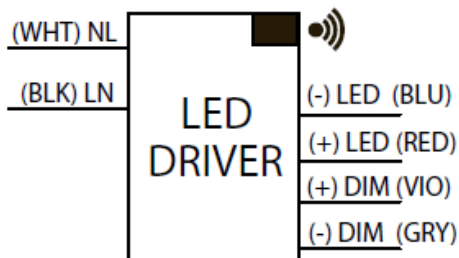# D700C20UNVPW-L/LS

700mA Programmable LED Driver

- ➢ Universal (120-277V) Input Voltage
- ➢ Class 2, 20W Constant Current Output with 0-10V dimming
- ➢ Full featured programmability with Wireless Programming

Performance

Input Voltage	120 ~ 277 Vac
Input Current Max	0.20 /120V 0.09 / 277V
Input Power Max	24W
Input Frequency	50 - 60 (Hz)
Power Factor	> 0.95 @ max load
THD max	< 20 % @ max load
Output Voltage (Refer to Power Curve Chart)	16V to 29V @ 0.70 Amps 16V to 56V @ 0.36 Amps
Max. Output Current	700mA
Min. Dimming Current	4mA
Output Power	20W
Standby Power	< 2.8W @120Vac
	< 3.5W @ 277Vac
Line Regulation	±3 %
Load Regulation	±5 %
Output Current Ripple	<10% (Pk-Pk/avg)
Inrush Current* Peak / >10% Duration	120V: 18A / 310uS 277V: 42A / 286uS
LED Start Up Time	<500mS initial, <600mS full CA T-24 Compliant

* Source impedance per NEMA 410

Physical

Length	4.95 in
Width	2.39 in
Height	1.00 in
Mounting Length (L)	4.61" (mounting feet)
Mounting Length (LS)	2.00" (#8-32 studs)
Weight (lbs)	1.0
Wire Trap / Plug-in Connectors for 16-20 AWG Solid Wire Strip Length 0.33in	

Environmental

EMI and RFI	Meets FCC part 15 (Class A) Non-Consumer Limits
Sound Rating	Class A
Operating Temperature	-40°C to 50°C (-40°F to 122°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Warranty Tc	85°C max for 50k Hr Life
Protection Rating	UL Dry & Damp
Transient Protection	IEEE C62.41 2.5kV

Protection
   Over Voltage, Under Voltage, Short Circuit, Over Temp
Safety:
   UL 8750 & CSA 250.13
   UL Class P

Wiring Diagram:

Use wire extraction tool to remove wires from connectors

Ordering Information

Order Number	Description	Qty/Carton
D700C20UNVPW-L010C	Multi-Exit	20
D700C20UNVPW-LS010C	Bottom Exit w/Studs	20

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| Programmable Features |
|---|
| Output Current |
| Minimum Dimming Level |
| Dim-to-Off |
| Dimming Curve |
| (Linear, Linear Soft Start, Logarithimc) |
| Lumen Maintenance |

*Refer to application notes EVD10 and EVD11 at www.unvlt.com for additional information on programmable features.

Programming System	
Software	EVERset Programming Software
Hardware	LDPC000A Configuration Tool
Driver Interface	Wireless via RFID

