

# 42mm Brushless DC Motor-IE



## Specifications:

### General Specifications

Number of phases	8
Number of poles	3
Operating temperature range	-30°C ~ 85°C
Commutation	Electrically commutated
Bearing type	Shielded ball bearings
Housing material	Black anodized aluminum
Magnet material	Sintered Nd-Fe-B
Direction of rotation	Reversible
Insulation class	Class B (130°C max.)
Dielectric strength	500 VDC for one minute
Insulation resistance	100Mohms min., 500VDC
Max. axial force	10N
Max. radial force	28N@20mm from the flange
Radial play	0.02mm@450g
End play	0.08mm@450g
Shaft run out	0.025mm
Hall effect angle	120 degree electrical angle

Model		DN4277-24-I	DN4297-24-I	DN42137-24-I	DN42157-24-I	
Rated Voltage	V	24	24	24	24	
Rated Speed	RPM	4000	4000	4000	4000	
Rated Torque	mNm	62.5	125	185	250	
Output Power	W	26	52	78	104	
Back EMF Constant	mV/RPM	2.78	2.9	3.1	3.07	
Torque Constant	mNm/A	34	35.5	38.00	37.6	
Rotor Inertia	g-cm <sup>2</sup>	24	48	72	96	
Line to line Resistance	ohms	1.75	0.8	0.46	0.28	
Line to line Inductance	mH	2.1	1.2	0.7	0.54	
Motor Body Length	"L"	77	97	137	157	

## Outline Drawing

