

SERVO MOTOR – 142UDC200BACAA165240-JSHJ

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HIGH INERTIA

(motor derated – torque output from motor limited by output shaft diameter)



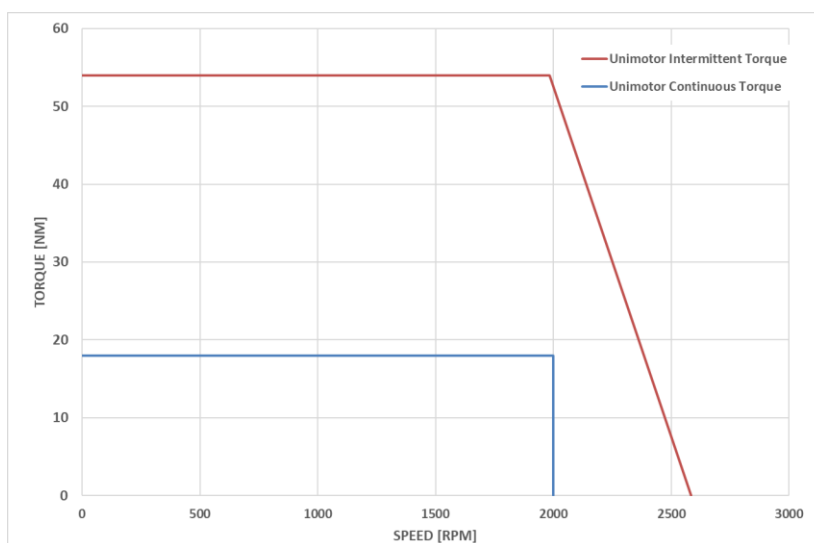
Definition

Type	Unimotor HD	
Motor frame size (mm)	142	
Voltage (Vdc)	U	430V
Magnet type	D	High Dynamic
Frame Length	C	
Speed (min ⁻¹)	20	2000
Brake	0	Unbraked
Connection type	B	PWR RA Rotatable T1 & SIG RA Rotatable T1
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 (torque output from motor limited by output shaft dia)
Fan Box	-	
Insulation class	F	
UL Motor / UL Stator	UL Motor / UL Stator	

Motor Characteristics

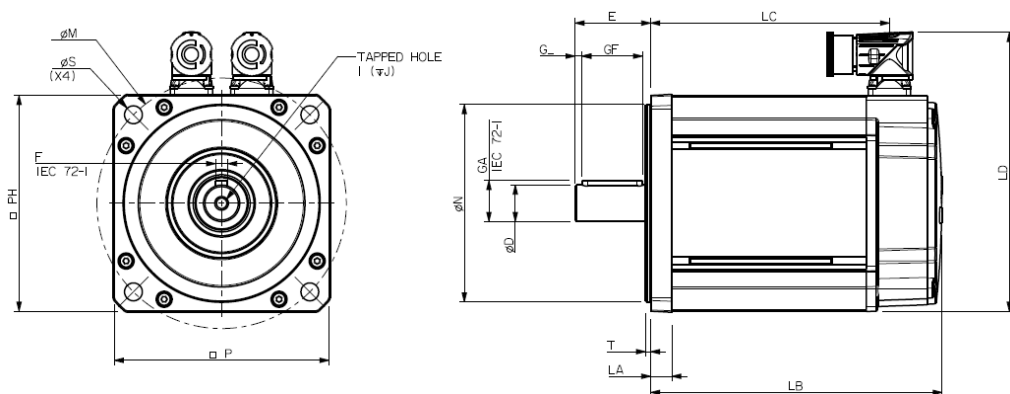
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Stall Torque (Nm)	18.0	Stall Current (A)	7.5
Rated Torque (Nm)	18.0	Nominal Current (A)	7.5
Motor Peak Torque (Nm)	54.0	Kt (Nm/A) @cold	2.4
Rated Power (kW)	4.5	Ke (V/kmin-1) @cold	147.0
Winding Thermal Time Constant (s)	245	R (ph-ph) (Ohm) @Hot	0.8
Number of Poles	10	L (ph-ph) (mH)	12.2
Typical Cogging (Nm)	0.38		
Inertia (kg.cm ²)	40.10	Weight (kg)	16.6
Ingress Protection Level (IP)	IP65		

Torque / Speed Graph



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Motor Dimensions (mm)

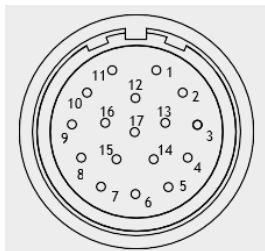


LB	Total length	247
LC	Power connector position	212.5
LA	Flange thickness	14
T	Register Length	3.4
N	Register Diameter	130
LD	Overall height	183.5
P	Flange Square	142
S	Fixing Hole Diameter	12
M	Fixing hole PCD	165
PH	Motor Housing Width	142
D	Shaft Diameter	24j6
E	Flange to Shaft End	50
GA	Key Height	27
GF	Key Length	40
G	Key to Shaft End	3
F	Key Width	8
I	Tapped Hole Thread Size	M8 x 1.25
J	Tapped Hole Depth	20
	Mounting Bolt	M10

Connectors

Signal connection: CA - 4096 ppr 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