

Low Profile Megatorque Motor™

PN series

MOTION & CONTROL™
NSK

RoHS
compliant

New
Product

Patent
pending

High torque, High rigidity, High Resolution and Low profile inner rotor type for various application



■ Features

1. Low profile and High rigidity due to unique motor design.

Max. 32% less motor height (125mm \Rightarrow 85mm) , 25% improved moment rigidity contributes downsizing and weight saving for equipment.

2. Reduced positioning time due to High torque output.

Max. 50% improved Motor torque (120Nm \Rightarrow 180Nm) 。 due to optimized motor design contributes to improve productivity of equipment.

3. High Resolution position sensor incorporated.

2.6 million counts/rev with 90 arc-sec accuracy position sensor contributes to improve accuracy of equipment.

4. Compliance with RoHS (in process)

Contributes Environment-conscious design for equipment.

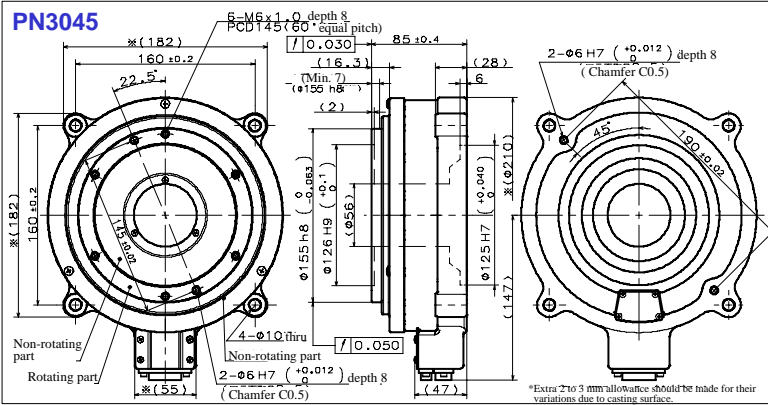
Low Profile Megatorque Motor™ PN series



Motor reference number

Reference number	M-PN 3 045 KN 502
PN series Megatorque motor	
Motor size	Design NO.
Max. output torque [N.m]	KN : Standard

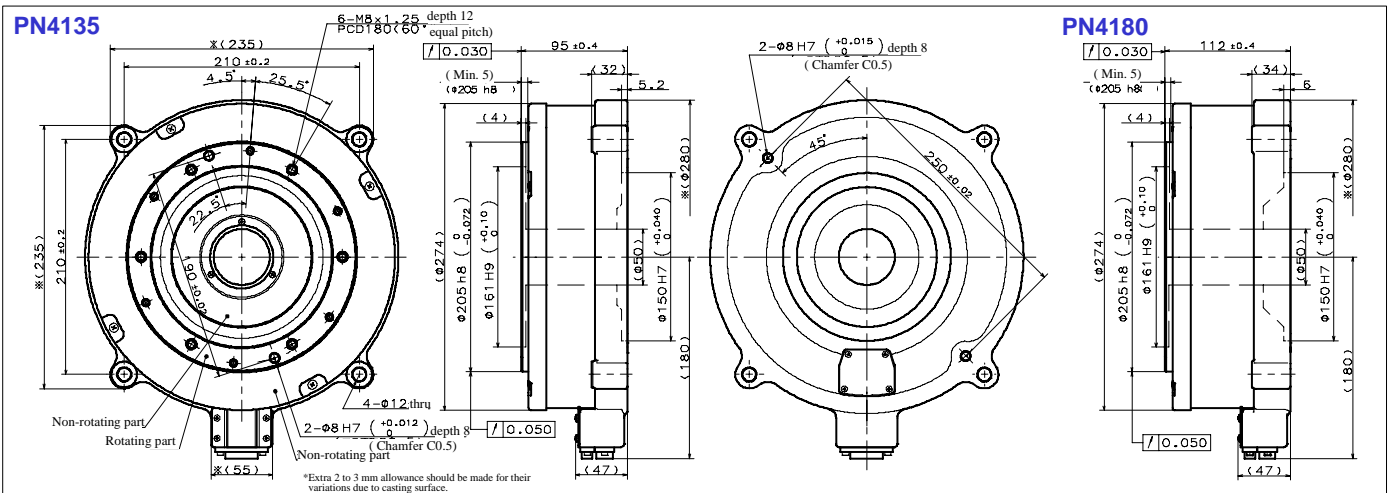
Motor dimension



Motor specification

	PN3045	PN4135	PN4180
Max. torque [N·m]	45	135	180
Rated torque [N·m]	15	45	60
Max. Motor speed [s^{-1}]	3		
Sensor resolution [counts/rev]	2 621 440		
Absolute accuracy [arc sec]	90 (Interchangeable type, 25±/5°C)		
Repeatability [arc sec]	± 2.0		
Allowable axial load [N]	4500	9500	
Allowable moment load [N·m]	80	160	200
Motor height [mm]	85	95	112
Rotor inertia [$kg \cdot m^2$]	0.011	0.054	0.065
Motor weight [kg]	13	25	30
Environmental conditions	Ambient temperature : 0-40°C, humidity : 20-80 % , indoor use, free from dust, condensation and corrosive gas, IP20 equivalent		

*For an oscillating operation less than 45°, turn motor 90° or more at least once a day.

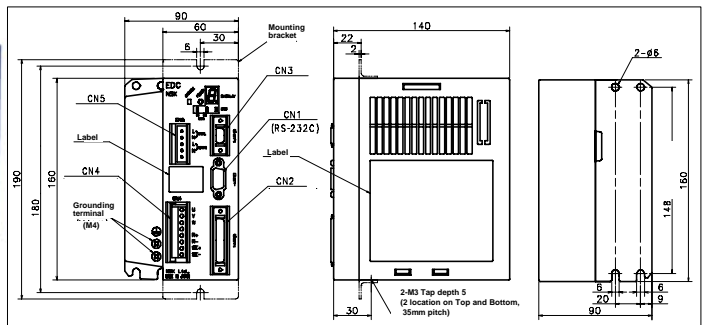


EDC Driver Unit

Driver Unit Reference number

Reference number	M-EDC - PN3045 A B 5 02 -01
EDC Driver Unit	
Motor model	Accessories None, 01, 02
Power voltage AC200-230V (single phase)	Design NO. 02 : standard
Position sensor B : Absolute type	Function 5 : standard

Accessories
None : No accessories included
01 : Connector, Mounting bracket, Manual (Japanese)
02 : Connector, Mounting bracket, Manual (English)



*Please refer Megatorque motor PS series catalog E3510 for Cable set, Dump resistor and other information.