



HI PHYSIX LABORATORY INDIA PVT. LTD.

B-32/1/2, MIDC, Ranjangaon, Pune, Maharashtra

info@hiphysix.com, infohplindia@gmail.com

Phone : 02138 - 232901, 232902, 232903

CIN - U74120DL2009PTC194754

Mobile 1 : +91 7768005400

Mobile 2 : +91 7768005411


Mobile 3 : +91 7768005422

Page No. 01 of 04

TEST REPORT

TEST REPORT AS PER: IS/IEC 60529:2001

SRF No.:24100495

Name & Contact Information of Customer:		ULR-TC1351824000000853F		
M/s. Duncan Engineering Limited F33, MIDC Ranjangaon, karegaon, Tal-Shirur, Pune-412220, Maharashtra, India.,Shirur-412220		Discipline: Electrical Testing		
		Group: Environmental Test Facility		
		Test Report No: HPLI/Test/2410049501		
Contact Person: Mr. Sukdeo Mahajan Contact No: 9167248060		Date of Issue: 23/10/2024		
		Test Performed: At Lab		
		Customer Ref. & Date: 07/10/2024		
		Date of Sample Receipt: 07/10/2024	Start of Test Date: 14/10/2024	End of Test Date: 15/10/2024



PART A - PARTICULARS OF THE SAMPLE SUBMITTED

Sample description	Scotch yoke actuator
Grade/ variety/ type/ class/ size etc.	Nil
Declared values, if any	Nil
Code no., BIS seal and IO's sign. if any	Nil
Batch no., date of manufacture and Brand name	Brand: "Duncan" Model No.: S- series scotch yoke actuator (Frame size: S1 to S5 Cylinder size: 200 to 800 Single acting/Double acting)
Quantity	02 No.
Condition of the sample	OK
Reference specification (s)	IS/IEC 60529:2001
Environmental conditions	Temperature (25±4) °C & Relative Humidity<70%
Statement of Conformity	Sample conforms to the requirement of IP 67 tests as per the standard
Decision Rule	Qualitative Test

PART B - SUPPLEMENTARY INFORMATION

- a) Deviations from the test methods as per relevant specification/ work instructions, if any: Nil.
- b) Details of the drawings, graphs, tables, sketches or Photographs as referred in the test report, if any: Photograph Attached.
- c) Testing procedure according to work instructions: HPLI 03/Test-Appl/WI-807.
- d) The Management System is maintained in accordance with ISO/IEC 17025:2017 and testing Standards/Instruments are traceable to National/International Standards.

Notes: i) This report is not to be reproduced wholly or in part without our special permission in writing.
ii) This report refers only to the particular sample detailed above.
iii) The results reported in this certificate are valid at the time of and under the stipulated conditions of measurement.
iv) Remnants of the sample will be disposed off after 30 days of issue of test report, if no any further information is received.

Tested by

Checked by

Approved by
(Chief Manager)



Format No. HPLI 04 F31-00

www.hiphysix.com

Registered Office : Shop no.307, Third Floor, Vardhman Vasundhara Plaza

Plot No1, LSC, Vasundhara Enclave, Delhi-110096, India



TC-13518

**PART C- TEST RESULT**

ULR-TC135182400000853F
TEST REPORT NO.: HPLI/Test/2410049501
IS/IEC 60529:2001

Sr. No.	TESTS WITH CLAUSE REFERENCE		SPECIFIED REQUIREMENTS	Covered under our NABL Scope (Yes/No)	RESULTS	VERDICT
IP67 Test						
1.	IP6X Test (As per , Cl. No.5, 12.2 ,13.4,13.6 of IS/IEC 60529:2001)	i)	<p>Tests for protection against access to hazardous parts indicated by the first characteristic numeral. (Test for first characteristic numeral 6X):</p> <p>The access probe of 1.0 mm is pushed against or inserted through any openings of the enclosure with the force $1.0N \pm 10\%$. The test wire of 1.0mm shall not penetrate and adequate clearance shall be kept between the access probe and hazardous parts. (Cl. 12.2 of IS/IEC 60529:2001)</p> <p>The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts</p>	Yes	Satisfactory	Pass
			<p>Tests for protection against solid foreign objects indicated by the first characteristic numeral. (Test for first characteristic numeral 6X Dust-tight):</p> <p>The test is made using a dust chamber incorporating the basic principles. The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is $50 \mu m$ and the nominal width of a gap between wires $75 \mu m$. The amount of talcum powder to be used is 2 kg per cubic meter of the test chamber volume. (Cl.13.4 &13.6 of IS/IEC 60529:2001)</p> <p>The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test .</p>		Satisfactory (No ingress of dust observed inside the enclosure)	

