

**MODEL: BF-C40**

**400V | 1500rpm | 50Hz**



**ESP**

Standby Power

**44 kVA**

**PRP**

Prime Power

**40 kVA**

**ENGINE**

**DCEC Cummins**

**4BT3.9-G1**

**ALTERNATOR**

**STAMFORD**

**S1L2-K1**

## GENERAL FEATURES

Engine: DCEC Cummins 4BT3.9-G1

Alternator: single bearing, IP23, insulation class H

50°C radiator, fans are driven by belt, with safety guard

Dry type air filter, fuel filter & oil filter

Vibration damper

Standard control panel

24V charging alternator

Exhaust bellows, elbows, flange & muffler

Lead-acid batteries, rack and cables

User manual

**MODEL: BF-C40****400V | 1500rpm | 50Hz****GENERATOR RATINGS**

| Voltage | Hz | Phase | PF<br>( COS $\Phi$ ) | Standby<br>Amps | Standby Ratings<br>(kW / kVA) | Prime Ratings<br>(kW / kVA) |
|---------|----|-------|----------------------|-----------------|-------------------------------|-----------------------------|
| 440/254 | 50 | 3     | 0.8                  | 57              | 35/44                         | 32/40                       |
| 415/240 | 50 | 3     | 0.8                  | 61              | 35/44                         | 32/40                       |
| 400/230 | 50 | 3     | 0.8                  | 63              | 35/44                         | 32/40                       |
| 380/220 | 50 | 3     | 0.8                  | 66              | 35/44                         | 32/40                       |

**Prime Power (PRP):** Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820 (eqv ISO 8528) ; A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

**Standby Power Rating (ESP):** The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

**SALES PROMISES**

Baifa Power provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.

Warranty is according to our standard conditions: 15 months from the date BAIFA sold to the first buyer or one year after installation or 1000 running hours (accumulated), whichever comes first.

Service and parts are available from Baifa Power or distributors in your location.

Comprehensive Solutions For

**POWER GENERATION**

**MODEL: BF-C40****400V | 1500rpm | 50Hz****ENGINE SPECIFICATION**

|                      |                        |
|----------------------|------------------------|
| Manufacturer / Model | DCEC Cummins 4BT3.9-G1 |
|----------------------|------------------------|

|                   |        |
|-------------------|--------|
| Air intake system | Turbo, |
|-------------------|--------|

|             |                  |
|-------------|------------------|
| Fuel system | A type fuel pump |
|-------------|------------------|

|                      |           |
|----------------------|-----------|
| Cylinder arrangement | 4 in line |
|----------------------|-----------|

|              |      |
|--------------|------|
| Displacement | 3.9L |
|--------------|------|

|                 |              |
|-----------------|--------------|
| Bore and stroke | 102*120 (mm) |
|-----------------|--------------|

|                   |      |
|-------------------|------|
| Compression ratio | 18:1 |
|-------------------|------|

|             |         |
|-------------|---------|
| Rated speed | 1500rpm |
|-------------|---------|

|                                   |           |
|-----------------------------------|-----------|
| Max. Standby power at rated speed | 40KW/54HP |
|-----------------------------------|-----------|

|               |                      |
|---------------|----------------------|
| Governor type | RSV Mechanical (Std) |
|---------------|----------------------|

**Exhaust System**

|                  |                         |
|------------------|-------------------------|
| Exhaust gas flow | 6.5 m <sup>3</sup> /min |
|------------------|-------------------------|

|                     |        |
|---------------------|--------|
| Exhaust temperature | 487 °C |
|---------------------|--------|

|                   |       |
|-------------------|-------|
| Max back pressure | 10kPa |
|-------------------|-------|

**Air Intake System**

|                        |        |
|------------------------|--------|
| Max intake restriction | 6.1kPa |
|------------------------|--------|

|                     |                         |
|---------------------|-------------------------|
| Combustion air flow | 2.7 m <sup>3</sup> /min |
|---------------------|-------------------------|

|                                |                         |
|--------------------------------|-------------------------|
| Air flow required for radiator | 146 m <sup>3</sup> /min |
|--------------------------------|-------------------------|

**MODEL: BF-C40****400V | 1500rpm | 50Hz****Fuel System**

|  |           |          |
|--|-----------|----------|
| Fuel consumption @ 100% (Prime Power) Load | 229 g/kWh | 10.2 L/h |
| Fuel consumption @ 75% (Prime Power) Load  | 241 g/kWh | 8.0 L/h  |
| Fuel consumption @ 50% (Prime Power) Load  | 270 g/kWh | 6.1 L/h  |

**Oil System**

|                    |          |
|--------------------|----------|
| Total oil capacity | 11L      |
| Oil consumption    | ≤4g/kwh  |
| Oil sump capacity  | 8.5~9.5L |

**Cooling System**

|                       |      |
|-----------------------|------|
| Coolant capacity      | 21L  |
| Max water temperature | 104℃ |

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## ALTERNATOR SPECIFICATION

Industrial alternators meet the requirements of the relevant parts of the BS5000, VDE 0530, NEMA MG1-22, IEC34, CSA 22.2-100 and AS1359.

