



Tuesday, May 5, 2020

## DATA SHEET - HOLLOW SHAFT RESOLVER

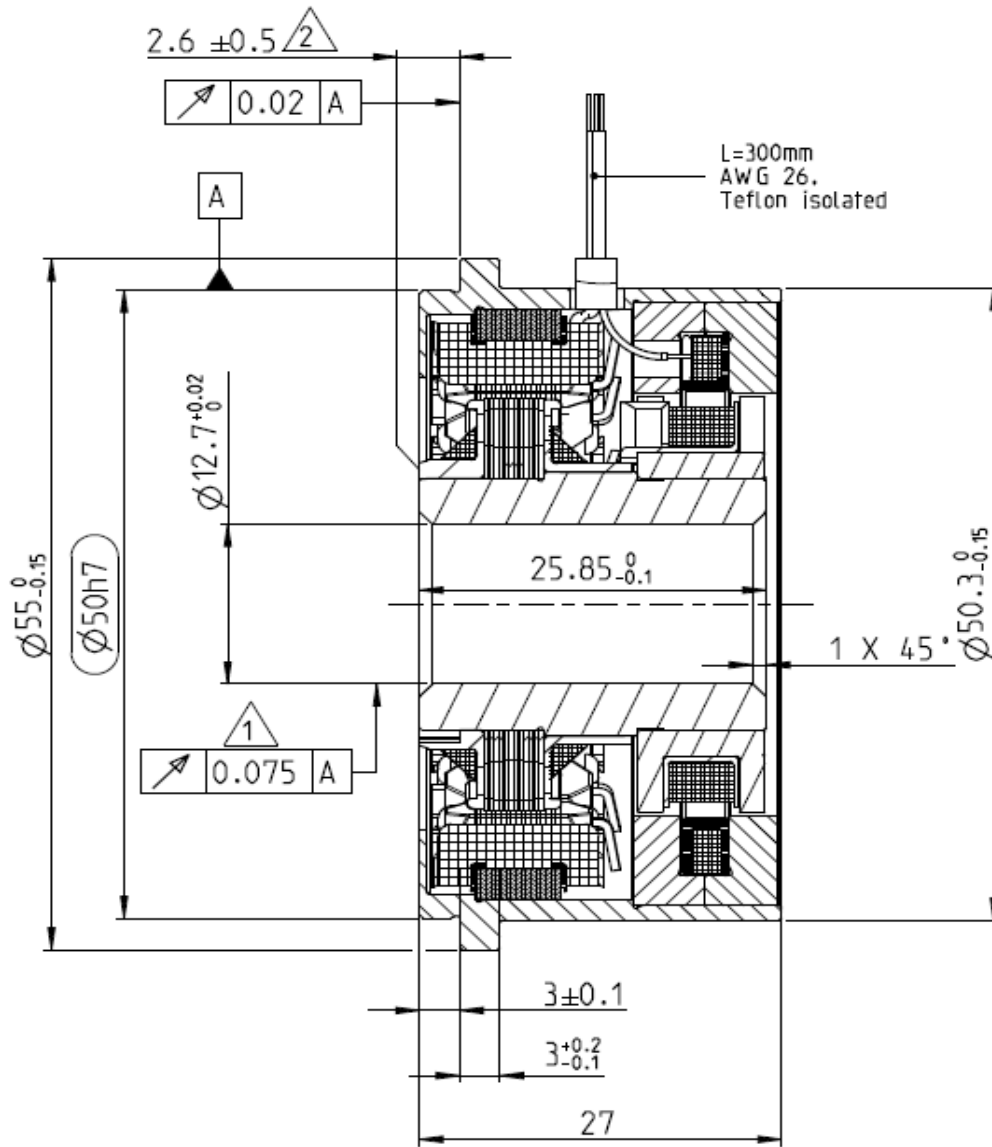
<b>PN</b>	2367237-1			
<b>Description:</b>	V23401-	T2072-B101		
<b>Size</b>	21			
<b>Shaft inner diameter [mm]</b>	12.7			
<b>Speed (pair of poles) [p]</b>	3			
<b>Number of poles</b>	6			
<b>Application Specification</b>				
<b>Test protocol</b>	Results saved to manufacturing site archives. Available by request			
<b>Electrical parameters (22°C)</b>				
Input voltage [V]	3	Based on specified Input voltage and Frequency	Input resistance R1R2 [Ω]	18
Frequency Typical [kHz]	8		R1R2 tolerance [%]	± 1.8
Input current max [mA]	40		Output resistance S1S3 or S2S4 [Ω]	114
Transformation ratio (rT)	0.48		S1S3 or S2S4 tolerance [%]	± 11.4
Transf. ratio tolerance [%]	± 5			
Phase shift min [°]	-4			
Phase shift max [°]	6			
Electrical Angular Error max [°]	± 10			
Residual voltage max [mV]	49			
<b>High Voltage test</b>	Voltage: 500V <sub>AC</sub> (A)		Measured between:	
	250V <sub>AC</sub> (B)	A: Winding R1-R2 and housing Winding S1-S3 and housing Winding S2-S4 and housing		
	Time: 1s			
<b>Isolation test</b>	Voltage: 500V <sub>DC</sub> (A, B)	B: Windings S1-S3 and S2-S4		
	Criterion: R <sub>isol.</sub> > 50MΩ			
<b>"Zero" setting:</b>	Electrical "0" is when Coils V <sub>S2-S4</sub> = 0 and V <sub>S1-S3</sub> are in phase with V <sub>R1-R2</sub>			
<b>Transfer function</b>	Looking at Transformation part and turning Rotor clockwise			
	$V_{S1-S3} = +rT * V_{R1-R2} * \cos(p*\alpha)$			
	$V_{S2-S4} = +rT * V_{R1-R2} * \sin(p*\alpha)$			
<b>Rotor Inertia</b>	approx. 20g.cm <sup>2</sup>			
<b>Max. Rotational Speed</b>	20,000 rpm			
<b>Shock resistance (11ms sine)</b>	1000 m/s <sup>2</sup>			
<b>Vibration</b>	200 m/s <sup>2</sup>			
<b>Operating temp.</b>	-55°C...+150°C			

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- △ 1 Gesamtschlag im eingebauten Zustand  
 Concentricity in installed situation
- △ 2 Axialversatz  
 Axial displacement/offset

DATE	PN. REV.	DWN	APP	DS. REV.
05-05-20	1	H.Bernardo	D.Ondrej	3
05-05-20	1	H.Bernardo	D.Ondrej	2
07-02-20	1	H.Bernardo	D.Ondrej	1