Driver Operating Range:
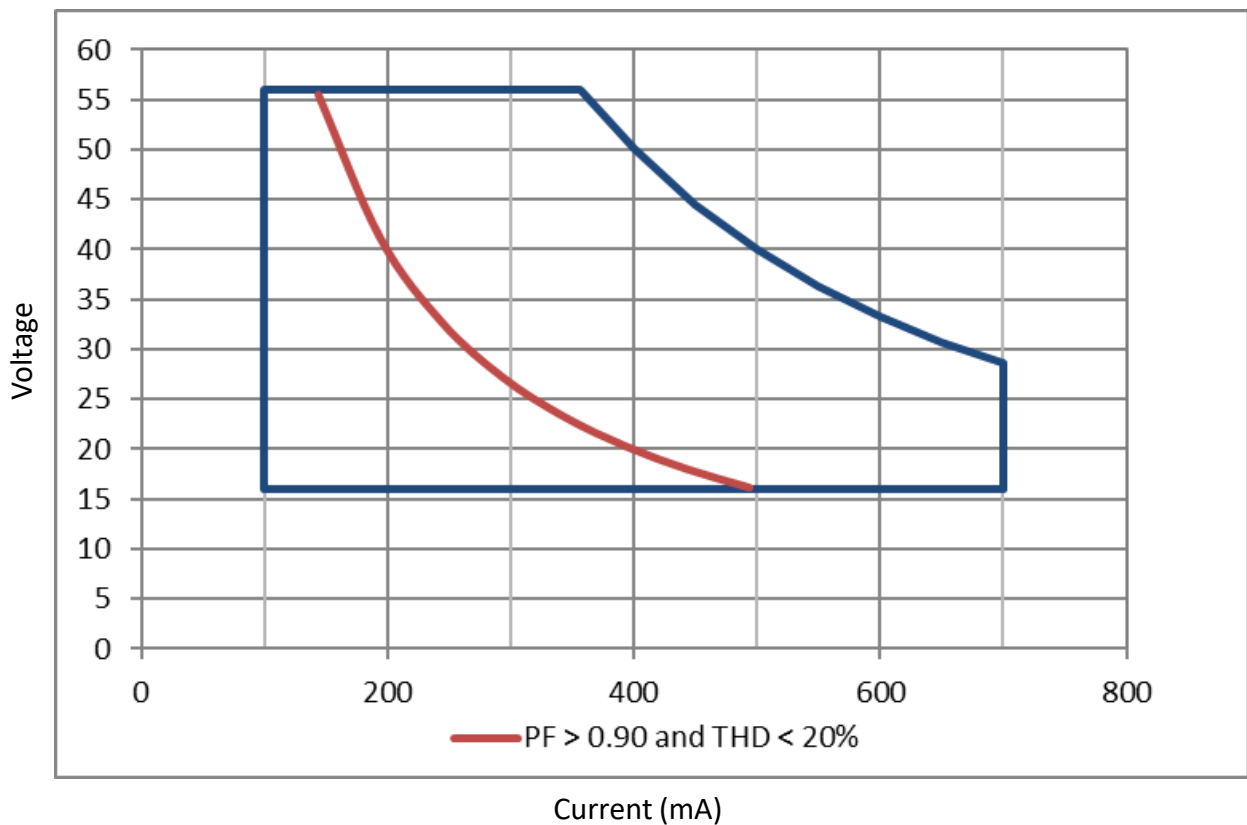
Current (mA)
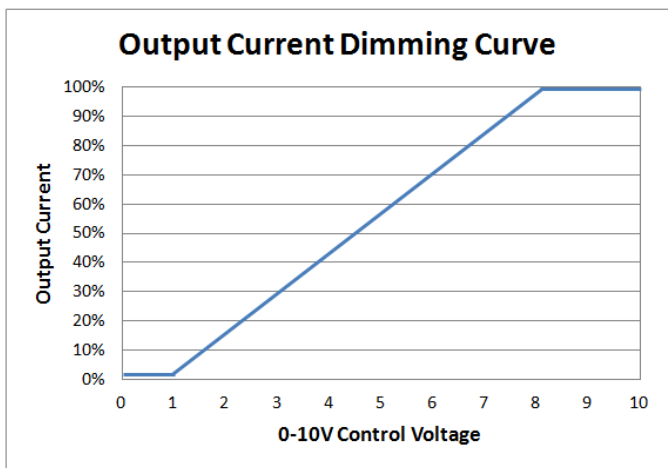
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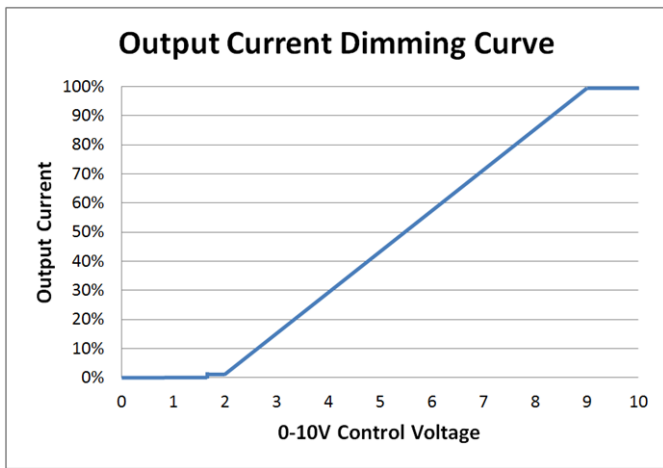
0-10V Dimming

Linear Dimming to 1%

Linear Dimming w/ Dim-to-Off

* Driver ships with Dim-to-Off disabled. Dim-to-Off must be enabled through the EVERset programming software.

