

N° : 1571  
Created by: DB Checked by: RT

Date : 17 April 2019

### SERVO MOTOR 142UDC300DAEFC

**142UDC300DAEFC**  
High Performance Servo-Motor  
3000 rpm rated speed  
Single cable connector  
EQI 1331 Endat 2.2 feedback



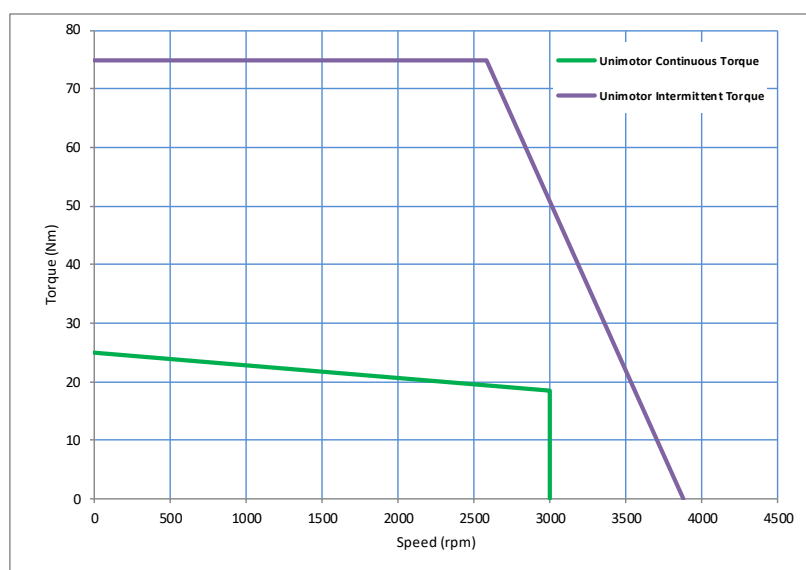
### Definition

Type	Unimotor HD	
Frame Size (mm)	<b>142</b>	
Voltage	<b>U</b>	U - 400V
Magnet type	<b>D</b>	D - High dynamic
Frame Length	<b>C</b>	
Speed (min-1)	<b>30</b>	3000
Brake	<b>0</b>	Un-braked
Connection type	<b>D</b>	D - Single Cable, Power and Signal combined, 90° rotatable
Output shaft	<b>A</b>	with key
Feedback device code	<b>EF</b>	EF - Heidenhain EQI 1331 FS Multiturn Functionally safe EnDat 2.2
Inertia & thermistor	<b>C</b>	C - Standard inertia + KTY thermistor
PCD	<b>165</b>	165 (FF 165 / 130)
Shaft Diameter	<b>320</b>	32j6 x 58.0
Fan box	<b>-</b>	
Insulation class	<b>F</b>	
UL Motor / UL Stator	<b>- / UL Stator</b>	

### Nominal characteristics

Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Stall Torque (N.m)	25.0	Stall Current (A)	15.6
Rated Torque (N.m)	18.4	Nominal Current (A)	11.5
Motor Peak Torque (N.m)	74.9	Kt (Nm/A)	1.6
Rated Power (kW)	5.78	Ke (V/kmin-1)	98.0
Winding Thermal Time Constant (s)	245	R (ph-ph) (Ohm)	0.34
Number of Poles	10	L (ph-ph) (mH)	5.3
Maximum Cogging (N.m)	0.375		
Inertia (kg.cm <sup>2</sup> )	17.0	Weight (kg)	11.5
Ingress Protection Level (IP)	IP65		

### Torque / speed graph



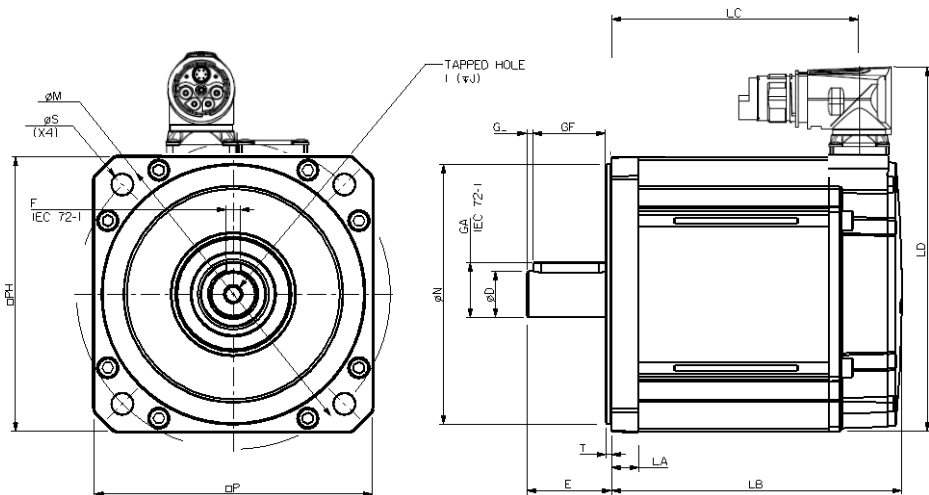
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### Motor (° & mm)



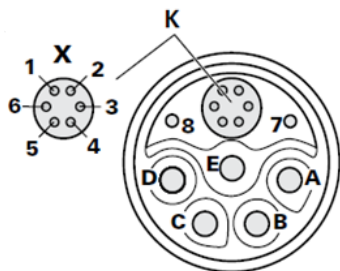
LB	Total length	217.0
LC	Power connector position	182.5
LA	Flange thickness	14.0
T	Register Length	3.4
N	Register Diameter	130.0
LD	Connector overall height	183.5
P	Flange Square	142.0
S	Fixing Hole Diameter	12.0
M	Fixing hole PCD	165.0
PH	Motor Housing Width	142.0
D	Shaft Diameter D	32/6
E	Shaft Length E	58.0
GA	Key Height GA	35.0
GF	Key Length GF	50.0
G	Key to Shaft End G	3.0
F	Key Width F	10.0
I	Tapped Hole Thread Size	M12x1.75
J	Tapped Hole Depth	29.0
	Mounting Bolt	M10

Lifting brackets fitted to motors >25kg or if requested

### Motor electrical interface

Feedback device code : EF - Heidenhain EQI 1331 FS Multiturn Functionally safe EnDat 2.2

Connection type : D - Single Cable, Power & Signal combined, 90° rotatable



#### Power

- A - Phase U
- B - Phase V
- C - Phase W
- D - -
- E - Ground
- 7 - -
- 8 - -
- Shell - Screen

#### Signal

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