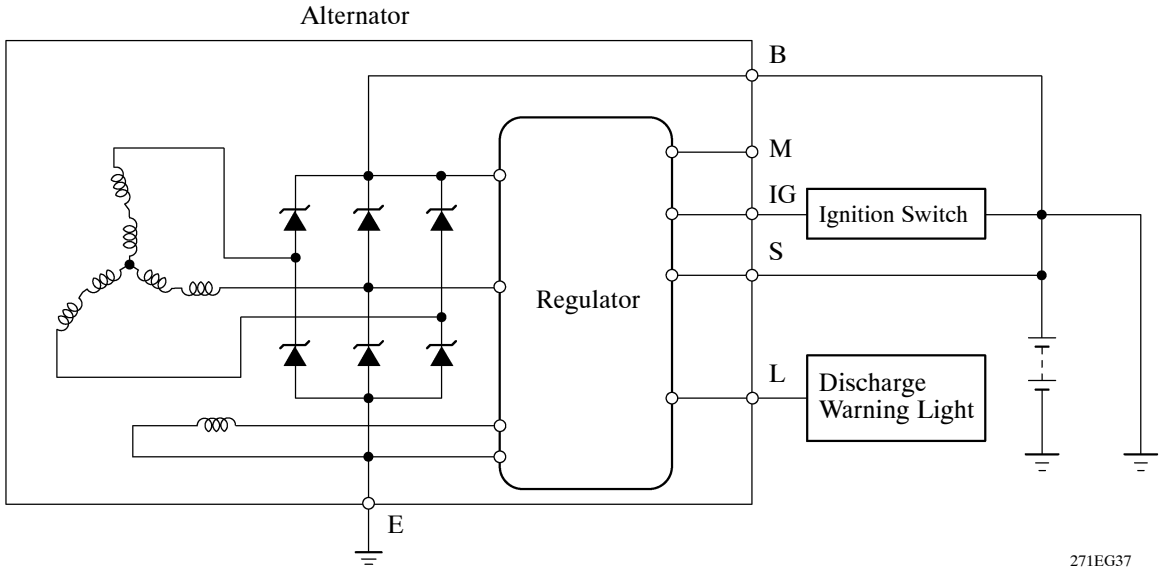
▶ Wiring Diagram ◀



■STARTING SYSTEM

1. General

- A compact and lightweight PS (Planetary reduction-Segment conductor motor) type starter is used.
- Conventional planetary reduction type starter is used.
- A planetary reduction type starter with an interpolar magnet is used. The structure of the interpolar magnet is the same as that of the interpolar magnet used in the PS type starter described above.

