

### SERVO MOTOR – 142UDC300BFECA165240-JSHJ

#### 142UDC300BFECA165240-JSHJ HIGH INERTIA



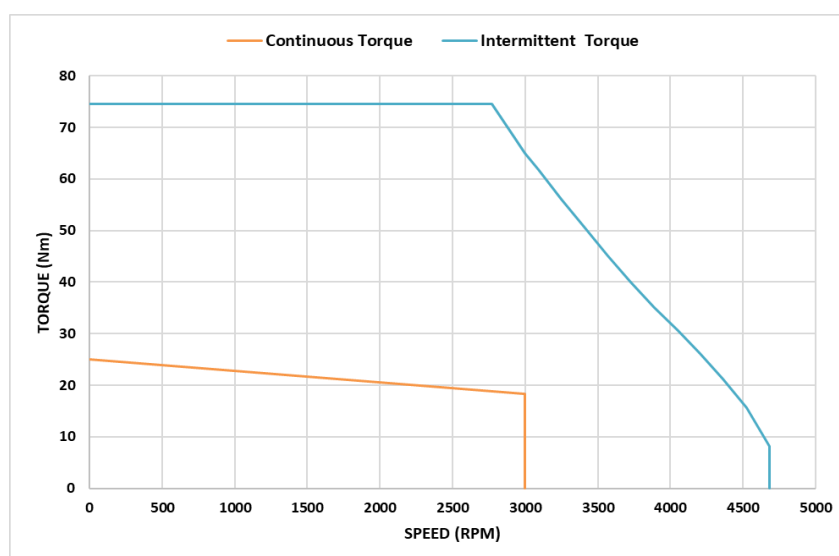
#### Definition

Type	Unimotor HD	
Motor frame size (mm)	142	
Voltage (Vdc)	U	430V
Magnet type	D	High Dynamic
Frame Length	C	
Speed (min <sup>-1</sup> )	30	3000
Brake	0	Unbraked
Connection type	B	PWR RA Rotatable T1 & SIG RA Rotatable T1
Output shaft	F	Key and half key supplied separately
Feedback device code	EC	Inductive EnDat SinCos Multi-Turn (EQI 1331)
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

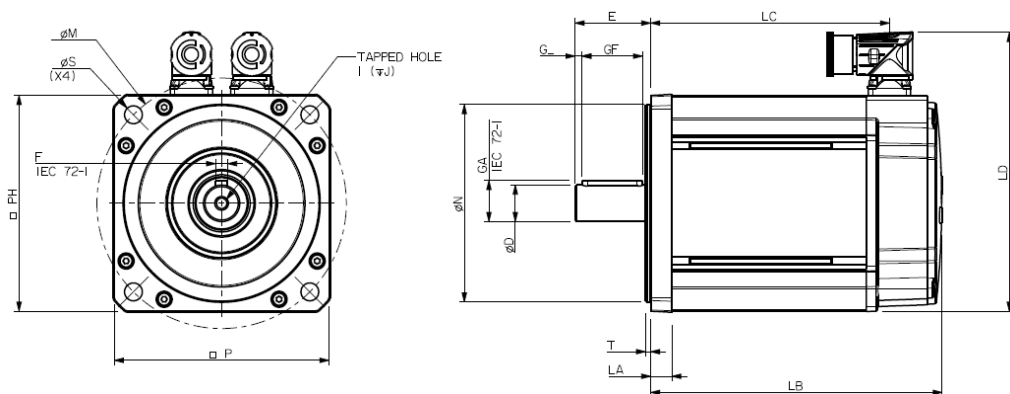
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Stall Torque (Nm)	25	Stall Current (A)	16.0
Rated Torque (Nm)	18.4	Nominal Current (A)	12.8
Motor Peak Torque (Nm)	75	Max Current for Peak Torque at Stall (A)	61.3
Rated Power (kW)	5.8	Kt (Nm/A) @cold	1.6
Winding Thermal Time Constant (s)	245	Ke (V/kmin-1) @cold	98
Number of Poles	10	R (ph-ph) (Ohm) @Hot	0.53
Maximum Cogging (Nm)	0.38	L (ph-ph) (mH)	7.45
Inertia (kg.cm <sup>2</sup> )	40.1	Weight (kg)	16.6
Ingress Protection Level (IP)	IP65	R (ph-ph) at ambient temperature (Ohm)	0.39

#### Torque / Speed Graph



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#### Motor Dimensions (mm)

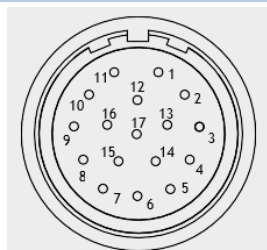


LB	Total length	247
LC	Power connector position	212.5
LA	Flange thickness	14
T	Register Length	3.4
N	Register Diameter	130
LD	Overall height	183.5
P	Flange Square	142
S	Fixing Hole Diameter	12
M	Fixing hole PCD	165
PH	Motor Housing Width	142
D	Shaft Diameter	24j6
E	Flange to Shaft End	50
GA	Key Height	27
GF	Key Length	40
G	Key to Shaft End	4.6
F	Key Width	8
I	Tapped Hole Thread Size	M8 x 1.25
J	Tapped Hole Depth	20
	Mounting Bolt	M10

#### Connectors

Signal connection: EC - Inductive EnDat SinCos Multi-Turn (EQI 1331)

Power connection: Size 1 – Type B



Pin	Function	Pin	Function
1	Thermistor	10	COS
2	Thermistor	11	DATA
3	Screen	12	DATA/
4		13	COS/
5		14	SIN
6		15	SIN/
7		16	+ V
8	CLOCK	17	0 Volts
9	CLOCK/	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