

SERVO MOTOR – 142UDC300DAEFC165240-JSHJ

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HIGH INERTIA

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

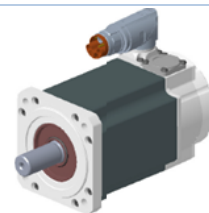


ILLUSTRATION ONLY

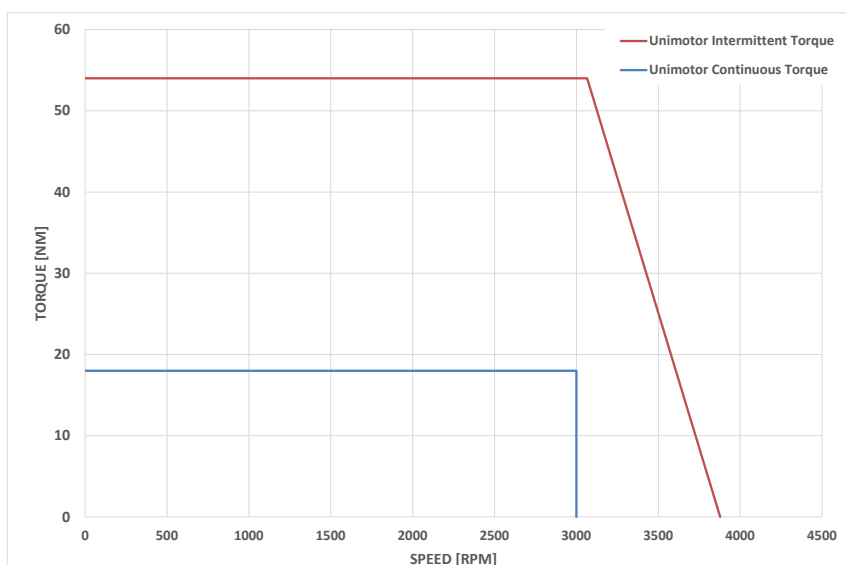
Definition

Type	Unimotor HD	
Motor frame size (mm)	142	
Voltage (Vdc)	U	400V
Magnet type	D	High Dynamic
Frame Length	C	
Speed (min ⁻¹)	30	3000
Brake	0	Unbraked
Connection type	D	Power and Signal combined (single cable) size 1 90° rotatable
Output shaft	A	With output key
Feedback device code	EF	Inductive EnDat Multi-turn FS (EQI 1331)
Inertia & thermistor	C	Standard inertia + KTY84-130 thermistor
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

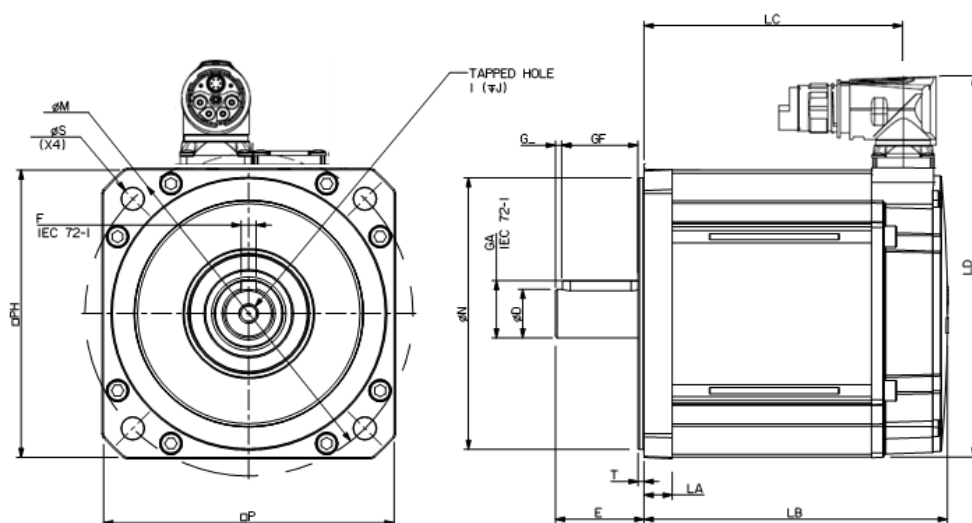
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Stall Torque (Nm)	18.0	Stall Current (A)	11.3
Rated Torque (Nm)	18.0	Nominal Current (A)	11.3
Motor Peak Torque (Nm)	54.0	Kt (Nm/A) @cold	1.6
Rated Power (kW)	5.7	Ke (V/kmin-1) @cold	98
Winding Thermal Time Constant (s)	245	R (ph-ph) (Ohm) @Hot	0.3
Number of Poles	10	L (ph-ph) (mH)	5.3
Typical Cogging (Nm)	0.38		
Inertia (kg.cm ²)	40.1	Weight (kg)	16.6
Ingress Protection Level (IP)	IP65		

Torque / Speed Graph



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Motor Dimensions (mm)



LB	Total length	247.0
LC	Connector position	212.5
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	165.0
PH	Motor Housing Width	142.0
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	M8x1.25
J	Tapped Hole Depth	20
	Mounting Bolt	M10

Connectors

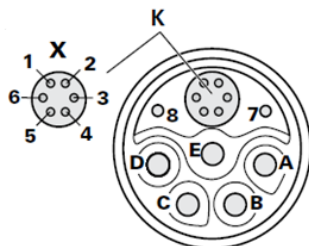
Signal connection: EF - Inductive EnDat Multi-turn FS (EQI 1331)

Power

- A - Phase U (Orange)
- B - Phase V (Yellow)
- C - Phase W (Red)
- D - -
- E - Ground
- 7 - Brake +
- 8 - Brake -

Signal

- 1 - + Volts
- 2 - 0 Volts
- 3 - Data+
- 4 - Data-
- 5 - Clock+
- 6 - Clock-
- Shell - Screen



Note: wire phase V & W colours are swapped compared to non 'D' and 'E' connectors

Connection type: D - Power and Signal combined (single cable) size 1 90° rotatable