0-10V Analog Dimming Interface
• Analog 0 to 10 Vdc Voltage Control
• Use Violet (+) & Gray (-) for connection to 0-10 Vdc.
• 10V = maximum output
• 0V = dim-to-off or programmed minimum dimming level
• 0-10V interface can be wired as Class 1 or Class 2 Circuit.
• Driver will source a maximum of 165uA for control needs.
• Controller must sink current from the 0-10V control leads.

Programmable Dimming Features		
Feature	**Range**	**Factory Default**
Maximum Output Current	100 - 700mA	default = 700mA
Minimum Dimming Level	4 - 350mA	default = 7mA
Dimming Curve	(Linear, Linear Soft Start, Logarithmic w/ factor 1 to 7)	default = Linear
Dimming Control Voltage Range		
Max Bright Control Voltage	7 - 9Vdc	default = 8Vdc
Min Dim Level Control Voltage	1 - 3Vdc	default = 1Vdc
Dim-to-Off	0.1 - 1.7Vdc	default = 0Vdc (disabled)

* Refer to application note EVD10 at www.unvlt.com for additional information on programmable dimming features.
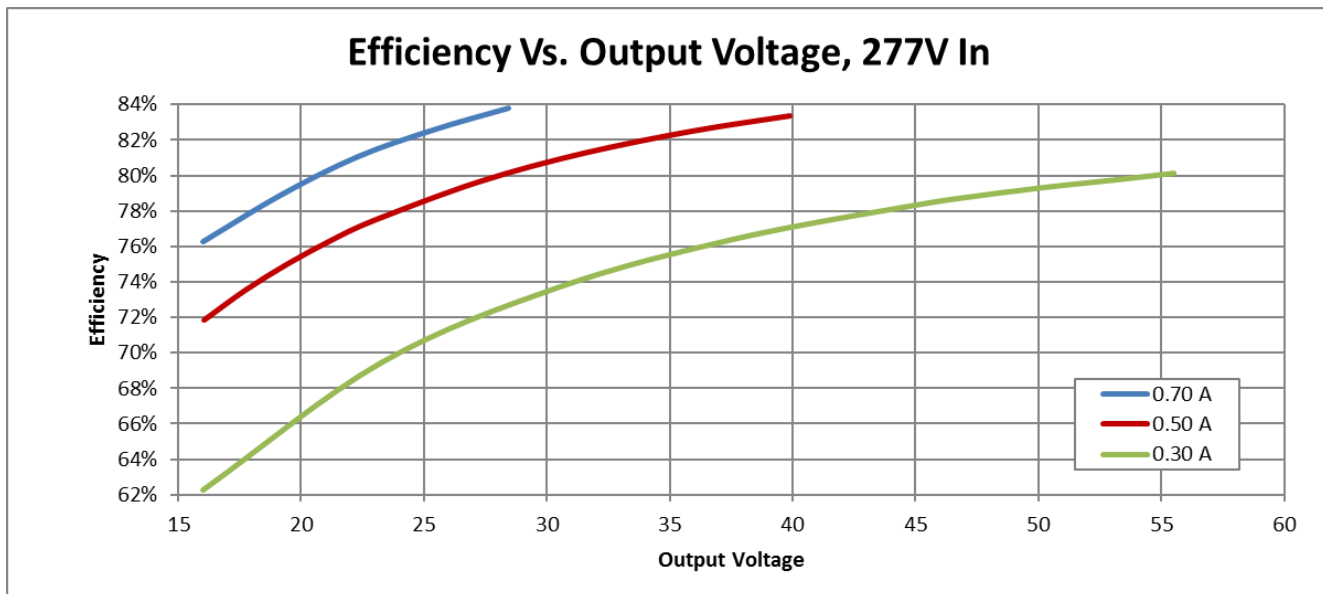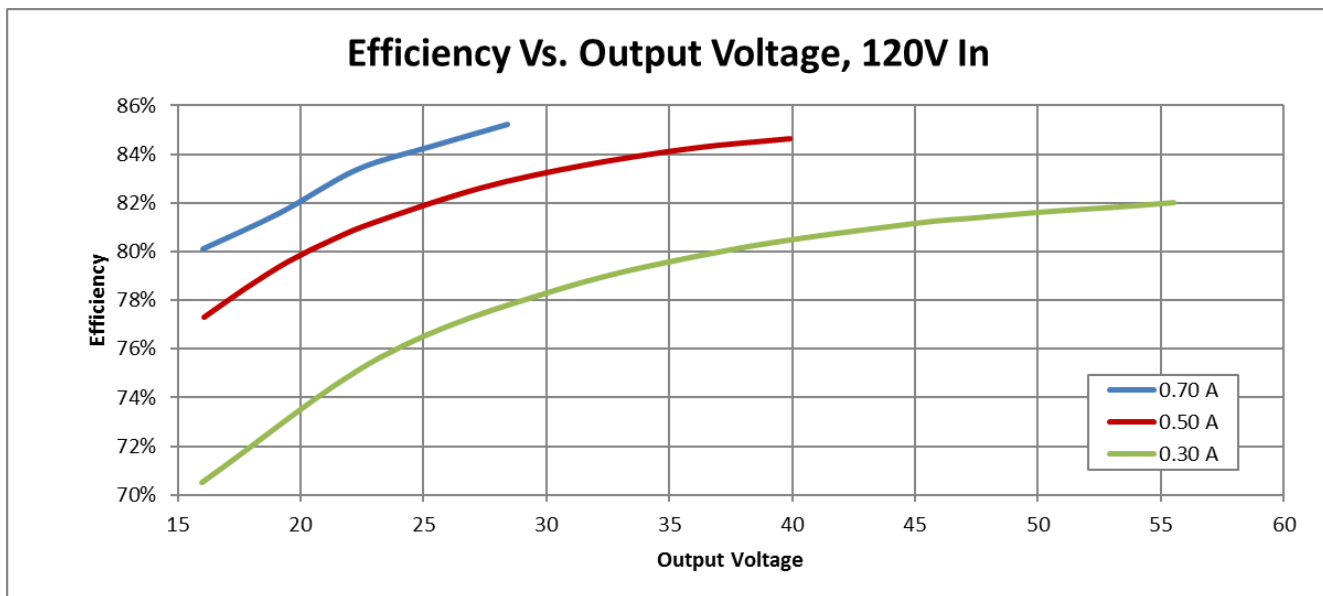
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Performance: Efficiency
Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.

