

Enquiry N°:

Created by/Checked by: WT/HO

SERVO MOTOR 142LDA20XFGCJG165900-SGV4

142LDA206FGCJG165900-SGV4



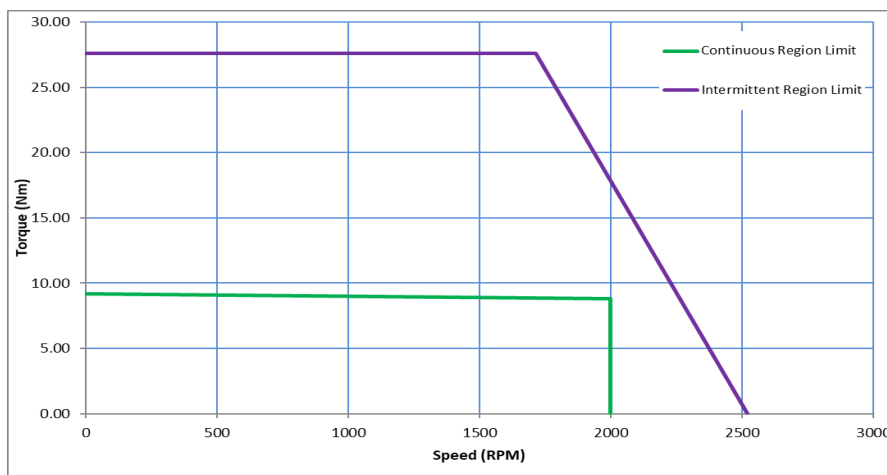
Definition

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	X	Braked
Connection type	F	Power and Signal flying leads (0.5 m)
Output shaft	G	Gearbox output
Feedback device code	CJ	Renco R35i encoder 4096 5PP push-pull comms
Inertia & thermistor	G	Standard Inertia + no thermistor
PCD (Gearbox)	165	165 (FF 165/90)
Shaft Diameter (Gearbox)	900	90 mm register diameter
Insulation class	F	
UL Motor / UL Stator	UL Stator	

Nominal characteristics

Motor Ambient Temperature (°C)	40	Drive Fsw (kHz)	12
Motor Peak Torque (Nm)	27.6	Stall Current (A)	44.0
Motor Stall Torque (Nm)	9.2	Rated Current (A)	41.1
Rated Torque (Nm)	8.6	Kt (Nm/A)	0.209
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)	0.22
Typical Cogging (Nm)	0.05		
Inertia (kg.cm ²) (Motor + Gearbox)	≈ 86	Weight (kg) (Motor + Gearbox)	≈ 15
Ingress Protection Level (IP)	IP54		
Brake		Static Torque (Nm)	16.0
Release Time (ms)	105	Backlash (°)	0.38
Brake Supply Voltage (V)	24	Brake Coil Power (W)	17.5

Torque / speed graph



Motors (° & mm)

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Gearbox characteristics

Manufacturer	Shimpo	Backlash (arc/min)	≤ 8
Type	Inline Planetary	Radial Load (Fr, N) @ Fa=0, Input Speed Nom	6900
Part No.	VRLZ-120-9-340	Radial Load MAX (Fr, N)	10000
Ratio	9	Axial Load (Fa, N) @ Fr=0, Input Speed Nom	3800
Stages	1	Output Torque Nominal (Nm)	90
Inertia (kg.cm ²)	≈ 72	Output Torque Max (Nm)	225
Weight (kg)	6.6	Input Speed Nom (rpm)	2000
Efficiency	95%	Input Speed Max (rpm)	3000

