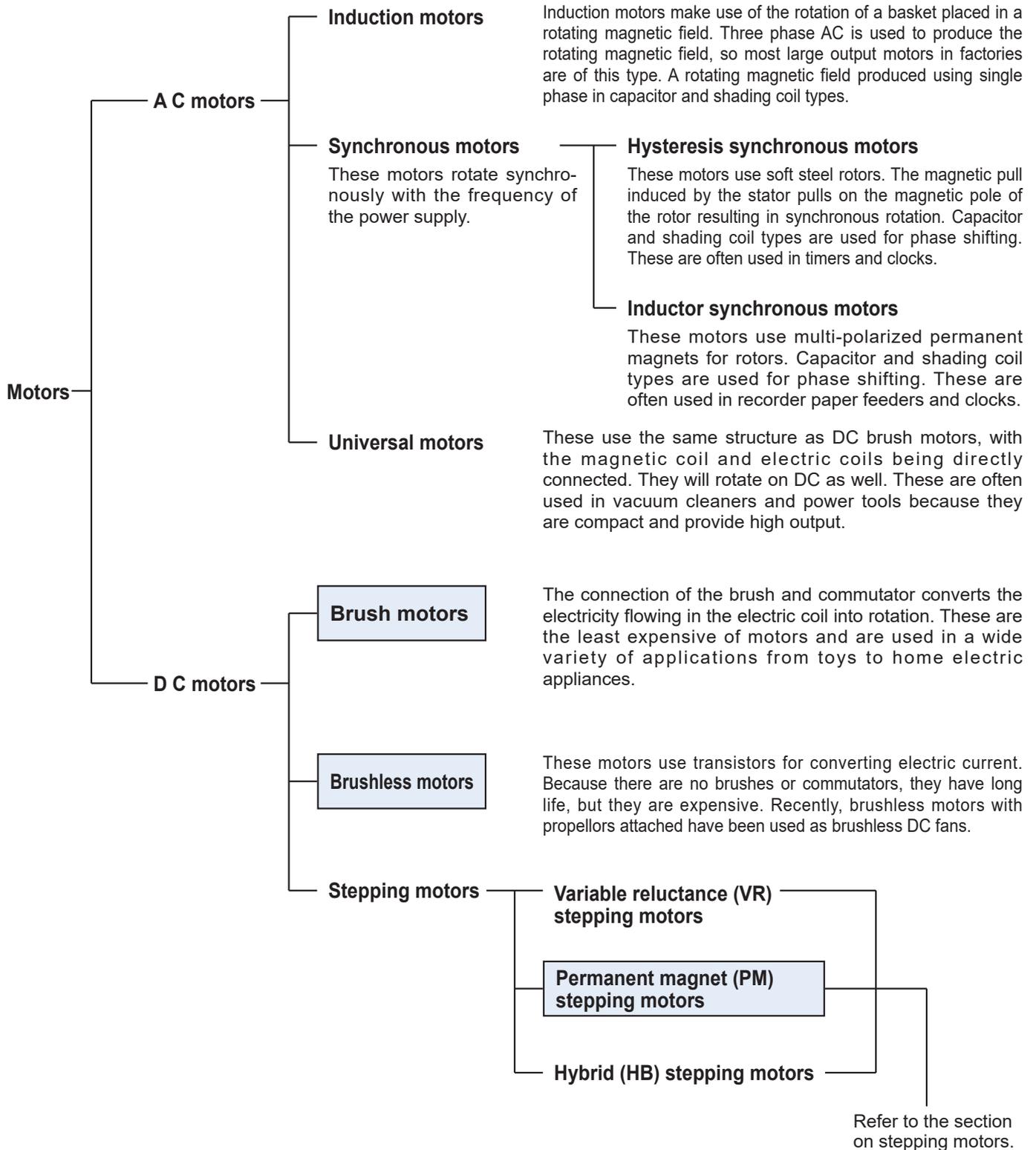


STEPPING MOTORS OUTLINE (MOTORS)

Our handles motors marked by the



OUTLINE (MOTORS)

STEPPING MOTORS

■ FEATURES

Stepping motors differ from general motors that rotate simply by being attached to a power supply in that they rotate just a fixed angle when a pulse signal is applied to the driving circuit. In other words, the number of rotations of the motor is proportional to the number of pulse signals applied to the driving circuit, and the rotational speed is proportional to the frequency of the pulse signals.

■ TYPES

Stepping motors can be categorized into following types depending on their structure.

● Variable reluctance type (VR type)

The electromagnetic force generated by the stator coil turns a rotor made of electromagnetic soft steel.

● Permanent magnet type

The electromagnetic force generated by the stator coil turns a rotor made from a permanent magnet. Therefore, holding torque is generated even during deenergization.

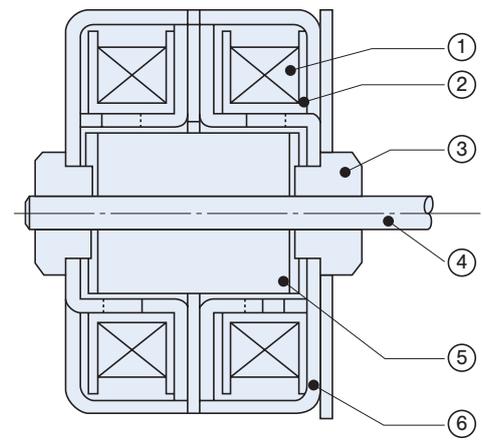
● Hybrid type (HB type)

This is a combination of the above VR and PM types.

※ **We manufacture PM types only.**

■ CONSTRUCTIONS

The structure of PM stepping motors (SPG etc.) is shown in the cross section. This stepping motor uses a bifilar wound four phase stator coil, and a ferrite permanent magnet rotor. The bearings used copper sintered metal or special plastic, and the motor can be used for a long period of time without oil.



Part name	
①	Stator coil
②	Plastic coil bobbin
③	Bearing
④	Rotating shaft
⑤	Rotor (Ferrite magnet)
⑥	Stator core