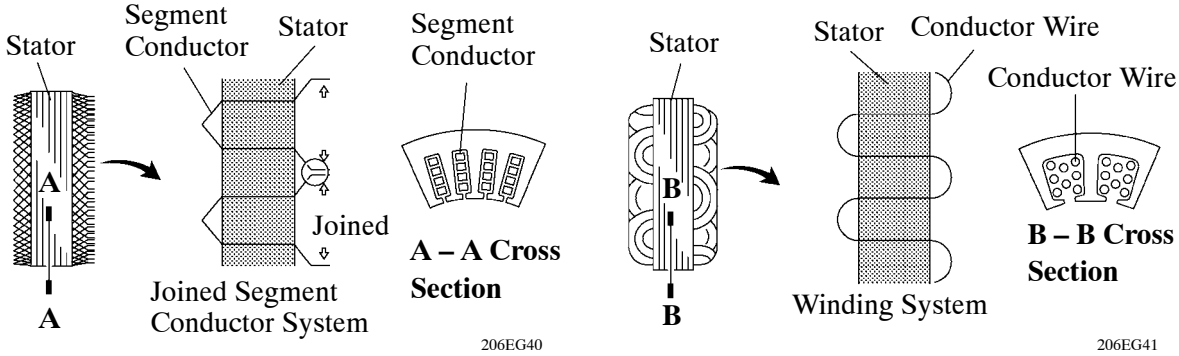
11. Charging System

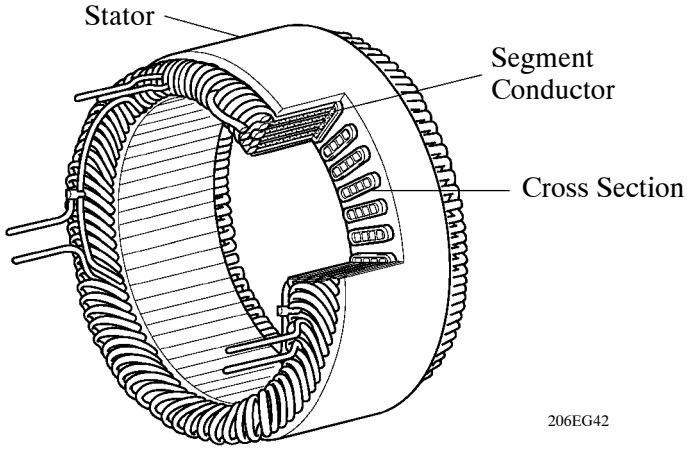
General

- A compact and lightweight segment conductor type generator that generates high amperage output in a highly efficient manner is provided as standard equipment.
- This generator has a joined segment conductor system in which multiple segment conductors are welded together to form the stator. Compared to the conventional winding system, the electrical resistance has been reduced due to the shape of the segment conductors, and their arrangement helps to make the generator compact.



Segment Conductor Type Generator

Conventional Type Generator



Stator of Segment Conductor Type Generator

▶ Specifications ◀

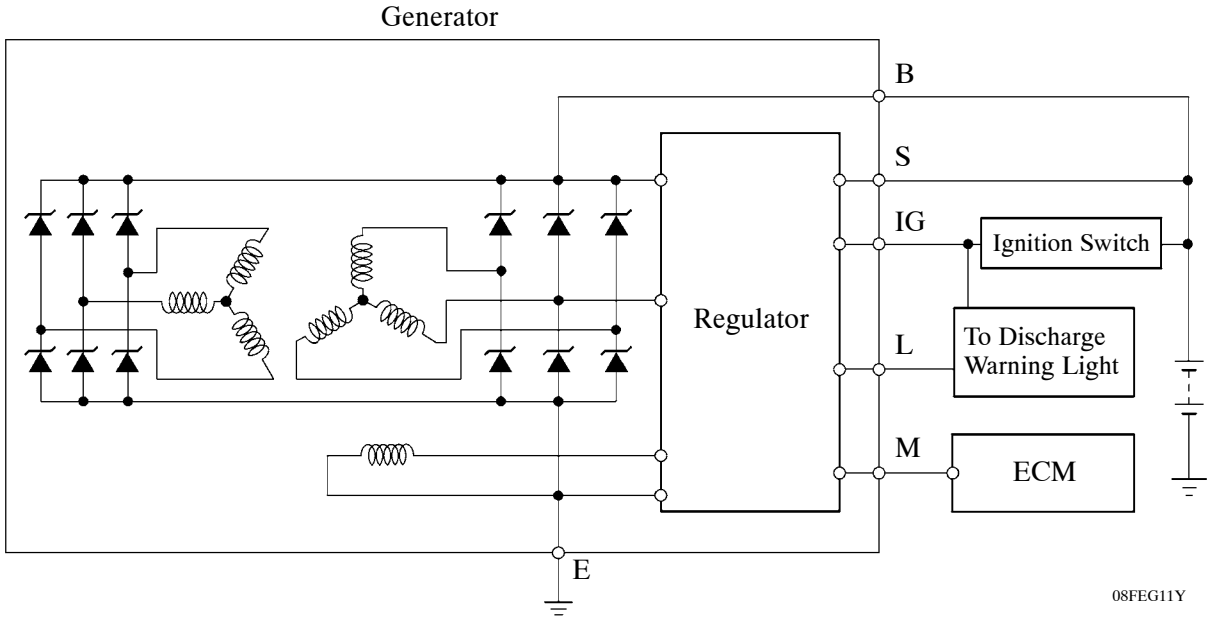
Type	SC1*1	SC2*2	SC6L*3
Rated Voltage	12 V	←	←
Rated Output	130 A	150 A	180 A
Initial Output Starting Speed	Max. 1500 rpm	←	Max. 1000 rpm

*1: Standard SR5 grade

*2: Models with seat heater or RSES (Rear Seat Entertainment System)

*3: Towing package models

▶ Wiring Diagram ◀



Dual Winding System

A dual winding system is used. This system consists of 2 sets of three-phase windings whose phases are staggered by 30°. This system results in the reduction of both electrical noise (ripple and spike) and magnetic noise (a hum that is heard as generator load is increased). This system significantly suppresses noise at the source (generator). Because the waves that the respective windings generate have opposing polarities, magnetic noise has been reduced. However, the generated electrical power does not cancel itself out due to the use of separate rectifiers. The opposing polarities that are generated are shown below:

