

The Automotive Research Association of India

(Research Institute of the Automotive Industry with Ministry of Heavy Industries, Govt. of India)

Non-Transferable

 To carry out the IP- 68 protection test as per IEC 60529 Dust Test for First Numeral '6': On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the enclosure. 			TEST REPORT	
J. NAME AND ADDRESS OF THE CUSTOMER M TORQ CONTROLS INDIA B-3,10,18E General Block, Near Pateja Forging, MIDC Bhosan, Pune 411026. Name of Contact Person Contact no. B422007317 Email ID sales @ mtorpindla com O CUSTOMERS LETTER REF. E-mail Date I CSP Receipt of Date 05.01.2023 D DESCRIPTION OF TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly. M TORQ CONTROLS INDIA B-3.10,19E General Block, Near Pateja Forging, MIDC Bhosan, Pune - 411026. b. Name of The Manufacturer B-3.10,19E General Block, Near Pateja Forging, MIDC Bhosan, Pune - 411026. c. Identification no / Part No. Pneumatic Actuator Assembly d. Model No. MTSRMIDA Series e. Assembly Drawings No. with Rev. No. MTSR.MIDA Series f. Identification test as per IEC 60529 10 Vestor Test for Second Numeral 'S': To carry out the IP- 88 protection test as per IEC 60529 11 On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside th enclosure. 20 Water Test for Second Numeral 'S': On inspection after the test in accordance with the requirements as per Clause 14.2.7 and 14.3 of IEC 60529 water entered inside the equipment shall not: > Reach live parts or windings not designed to operate when wet. > Accumulate near the conduit hole (cable entry) or enter the cable. <td< th=""><th>lo. SHL</th><th>_/16/2022-2023/300002750</th><th></th><th>Date: 02.02.2023</th></td<>	lo. SHL	_/16/2022-2023/300002750		Date: 02.02.2023
THE CUSTOMER B-3.10.19E General Block, Near Pateja Forging, MIDC Bhosari, Pune-411026. Name of Contact Person Mr. B.B. Kadam, Gontact no. Contact no. 9422007317 Email ID sales 9 mitorigida.com 10 CUSTOMERS LETTER REF. 11 CSP Receipt of Date 12 CUSTOMERS LETTER REF. 13 Name of The Component 14 Name of The Component 15 Name of The Component 16 Model No. 17 Basenbity Drawings No. with Rev. No. 18 Name of The Component 19 DESCRIFTION OF TEST COMPONENT: 10 Reck Splinion Pneumatic Actuator 16 Madel No. 10 Photograph of The Component 10 REST OBJECTIVE, REQUIREMENTS: 10 To carry out the IP- 68 protection liest as per IEC 60529 10 Dast Test for First Numeral '6': 10 ninspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside th andosure. 18 Water Test for Socond Numeral '8': 19 Drinspection after the test in accordance with the requifements as per Clause 14.2.7 and 14.3 of IEC			•••••••••••••••••••••••••••••••••••••••	
MIDC Bhosari, Pune-411026. Name of Contact Person Mr. B.B. Kadam, Contact no. 9422007317 Email IO sales @mitordindia.com CUSTOMERS LETTER REF. E-mail Date: 0.2012023 D DESCRIPTION OF TEST COMPONENT: a. a. Name of The Component Rack &Phinio Pneumatic Actuator Assembly. b. MTOR CONTROLS INDIA b. Name of The Manufacturer B-3.01.912 General Block, Near Pateja Forging, MIDC Bhosari, Pune - 411026. MTORY CONTROLS INDIA c. Identification no / Part No. Pneumatic Actuator d. MODel No. Pneumatic Actuator e. Assembly Drawings No. with Rev. No. MTSR.NMTDA Series e. Assembly Orawings No. with Rev. No. MTSR.DArk.Fr10/F14-S36-00-01-GA, REVISION NO. 0 Photograph of The Component First Strop BeCTIVE, REQUIREMENTS: To carry out the IP-68 protection test as per IEC 60529 10 TEST OB JECTIVE, REQUIREMENTS: To carry out the IP-68 protection test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the enclosure. 2. Water Test of Second Numeral 'S': On inspection after the test in accordance with the requirements as per Clause 14.2.7 and 14.3 of IEC 60529 water entered not inchere with satisfactory operation of the equipment. > Accumulate near the condult hole (cable entry) or enter the cable. <				
Name of Contact Person Mr. B.B. Kadam, Contact no. 9422007317 Email ID Estates @mitroincla.com 10 CUSTOMERS LETTER REF. E-mail Dated: -02.01.2023 11 CSP Receipt of Date 05.01.2023 12 DESCRIPTION OF TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly. a. Name of The Component Rack &Pinion Pneumatic Actuator Assembly. b. Name of The Manufacturer B-3,10.19E General Block, Near Pateja Forging, MIDC Bhosan, Pune - 411028. c. Identification no./ Part No. Preumatic Actuator d. Model No. MTSRMTDA Series e. Assembly Drawings No. with Rev. No. MT-SR-DA-K-F10/F14-S36-00-01-GA;REVISION NO. 0 Photograph of The Component Fill Structure Series To carry out the IP- 86 protection test as per IEC 60529 10 TEST OBJECTIVE, REQUIREMENTS: To carry out the IP- 86 protection test as per IEC 60529 11 Dust Test for Second Numeral '8': To ninspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside th enclosure. 2 Water Test for Second Numeral '8': On inspection after the test as accordance with the requirements as per Clause 14.2.7 and 14.3 of IEC 60523 water entered inside the equipment alal not:	11	HECUSIOMER		
Contact no. 9422007317 Email D sales @introduction.com 10 CUSTOMERS LETTER REF. E-mail Dated 02.01.2023 11 CSP Receipt of Date 05.01.2023 10 DESCRIPTION OF TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly 11 Description of TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly 11 Description of TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly 11 Description of TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly 12 Description of The Component Rack &Pinion Pneumatic Actuator 13 Model No. MTSR/MTDA Series 14 Model No. MTSR/MTDA Series 15 Rescription of The Component MTSR/MTDA Series 16 TEST OBJECTIVE, REQUIREMENTS: To carry out the IP-6 68 protection fest as per IEC 60529 15 To carry out the IP-6 68 protection fest as per IEC 60529 Dust Test for First Numeral 61: 16 nispection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the enclosure. 16 On inspection after the test in accordance with the requirements as per Clause 14.2.7 and 14.3 of IEC 605252 water entered inside the equipment shall not:			•••••••••••••••••••••••••••••••••••••••	
Email ID sales@miorigindia.com 20 CUSTOMERS LETTER REF. E-mail Dated: 02.01.2023 11 CSP Receipt of Date 00 6.01.2023 20 DESCRIPTION OF TEST COMPONENT: Rack &Pinion Pneumatic Actuator Assembly. a. Name of The Component Rack &Pinion Pneumatic Actuator Assembly. b. Name of The Manufacturer B-3.10.19E General Block, Near Pateja Forging. MIDC Bhosari, Pune – 411026. Midodel No. c. Identification no./ Part No. MirSR/MTDA Series e. Assembly Drawings No. with Rev. No. MT-SR-DA-K-F10/F14-S36-00-01-GA:REVISION NO.0 Photograph of The Component MirSR/MTDA Series f. Free Structure Presson f. Free Structure Presson f. TEST OBJECTIVE, REQUIREMENTS: To carry out the IP- 68 protection test as per IEC 60529 Dust Test for First Numeral '8': On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside th enclosure. > Water Test for Second Numeral '8': On inspection after the test in accordance with the requirements as per Clause 14.2.7 and 14.3 of IEC 60522 water entered inside the equipment 14.1 and IEC 60525 water entered inside the equipment 14.1 and IEC 60525 water entered inside the equipment 14.1 and IEC 60525 water entered inside the equipment 14.1	N	ame of Contact Person	Mr. B.B. Kao	dam,
0:0 CUSTOMERS LETTER REF. E-mail Date: -02.01.2023 1:1 CSP Receipt of Date 06.01.2023 0:0 DESCRIPTION OF TEST COMPONENT: a. a. Name of The Component Rack &Pinion Pneumatic Actuator Assembly b. Name of The Manufacturer Rack &Pinion Pneumatic Actuator Assembly c. Identification no./ Part No. Pneumatic Actuator d. Model No. MTSRNTDA Series e. Assembly Drawings No. with Rev. No. MT-SR-DA-K-F10/F14-S36-00-01-GA:REVISION NO.0 Photograph of The Component WTSRNTDA Series f. FST OBJECTIVE, REQUIREMENTS: To carry out the IP- 68 protection test as per IEC 60529 10 TEST OF First Numeral 6": On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the neclosure. 12 Water Test for Second Numeral 8': On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the neclosure. 12 Water Test for Second Numeral 8': On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the neclosure. 12 Water Test for Second Numeral 8': On inspection after	C	ontact no.	9422007317	7
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MDC Brosari, Pune – 411026. c. Identification no./ Part No. d. Model No. e. Assembly Drawings No. with Rev. No. MT-SR-DA-K-F10/F14-S36-00-01-GA;REVISION NO. 0. Photograph of The Component i. i. <t< td=""><td>D.</td><td>Name of The Manufact</td><td>urer B-3.10.19E</td><td>General Block, Near Pateia Forging,</td></t<>	D.	Name of The Manufact	urer B-3.10.19E	General Block, Near Pateia Forging,
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f. Image: Control of the equipment of the equipment. 4.0 TEST OBJECTIVE, REQUIREMENTS: To carry out the IP-68 protection test as per IEC 60529 1.1 Dust Test for First Numeral '6': On inspection after the test as per Clause 13.6 of IEC 60529, there should be no deposit of dust inside the enclosure. 1.2 Water Test for Second Numeral '8': On inspection after the test in accordance with the requirements as per Clause 14.2.7 and 14.3 of IEC 60529 water entered inside the equipment shall not: > Be sufficient to interfere with satisfactory operation of the equipment. > Reach live parts or windings not designed to operate when wet. > Accumulate near the conduit hole (cable entry) or enter the cable. PREPARED BY: VERIFIED BY: Mathematical Structure Authorised BY: S. N. LONDHE A. D. DEKATE DEPUTY MANAGER A. D. DEKATE DEPUTY MANAGER A. D. DEKATE DEPUTY DIRECTOR In-charge-Safety and Homologation Laboratory				
PREPARED BY: VERIFIED BY: AUTHORISED BY: PREPARED BY: VERIFIED BY: AUTHORISED BY: PREPARED BY: PREPARED BY: DR. B. V. SHAMSUNDARA S. N. LONDHE A. D. DEKATE DR. B. V. SHAMSUNDARA DEPUTY MANAGER A. D. DEKATE DR. B. V. SHAMSUNDARA DEPUTY MANAGER A. D. DEKATE DR. B. V. SHAMSUNDARA	1.0 TI To 1.1 D i or 1.2 W Oi wa >	to carry out the IP- 68 protect ust Test for First Numeral In inspection after the test inclosure. Vater Test for Second Num In inspection after the test in ater entered inside the equip Be sufficient to interfere wit	EMENTS: tion test as per IEC 60529 '6': as per Clause 13.6 of IEC 60529, heral '8': n accordance with the requirements oment shall not: h satisfactory operation of the equipr	as per Clause 14.2.7 and 14.3 of IEC 60529 ment.
S. N. LONDHE A. D. DEKATE DEPUTY DIRECTOR DEPUTY MANAGER GENERAL MANAGER In-charge-Safety and Homologation Laboratory			· · ·	1
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An ISO 9001, ISO 14001, ISO 45001 and ISO/IEC 27001 Certified Organization				DEPUTY DIRECTOR In-charge-Safety and Homologation
		A	An ISO 9001, ISO 14001, ISO 45001 and ISO/IEC 27001 Ce	ertified Organization

