

TECHNICAL PARTICULARS OF KIRLOSKAR ELECTRIC BLISS DG SETS - REPUBLIC SERIES

| DG SET | Model | 30K-4K3SW1C105 | 30K-4K3SW1C105 | 40K-4K3SW1C105 | 40K-4K3SW1C105 | 50K-4K3SW1C105 | 50K-4K3SW1C105 | 75K-4K3SW1C105 | 75K-4K3SW1C105 | 100K-4K3SW1C105 | 100K-4K3SW1C105 | 125K-4K3SW1C105 | 140K-4K3SW1C113 | 160K-4K3SW1C113 |
|---|-----------------------------------|--|--------------------|--------------------|--------------------|--------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | RA.TING (kVA) | 30 | 35 | 40 | 45 | 50 | 62.5 | 75 | 82.5 | 100 | 110 | 125 | 140 |
| | Rated kW | 24 | 28 | 32 | 36 | 40 | 50 | 60 | 66 | 80 | 88 | 100 | 112 | 128 |
| | Rated Current (Amps) | 42 | 49 | 56 | 63 | 70 | 87.5 | 104 | 115 | 139 | 153 | 174 | 195 | 223 |
| | Length x Width x Height (mm) | 2250 X 1050 X 1500 | 2250 X 1050 X 1500 | 2700 X 1200 X 1500 | 2700 X 1200 X 1500 | 2700 X 1200 X 1500 | 2700 X 1200 X 1500 | 3000 X 1200 X 1500 | 3400 X 1200 X 1500 | 3400 X 1200 X 1500 | 3400 X 1200 X 1500 | 3400 X 1200 X 1500 | 3900 X 1600 X 2100 | 3900 X 1600 X 2100 |
| | Total Dry We ght (Kgs) | 1125 | 1125 | 1350 | 1350 | 1500 | 1500 | 1800 | 2050 | 2125 | 2150 | 2600 | 3150 | 3250 |
| ENGINE | Make | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric | Kirloskar Electric |
| | Model | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C105 | 4K3SW1C113 | 4K3SW1C113 |
| | BHP | 46.8 | 46.8 | 59.8 | 59.8 | 75 | 75 | 89.5 | 149.5 | 149.5 | 149.5 | 172.5 | 172.5 | 210 |
| | No. of Cylinders | 3 | 3 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | RP M | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| | Bore (mm) | 105 | 105 | 108 | 108 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 113 |
| | Stroke (mm) | 120 | 120 | 135 | 135 | 125 | 125 | 135 | 130 | 130 | 135 | 135 | 135 | 125 |
| | Displacement (lts) | 3.11 | 3.11 | 4.94 | 4.94 | 4.33 | 4.33 | 4.67 | 6.75 | 6.75 | 7.00 | 7.00 | 7.52 | 7.52 |
| | Compression ratio | 18.0:1 | 18.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 16.0:1 | 17.0:1 |
| | SFC (gm/sh HP-hr) | 152 | 152 | 155 | 155 | 155 | 155 | 144 | 147 | 147 | 149 | 149 | 154 | 154 |
| | Governor | Mech | Mech | Mech | Mech | Mech | Mech | Mech | Mech | Mech | Mech | Mech | Mech | Mech |
| | Class of Governing | A | A | A | A | A | A | A | A | A | A | A | A | A |
| | Aspiration | TC | TC | NATURAL | NATURAL | TC | TC | TCAC | TCAC | TCAC | TCAC | TCAC | TCAC | TCAC |
| | Air Filter | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type | Dry type |
| | Fuel | HSD | HSD | HSD | HSD | HSD | HSD | HSD | HSD | HSD | HSD | HSD | HSD | HSD |
| | Type of oil | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 | 20W/40 |
| | Oil sump capacity (lts) | 8 | 8 | 11 | 11 | 13 | 13 | 13 | 19 | 19 | 19 | 19 | 21 | 21 |
| | Lab Oil Consumption (gm/sh HP-hr) | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Cooling | | | | | | | Liquid Force Cooling | | | | | | | |
| Bare Radiator Cooling capacity (lts) | 7 | 7 | 9 | 9 | 9 | 9 | 11 | 13 | 13 | 13 | 13 | 13 | 17 | |
| Coolant Capacity with engine Jacket (lts) | 9 | 9 | 12 | 12 | 12 | 12 | 14 | 18 | 18 | 18 | 18 | 18 | 21 | |
| Engine Dry We ght (Kgs) | 395 | 395 | 410 | 410 | 435 | 435 | 475 | 620 | 620 | 620 | 620 | 635 | 635 | |
| Electric Starting System | 12V | 12V | 12V | 12V | 12V | 12V | 12V | 24V | 24V | 24V | 24V | 24V | 24V | |
