

Enquiry N°: Created by: DB / Approved by: TB

# 500KG PAYLOAD AGV SOLUTION



Definition					
Туре	Unimotor HD				
Frame Size (mm)	060				
Voltage	L	Ultra-Low Voltage			
Magnet type	D	High Dynamic			
Frame Length	В				
Speed (min <sup>-1</sup> )	30	3000 @48Vdc - 1500@ 24Vdc			
Brake	0	Unbraked			
Connection type	F	Flying lead power connection (0.5 m)			
Output shaft	G	Integrated Gearbox Shaft			
Feedback device code	KU	1024ppr push-pull comms (CTD/Motion)			
Inertia & thermistor	С	Standard inertia + KTY84 thermistor			
PCD (Gbox)	114	114 (Gear box)			
Shaft Diameter	620	G BOX output			
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)	1.28	Stall Current (A)	9.79		
Rated Torque (Nm)	1.28	Nominal Current (A)	9.79		
Motor Peak Torque (Nm)	3.84	Kt (Nm/A)	0.13		
Rated Power (kW)	0.40	Ke (V/kmin-1)	8.30		
Winding Thermal Time Constant (s)		R (ph-ph) (Ohm)	0.23		
Number of Poles	10	L (ph-ph) (mH)	1.13		
Maximum Cogging (Nm)	0.02				
Inertia Motor + Gearbox (kg.cm <sup>2</sup> )		Weight Motor + Gearbox (kg)			
Ingress Protection Level (IP)	IP54				

### Torque / speed graph



#### Version V1.0

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Date : 02 Nov 20 (v5)



## 2 x CABLE GLANDS FOR POWER & SIGNAL FLYING LEADS

## Motor electrical interface Connectors option:

Feedback device code: KU – 1024ppr push-pull comms		Connection type:			
Red	Power	Blue	СН В	U	Orange (x1)
Green	HALL A			v	Red (x1)
Brown	HALL B			w	Yellow (x1)
White	HALL C			Earth	Green/Yellow (x1)
Black	GND				
Yellow	CH A				
SIG Cable: ! (from gland	600mm Cut end, I to customer en	M10 gland d) 12		PWR Cable: (from gland 4 cores of 1 wire marker	500mm, Ferrules to customer end) 8 AWG UL 1330 wire, with polyolefin heat shrink sleeve rs fitted to lead wires

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Gear Box characteristics					
Ratio	9	Backlash (arc/min)	≤7		
Stages	1	Radial Load (Fr, N) @ Fa=0, Input Speed Nom	3500		
Inertia (kg.cm <sup>2</sup> )	~0.2	Radial Load MAX (Fr, N)	7250		
Weight (kg)	2.7	Axial Load (Fa, N) @ Fr=0, Input Speed Nom	2200		
Efficiency	95%				





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