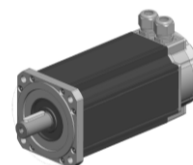


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SERVO MOTOR 142LDA206FFCTC

142LDA206FFCTC



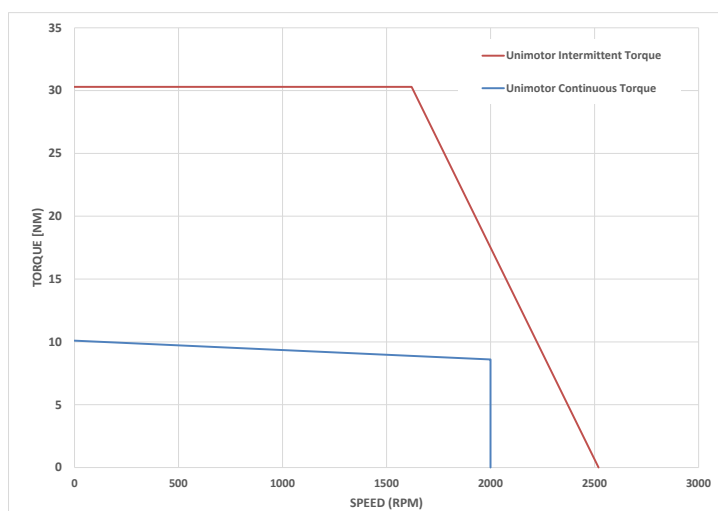
Definition

Type	Unimotor HD	
Frame Size (mm)	142	
Voltage	L	40-50 Vdc
Magnet type	D	High Dynamic
Frame Length	A	
Speed (min ⁻¹)	20	2000
Brake	6	Braked
Connection type	F	Flying leads 0.5m Power cut ends, Signal 16-way Molex connector
Output shaft	F	Half key and full key supplied in bag
Feedback device code	CT	4096 ppr Incremental encoder (TDK)
Inertia & thermistor	C	Standard Inertia + KTY84 thermistor
PCD (Gearbox)	165	165 (FF 165 / 130)
Shaft Diameter (Gearbox)	320	32k6 x 58.0
Insulation class	F	
UL Motor / UL Stator	UL Stator	

Nominal characteristics

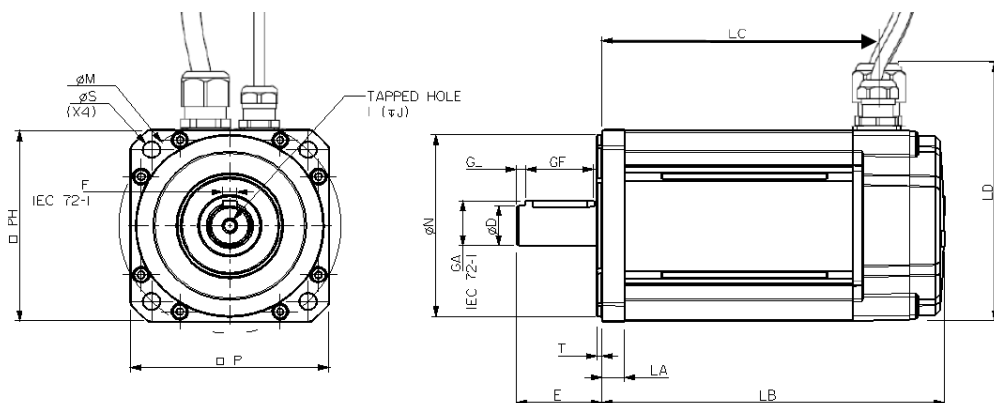
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Peak Torque (Nm)	30.3	Stall Current (A)	48
Motor Stall Torque (Nm)	10.1	Rated Current (A)	43
Rated Torque (Nm)	8.6	Kt (Nm/A)	0.2
Rated Power (kW)	1.8	Ke (V/kmin ⁻¹)	12.8
Winding Thermal Time Constant (s)	235	R (ph-ph) (Ohm)	0.02
Number of Poles	10	L (ph-ph) (mH)	0.21
Typical Cogging (Nm)	0.15		
Inertia (kg.cm ²)	7.31	Weight (kg)	~11.8
Ingress Protection Level (IP)	IP54		
Brake	Type 6	Static Torque (Nm)	16.0
Release Time (ms)	110	Backlash (°)	3
Brake Supply Voltage (V)	24	Brake Coil Power (W)	23

Torque / speed graph



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SERVO MOTOR 142LDA206FFCTC

Motors (° & mm)

LB (± 0.9)	Length	222.5
LC (± 1.0)	Gland position	188.0
LA (± 0.5)	Flange thickness	14
T (± 0.1)	Register length	3.4
N (j6)	Register diameter	130
LD (± 0.3)	Overall height	170.6
P (± 0.3)	Flange square	142
S (H14)	Fixing hole diameter	12
M (± 0.5)	Fixing hole PCD	165
PH (±0.5)	Motor housing	142
D (j6)	Shaft diameter	32.0
E	Shaft length	58.0
GA	Key height	35.0
GF	Key length	50.0
G	Key to shaft end	3.0
F (h9)	Key width	10.0
I	Tapped hole thread size	M12 x 1.75
J (± 1.0)	Tapped hole depth	29
	Mounting bolt	M10

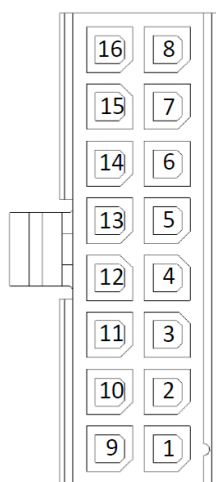
Motor electrical interface 0.5m flying leads option:

**Feedback device code: CT - 4096 ppr Incremental encoder (TDK),
43025-1600 Molex 16-way female signal connector (0.5m lead)**

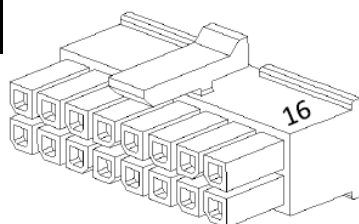
Connection type: Flying leads 0.5m Power cut ends, Signal 16-way Molex connector

SIGNAL FUNCTION	PIN END B
Thermistor	1
Thermistor	2
CH S1	3
CH S2	4
CH S3	5
CH A	6
CH B	7
CH Z	8
GND	9
VCC	10
CH S1-	11
CH S2-	12
CH S3-	13
CH A-	14
CH B-	15
CH Z-	16

PIN DETAIL



16 – WAY CONNECTOR



POWER FLYING LEADS:

500mm from PG21 gland to cable end
8 cores of 12 AWG UL 1330 wire, with
polyolefin heat-shrink sleeve

ORANGE (x 2)	U
RED (x 2)	V
YELLOW (x 1)	W
GREEN / YELLOW (x 2)	Earth

Brake connection: 0.5m flying lead

2 cores of 18 AWG UL1330 grey wire, insulated; 500mm (from gland to customer end). 2-Way Molex minifit connector 39-01-3023

Brake connections

Pin 1	Grey	+ve
Pin 2		-ve

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CT Encoder

Manufacturer:	CTD / Motion TDK
Model:	Magnetic
Signal periods:	4096
Output interface:	Differential
Supply voltage:	5V +/- 10%
Accuracy	±0.2 Deg