PRODUCT SPECIFICATIONS

Ref.06.01.15.55U.01

GT55U-FI

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Engine Specification

GT55U-FI

Engine type : Air-cooled 2-stroke engine
Feature : EFI (Electric Fuel Injection) engine with integrated Generator

Displacement : 54.93cc
Bore : 41.2mm
Stroke : 41.2mm
Weight : 2.5kg

(Incl. Core engine, Exhaust, ECU, Fuel pump, Ignition, Generator, harnesses)

Power output : 4.2PS (3.1kW)/9,000rpm
Fuel consumption : 458g/PS-h
Generator output : 100W/Max

Remarks: (Other components)
Spark plug : CM-6 (NGK)
EFI : Fuel Injection (INJ-03)
    : Fuel Pump (PM-01)
    : ECU (EC-10)
Silencer : E-6021 Silencer
Ignition unit : CDI (IG-08)
    : Ignition Signal Distributor
Regulate Rectifier : ORF-1206
## Generator Specifications

### Generator OGA-100

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>Data</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>Outside diameter</td>
<td>mm</td>
<td>36.0</td>
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<td>Body length</td>
<td>mm</td>
<td>53.0</td>
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<tr>
<td>Poles</td>
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<td>4</td>
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<tr>
<td>Shaft diameter</td>
<td>mm</td>
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<td>Shaft length</td>
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<td>Weight</td>
<td>g</td>
<td>197</td>
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<td>Lead wire length</td>
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<td>Lead wire gauge</td>
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<tr>
<td>Male connector</td>
<td>mm</td>
<td>φ3.5</td>
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<tr>
<td>Rated voltage</td>
<td>V</td>
<td>12</td>
<td>AC</td>
</tr>
<tr>
<td>Rated current</td>
<td>A</td>
<td>6</td>
<td>10h/20℃ +60℃ or less</td>
</tr>
<tr>
<td>Maximum current</td>
<td>A</td>
<td>12</td>
<td>5min/20℃ +60℃ or less</td>
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<tr>
<td>Number of phases</td>
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<td>3</td>
<td>(three-phase alternating current)</td>
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<tr>
<td>Phase resistance</td>
<td>mΩ</td>
<td>65.0</td>
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<td>Phase Inductance</td>
<td>μH</td>
<td>-</td>
<td>±10%</td>
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<tr>
<td>Maximum efficiency</td>
<td>%</td>
<td>-</td>
<td>±5%</td>
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<tr>
<td>KV</td>
<td>rpm/V</td>
<td>950</td>
<td>±10%</td>
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<tr>
<td>Turns</td>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Magnet</td>
<td></td>
<td>4極</td>
<td>200℃(Heat-proof)</td>
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<tr>
<td>Copper wire</td>
<td></td>
<td>220℃(HEAT-RESISTANT COVERED WIRED)</td>
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<tr>
<td>Silicon steel</td>
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<td>0.2t</td>
<td>Japan made 0.2t</td>
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<tr>
<td>Bearing</td>
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<td>NMB</td>
<td>Japan made</td>
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<tr>
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<td>IP</td>
<td>61</td>
<td>IP61～IP62</td>
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<td>Mounting screw</td>
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<td>M3</td>
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Regulate Rectifier Specification

ORF-1206

Application: Regulate Rectifier (DC-DC converter)
Feature: Dual-output, Rectifier, Regulator
CPU: None

Maximum input voltage (AC): 30V AC
Maximum input frequency: 5.0 KHz
Overheating protection: Overheating protection circuit
Overcurrent protection: Provide overcurrent limit circuit
Power element: FET/Tr, etc. (Breakdown voltage 100V or more)
Diode (Breakdown voltage 200V or more)

Wire size
- for Battery: 14AWG (Heat resistance covering AESX)
- for Generator: 14AWG (Heat resistance covering AESX)

Load resistance: 12V DC
- 6V DC

Output voltage: 12V8A/98W and 6V5A/30W 2lines
Consumption current: 0.2A or less

Working current:
- Rated current: 4A (10hrs)
- Maximum current: 8A (2hrs)

Maximum operating temperature: 115° ± 5 °C
Overcurrent durability: 8A

Line noise: Power line EMC noise less than 0.2Vp-p

Operating temperature range: -10 ~ +80 °C (ambient temperature)
Stage temperature range: -20 ~ +60 °C

Dimension (L×W×H): 85 × 70 × 40 mm
Weight: 450 g
GT55U-FI engine Outline Drawing

Engine type: Air-cooled 2 stroke single
Displacement: 54.9cc
Bore: 41.2mm
Stroke: 41.2mm
Weight: 2.5kg (Includes core engine, exhaust, fuel pump, injector, ignition, generator, harnesses)
Power output: 4.2PS (3.1kW) / 9,000rpm
Fuel consumption: 458g/PS·h
Generator output: 100W/maximum

ECU (EC-10)
- Input: Throttle position/Engine RPM/CHT
- Control: Fuel pump control/Fuel injection timing & flow rate/Spark ignition timing
- Operation RPM: 12,000rpm/maximum
- Input voltage: DC7.4V (6.0 ~ 8.4V Dedicated power source recommended)
- Current consumption: 800mA/6,000rpm/6.0V (using Fuel pump PM-01)
- Weight: 25g

FUEL PUMP (PM-01)
- Fuel flow rate: 100ml/min,
- Current consumption 0.8A/maximum
- Weight: 40g

ECU (EC-10) Diagram
- Receiver (RX)
- Fuel Pump Control
- Fuel Pump (PM-01)
- Fuel filter
- Fuel Return
- Battery
- DC output
- Trickle charge
- Electric Devices

ECU (EC-10) Functions:
- Input: Throttle position/Engine RPM/CHT
- Control: Fuel pump control/Fuel injection timing & flow rate/Spark ignition timing

Battery 4.8 ~ 8.4V
Battery 4.8 ~ 8.4V
Spark Plug (CM-6)
Engine RPM sensor
Engine RPM & Crankshaft timing data
Fuel Injection timing & flow rate
Throttle position data
Throttle position sensor
Fuel-IN
Regulate Rectifier ORF-1206
Generator (OFA-100)
Gear ratio: 3:1

CTH sensor
Cylinder Head Temperature (CHT) data
Ignition (IG-08)
- Rotational direction: Counter-clockwise
- Operating temperature range: -10°C ~ 60°C
- Input voltage: DC4.8 ~ 8.4V
- Limited level of input voltage: DC12V
- Current consumption: 600mA/6,000rpm/4.8V
- Weight: 95g (incl. spark plug lead)