

SECTION **A-A**

NOTES: -

1. SHAFT STIFFNESS:-  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE SHAFT EXTENSION  $\phi$  IS  $0.7813 \times 10^6$  kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)
2. SHAFT MATERIAL:-  
MINIMUM YEILD :  $260 \times 10^6$  N/m<sup>2</sup>  
MINIMUM TENSILE :  $530 \times 10^6$  N/m<sup>2</sup>  
STEEL - C40E TO BSEN 10083-2 2006  
SHAFT MATERIAL IS APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE
3. MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS  $34.47 \times 10^6$  N/m<sup>2</sup> OF 0.95 TO 1.1 x NOMINAL SPEED, AND  $68.94 \times 10^6$  N/m<sup>2</sup> FOR RUN THROUGH CONDITIONS, FOR INDUSTRIAL MACHINES. FOR MARINE AUTHORITIES, THEIR APPROPRIATE RULES WILL APPLY, CUMMINS GENERATOR TECHNOLOGIES LTD SHOULD BE NOTIFIED OF ANY ROTORS NOT COMPLYING WITH THESE RULES
4. CUMMINS GENERATOR TECHNOLOGIES LTD BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD ISO 1940 PARTS 1 AND 2. BALANCE GRADE 2.5
5. FOR UNBALANCED MAGNETIC PULL (U.M.P.) FORCES PLEASE CONTACT CUMMINS GENERATOR TECHNOLOGIES LTD.

COMPONENT	MASS (Kg)	$WR^2$ ( $Kgm^2$ )
SHAFT	5.550	0.0012
FAN	0.4929	0.0034
MAIN ROTOR	20.01	0.0597
EXCITER ROTOR	4.1	0.0130
TOTAL	30.1529	0.0773

CONVERSION FACTOR		
TO CONVERT	TO	DIVIDED BY
Kg	lb	0.453592
Kgm <sup>2</sup>	lbf t <sup>2</sup>	0.04214
Kgcm/rad	lb in/rad	1.1521246
N/M <sup>2</sup>	lbf/in <sup>2</sup>	6894.76

DRAWING SPECIFICATION DESCRIPTION
SOLI-P, 4P, 2B

PART NUMBER: A077Y659	PART REVISION: A
PART NAME: ARRANGEMENT,GENERATOR ROTOR TORSIONAL	
DRAWING CATEGORY: OUTLINE	
STATE: RELEASED	SHEET: 1 OF 2
CUMMINS DATA CLASSIFICATION: CUMMINS CONFIDENTIAL	
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	Cummins Generator Technologies
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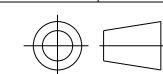


DIMENSIONS ARE IN: MILLIMETERS  
[ ] ARE IN: -

SIZE: A2


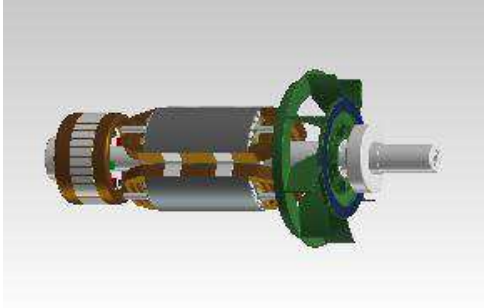
SCALE: 1:6

DIMENSIONING AND TOLERANCING PER:  
ASME Y14.5-2009



THIRD ANGLE PROJECTION

CAD SYSTEM  
PTC® Creo® Parametric

	4	3	2	1																
D		Part Number: A077Y659			  3D image provided when available for visual reference only.															
		Change Notice	CN00162842	Alternates																
		Manufacturer Part (MEP)	No	Usage		Production Only														
		Release Phase Code	Production (P)	Drawing Specification		Number: DS47164460														
		External Regulations	No External Regulation			Revision: A														
C	<div>Drawing Revision Information</div> <table><tr><td>Description of Change(s) Note: Change information is provided for reference only and does not supersede the drawing's primary content.</td></tr><tr><td>SEE CHANGE NOTICE.</td></tr><tr><td>PRODUCTION RELEASE</td></tr></table> <div>Drawing Authorization</div> <table><tr><td>Drafter</td><td>Aishwarya Rajaram Shelar</td><td>Date</td><td>30APR2025</td></tr><tr><td>Checker</td><td>Kuldeep Dilip Pawar</td><td>Date</td><td>30APR2025</td></tr><tr><td>Approver</td><td>Alin Dumitru Visian</td><td>Date</td><td>02MAY2025</td></tr></table>					Description of Change(s) Note: Change information is provided for reference only and does not supersede the drawing's primary content.	SEE CHANGE NOTICE.	PRODUCTION RELEASE	Drafter	Aishwarya Rajaram Shelar	Date	30APR2025	Checker	Kuldeep Dilip Pawar	Date	30APR2025	Approver	Alin Dumitru Visian	Date	02MAY2025
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