Efficiency Vs. Output Voltage, 120V In
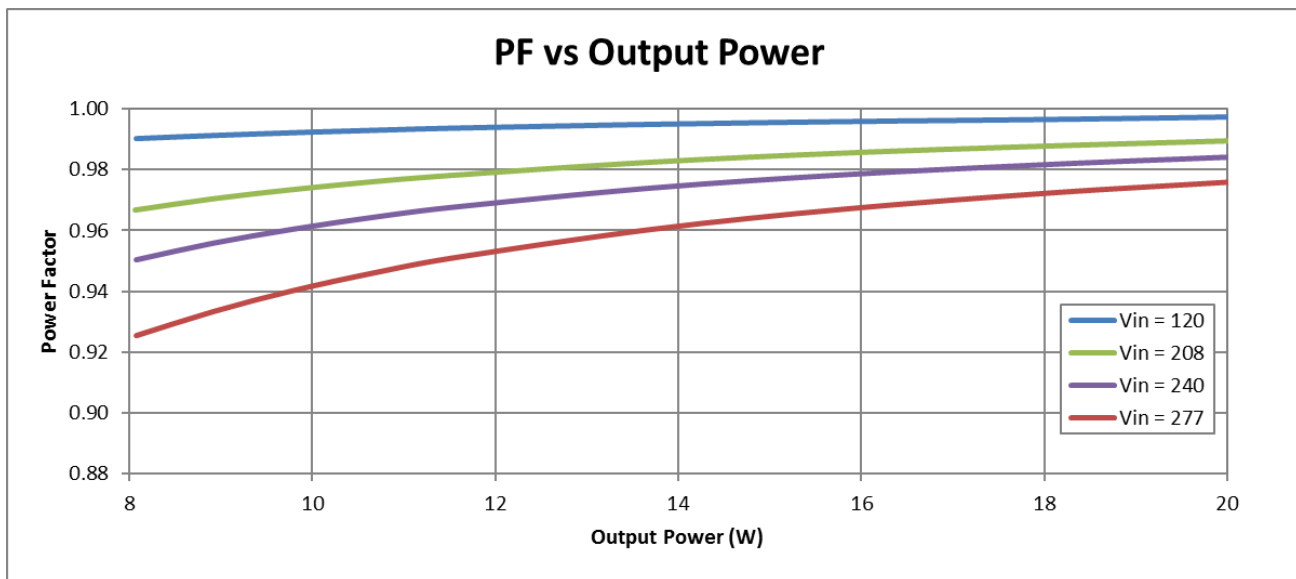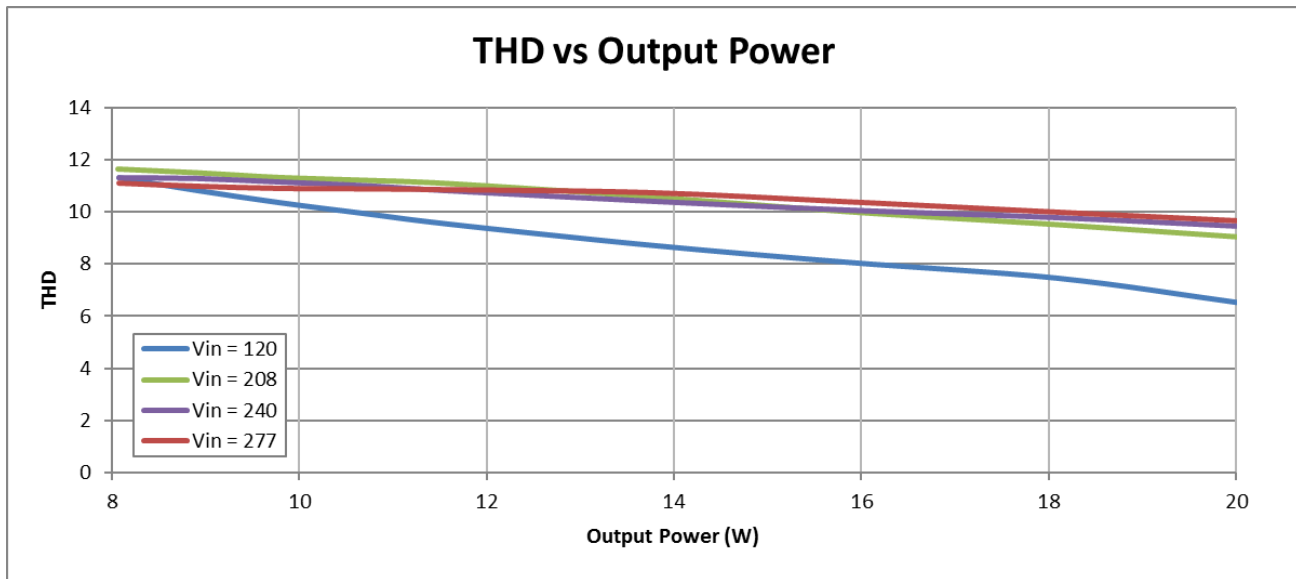

Efficiency Vs. Output Voltage, 277V In

Application and operation performance specification information subject to change without notification.

Performance: Total Harmonic Distortion, & Power Factor

Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.

