

SERVO MOTOR – 142UDB300BACAA165240-JSHJ

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HIGH INERTIA MOTOR



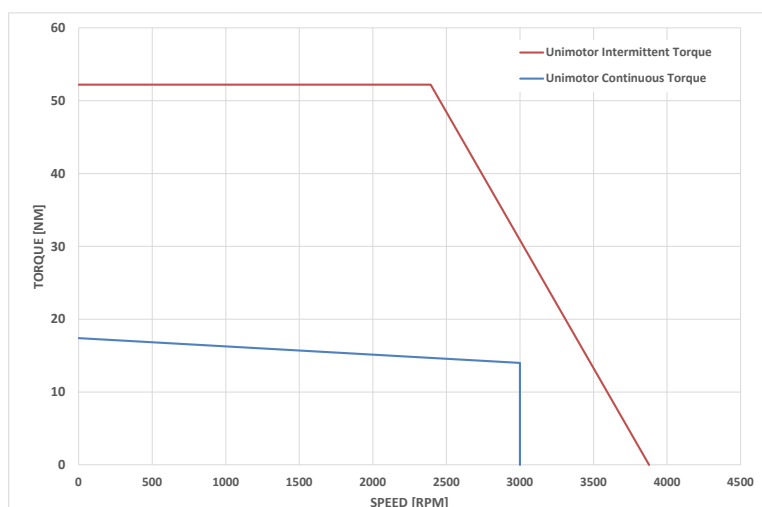
Definition

Type	Unimotor HD	
Motor frame size (mm)	142	
Voltage (Vdc)	U	430V
Magnet type	D	High Dynamic
Frame Length	B	
Speed (min ⁻¹)	30	3000
Brake	0	Unbraked
Connection type	B	PWR RA Rotatable & SIG RA Rotatable Size 1
Output shaft	A	With output key
Feedback device code	CA	Incremental Encoder CFS50
Inertia & thermistor	A - JSHJ	PTC thermistor + High inertia
PCD	165	165 (FF 165/130)
Shaft Diameter	240	24j6 x 50
Fan Box	-	
Insulation class	F	
UL Motor / UL Stator	UL Motor / UL Stator	

Motor Characteristics

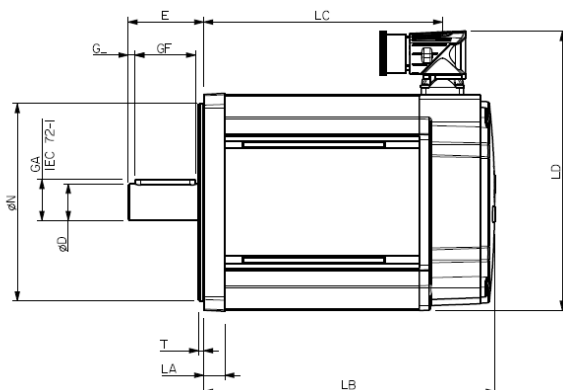
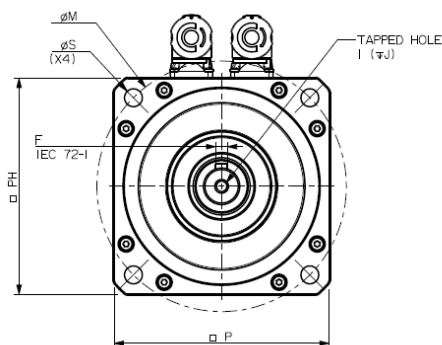
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Continuous Stall Torque (Nm)	17.4	Stall Current (A)	11
Rated Torque (Nm)	14	Nominal Current (A)	8.75
Motor Peak Torque (Nm)	52.2	Kt (Nm/A) @cold	1.6
Rated Power (kW)	4.4	Ke (V/kmin-1) @cold	98
Winding Thermal Time Constant (s)	240	R (ph-ph) (Ohm) @ambient	0.6
Number of Poles	10	L (ph-ph) (mH)	8.6
Typical Cogging (Nm)	0.26		
Inertia (kg.cm ²)	31.8	Weight (kg)	13.8
Ingress Protection Level (IP)	IP65		

Torque / Speed Graph



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Motor Dimensions (mm)

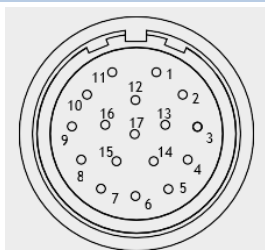


LB	Total length	217.0
LC	Power connector position	182.5
LA	Flange thickness	14
T	Register Length	3.4
N	Register Diameter	130
LD	Overall height	183.5
P	Flange Square	142
S	Fixing Hole Diameter	12
M	Fixing hole PCD	165
PH	Motor Housing Width	142
D	Shaft Diameter	24j6
E	Flange to Shaft End	50
GA	Key Height	27.0
GF	Key Length	40.0
G	Key to Shaft End	4.6
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 - Incremental Encoder CF550

Power connection: Size 1 – Type B



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

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