



# Service Manual

Our energy working for you.™



**Power  
Generation**

## 60Hz Commercial Portable Generator Set

EGMBP / PX12000e

# **PX12000e Commercial Portable Generator Set**

# CONTENTS

| <i>Section</i> | <i>Title</i>   | <i>Page</i> |
|----------------|--|-------------|
| <b>1.</b>      | <b>SPECIFICATIONS</b>  | <b>1</b>    |
| <b>2.</b>      | <b>PERFORMANCE CURVES</b>                                    | <b>2</b>    |
| <b>3.</b>      | <b>GENERAL DESCRIPTION OF GENERATOR</b>                      | <b>3</b>    |
| <b>4.</b>      | <b>CONSTRUCTION AND FUNCTION</b>                             | <b>6</b>    |
| 4-1            | CONSTRUCTION   | 6           |
| 4-2            | FUNCTION   | 6           |
| 4-3            | DESCRIPTION of GENERATOR OPERATION                           | 17          |
| <b>5.</b>      | <b>SAFETY PRECAUTIONS</b>                                    | <b>19</b>   |
| <b>6.</b>      | <b>RANGE OF APPLICATIONS</b>                                 | <b>20</b>   |
| <b>7.</b>      | <b>MEASURING PROCEDURES</b>                                  | <b>23</b>   |
| 7-1            | MEASURING INSTRUMENTS  | 23          |
| 7-2            | AC OUTPUT MEASURING  | 24          |
| 7-3            | MEASURING INSULATION RESISTANCE                              | 25          |
| <b>8.</b>      | <b>CHECKING FUNCTIONAL MEMBERS</b>                           | <b>27</b>   |
| 8-1            | PILOT LAMP and VOLTMETER                                     | 27          |
| 8-2            | AC RECEPTACLES   | 27          |
| 8-3            | AC SWITCH (NO-FUSE BREAKER)                                  | 28          |
| 8-4            | STATOR   | 28          |
| 8-5            | ROTOR ASSEMBLY   | 29          |
| 8-6            | EXCITING COIL  | 29          |
| 8-7            | BRUSH  | 30          |
| 8-8            | A.V.R (AUTOMATIC VOLTAGE REGULATOR)                          | 30          |
| 8-9            | CURRENT TRANSFORMER (RGV13100T only)                         | 31          |
| 8-10           | ECU (ELECTRONIC CONTROL UNIT)                                | 31          |
| 8-11           | IDLE CONTROL UNIT (PX12000 only)                             | 32          |
| 8-12           | DIODE UNIT (RGV13100T only)                                  | 33          |
| <b>9.</b>      | <b>DISASSEMBLY and REASSEMBLY</b>                            | <b>34</b>   |
| 9-1            | PREPARATION and PRECAUTIONS                                  | 34          |
| 9-2            | DISASSEMBLY PROCEDURES                                       | 34          |
| 9-3            | COMPONENT PARTS  | 35          |
| 9-4            | GENERATOR ASSEMBLING PROCEDURES                              | 40          |
| <b>10.</b>     | <b>TROUBLESHOOTING</b>                                       | <b>44</b>   |
| 10-1           | NO AC OUTPUT   | 44          |
| 10-2           | AC VOLTAGE IS TOO HIGH OR TOO LOW                            | 44          |
| 10-3           | AC VOLTAGE IS NOMINAL AT NO-LOAD, BUT LOAD CANNOT BE APPLIED | 44          |
| 10-4           | ENGINE DOSE NOT RUN  | 45          |
| <b>11.</b>     | <b>WIRING DIAGRAM</b>  | <b>46</b>   |

**NOTE**

*This Service Manual excludes information for engine.*

*As for the total servicing information as a generator set, please refer in conjunction with the EH63-65 OHV Engine Service Manual.*

# 1. SPECIFICATIONS

| Model  |                   | PX12000  | RGV13100T                             |
|--|-------------------|--|---------------------------------------|
| Alternator                                       | Type              | Brush, Self-exciting, 2-pole, Single phase                   | Brush, Self-exciting, 2-pole, 3-phase |
|  | Rated frequency   | 60Hz   |                                       |
|  | Rated voltage     | 120V / 240V  | 120V / 208V                           |
|  | Maximum output    | 12000VA  | 13000VA                               |
|  | Rated output      | 9500VA   | 10000VA                               |
|  | Power factor      | 1.0  | 0.8                                   |
|  | Voltage regulator | A.V.R type   | C.T. type                             |
| Engine   | Model             | EH65D  | EH63D                                 |
|  | Type              | V-Twin cylinder, Air-cooled, 4-stroke, Overhead valve engine |                                       |
|  | Displacement      | 653 cm <sup>3</sup>  |                                       |
|  | Maximum output    | 22 HP/ 3600 rpm  | 18 HP/ 3600 rpm                       |
|  | Fuel              | Unleaded automobile gasoline (RON87 or higher)               |                                       |
|  | Oil capacity      | 1.55 liters  |                                       |
|  | Starting system   | Electric starter   |                                       |
| Fuel tank capacity                               |                   | 44 liters  |                                       |
| Rated continuous operation per a tankful of fuel | 3/4 Rated         | Approx. 9.0 hours  | Approx. 9.7 hours                     |
|  | Rated             | Approx. 8.2 hours  | Approx. 8.9 hours                     |
| Noise level                                      | Rated (dB-7m)     | 77.0 dB  | 77.0 dB                               |
| Dimensions                                       | Length            | 826 mm   |                                       |
|  | Width             | 611 mm (752 mm * <sup>1</sup> )                              |                                       |
|  | Height            | 771 mm (845 mm * <sup>1</sup> )                              |                                       |
| Dry weight                                       |                   | 141 kg (149 kg * <sup>2</sup> )                              | 143 kg (151 kg * <sup>2</sup> )       |

\*1: ( ) shows dimensions with castors.

\*2: ( ) shows dry weight with castors installed.

**BUY NOW**

**Then Instant Download  
the Complete Manual  
Thank you very much!**