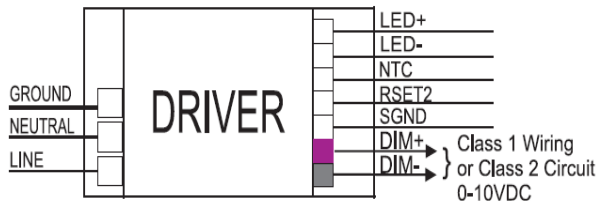


XI054C150V054DNT1

Brand Name	XITANIUM
Description	XITANIUM 54W 0.7-1.5A 54V 0-10V
Input Voltage	120 ~ 277V
Input Frequency	50/60Hz
RoHS	Yes
Approbations	UL,CSA
Status	Active

Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load		Max Case Temp. (°C)	Input Current (Arms)		Max. Input Power (W)	Inrush Current (A _{pk} /50%-μs)		THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection Common/Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating
54	27 ~ 54*	0.7 ~ 1.5	120V	277V	85 °C	120 V	277V	65	120 Vin	277 Vin	<20	>0.95	2/2	0.697/0.316	UL Dry & Damp
			86%	88%		0.54	0.23		26/ 86	65 /83					

Wire Diagram



Input and output use WAGO 250 connectors.

Connect wires:

Use 18 AWG Solid Copper Wire Rated $\geq 300V$.
Strip Wire 3/8".

Dimming Method	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Isolated	5% ~ 100%	0.035	Dimming source current: 150 μA ($\pm 3\%$)

Enclosure



	In. (mm)
Case Length	14.17 (360)
Case Width	1.18 (30)
Case Height	1.0 (25.4)
Mounting Length	13.78 (350)
Mounting Width	N/A
Overall Length	N/A



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Product Data	
Order code	XI054C150V054DNT1
Full product code	XI054C150V054DNT1M
Full product name	XITANIUM 54W 0.7-1.5A 54V 120-277V
Net weight per piece	0.316 KG / 0.694 lbs
Interfaces	0-10V Dimming, AOC(Rset2), RNTC
Ambient Temp Range	-20C to +50C
Corresponding Tcase	+5C to +75C
0-10V Dimming Specifications	150µA ± 3% source current from driver, see dim curve.
Line Voltage (AC Operation)	120-277V +/- 10%
Line Voltage (DC Operation)	N/A
Line Current	0.54A @ 120V, 0.27A @ 230V, 0.23A @ 277V
Line Frequency	50/60Hz
Envir. Protection Rating	UL Dry & Damp
Life @ TC 75C	50000 hr [nom] refer to graph below
Life @ TC 85C	25000 hr [nom] refer to graph below
Suitable for Outdoor use?	No
Max TC	85C
Input Over-voltage	Can survive input over-voltage stress of 320VAC for 48 hours and 350VAC for 2 hours
Earth leakage current	0.375 mA [max]
Output Current ripple	22% @ 1.5 A (ripple = pk-pk/avg)
THD total	Refer to Graph
PF @ Max Load	Refer to Graph
Isolation between output and input	meets Class 2 requirement
Isolation of controls	meets Class 1 wiring and Class 2 circuit requirement
Protections	Short Circuit and Open Circuit Protection for LED + and LED-
EMC	Meets FCC 47 Part 15 Class B

Installation & Application Notes:

1. LED Driver shall be installed inside an electrical enclosure.
2. Wiring inside electrical enclosure shall comply with 300V/105°C rating or higher.
3. Max number of LEDs in series should not exceed 16.
4. Max LED voltage should not exceed 54V under all operating conditions.
5. Rset can be used to adjust output current between 700 to 1500 mA for 0-10V dimming operation.
6. Rset can be used to adjust output current between 100 to 1500 mA for fixed output operation.