▶ Specifications ◀

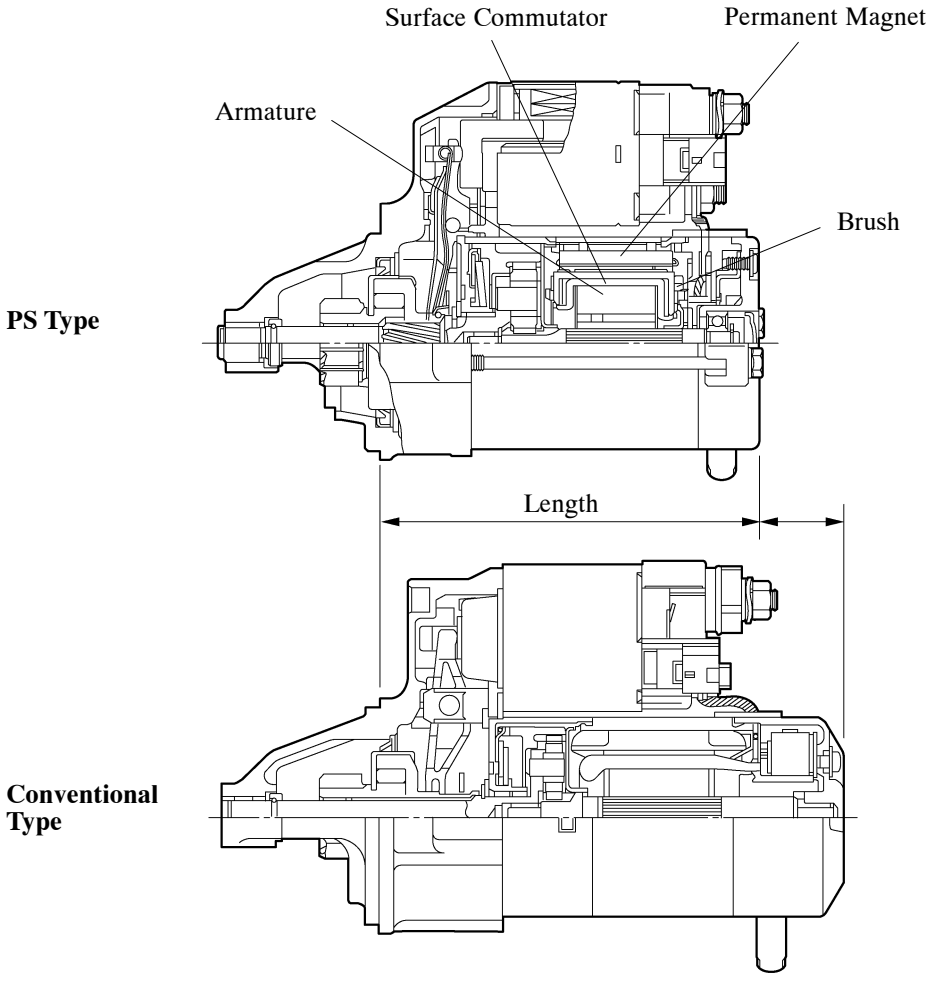
Starter Type	PS 1.6*3	DW 1.7*4	RA 1.4*5
	PS Type	Planetary Reduction Type with Interpolar Magnet	Planetary Reduction Type
Supplier	DENSO	BOSCH	DENSO
Rating Output	1.6 kW	1.7 kW	1.4 kW
Rating Voltage	12 V	←	←
Length*1	129 mm (5.1 in.)	153 mm (6.0 in.)	132 mm (5.2 in.)
Weight	2800 g (6.2 lb)	3300 g (7.3 lb)	3650 g (8.0 lb)
Rotating of Direction*2	Clockwise	←	←

*1: Length from mounted area to rear end of the starter
*2: Viewed from pinion side
*3: Models for Thailand, Indonesia, Philippines, Malaysia and Vietnam
*4: Models for South Africa, Central and South America and Brazil
*5: Models for G.C.C. Countries

2. PS (Planetary reduction-Segment conductor motor) Starter

General

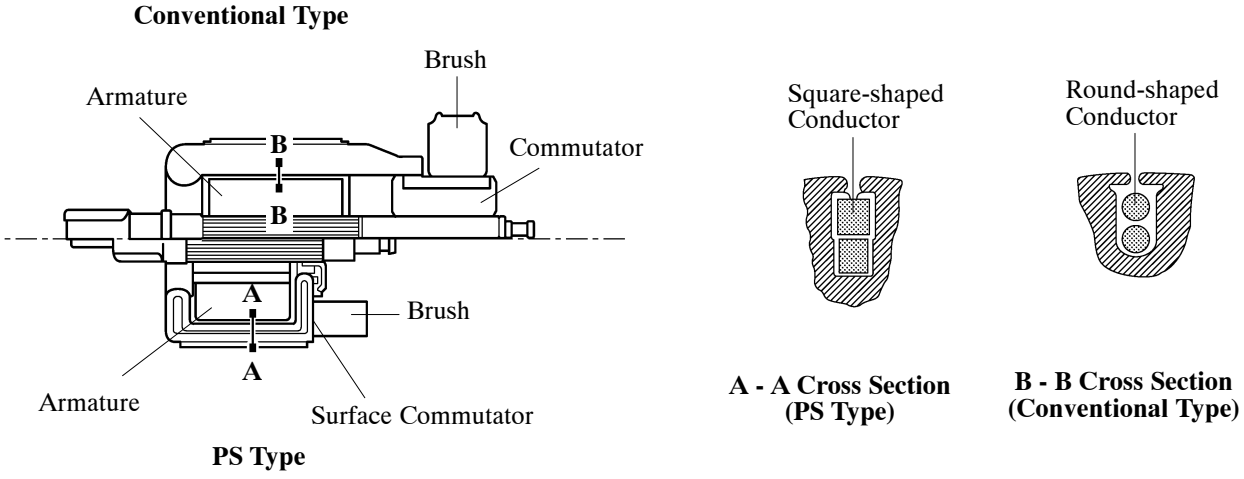
- Because the PS type starter contains an armature that uses square-shaped conductors, and its surface functions as a commutator, it has both improved its output torque and reduced its overall length.
- In place of the field coil used in the conventional type starter, the PS type starter uses two types of permanent magnets: main magnets and interpolar magnets. The main magnets and interpolar magnets have been efficiently arranged to increase the magnetic flux and to shorten the length of the yoke.