TEST REPORT NO. SHL/16/2022-2023/3000027503/RT/0420

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5.0 5.1	 TEST PROCEDURE: Dust Test for First Numeral '6' (as per Clause 13.6 of IEC 60529): The equipment under test was supported inside the test chamber and the pressure inside the equipment was maintained below atmospheric pressure by a vacuum pump. During the test, a minimum 80 times the volume of air was drawn into the enclosure, without exceeding a extraction rate of 60 volumes per hour or a depression of more than 200 mm of water on the manometer. Th test was carried out by using apparatus incorporating the principle shown in Figure 2 of IS/IEC 60529:2007 					
5.2	The test was carried of	eral '8' (as per Clause 14.2.7 of IEC but by completely immersing the enclo	60529:2001): sure in the water for 30 mins. at a depth of 1.4			
	meter from the surfac	e of the water.	-			
6.0	TEST RESULTS:	(6).				
6.1	Dust Test for First Numeral No dust ingress was observed	o. d inside the "Rack & Pinion Pneumatic	Actuator Assembly "			
• •	-		recurrent recombly.			
6.2	Water Test for Second Num	eral '8'. ed inside the "Rack & Pinion Pneumat	ic Actuator Assembly"			
6.3	Test Duration	Start Date:- 10.01.2023	End Date:- 12.01.2023			
7.0	CONCLUSION:		Eliu Dale 12.01.2025			
7.0	"Rack & Pinion Pneumatic A	ctuator Assembly" as mentioned in S vhen tested as per IS/IEC 60529:2001	r. no. 3 of this report, tested meet the IP 6			
Discla	aimer:					
		Reports / Developmental Test Reports for ver vehicle(s) or sample(s) submitted by the application	nicles/ components/ parts/ assemblies etc. based on the ant and testing thereof.			
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	AUGURA	Depare				
	~					
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Diaco	e of Issue: Kothrud, Pune		Laboratory			



