## APPLICATION FOR TEST REPORT On Behalf of

#### GlacialTech Inc

#### **LED Driver**

Model No. : GP-LE150N-yyVzzz

Prepared for : GlacialTech Inc

6FI., No. 346 Sec 2 Jung Shan Road ., Jung He Dist.,

NewTaipei City 235, Taiwan(R.O.C)

Manufacturer: GlacialTech Inc

6FI., No. 346 Sec 2 Jung Shan Road ., Jung He Dist.,

NewTaipei City 235, Taiwan(R.O.C)

Prepared By: Guangdong Keyway Testing Technology Co., Ltd.

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**Report Number** : TR18120290-S-000

Date of Test : Dec. 22, 2018 to Dec. 28, 2018

Date of Report : Jan. 09, 2019

# TEST REPORT IEC 60529 Degrees of protection provided by enclosures (IP Code)

	tion provided by enclosures (IP Code)
Report reference No	TR18120290-S-000
Tested by (+ signature):	Jason Dong Jason Vong esting rechno
Reviewed by (+ signature):	N <sub>2</sub>
Approved by (+ signature):	Toney Cao
Date of issue	Jan.09, 2019
Total page:	8
Testing laboratory:	Guangdong Keyway Testing Technology Co., Ltd.
Location	Building 1, Baishun Industrial Zone, Zhangmutou, Dongguan, Guangdong, China
Applicant	GlacialTech Inc
Address	6FI.,No.346 Sec 2 Jung Shan Road .,Jung He Dist., NewTaipei City 235, Taiwan(R.O.C)
Manufacturer:	GlacialTech Inc
Address	6FI.,No.346 Sec 2 Jung Shan Road .,Jung He Dist., NewTaipei City 235, Taiwan(R.O.C)
Standards:	IEC 60529:1989+A1:1999+A2:2013
Procedure deviation:	N/A
Non-standard test meth:	N/A
Test item description:	LED Driver
Trademark:	Glada Power®
Model and/or type reference:	GP-LE150N-yyVzzz ("zzz" can be any character, number or blank; V:Constant Voltage; "yy" represents the max output voltage which may be any number from 12 to 24)
Rating(s)	I/P: see model list for detail. O/P: see model list for detail.
est items particulars:	IP67
est case verdicts	
est case does not apply to the test	N/A
est item does meet the requirement:	P(ass)
est item does not meet the requirement:	F(ail)
esting	

Date of receipt of test item	Dec. 22, 2018
Date(s) of performance of test	Dec. 22, 2018 to Dec. 28, 2018

#### General remarks

This report shall not be reproduced except in full without the written approval of the testing laboratory. The test results presented in this report relate only to the item(s) tested.

#### Summary of testing:

The product passed the IP67 test.

#### Model list:

Model No.	Rated Input	Rated Output Voltage	Rated Output Current	Rated Output Power(Max.)	Transformer	ta/tc
LE150N-yyVzzz	220-240V~,	12Vdc	0-10.0A	120W	POT402002	50/90
	50/60Hz	24Vdc	0-6.25A	150W	POT402001	

<sup>&</sup>quot;GP-LE150N-yyVzzz":

The models have the same layout and construction, except that specifications of secondary components are different.

The model GP-LE150N-24V were chosen as representative models to perform IP67 tests.

#### Name and address of factory(ies):

Name: GlacialTech Inc

Address: 6FI.,No.346 Sec 2 Jung Shan Road .,Jung He Dist., NewTaipei City 235, Taiwan(R.O.C)

<sup>&</sup>quot; (see remark #)" refers to a remark appended to the report.

<sup>&</sup>quot;(See Annex #)" refers to an annex appended to the report.

<sup>&</sup>quot;zzz" can be any character, number or blank,

<sup>&</sup>quot;V": Constant Voltage;

<sup>&</sup>quot;yy" represents the max.output voltage which may be any number from 12 to 24;

IEC 60529				
Clause	Requirement + Test	Result - Re	mark	Verdict

Clause	Requirement	Result	Verdict		
4	Designations	IP67	P		
5	Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral		P		
5.1	Protection against access to hazardous parts		Р		
5.2	Protection against solid foreign objects		Р		
6	Degrees of protection against ingress of water indicated by the second characteristic numeral		Р		
7	Degrees of protection against access to hazardous parts indicated by the additional letter				
8	Supplementary letters				
10	Marking				
11	General requirements for tests				
11.1	Atmospheric conditions for water or dust tests  Temperature range: 15°C to 30° Relative humidity: 25% to 75% Air pressure: 86kPa to 106kPa		Р		
11.2	Test samples	Clean and new condition, practicable to test the complete equipment	Р		
11.3	Application of test requirements and interpretation of test results	Apply this standard	Р		
11.4	Combination of test conditions for the first characteristic numeral		Р		
11.5	Empty enclosures	Not applicable	N/A		
12	Tests for protection against access to hazardous parts indicated by the first characteristic numeral	No openings	N/A		
12.1	Access probes		N/A		
12.2	Test conditions		N/A		
12.3	Acceptance conditions		N/A		
12.3.1	For low-voltage equipment		N/A		
13	Tests for protection against solid foreign objects numeral	s indicated by the first characteristic	Р		

	IEC 60529				
Clause	Requirement + Test	Result - Remark	Verdict		
13.1	Test means		P		
13.2	Test conditions for first characteristic numerals 1,2,3,4		N/A		
13.3	Acceptance conditions for first characteristic numerals 1,2,3,4		N/A		
13.4	Dust test for first characteristic numerals 5 and 6		Р		
13.5	Special conditions for first character ristic numeral 5		N/A		
13.6	Special conditions for first characteristic numeral 6		N/A		
14	Tests for protection against water indicated by	the second characteristic numeral	Р		
14.1	Test means		Р		
14.2	Test conditions		Р		
14.2.1	Test for second characteristic numeral 1 with the drip box		N/A		
14.2.2	Test for second characteristic numeral 2 with the drip box		N/A		
14.2.3	Test for second characteristic numeral 3 with oscillating tube or spray nozzle		N/A		
14.2.4	Test for second characteristic numeral 4 with oscillating tube or spray nozzle		N/A		
14.2.5	Test for second characteristic numeral 5 with the 6.3mm nozzle		N/A		
14.2.6	Test for second characteristic numeral 6 with the 12.5mm nozzle		N/A		
14.2.7	Test for second characteristic number 7: temporary immersion between 0.15m and 1m	No water into	Р		
14.2.8	Test for second characteristic number 8: continuous immersion subject to agreement		N/A		
14.3	Acceptance conditions	The test conditions are more severe than those prescribed on 14.2.5 and take account of the condition that the enclosure will be continuously immersed in actual use.	N/A		
15	Test for protection against access to hazardous parts indicated by the additional letter	No additional letter	N/A		

IEC 60529			
Clause	Requirement + Test	Result - Remark	Verdict

Test E	Test Equipment:						
Lab No.	Equipmen t Name	Model	Manufacture r	Factory number	Technical parameter s	Precision	Calibration Cetificate No
-078	Water proof test device	HY- IPX1-1- 7	HaiYu	Q2009-056	IPX1~7	(k=2)	ZJ20170515145 6
-079	Dustproof test device	GK- SC180 0	GBTE	2009010231 3	ф 12ММ	1m <sup>3&gt;</sup>	ZJ20170515376 7

### **Photos**



Figure .1-Front overview for model GP-LE150N-24V



Figure .2-Internal view

## Photos



Figure .3- IP6X testing



\*\*\*\*\*End of this report\*\*\*\*\*