271EG38

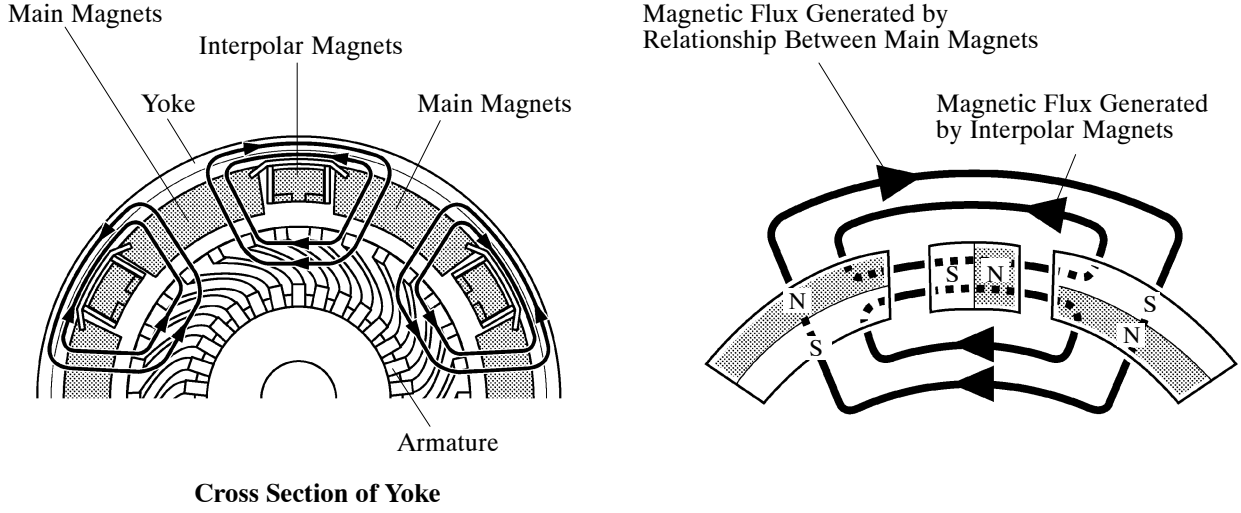
Construction

- Instead of constructing the armature coil with conventional type round-shaped conductor wires, the PS type starter uses square conductors. With this type of construction, the same conditions that are achieve by winding numerous round-shaped conductor wires can be achieved without increasing the mass. As a result, the output torque has been increased, and the armature coil has been made more compact.
- Because the surface of the square-shaped conductors that are used in the armature coil functions as a commutator, the overall length of the PS type starter has been shortened.



206EG20

- Instead of the field coils used in the conventional type starter, the PS type starter uses two types of permanent magnets: the main magnets and the interpolar magnets. The main and interpolar magnets are arranged alternately inside the yoke, allowing the magnetic flux generated between the main and interpolar magnets to be added to the magnetic flux generated by the main magnets. In addition to increasing the amount of magnetic flux, this construction shortens the overall length of the yoke.



222EG15