THD vs Output Power

Legend:
- Vin = 120
- Vin = 208
- Vin = 240
- Vin = 277

Y-axis: THD (0 to 14)
X-axis: Output Power (W) (8 to 20)

PF vs Output Power

Legend:
- Vin = 120
- Vin = 208
- Vin = 240
- Vin = 277

Y-axis: Power Factor (0.88 to 1.00)
X-axis: Output Power (W) (8 to 20)

Output power based on maximum rated output current and varying load voltages.

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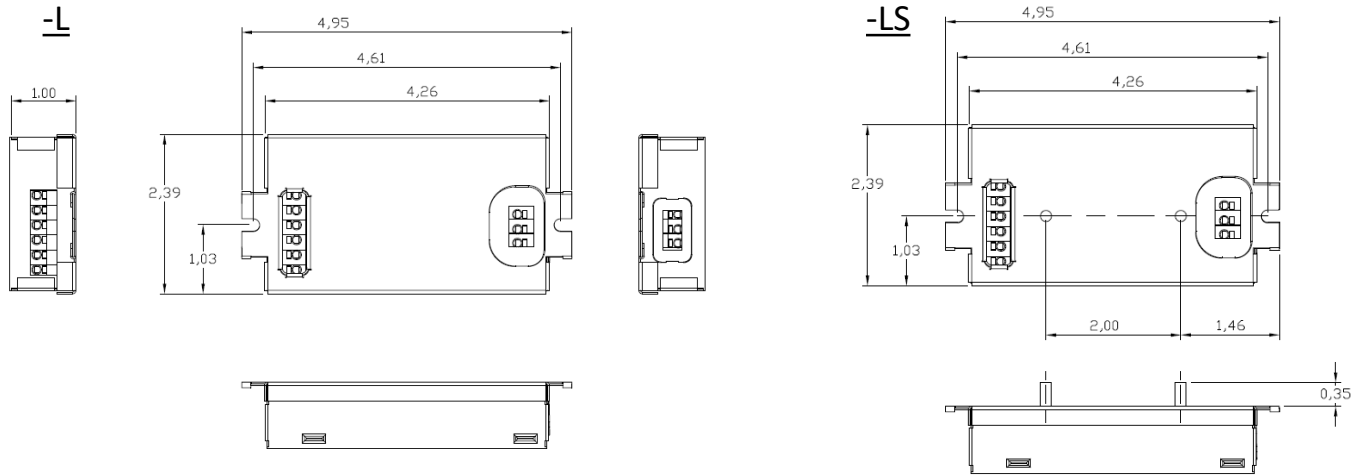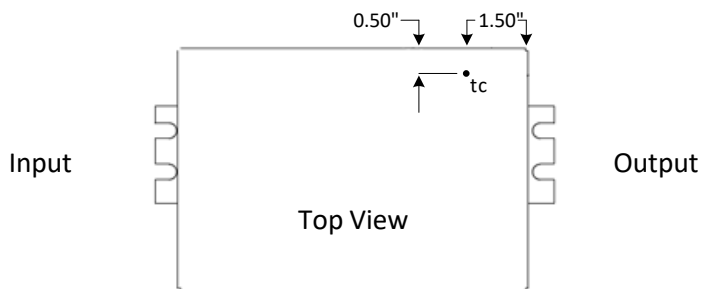Application and operation performance specification information subject to change without notification.

Dimensional Diagram:

-L

-LS

LS Provides lead exits at the bottom only

Tc Location:

0.50"   1.50"

•tc

Input   Output

Top View

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Transient Protection

Transient	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)
IEEE C62.41 100kHz Ring Wave (200A maximum)	> 2.5kV	> 2.5kV

Isolation

Isolation	Input	Output	0-10V	Enclosure
Input	-	2xU + 1kV	2xU + 1kV	2xU + 1kV
Output	2xU + 1kV	-	2xU + 1kV	700V
0-10V	2xU + 1kV	2xU + 1kV	-	2xU + 1kV
Enclosure	2xU + 1kV	700V	2xU + 1kV	-

U = Max Input Voltage

FCC Statement: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warranty:

Universal Lighting Technologies warrants to the purchaser that each power supply will be free from defects in material or workmanship for a period of 5 years from the date of manufacture when properly installed per instructions and under normal operating conditions of use. Call 1-800-225-5278 for technical assistance.

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