The General

Based on our own technology, JAHWA continues to provide new magnets which support the development of lighter and higher performance motors.
JAHWA MAGFINE, JHMF, is the world's strongest bonded magnet of which the Maximum Energy Product reach up to 25MGOe, and is gathering interest world as a core material for realizing the next generation of innovative motors.

Features

- JHMF Motor: Replacement of Nd-Fe-B isotropic magnets will yield Electric motors with less energy consumption
  - * 50% improved torque
  - * 50% volume reduction
  - * Cost reduction by precision finishing
  - * Cost reduction by integrating yoke and magnet

Nd-Fe-B Bonded Magnet

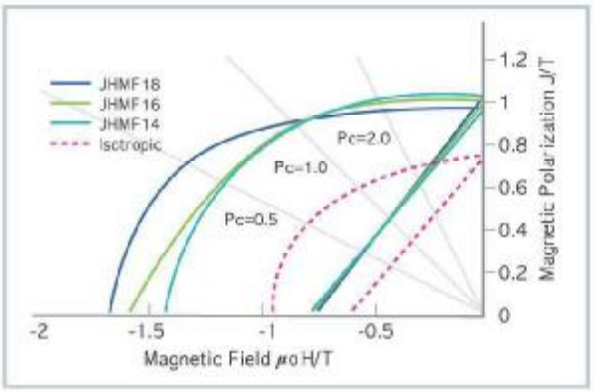
Anisotropic Nd-Fe-B Bonded Magnet and Motor

Magnetic Characteristics

• Compression Molded Magnet

		Anisoropic			Isotropic
		JHMF14	JHMF16	JHMF18	
(BH)max	MGOe	22	20	19.5	10
Br	kG	9.8	9.5	9.5	7
iHc	kOe	14	16	18	9.5
α	%/℃	-0.11	-0.11	-0.11	-0.13
β	%/℃	-0.56	-0.47	-0.46	-0.33

• Demagnetization Curve(B-H)



• Mechanical Characteristics

Properties	JHMF 14/16/18	Isotropic
Rng Crushing Strength (Mpa)	150	150
Electric ($\mu\Omega$cm)	5800	5600
Density (g/cm^3)	6.3	6.0

Application

• Automobile DC Motor

Rated Voltage		DC 13.5V
No Load	Current	2.0 [A] Max.
	RPM	2,800~3,600 RPM
Load (@0.2 Nm)	Current	8.0 [A] Max.
	RPM	1,800~2,500 RPM
Stall	Current	24 [A] Max.
	Torque	0.5 [Nm] Min.

• Cordless Tool DC Motor

Rated Voltage		DC 18V
No Load	Current	3.0 [A] Max.
	RPM	18,000±10% RPM
Load (@0.2 Nm)	Current	3.0 [A] Max.
	RPM	10,000±10% RPM
Stall	Current	70 [A] Max.
	Torque	0.45 [Nm] Min.