

DESCRIPTION

PRODUCT COVERED:

USR - Component "Thermally Limited" type Drivers with Isolated, Class 2 output Models:

SOLOdrive 560/U	SOLOdrive 565/U	ECODrive 565/U	
SOLOdrive 561/U	SOLOdrive 566/U	ECODrive 566/U	
DUALdrive 560/U	SOLOdrive 568/U	ECODrive 568/U	

CNR - Component Drivers with "LED Driver Class 2" "LVLE" output, Models:

SOLOdrive 560/U	SOLOdrive 565/U	ECODrive 565/U	
SOLOdrive 561/U	SOLOdrive 566/U	ECODrive 566/U	
DUALdrive 560/U	SOLOdrive 568/U	ECODrive 568/U	

ELECTRICAL RATINGS:

Model	Input / 50/60 Hz			Maximum Output Ratings, DC		
	V AC	A	W	V	A	W
SOLOdrive 560/U	120-277	0.7	--	2.5-55	0.15-1.40	50
SOLOdrive 561/U	120-277	0.7	--	2.5-55	0.15-1.40	50
DUALdrive 560/U	120-277	0.7	--	2.5-55	0.15-1.40	50
SOLOdrive 565/U	120-277	0.7	--	2.5-55	0.15-1.40	50
SOLOdrive 566/U	120-277	0.7	--	2.5-55	0.15-1.40	50
SOLOdrive 568/U	120-277	0.7	--	2.5-55	0.15-1.40	50
ECODrive 565/U	120-277	0.7	--	2.5-55	0.15-1.40	50
ECODrive 566/U	120-277	0.7	--	2.5-55	0.15-1.40	50
ECODrive 568/U	120-277	0.7	--	2.5-55	0.15-1.40	50

SERIES NOMENCLATURE: SOLOdrive XYZ/U

EXAMPLE:				
SOLOdrive	5	6	5	L
I	II	III	IV	V

CODE		
I		Series Designation: SOLOdrive, ECOdrive, DUALdrive
II	3	The first digit indicates the maximum output power (Watts) <ul style="list-style-type: none"> • "5"- 50 Watts
III	6	The second digit indicates the maximum output voltage (V): <ul style="list-style-type: none"> • "6" - 60 V
IV	5	The third Digit indicates the type of option/options provided: <ul style="list-style-type: none"> • "0" or "5" = DALI Dimming • "1" or "6" = 0-10V Dimming (isolated) • "8" = Non dimmable
V	L	"/" followed by a letter that indicates the shape housing: <ul style="list-style-type: none"> • "/U" - Housing Type 21 by 30 by 436 mm Sheet metal

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

USR - Indicates investigation to the United States Standards for Light Emitting Diode (LED) Light Equipment for Use in Lighting Products, UL 8750.

- The output has been evaluated as Class 2, Clause 7.12.1

CNR - Indicates investigation to the Canadian Standard for:

- Light emitting Diode (LED) Equipment for Lighting Applications, CAN/CSA-C22.2 No. 250.13
- The output has been evaluated as LED Class 2, Annex A

The selected representative driver was evaluated for the following characteristics:

Model			Location	Type HL (c)	Type TL (d) See NOTE (1)
SOLOdrive560/U	Input type- Branch Circuit	Output type-CC Output is: Class 2 (b1, b2)	Dry and Damp	No	Yes Tref Max: 86 °C Tref: 67 °C See NOTE (1)
(1)- Maximum measured case temperature location was on the side of the driver case, near the spring clip securing transistor designated (Q103)					

- A - As defined in
 - UL 8750, Clause 7.12.1 and
 - CAN/CSA-C22.2 No. 250.13, Clause 8.12
- b1 - As defined in UL 8750, Section 8.14
- b2 - As defined in CAN/CSA-C22.2 No. 250.13, Annex A
- c - Evaluated per UL 8750 requirements for Type HL LED drivers
- d - Evaluated per UL 8750 requirements for Type TL LED drivers

Conditions of Acceptability:

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

1. Rated output loading for these products was achieved using resistive loads. The temperature tests were performed at nominal 40°C ambient.
2. In the end-product application, the temperature at the Tc location, as specified in Illustration #1, is to be monitored. The absolute value at Tc cannot exceed 86°C. This value was calculated based on temperatures observed during testing and temperature ratings of the integral components including the electrical insulation system.
3. The main isolation transformer employs Class B (130) insulation system
4. The drivers are intended for building-in and employ housings with no openings. Acceptability of the LED driver with respect to mounting, spacing, casualty, temperature and segregation is to be determined as part of the end device evaluation.
5. The Leakage Current test was conducted using the following selected representative driver model and the maximum measured leakage current while the driver connected to a 277 VAC was as specified in the following table. Based on end use requirements and the construction presented, this test may need to be performed as part of the end product evaluation:

Series Models	Measured, MIU	
	120 VAC, 60 Hz	277 VAC, 60 Hz
SOLOdrive560/U	0.25	0.64

6. The drivers employ R/C (XCFR2/XCFR8), terminal blocks for the connection of the input, dimming and output. The minimum electrical rating of the terminal blocks are 300V, 5 Amperes, 105 C. The terminal blocks are suitable for field and factory wiring and for use with 20-16 solid wire.
7. Drivers are dimmable when provided with the 0-10 V, or the DALI dimming circuit interface. The dimming circuits are isolated from primary (input) and secondary (output) circuits with spacings based on the maximum rated branch supply, 277 Vac.
8. The maximum available output parameters of these drivers were within the maximum allowable limits for Class 2, Inherently Limited specified in the UL1310 standard
9. The maximum available output parameters of these drivers are within the maximum allowable limits for LED driver Class 2 per Annex "A" of the Canadian standard CAN/CSA C22.2 No. 250.13-14

Conditions of Acceptability - Continued:

10. The output of the drivers is provided via two output channels and each channel is suitable for a maximum output current of 1400 mA DC. However, the output current may be set at the factory during production to any current setting between 150-1400 mA DC. Also, the maximum total output parameters via the two output channels should not exceed the maximum rated output parameters

11. The drivers are suitable for use in a "DRY" and "DAMP" locations

12. Models SOLOdrive 560/U, DUALdrive 560/U, SOLOdrive 565/U, And ECOdrive 565/U are dimmable and are provided with a "DALI" dimming interface circuit that is isolated from the primary and secondary circuit (Terminals DA+, DA-).

13. Model SOLOdrive 561/U, SOLOdrive 566/U, and ECOdrive 566/U are dimmable and are provided with an isolated "0-10" dimming interface circuit (Terminals designated "0-10+" and "0-10-"). And, the maximum available parameters from the dimming circuit terminals meet the limits for a Class 2, inherently limited source

14. Model SOLOdrive 568/U and model ECOdrive 568/U are not provided with the dimming options. Therefore, the drivers "NON-Dimmable" drivers

15. The identification of the input/output/dimming terminals is

Terminal Blocks	Connection
L (BLACK)	Supply line
N (WHITE)	Supply Neutral
PG (GREEN)	Grounding (*)
LED1+,LED1- LED2+,LED2-	Channel 1: Output Positive, Negative Channel 2: Output Positive, Negative
LED code+ / LED code- (Yellow-Brown)	Factory current setting terminals (**)
0-10V+ / 0-10V-	"0-10" Dimming connections
DA-, DA+, DA-, DA+,	CH1 - "DALI" Dimming connections CH2 - "DALI" Dimming connections
AUX+, AUX-	"Auxiliary" output auxiliary output, rated 15,5 -25V, max current: 18mA
Solid Wire Lead Specifications	Strip: 9 mm (11/32 Inch) Diameter: 0.5-1.5 mm (20-16 AWG)
<p>(*) - The ground terminal is not suitable for connection directly to the branch circuit ground lead. Therefore, the driver case must be connected to earth ground in the end-use application</p> <p>(**) - The output current per channel may be set at the factory during production to any current setting between 150-1400 mA DC. However, the maximum total output parameters via the two channels should not exceed the maximum rated output parameters</p>	