| ALTERNATOR | Make | KEC | KEC | KEC | KEC | KEC | KEC | KEC | KEC | KEC | KEC | KEC | KEC | |
| | Model | 4AB180 S1 | 4AB180 M1 | 4AB200S1 | 4AB200S1 | 4AB200M1 | 4AB200M1 | 4AB225S1 | 4AB225S1 | 4AB225S1 | 4AB225M1 | 4AB225M1 | 4AB225S1 | |
| | Type | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | Brushless | |
| | Rating (kVA) | 30 | 35 | 40 | 45 | 50 | 62.5 | 75 | 82.5 | 100 | 110 | 125 | 140 | |
| | Voltage (V) | 415 | 415 | 415 | 415 | 415 | 415 | 415 | 415 | 415 | 415 | 415 | 415 | |
| | No. of P hases | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | Power Factor | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | |
| | Speed (rpm) / Frequency (Hz) | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 | 1500 / 50 |
| | Voltage Regulation | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% | +/- 1% |
| | Excitator | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP | SPDP |
| Insulation class | H | H | H | H | H | H | H | H | H | H | H | H | H | |
| Weight for ACG (Kgs) | 210 | 210 | 260 | 270 | 310 | 330 | 390 | 440 | 490 | 490 | 490 | 590 | 590 | |
| CONTROL PANEL | Type | INBUILT | | | | | | | | | | | | |
| | Mounting | Mounting by metal room kW limiter for display of Volts, Amps, Hz, RPM, Hour, kW, kWh | | | | | | | | | | | | |
| | Gauges | Fuel Level Indicator, Lab Oil Pressure, Water Temperature, Oil Temperature | | | | | | | | | | | | |
| | Operator Interface | Manual Start/Stop, Emergency Stop, Stop by Selection, Fault Reset | | | | | | | | | | | | |
| | Protection | Short Circuit, Over load, MCCB with silencing for power ckt, MCCB for control ckt | | | | | | | | | | | | |
| BATTERY | Make | Exide | Exide | Exide | Exide | Exide | Exide | Exide | Exide | Exide | Exide | Exide | Exide | |
| | Type | MAINTENANCE FREE | | | | | | | | | | | | |
| EXHAUST SYSTEM | Rating (AH) | 100 | 100 | 130 | 130 | 100 | 100 | 130 | 130 | 130 | 130 | 130 | 130 | |
| | Quantity (Nos.) | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | Charging Facility | Charging Alternator | | | | | | | | | | | | |
| | Battery metering | Ammeter | | | | | | | | | | | | |
| FUEL TANK | Site user type | Residential | | | | | | | | | | | | |
| | Location | TOP | | | | | | | | | | | | |
| | Exhaust pipe size (Inches) | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 6" | |
| CANOPY | Type | INBUILT | | | | | | | | | | | | |
| | Capacity (Ltrs) | 65 | 65 | 100 | 100 | 110 | 110 | 160 | 160 | 160 | 160 | 160 | 305 | |
| | Material | BOLTED CRCA | | | | | | | | | | | | |
| | Drain | FORCED | | | | | | | | | | | | |
| OTHER ITEMS | Insulation | FOAM/ROCK WOOL | | | | | | | | | | | | |
| | Noise level (dB) | 75 dB @ 1 Meter in line with CPCB norms | | | | | | | | | | | | |
| | Base frame | Pre-stressed CRCA Channel | | | | | | | | | | | | |
| OTHER ITEMS | AV/AVC Qty (Nos.) | 4 | 4 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 8 | |
| | Emergency stop | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | |
| | Life nail Light | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | |

In view of the continuous product development the information provided is subject to modification and hence prohibited data is widely circulated, responsibility of seeking updates rests with the user

* 'BLISS' the brand and catch line 'BLISS-Powerfully Reliable' are used by Kirloskar Electric Company for Diesel generating sets that gets manufactured at its units in different locations.