DESCRIPTION

PRODUCT COVERED:

USR / CNR - Component Drivers with Isolated, Class 2 output. See electrical ratings table for models:

ELECTRICAL RATINGS:

	Input / 50/60 Hz			Maximum Output Ratings, DC		
Model	V AC	A	W	V	A	W
ECOdrive 161/S	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
ECOdrive 161/B	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
ECOdrive 160/S	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
ECOdrive 160/B	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
SOLOdrive 161/S	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
SOLOdrive 161/B	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
SOLOdrive 160/S	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
SOLOdrive 160/B	**120-277**	**0.15**	**--**	**2.5-55**	**0.15 – 1.40**	**10**
ECOdrive 261/S	120-277	0.3	--	2.5-55	0.15 - 1.40	20
ECOdrive 261/B	120-277	0.3	--	2.5-55	0.15 - 1.40	20
ECOdrive 260/S	120-277	0.3	--	2.5-55	0.15 - 1.40	20
ECOdrive 260/B	120-277	0.3	--	2.5-55	0.15 - 1.40	20
SOLOdrive 261/S	120-277	0.3	--	2.5-55	0.15 - 1.40	20
SOLOdrive 261/B	120-277	0.3	--	2.5-55	0.15 - 1.40	20
SOLOdrive 260/S	120-277	0.3	--	2.5-55	0.15 - 1.40	20
SOLOdrive 260/B	120-277	0.3	--	2.5-55	0.15 - 1.40	20

MODEL DIFFERENCES:

A. All LED Driver models employ the identical construction, the critical components, construction materials, and the same sheet metal housing dimensions except for the dimming circuit, the access to the input and output terminal blocks:
   - SOLOdrive 26x/B, ECOdrive26x/B = bottom feed
   - SOLOdrive 26x/S, ECOdrive26x/S = side feed
   - **SOLOdrive 16x/B, ECOdrive 16x/B = bottom feed**
   - **SOLOdrive 16x/S, ECOdrive 16x/S = side feed**

B. All LED driver models employ the identical construction except for the design of the dimming circuit:

- ☐ "DALI" –SOLOdrive 260/x and ECOdrive 260/x
- • "DALI" –SOLOdrive 160/x and ECOdrive 160/x
- ☐ "0-10" –SOLOdrive 261/X and ECOdrive 261/x
- ☐ "0-10" –SOLOdrive 161/X and ECOdrive 161/x

C. The SOLOdrive models and the ECOdrive models employ identical construction except for the increment levels of dimming set by the firmware:

Models	Increment %	mA DC
SOLOdrive	0.1	1.0
ECOdrive	1.0	25

D. The models SOLOdrive 16x/B, SOLOdrive 16x/S, ECOdrive 16x/B, ECOdrive 16x/S and the SOLOdrive 26x/B, SOLOdrive 26x/S, ECOdrive 26x/B, ECOdrive 26x/S are identical in construction EXCEPT the following components:

1. Transformer T101,
2. Line Inductor designated (L003),
3. The electrolytic capacitors (C004, C225, C200) and
4. Line capacitor C019.

MODEL OUTPUT CLASSIFICATION:

Model No.	Isolated output type		
	Dry and Damp Location		
	US Class 2	Canada Class 2	LED Driver Class 2 (+)
ECOdrive261/S	X	-	X
ECOdrive261/B	X	-	X
ECOdrive260/S	X	-	X
ECOdrive260/B	X	-	X
SOLOdrive261/S	X	-	X
SOLOdrive261/B	X	-	X
SOLOdrive260/S	X	-	X
SOLOdrive260/B	X	-	X
ECOdrive161/S	X	-	X
ECOdrive161/B	X	-	X
ECOdrive160/S	X	-	X
ECOdrive160/B	X	-	X
SOLOdrive161/S	X	-	X
SOLOdrive161/B	X	-	X
SOLOdrive160/S	X	-	X
SOLOdrive160/B	X	-	X

NOTES:
"-": Not applicable
"X": Applicable

(+): Evaluated in accordance with Annex "A" of the second edition of CSA C22.2 NO. 250.13-14 CAN/CSA LIGHT EMITTING DIODE (LED) EQUIPMENT FOR LIGHTING APPLICATIONS

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 **and** electronic loads. The temperature tests were performed at nominal 40 C ambient.

2. During the temperature test of the end product **application**, the temperature at Tc is to be monitored **and should not exceed the following temperature limits:**

Series Models	**Maximum temperature at "Tc" Location, C**
20 – Watts	**87**
10 – Watts	**90**

. * 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. The housing of the drivers have 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 representative models of these drivers**. Based on end use requirements and the construction presented, this test may need to be performed as part of the end product evaluation. The maximum measured leakage current while the **representative** driver connected to a 277 VAC was 0.**61** MIU **and was 0.22 while was connected to 120 VAC source of supply.**

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, 5A. The terminal blocks are suitable for field and factory wiring.

7. The drivers are dimmable using a low voltage 0-10 V, DALI, or proprietary interface. The interface circuit has been evaluated for isolation from primary (input) and secondary (output) circuits with spacings based on the maximum rated branch supply, 277 Vac.

8. Based on maximum voltage restrictions for Class 2 circuits in the Canadian Electrical Code, the output cannot be accessible. The output terminals along with the associated circuits should be evaluated in the end-use application to confirm compliance with this accessibility requirement, either based on output terminal design or based on manufacturer specifications for its use in restricted access areas only. The latter option will require markings on the end product as well as the installation manual.

Conditions of Acceptability - Continued:

9. The drivers are 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

10. The maximum available output parameters of these drivers are within the maximum allowable limits for UL1310 Class 2, Inherently Limited specified in the UL1310 standard. The output is also LED driver Class 2 per Annex "A" of the Canadian standard CAN/CSA C22.2 No. 250.13-14

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

12. **The following driver** models are dimmable and are provided with a "DALI" dimming interface circuit that is isolated from the primary and secondary circuit (Terminals DA+, DA-):

- SOLOdrive 260/B, ECOdrive 260/B, SOLOdrive 260/S and ECOdrive 260/S
- **SOLOdrive 160/B, ECOdrive 160/B, SOLOdrive 160/S and ECOdrive 160/S**

13. *The following driver 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:

- SOLOdrive 261/B, ECOdrive 261/B, SOLOdrive 261/S and ECOdrive 261/S
- SOLOdrive 161/B, ECOdrive 161/B, SOLOdrive 161/S and ECOdrive 161/S

14. 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-	Channel 1: Output Positive, Negative
LED code+ / LED code- (YELLOW)	Factory current setting terminals (**)
0-10V+ / 0-10V-	"0-10" Dimming connections
DA-, DA+,	"DALI" Dimming connections
Solid Wire Lead Specifications	Strip: 9 mm (11/32 Inch) Diameter: 0.5-1.5 mm (20-16 AWG)
(*) - 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 (**) - The output current may be set at the factory during production to any current setting between 150-1400 mA DC	