

CERTIFICATE OF COMPLIANCE

Certificate Number 20140414-E333135
Report Reference E333135-20120117
Issue Date 2014-APRIL-14

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

USR -Component LED Drivers with Isolated, UL1310 Class 2 output Models:

	Model Designation	Alternate Model Designation
1.	MU050A105BQI0	SOLOdrive 560/S
2.	MU050A105BQI00	SOLOdrive 560/A
3.	MU050A105BQI3	SOLOdrive 561/S
4.	MU050A105BQI30	SOLOdrive 561/A
5.	MU050A105AQI0	SOLOdrive 563/S
6.	MU050A105AQI00	SOLOdrive 563/A
7.	MU050A105AQI1	SOLOdrive 564/S
8.	MU050A105AQI10	SOLOdrive 564/A
9.	MU050A105AQI4 (*)	SOLOdrive 565/S (*)
10.		SOLOdrive 565/SHC (*)
11.	MU050A105AQI40 (*)	SOLOdrive 565/A
12.	MU050A105AQI5 (*)	SOLOdrive 566/S (*)
13.		SOLOdrive 566/SHC (*)
14.	MU050A105AQI50 (*)	SOLOdrive 566/A (*)
15.	MU050A105BQI1	SOLOdrive 569/S
16.	MU050A105BQI10	SOLOdrive 569/A
17.	MU050A105BQI2	DUALdrive 560/S
18.	MU050A105BQI20	DUALdrive 560/A
19.	MU050A105DQI6	POWERdrive 561/S
20.	MU050A105DQI60	POWERdrive 561/A
21.	MU050A105CQI6	POWERdrive 562/S
22.	MU050A105CQI60	POWERdrive 562/A
23.	MU050A105AQI0	ECOdrive 560/S
24.	MU050A105AQI00	ECOdrive 560/A
25.	MU050A105AQI3	ECOdrive 561/S
26.	MU050A105AQI30	ECOdrive 561/A
(*) – Employ the identical construction as models SOLOdrive 565/S, and model SOLOdrive 566/S except the maximum rated output is 1.35 A DC		



William R. Carney, Director, North American Certification Programs

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at www.ul.com/contactus



Conditions of Acceptability -

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by UL LLC.

1. The drivers shall be used within the recognized ratings in the end-use application.
2. These LED drivers have been tested in the ambient temperature noted as below as Ta. When used in end product, the maximum temperature on case surface shall not exceed the temperature note as below as Tc:

Model Number	Tc (Degree, °C)			
	100 VAC		277 VAC	
SOLOdrive 565/SHC SOLOdrive 566/SHC	80	60	80	60
ALL Models except models: SOLOdrive 565/SHC SOLOdrive 566/SHC	85	60	85	60

3. The maximum available output parameters of these drivers are within the maximum allowable limits for Class 2, Inherently Limited specified in the UL1310 standard.

For the CNR evaluation, the maximum output voltage of the drivers exceeds the specified voltage limit of 42.4 VDC/peak in the Canadian Standard for Power Supplies with Extra-Low-Voltage Class 2 Outputs, CSA C22.2 No. 223-M91, therefore, outputs are considered Isolated, non-Class 2. As result, the outputs of these drivers along with the associated circuits should not be "User Accessible" in the end-use application. However, based on maximum voltage restrictions for Class 2 circuits in the Canadian Electrical Code, Class 2 wiring may be used for the connection of the outputs and the circuits associated with outputs of these drivers.

In addition, the maximum measured voltage potential at the output terminals exceeded 30 VDC. Therefore, the output is to be considered "CLASS 2 NOT WET, CLASS 3 WET" as specified in the UL1310 standard for Class 2 Power Units.

4. These drivers are intended for used in a maximum 20 A branch circuit.
5. These drivers are intended for use in dry and damp locations only.

*

6. The drivers employ R/C (XCFR2)/ CN, terminal blocks for input, dimming and output connections means. The blocks are suitable for Field and factory wiring, and are rated 300 V, 5 A, 105°C. The suitability is to be determined in the end-use application.
7. These LED drivers are to be used in fixed wiring equipment only.
8. The base of the housing of drivers maybe is provided with an 8 by 8 mm opening. The accessibility of the opening and the suitability of enclosing the opening shall comply with the applicable requirements for openings in the end-use application.
9. For models MU050A105BQI2, MU050A105BQI1, MU050A105BQI0, MU050A105BQI20, MU050A105BQI10, MU050A105BQI00, MU050A105BQI3, MU050A105BQI30, MU050A105CQI6, MU050A105CQI60, MU050A105DQI6 and MU050A105DQI60 with multi-output, these outputs shall not be interconnected in end product use application.
10. The drivers were found suitable with a maximum output current rating as specified under the Electrical Ratings. However, the output current may be set at the factory during production to any current setting between 200 - 1050 mA DC via terminals designated using terminal connections designated "LD+" and "LD-".
11. For models MU050A105BQI2, MU050A105BQI0, MU050A105AQI0, MU050E105AQI0, MU050A105BQI20, MU050A105BQI00, MU050A105AQI00, MU050E105AQI00, MU050A105AQI4 and MU050A105AQI40 which are dimming type provided with a terminal for connecting a DALI dimmer to vary the output current (Connect to the terminal of DA+, DA-, DA-, DA+). The DALI interface circuit in these drivers is isolated from the primary and secondary circuit.
12. For models MU050A105BQI1, MU050A105AQI1, MU050A105BQI10, MU050A105AQI10, MU050A105BQI3, MU050A105BQI30, MU050A105AQI3, MU050E105AQI3, MU050A105AQI30, MU050E105AQI30, MU050A105AQI5 and MU050A105AQI50, which are dimming type provided with a terminal for connecting a dimmer to vary the output current. The dimmer shall be a Class 2 0-10 Vdc input voltage (Connect to the terminal of AIN+, AIN-).
13. For model MU050A105CQI6, MU050A105CQI60, MU050A105DQI6 and MU050A105DQI60, which are DMX type provided with a terminal for connecting a DMX dimmer to vary the output current (Connect to the terminal of "DMX in+" "DMX in-"). The DMX interface circuit in these drivers is isolated from the primary and secondary circuit.

*

14. Models MU050A105AQI4, MU050A105AQI40, MU050A105AQI5, and MU050A105AQI50, are provided with an Auxiliary output, rated 12 V DC, 2 Watts maximum. Output designated (12V+) and (-12V)
15. The input/output connections are noted as below:

Terminal Blocks	Connection
L	Supply line
N	Supply Neutral
PG	Grounding (*)
CS1+, CS1-	Channel 1
CS2+, CS2-	Channel 2
CS3+, CS3-	Channel 3
CS4+, CS4-	Channel 4
LD+, LD-	Factory current setting input
AIN+, AIN-	0-10 Vdc Dimmer input
DA-, DA+, DA-, DA+	DALI Dimmer input
12V +, - 12V	Auxiliary "Fan" Output
DMX in+, DMX in-	DMX Dimmer input
<p>(*) = The suitability and the reliability of this connection to serve as main Grounding Means of the LED driver case have not been evaluated. Therefore, the driver case must be connected to earth ground in the end-use application</p>	

*