### Alternator Data

|                                   |  |
|-----------------------------------|--|
| Number of Phase                   | 3                                      |
| Connecting Type                   | 3 Phase and 4 Wires, Y type connecting |
| Number of Bearing                 | 1                                      |
| Power Factor                      | 0.8                                    |
| Protection Class                  | IP23                                   |
| Altitude                          | ≤1000m                                 |
| Exciter Type                      | Brushless exciting                     |
| Insulation Class/Temperature Rise | H/H                                    |
| Telephone Influence Factor (TIF)  | <50                                    |
| THF                               | <2%                                    |
| Alternator Capacity               | 40kVA                                  |
| Alternator Efficiency             | 87.7%                                  |

**MODEL: BF-C40****400V | 1500rpm | 50Hz****GENERATING SET DATA**

|   |                 |
|---|-----------------|
| Related range of voltage setting                            | $\geq \pm 5\%$  |
| Steady-state voltage deviation                              | $\leq \pm 1\%$  |
| Transient voltage deviation (100 % sudden power decrease)   | $\leq +25\%$    |
| Transient voltage deviation (sudden power increase)         | $\leq -20\%$    |
| Voltage recovery time (100 % sudden power decrease)         | $\leq 6S$       |
| Voltage recovery time (sudden power increase)               | $\leq 6S$       |
| Related range of frequency setting                          | 0-5% adjustable |
| Steady-state frequency band                                 | $\leq 1.5\%$    |
| Transient frequency deviation (100 % sudden power decrease) | $\leq +12\%$    |
| Transient frequency deviation (sudden power increase)       | $\leq -10\%$    |
| Frequency recovery time (100 % sudden power decrease)       | $\leq 5S$       |
| Frequency recovery time (sudden power increase)             | $\leq 5S$       |

**STANDARD FEATURES**

|                              |   |               |
|------------------------------|---|---------------|
| Standard auto control system | Exhaust system (including until muffler)                                    | Documents     |
| Oil drain valve              | Starting batteries (maintenance-free & watering-free) with connective wires | Special tools |
| Base fuel tank               | MCCB  |               |

**MODEL: BF-C40****400V | 1500rpm | 50Hz****OPTIONS**

Daily fuel tank

Rainproof type

Remote control panel

Alternator heater

Soundproof type

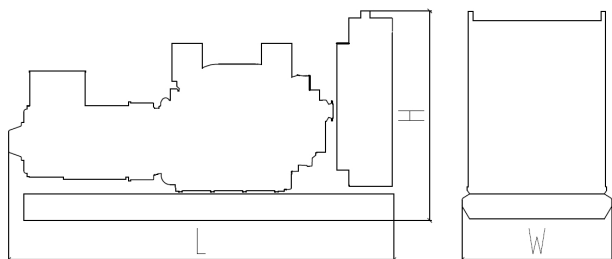
Paralleling system

Spare parts

Trailer type

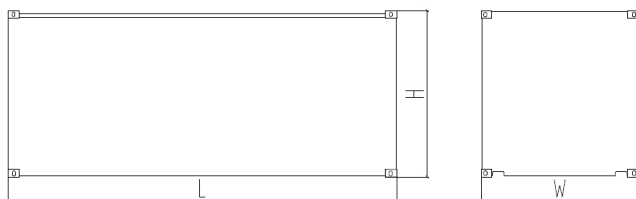
Switch box

Automatic transfer switch

**DIMENSIONS & WEIGHT****Standard Configuration (open type with base fuel tank)**

Overall Dimensions: 1750×770×1370 mm

Weight: 900 kg

**Soundproof Type**

Overall Dimensions: 2290×1060×1680 mm

Weight: 1350 kg

*Specifications are subject to change without notice.***BAIFA POWER (WUXI) LTD.****WEBSITE: [WWW.BAIFAPOWER.COM](http://WWW.BAIFAPOWER.COM)****EMAIL: [MARKETING@BAIFAPOWER.COM](mailto:MARKETING@BAIFAPOWER.COM)****TEL: +86-510-85342633**

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