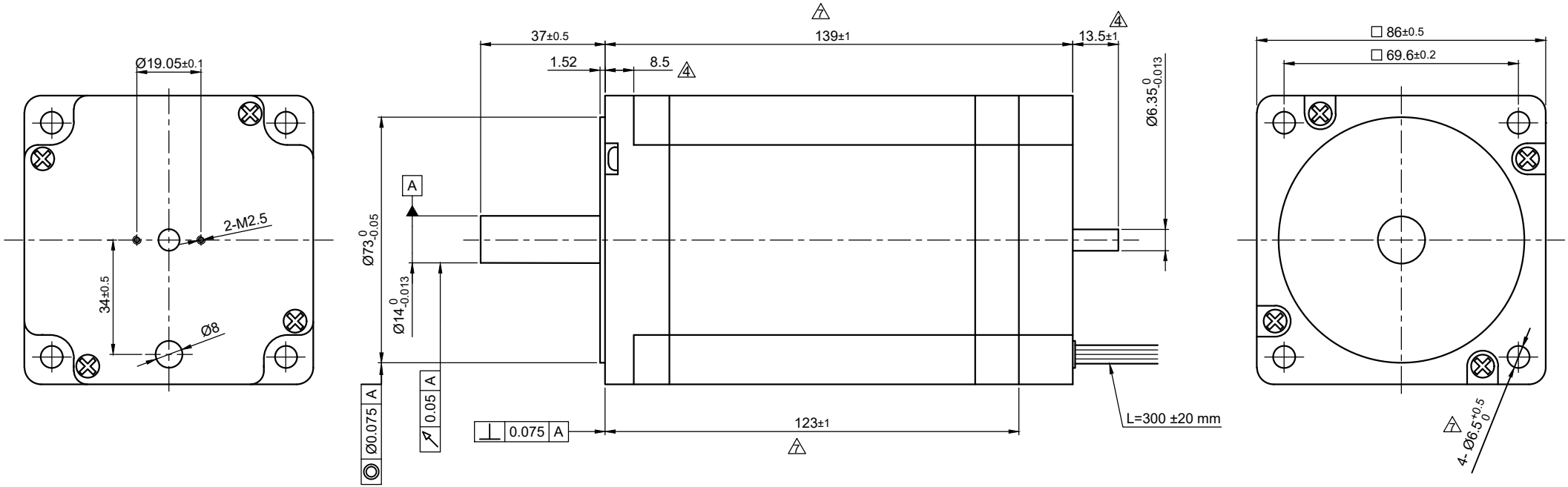
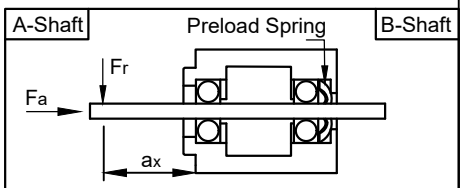


MOTOR SPECIFICATION			
No. of Poles		8	
Rated Voltage	V DC	48	
Current - Rated / Peak	A	17.95	/ 53.85
Resistance Line to Line (6)(5) ±15%	Ω	0.097 (5)(6)	
Inductance Line to Line (1kHz) ±20%	mH	0.3 (5)(6)	
Torque - Rated / Peak	Nm	2.1	/ 6.3
Torque Constant	Nm/A	0.117	
Rated Power	W	660 (3)	
Speed - No Load / Rated ±10%	rpm	4500	/ 3000
Rotor Inertia	kg m²	240	$x10^{-6}$

WIRING DIAGRAM				
	Colour	Function	Lead Gauge	
Motor 8 Pol.	Ye	U	AWM3135 AWG16	(1)
	Rd	V		(2)
	Bk	W		
Hall 24 Impl. per Rev.	Rd	+5V	UL1332 AWG22	(1)
	Bu	H1		
	Wh	H2		
	Gn	H3		
	Bk	GND		



Max. Axial Force	Fa	N	60
Max. Radial Force	Fr (a2 = 20 mm)	N	220
Axial Play	Fa = 4.5 N	mm	0.08
Radial Play	Fr = 4.5 N	mm	0.02

GENERAL MOTOR SPECIFICATION		
Ambient Temperature	°C	-10 ...50
Max. Temperature Rise (at standstill - 2 phases energized)	°C	80
Max. Ambient Humidity (non condensing)	%	85
Insulation Class		B
Insulation Resistance	MΩ	100
Dielectric Strength (for 1 min - coil to case)	V AC	500

ISO 8015	ISO 1302	ISO 2768 cK	ISO 13715

REV	Rev. Text	Name	Date
07	change diameter	Reith_S	10.05.2022
06	change induc./resist.		

	Date	Name
Drawn	04.12.2017	Import
Reviewed	10.04.2018	Schneid_A
Released	10.04.2018	Schneid_A

Nanotec® PLUG & DRIVE

Weight: ~4.0 kg

DB87L01-S

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State: Released | Rev: 07 | CONFIDENTIAL