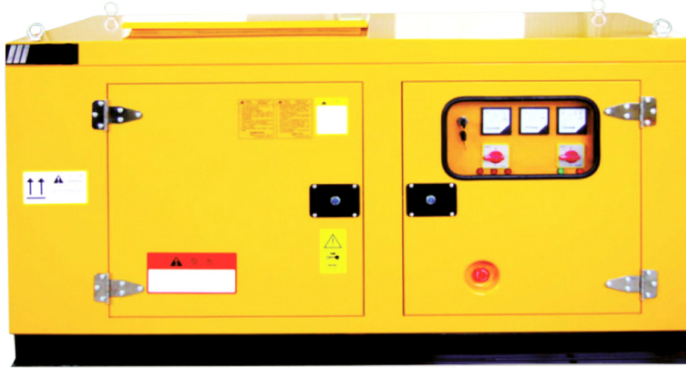


# NATURAL GAS & POWER

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

## 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)

## 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

# NATURAL GAS & POWER

On-site electric and thermal power.

## OPG Co-Gen 40KW

| 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<br>(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