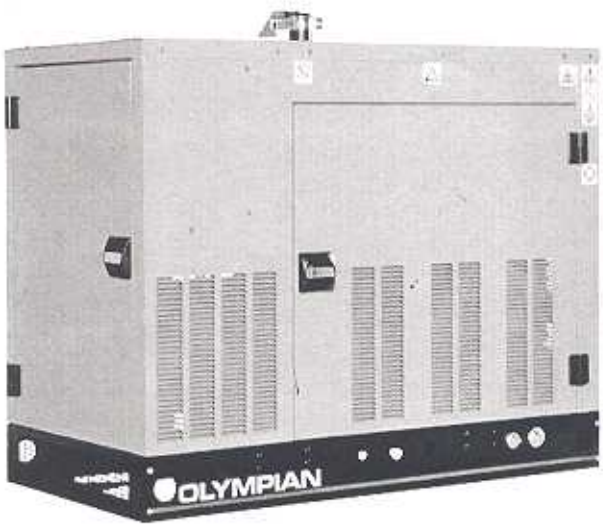
VAC 240

3 Phase Generator Set Models Diesel	3 Phase Generator Set Models Gas	Nominal Coolant Heater Power Consumption (Watts)	
		208 Volts	240 Volts
D20P1 – D75P3, D25P4 – D100P4	G30F3-G50F3	750	1000
D90P1 – D150P1, D125P2	G60F3-G125G1	1125	1500
D200P3	NA	1500	2000
Single Phase Generator Set Models Diesel	**Single Phase Generator Set Models Gas**	**Nominal Coolant Heater Power Consumption (Watts)**	
		208 Volts	**240 Volts**
D20P1S – D60P3S, D25P4S – D100P4S	G30F3-G45F3S	750	1000
D75P1S – D100P1S,	G55F3S-G100F3S	1125	1500

© 2005 Caterpillar
All rights reserved.
Printed in U.S.A.

Market: N. America
LEHX0484-05 (02-05)

Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.



CAWK – WEATHERPROOF ENCLOSURE FOR GAS GENERATOR SETS

G12U3 – G25F3
G10U3S – G25F3S

These weatherproof, factory installed enclosures are of extremely rugged construction and made to withstand outdoor exposure to the elements of weather. They incorporate internally mounted silencers for safety and aesthetic value. Modular design principles utilize many interchangeable components permitting on-site repair.

FEATURES

ROBUST/HIGHLY CORROSION RESISTANT CONSTRUCTION

- Black zinc die cast hinges tested and proven to withstand extreme conditions
- Zinc plated or stainless steel fasteners
- Body made from steel components treated with polyester powder coating

EXCELLENT ACCESS FOR MAINTENANCE

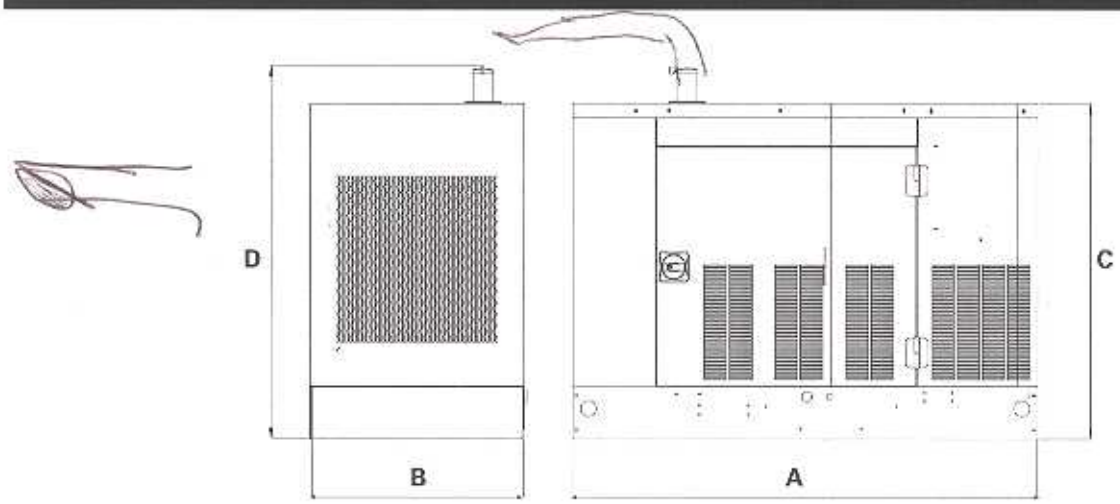
- Large cable entry area for installation ease
- Large doors located convenient to controls and service areas for easy access to control panel, circuit breaker and engine/generator
- Vertically hinged doors allow full 180° rotation
- Doors can be "lifted-off" with 45° opening for removal in confined locations
- Lube oil and coolant drains piped to edge of enclosure and terminated with drain valves
- Radiator fill cover

SECURITY AND SAFETY

- Lockable access doors with standard key utilization
- Cooling fan and battery charging alternator fully guarded
- Exhaust silencing system totally enclosed for operator safety
- Roof outlet exhaust with sealed roof aperture and rain cap
- Stub-up cover sheets for "rodent proofing"
- Emergency stop inside of enclosure reduces chance for nuisance stoppage

TRANSPORTABILITY

- Lifting/drag points on baseframe



CAWK – WEATHERPROOF ENCLOSURES DIMENSIONS AND WEIGHTS

Generator Set Model	A in (mm)	B in (mm)	C in (mm)	D in (mm)	Weight* lb (kg)
G12U3 G15U3 G20UH3 G25UH3	53.1 (1348)	28.0 (710)	42.5 (1080)	47.0 (1193)	963 (437) 996 (452) 952 (432) 996 (452)
G20F3 G25F3	60.9 (1548)	28.0 (710)	43.5 (1105)	47.5 (1224)	1155 (524) 1193 (541)
G10U3S G15U3S G17.5UH3S G25UH3S	53.1 (1348)	28.0 (710)	42.5 (1080)	47.0 (1193)	963 (437) 996 (452) 952 (432) 996 (452)
G20F3S G25F3S	60.9 (1548)	28.0 (710)	43.5 (1105)	47.5 (1224)	1193 (541) 1221 (554)

* Net weight with lube oil and coolant

SOUND LEVELS 1800 RPM (60 HZ)

Generator Set Model	1800 rpm (60 Hz)					
	50 ft (15 m)		23 ft (7 m)		3 ft (1 m)	
	No Load (dBA)	Full Load (dBA)	No Load (dBA)	Full Load (dBA)	No Load (dBA)	Full Load (dBA)
G12U3, G10U3S	TBA	TBA	TBA	TBA	TBA	TBA
G15U3, G15U3S	TBA	TBA	TBA	TBA	TBA	TBA
G20UH3, G17.5UH3S	77.5	81.2	83.5	87.2	95.8	99.3
G25UH3, G25UH3S	77.5	82.5	83.5	88.5	95.8	100.6
G20F3, G20F3S	66.4	73.2	72.4	79.2	82.7	92.1
G25F3, G25F3S	66.4	75.3	72.4	81.3	82.7	95.2

© 2005 Caterpillar
All rights reserved.
Printed in U.S.A.

Market: N. America
LEHX0423-06 (02-05)

Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.