### **METCL C44GFS Generator Set**

# Prime 32kW (40kVA) 50Hz 3-P





Image shown may not reflect actual configuration.

## **METCL GENSET DECIBELLEVES**

Revolving field,
self-ventilated weatherproof
Normal conversation allows
lower operating noise levels
than competitive designs.
METCL Genset good for home,
construction sites,
residential, hospital, etc.

35.2 (44)

90 db(A)--Subway / Truck Traffic

**80 db(A)**---Average city traffic

70 db(A)---Inside Car at 60 mph

METCL Genset at 7m

60 db(A)---Air conditioner at 6m

50 db(A)--- Conversation

1500



55.6

| Specification of C44GFS Generator |          |                   |                     |              |                 |
|-----------------------------------|----------|-------------------|---------------------|--------------|-----------------|
| Frequency                         | Voltage  | Prime<br>kW (kVA) | Standby<br>kW (kVA) | Speed<br>rpm | Current<br>Amps |
|                                   | 380/220V | 32 (40)           | 35.2 (44)           | 1500         | 60.7            |
| 50 Hz                             | 400/230V | 32 (40)           | 35.2 (44)           | 1500         | 57.6            |

32 (40)

| Fuel Consumption | Prime kW (kVA) |     |      |      |  |
|------------------|----------------|-----|------|------|--|
|                  | 32 (40)        |     |      |      |  |
| Rating           | 1/4            | 1/2 | 3/4  | Full |  |
| US gph           | 0.9            | 1.4 | 1.93 | 2.45 |  |
| L/hr             | 3.4            | 5.3 | 7.3  | 9.3  |  |

| Fuel Tank          | 29.06 Gallons (110 Litres) |  |  |
|--------------------|----------------------------|--|--|
| Continuous Running | 8-12 Hrs                   |  |  |
| Fuel Tank Type     | Integrated base            |  |  |



415/240V

| ENGINE PERFORMANCE   |                                     |  |  |
|--|-------------------------------------|--|--|
| Engine Manufacturer  | Cummins                             |  |  |
| Engine Model   | 4BT3.9-G1/2                         |  |  |
| Configuration  | 4 Cycle; In-line; 4 Cylinder Diesel |  |  |
| Aspiration   | Turbocharger                        |  |  |
| Engine Standby Power   | 40 kW (54HP)                        |  |  |
| Bore × Stroke, mm  | 102 × 120                           |  |  |
| Rated Speed, rpm   | 1500                                |  |  |
| Compression ratio  | 18.0:1                              |  |  |
| Displacement L   | 3.9                                 |  |  |
| Governor regulation %  | ≤5%                                 |  |  |
| Starting voltage   | 24 Volts DC                         |  |  |
| EXHAUST SYSTEM   |                                     |  |  |
| Maximum Back Pressure kPa                                      | 10                                  |  |  |
| AIR INTAKE SYSTEM  |                                     |  |  |
| Maximum Intake Air Restriction with Heavy Duty Air Cleaner     |                                     |  |  |
| -Dirty Element-kPa   | 6.2                                 |  |  |
| -Clean Element-kPa   | 3.7                                 |  |  |
| LUBRICATION SYSTEM   |                                     |  |  |
| Engine Oil Pressure for Engine Protection Devices              |                                     |  |  |
| -Idle Speed (Minimum)-kPa                                      | 207                                 |  |  |
| -Governed Speed(Maximum)-kPa                                   | 345                                 |  |  |
| Maximum Oil Temperature-℃                                      | 121                                 |  |  |
| Minimum Required Lube System Capacity-Litre                    | 10.9                                |  |  |
| FUEL SYSTEM  |                                     |  |  |
| Type Injection System  | BYC A Direct Injection              |  |  |
| Maximum Restriction at Lift Pump-kPa                           | 13.6                                |  |  |
| Maximum Fuel Inlet Temperature-℃                               | 70                                  |  |  |
| Total Drain Flow(constant for all loads)-Litre/hr              | 30                                  |  |  |
| COOLING SYSTEM   |                                     |  |  |
| Coolant Capacity- Engine Only- Litre                           | 7.2                                 |  |  |
| Maximum Coolant Friction Head External to Engine-1500rpm-kPa   | 35                                  |  |  |
| Maximum Static Head of Coolant Above Engine Crank Centerline-m | 14                                  |  |  |
| Standard Thermostat(Modulating)Range-℃                         | 82-95                               |  |  |
| Minimum Pressure Cap-kPa                                       | 69                                  |  |  |
| Maximum Top Tank Temperature for Standby/Prime Power-℃         | 104/100                             |  |  |
| ELECTRICAL SYSTEM  |                                     |  |  |
| Cranking Motor(Heavy Duty,Positive Engagement)-Volt            | 12V / 24V Options                   |  |  |
| Battery Charging System, Negative Ground-Amps                  | 63 / 40 Options                     |  |  |
|  | ı                                   |  |  |

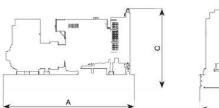


| AC ALTERNATOR                      |   |  |
|------------------------------------|---|--|
| Alternator Manufacturer            | STAMFORD                                  |  |
| Alternator Model                   | PI144J                                    |  |
| Winding Pitch                      | 2/3                                       |  |
| Winding Leads                      | 12  |  |
| Excitation                         | Static regulated, brushless, self-excited |  |
| Number of bearings                 | Single bearing, close coupled             |  |
| Insulation                         | Class H                                   |  |
| Temperature rise °C                | 125/40                                    |  |
| Power Rating                       |   |  |
| KVA                                | 40  |  |
| KW                                 | 32  |  |
| Protection                         | IP23                                      |  |
| Rated Power Factor                 | 0.8                                       |  |
| Voltage regulator                  | A.V.R                                     |  |
| Maximum overspeed- RPM             | 2250                                      |  |
| Voltage regulation                 | Less than ± 1.0%                          |  |
| Wave form deviation                | 10  |  |
| Telephone Influence Factor (TIF) % | Less than 2%                              |  |
| Harmonic Distortion (THD) %        | Less than 2%                              |  |

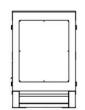
| WEIGHT              | Open | Enclosed |
|---------------------|------|----------|
| Unit dry weight kgs | 800  | 1300     |
| Unit wet weight kgs | 910  | 1410     |

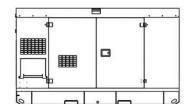
| DIMENSIONS                       | Length | Width | Height |
|----------------------------------|--------|-------|--------|
| Standard open set dimensions     | 1850   | 800   | 1160   |
| Enclosed set standard dimensions | 2250   | 1050  | 1250   |

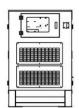
# **GENSET OUTLINE**













### **Rating Definitions and Conditions**

Emergency Standby Power (ESP)- Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528.

Prime Power (PRP) - Applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation on the annual hours of operating and the generator can supply 10% overload power.

Designed to Meet Specifications: ISO 8528, EN12601, EN 60204-1, ISO 3046, IEC 60034.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

**Fuel rates** are based on fuel oil of 35 API {16(60F)} gravity having an LHV of 42 780 kJ/kg (18,390 Btu/Ib) when use at 29 (85F) and weighing 838.9 g/liter (7.001 Ibs/U.S.gal)

Additional ratings may be available for specific customer requirements, contact your METCL representative for details.

## Formulas for calculating fuel load currents.

Three phase output Single phase output

kWx1000 kWxSingleP haseFactor x1000 Voltage

Voltagex1. 73x0.8

#### See your distributor for more information.

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