

Enquiry N°: Created by/Checked by: WT/HO

SERVO MOTOR 142LDA20XFGCJG165900-SGV4

142LDA206FGCJG165900-SGV4



Data sheet

Date: 08 Oct 20 (v2)

Definition					
Туре	Unimotor HD				
Frame Size (mm)	142				
Voltage	L	40-50 Vdc			
Magnet type	D	High Dynamic			
Frame Length	Α				
Speed (min ⁻¹)	20	2000			
Brake	х	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		





Motors (° & mm) Page 1 of 3

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Motor electrical interface 0.5m flying leads option:



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Gearbox characteristics						
Manufacturer	Shimpo	Backlash (arc/min)	≤8			
Туре	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			







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