Nidec
All for dreams

Data sheet

Date : 24 Sep 24 (v1)

Enquiry N°: 2484
Created by: SB / Checked by: DB

SERVO MOTOR – 142UDB206BACAA165240-JSHJ

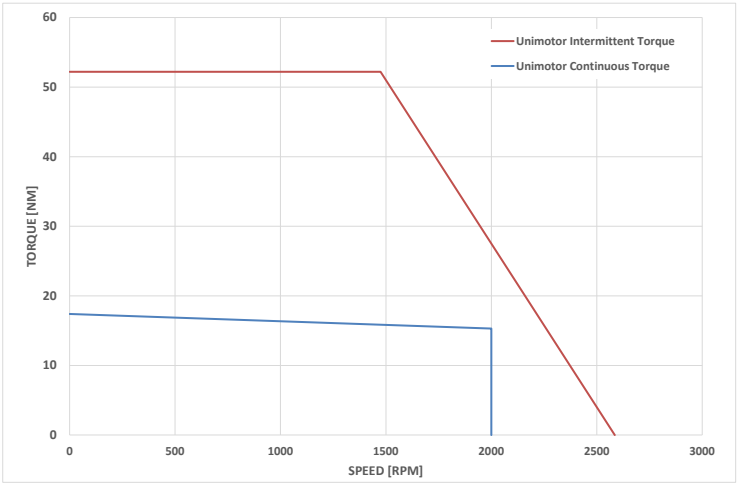
142UDB206BACAA165240-JSHJ

HIGH INERTIA

Definition		
Type	**Unimotor HD**	
Motor frame size (mm)	**142**	
Voltage (Vdc)	**U**	400V
Magnet type	**D**	High Dynamic
Frame Length	**B**	
Speed (min^{-1})	**20**	2000
Brake	**6**	Braked
Connection type	**B**	Power and Signal size 1 90° rotatable
Output shaft	**A**	With output key
Feedback device code	**CA**	4096 ppr Incremental encoder (CFS50)
Inertia & thermistor	**A - JSHJ**	High inertia + PTC thermistor
PCD	**165**	165 (FF 165/130)
Shaft Diameter	**240**	24j6 x 50.0
Fan Box	**-**	
Insulation class	**F**	
UL Motor / UL Stator	**UL Motor / UL Stator**	

Motor Characteristics			
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Continuous Stall Torque (Nm)	17.4	Stall Current (A)	7.0
Rated Torque (Nm)	15.3	Nominal Current (A)	6.37
Motor Peak Torque (Nm)	52.2	Kt (Nm/A) @cold	2.4
Rated Power (kW)	3.2	Ke (V/kmin-1) @cold	147.0
Winding Thermal Time Constant (s)	240	R (ph-ph) (Ohm) @ambient	1.5
Number of Poles	10	L (ph-ph) (mH)	21.0
Typical Cogging (Nm)	0.26		
Inertia ($kg.cm^2$)	32.31	Weight (kg)	17.0
Ingress Protection Level (IP)	IP65		
Brake	Type 6	Static Torque (Nm)	16.0
Release Time (ms)	110	Backlash (˚)	3
Brake Supply Voltage (V)	24	Brake Coil Power (W)	23

Torque / Speed Graph



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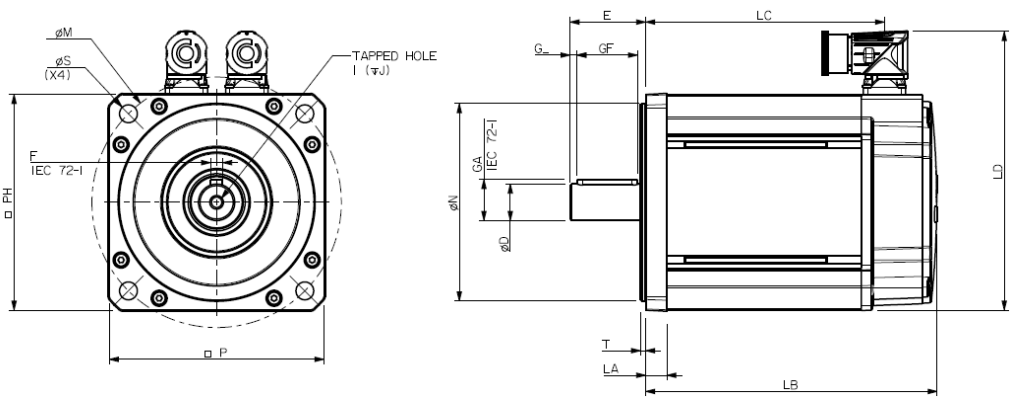
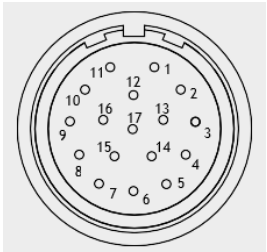
Motor Dimensions (mm)



LB	Total length	282.5
LC	Power connector position	248.0
LA	Flange thickness	14.0
T	Register Length	3.4
N	Register Diameter	130.0
LD	Overall height	183.5
P	Flange Square	142.0
S	Fixing Hole Diameter	12.0
M	Fixing hole PCD	165
PH	Motor Housing Width	142
D	Shaft Diameter	24j6
E	Flange to Shaft End	50.0
GA	Key Height	27.0
GF	Key Length	40.0
G	Key to Shaft End	3.0
F	Key Width	8.0
I	Tapped Hole Thread Size	M8 x 1.25
J	Tapped Hole Depth	20.0
	Mounting Bolt	M10

Connectors

Signal connection: CA - 4096 ppr Incremental encoder (CFS50)



Pin	Function	Pin	Function
1	Thermistor -	10	Channel A
2	Thermistor +	11	Index
3		12	Index Inverse
4	S1	13	Channel A Inverse
5	S1 Inverse	14	Channel B
6	S2	15	Channel B Inverse
7	S2 Inverse	16	+ V
8	S3	17	0 Volts
9	S3 Inverse	Body	Screen

Power connection: B - Power and Signal size 1 90° rotatable

Pin	Colour	Function
1	ORANGE	PHASE U (R)
2	RED	PHASE V (S)
3	GREEN/YELLOW	EARTH
4	YELLOW	PHASE W (T)
5		Brake +
6		Brake -
7	Body	Screen