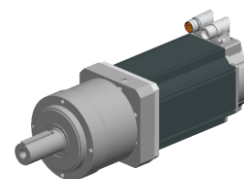


Enquiry N°: 1586

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SERVO MOTOR

142UDC300BAAEA130320-GSFM 10:1 SHIMPO GEARBOX



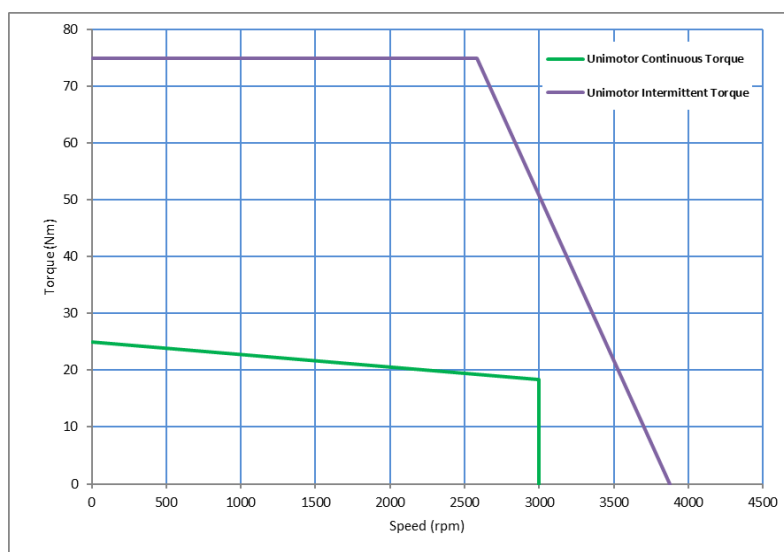
Definition

Type	Unimotor HD	
Frame Size (mm)	142	
Voltage	U	400V
Magnet type	D	High Dynamic
Frame Length	C	
Speed (min ⁻¹)	30	3000
Brake	0	Unbraked
Connection type	B	Power and Signal 90° rotatable (Size 1)
Output shaft	A	with output key
Feedback device code	AE	Resolver
Inertia & thermistor	A	Standard inertia + PTC thermistor
PCD (Gearbox)	130	130
Shaft Diameter (Gearbox)	320	32j6 x 58.0
Fan Box	-	
Insulation class	F	
UL Motor / UL Stator	UL Stator	

Nominal characteristics

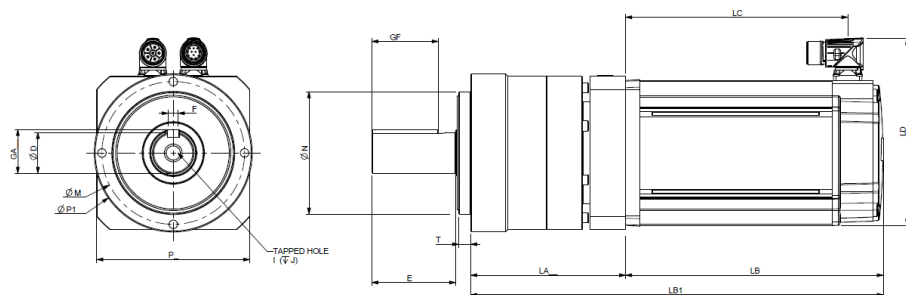
Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Stall Torque (Nm)	25.0	Stall Current (A)	15.6
Rated Torque (Nm)	18.4	Nominal Current (A)	11.5
Motor Peak Torque (Nm)	74.9	Kt (Nm/A)	1.6
Rated Power (kW)	5.78	Ke (V/kmin ⁻¹)	98.0
Winding Thermal Time Constant (s)	245	R (ph-ph) (Ohm)	0.34
Number of Poles	10	L (ph-ph) (mH)	5.3
Maximum Cogging (Nm)	0.38		
Inertia (kg.cm ²)	17.0	Weight (kg)	11.5 + 8 = 19.5
Ingress Protection Level (IP)	IP65		

Torque / speed graph



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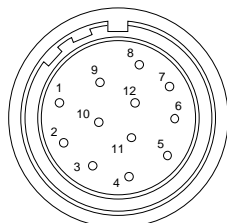
Motors (° & mm)



LB	Length (Motor)	217.0
LB1	Total length with Gearbox	377.0
LC	Connector position	182.5
LA	Flange to Flange (Gearbox)	160.0
T	Register Length (Gearbox)	4.0
N	Register Diameter (Gearbox)	110.0
LD	Connector overall height	183.5
P	Flange Square (Gearbox)	115.0
S	Fixing Hole Diameter (Gearbox)	9.0
M	Fixing hole PCD (Gearbox)	130.0
PH	Motor Housing Width	142.0
D	Shaft Diameter (Gearbox)	32j6
E	Shaft Length (Gearbox)	58.0
GA	Key Height (Gearbox)	35.0
GF	Key Length (Gearbox)	45.0
G	Key to Shaft End (Gearbox)	0.0
F	Key Width (Gearbox)	10.0
I	Tapped Hole Thread Size (Gearbox)	M12
J	Tapped Hole Depth (Gearbox)	28.0
	Mounting Bolt (Gearbox)	M8

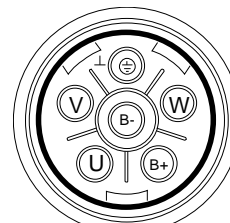
Motor electrical interface Connectors option:

Feedback device code: AE – Resolver



- | | |
|----------------|--------|
| 1 - Excit | 10 - - |
| 2 - Excit/ | 11 - - |
| 3 - COS | 12 - - |
| 4 - COS/ | |
| 5 - SIN | |
| 6 - SIN/ | |
| 7 - Thermistor | |
| 8 - Thermistor | |
| 9 - - | |

Connection type: B – Power and Signal 90° rotatable (Size 1)



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SERVO MOTOR

Gearbox

Utilisation : Environment

Ambiance Non-corrosive; Zone Non-specific

Gearbox Specification: Reducer for Servo Motor

Gear Box characteristics

Manufacturer	Shimpo	Backlash (arc/min)	≤ 3
Type	Inline Planetary	Radial Load (Fr, N) @ Fa=0, Input Speed Nom	2000
Part No	VRB-115C-10-K3-38JA32	Radial Load MAX (Fr, N)	
Ratio	10:1	Axial Load (Fa, N) @ Fr=0, Input Speed Nom	2500
Stages	2	Output Torque Nominal (Nm)	120
Inertia (kg.cm ²)	2.6	Output Torque Max (Nm)	225
Weight (kg)	8	Input Speed Nom (rpm)	3000
Efficiency	95%	Input Speed Max (rpm)	6000