Tested by

Checked by

Page No.02 of 04



TC-13518

PART C- TEST RESULT

ULR- TC135182400000853F
TEST REPORT NO.: HPLI/Test/2410049501
IS/IEC 60529:2001

S. No.	TESTS WITH CLAUSE REFERENCE		SPECIFIED REQUIREMENTS	Covered under our NABL Scope (Yes/No)	RESULTS	VERDICT
	IPX7 Test (As per , Cl. No.6 14.2.7 of IS/IEC 60529:2001)	ii)	<p>Test for second characteristic numeral X7: The test is made by completely immersing the enclosure in water in its service position as specified by the manufacturer so that the following conditions are satisfied</p> <p>a) the lowest point of enclosures with a height less than 850 mm is located 1 000 mm below the surface of the water;</p> <p>b) the highest point of enclosures with a height equal to or greater than 850 mm is located 150 mm below the surface of the water;</p> <p>c) the duration of the test is 30 min;</p> <p>d) the water temperature does not differ from that of the equipment by more than 5 K.</p> <p>However, a modified requirement may be specified in the relevant product standard if the tests are to be made when the equipment is energized and/or its parts in motion. (Cl.14.2.7 of IS/IEC 60529:2001)</p> <p>After testing, if any water has entered, it shall not-</p> <ul style="list-style-type: none"> – be sufficient to interfere with the correct operation of the equipment or impair safety. – deposit on insulation parts where it could lead to tracking along the creepage distances. – reach live parts or windings not designed to operate when wet. – accumulate near the cable end or enter the cable if Any. 	Yes	Satisfactory (No water observed inside the enclosure)	Pass

Tested by

Page No.03 of 04

Checked by



TC-13518

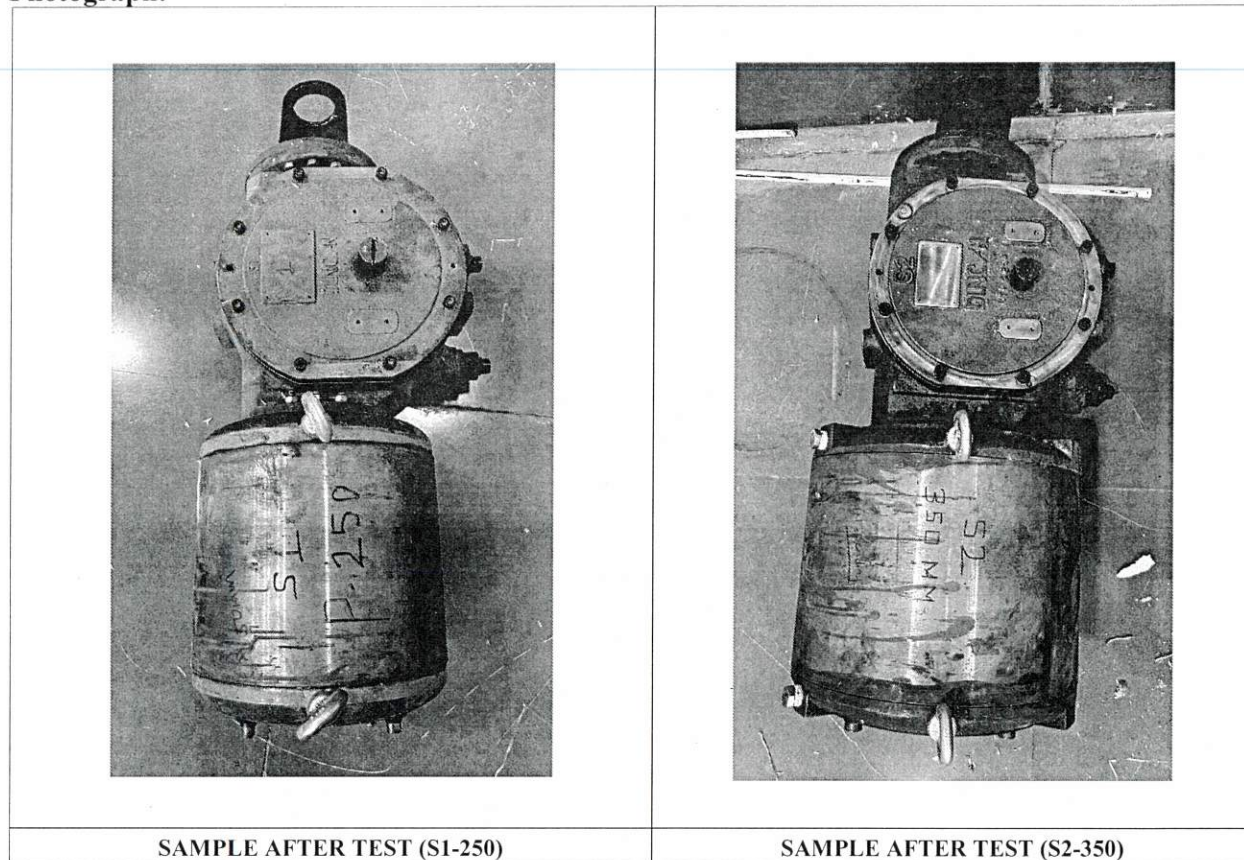
PART C- TEST RESULT

Photograph:

ULR- TC1351824000000853F

TEST REPORT NO.: HPLI/Test/2410049501

IS/IEC 60529:2001



SAMPLE AFTER TEST (S1-250)

SAMPLE AFTER TEST (S2-350)

PART-D:

- Remarks:**
- 1 The observation given in part A of the cover page of the test report are taken from the specification given by the customer.
 2. Test has been carried out on model no. S1-250 & S2-350 only.
 3. All the models have same mechanical construction except aesthetic and model name as declared by the customer.

**** END OF THE TEST REPORT ****

Tested by

Checked by

HI PHYSIX LABORATORY INDIA PVT. LTD.

Ashutosh Pathak
(Chief Technical Manager)
Approved by

Issued By