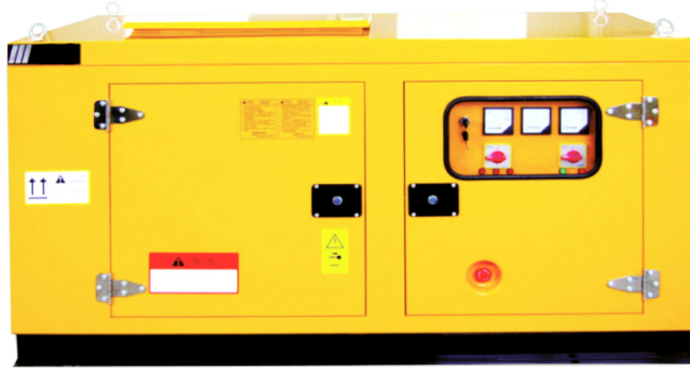


NATURAL GAS & POWER

On-site electric and thermal power.

OPG Co-Gen 40KW



Standby Power Rating

40kW 49kVA 60Hz

Prime Power Rating*

35kW 44kVA 60Hz

Features

- 40kW On-Site Production of Hot Water & Electricity
- Manufactured in U.S.A
- Compact design
- Connection ready
- Indoor/Outdoor installation
- 5 Year Maintenance Coverage
- Network data connection
- Runs 24/7 in parallel with the grid
- Operates with clean natural gas
- Meets SCAQMD standards
- Sound proof within 70 decibels
- Vibration free
- Weather resistant enclosure

Codes and Standards



UL2200, UL508, UL142, UL498



NFPA70, 99, 110, 37



NEC700, 701, 702, 708



ISO9001, 8528, 3046, 7637, Pluses #2b, 4



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

Standard Features

ENGINE SYSTEM

General

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator Duct Adapter (open set only)

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene Glycol Antifreeze

Fuel System

- Primary and Secondary Fuel Shutoff
- Flexible Fuel Line - NPT Connection

Engine Electrical System

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



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Standard Features

ALTERNATOR SYSTEM

Alternator System

- UL2200 EGNprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Brushless Excitation
- Sealed Bearings
- Amortisseur Winding
- Full Load Capacity Alternator

Generator Set

- Internal Genset Vibration Isolation
- Separation of Circuits - high/low voltage
- Separation of Circuits - multiple breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Warranty (Prime Rated Units)
- Silencer mounted in discharge hood (enclosed only)

Enclosure (If selected)

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasket doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

Standard Features

CONTROL SYSTEM

Control Panel

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- 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
- 15 Channel Data Logging
- 0.2 Sec High Speed Data Logging
- Alarm information automatically comes up on the display

Standard Features

ALTERNATOR SYSTEM

Alarms

- Oil Pressure (Pre-Programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-Programmed High Temp Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-Programmed Over Speed Shutdown)
- Battery Voltage Warning
- Alarms & Warnings Time and Date Stated
- Alarms & Warnings for Transient and Steady State Conditions
- Snap shots of key operation parameters during alarms & warning
- Alarms & Warnings Spelled Out (No Alarm Codes)



NATURAL GAS & POWER

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OPG Co-Gen 40KW

Configurable Options ENGINE SYSTEM

General

- Engine Block Heater
- Oil Heater
- Air Filter Restriction Indicator
- Stone Guard (Open Set Only)
- Critical Exhaust Silencer (Open Set Only/Standard on Low Emissions option)

Engine Electrical System

- 10A UL Battery Charger
- 2.5A UL Battery Charger
- Battery Warmer

Alternator System

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating
- Permanent Magnet Excitation

Generator Set

- Gen-Link Communications Software
- Extended Factory Testing (3 Phase Only)
- IBC Seismic Certification
- 8 Position Load Center
- 2 Year Extended Warranty
- 5 Year Warranty
- 5 Year Extended Warranty

Circuit Breaker Options

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

Configurable Options ENCLOSURE

Enclosure

- Standard Enclosure
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- 150 MPH Wind Kit
- 12 VDC Enclosure Lighting Kit
- 120 VAC Enclosure Lighting Kit
- AC/DC Enclosure Lighting Kit
- Door Alarm Switch
- Standard Enclosure

Control System

- 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- Oil Temperature Sender with Indication Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Break Glass-Type, Flush Mount)
- Remote Communication-Modem
- Remote Communication-Ethernet
- 10A Run Relay
- Ground Fault Indication & Protection Functions

Heat Exchangers

- Stainless Steel
- Double Wall
- Exhaust and Radiator



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Power	Consumption	Units	Model 40
	Related Output	kW	40
	Voltage	ACV	208@60Hz or 480@60Hz
	Phase/Wires		3 Phase, 3 Wire
	Power Factor	%	Greater than 95

Input (Parasitic loads)	Consumption	Units	Model 40
	Radiator Fan Stopped	kW	0.31
	Radiator Fan Operating	kW	0.64
	Heater for Cold Region	kW	0.82
	Voltage	ACV	208 or 480

Fuel	Consumption	Units	Model 40
Natural Gas	Low Heating Value	BTU/h	376,000
	High Htg Value	Therms/h	4.10

Heat Recovery	Consumption	Units	Model 40
Hot Water Temp.	Low Heating Value	BTU/h	195,614
	Inlet	Deg F	170- (MIN) 150
	Outlet	Deg F	185 - (MAX) 195
	Hot Water Flow Rate	Gal/Min	20

Efficiency	Consumption	Units	Model 40
	Overall Fuel Efficiency	%	82
	Electrical Generation Efficiency	%	35
	Exhaust Heat Recovery Ratio	%	47

Sound Level	Consumption	Units	Model 40
	Radiator Fan Stopped	dB(A)	60 (Ind) 15 (Hotel)
	Radiator Fan Operating	dB(A)	65 (Ind) 20 (Hotel)

Dimensions	Consumption	Units	Model 40
	Length	Inches	93.50
	Width	Inches	45.00
	Height	Inches	54.00
	Net Weight	Pounds	1,980

Notes

1. OPG GO-GEN MODEL 40 SYNCHRONOUS 208 VOLT 3 PHASES UL LISTED NO. MARATHON E 218422
2. EPA + SCAQMD EMISSION COMPLAINT UNDER 50 HP
3. RATED AT 49 HP