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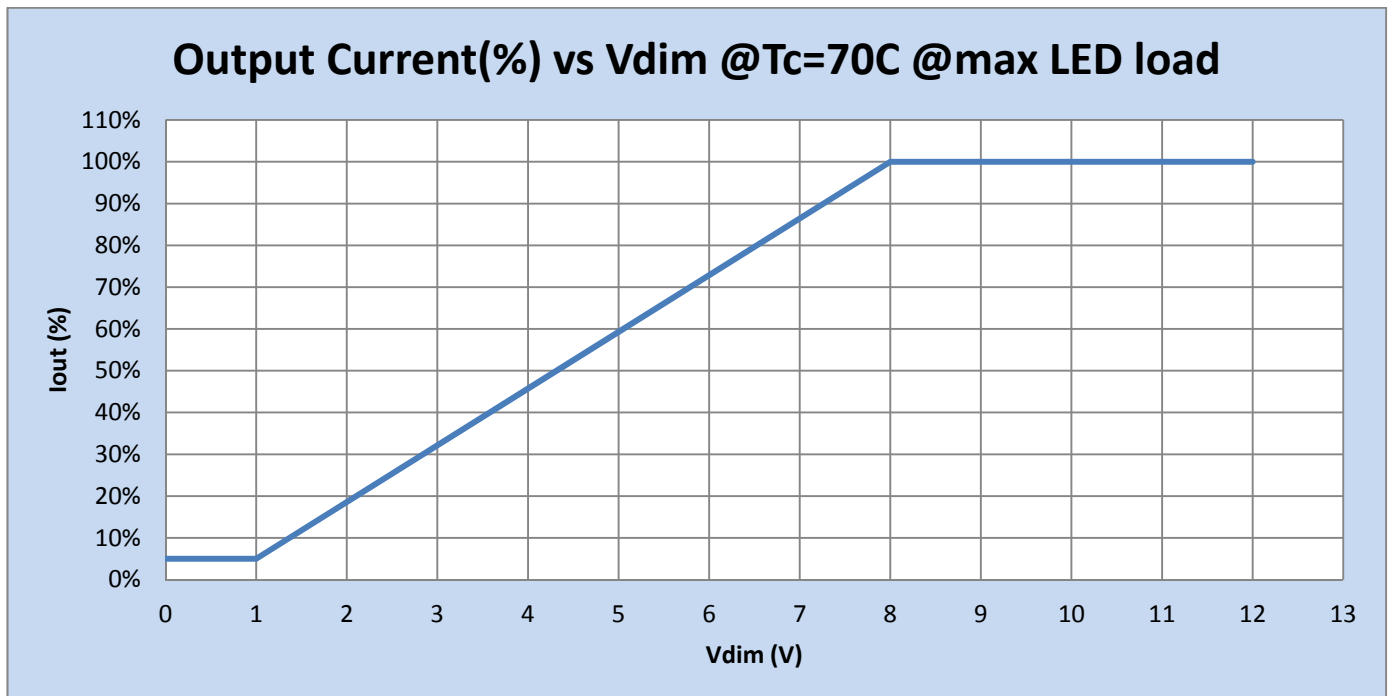
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Status	Active

Performance Specifications:

Dimming Interface Info:

0-10V Dimming Curve	
Dimming source current from the driver:	150 μ A ($\pm$ 3%)
LED Current Tolerance at any value of Vdim:	$\pm$ 5% of I _{max}
Minimum Dim Level:	5% - 100%



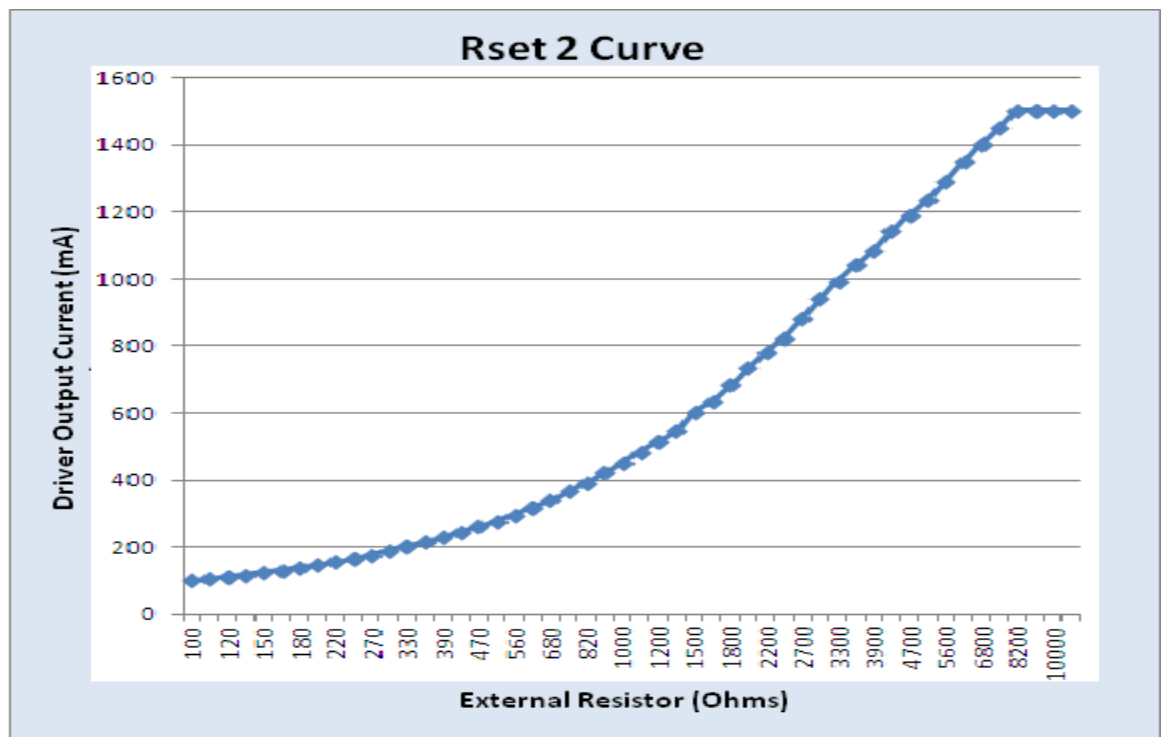
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AOC (Adjustable Output Current) Info:

LED current tolerance with variation of Rset2 is within $\pm 5\%$ of Imax

Rset (Ohms)	Current (mA)
100	100
120	111
150	124.5
180	138.2
220	154.6
270	176.4
330	203.7
390	228.3
470	261.0
560	296.5
680	340.2
820	392.1
1000	452.1
1200	514.9
1500	602.3
1800	684.2
2200	779.7
2700	883.5
3300	992.7
3900	1085.5
4700	1191.9
5600	1273.0
6800	1402.1
8200	1503.1
>8200	1503.1

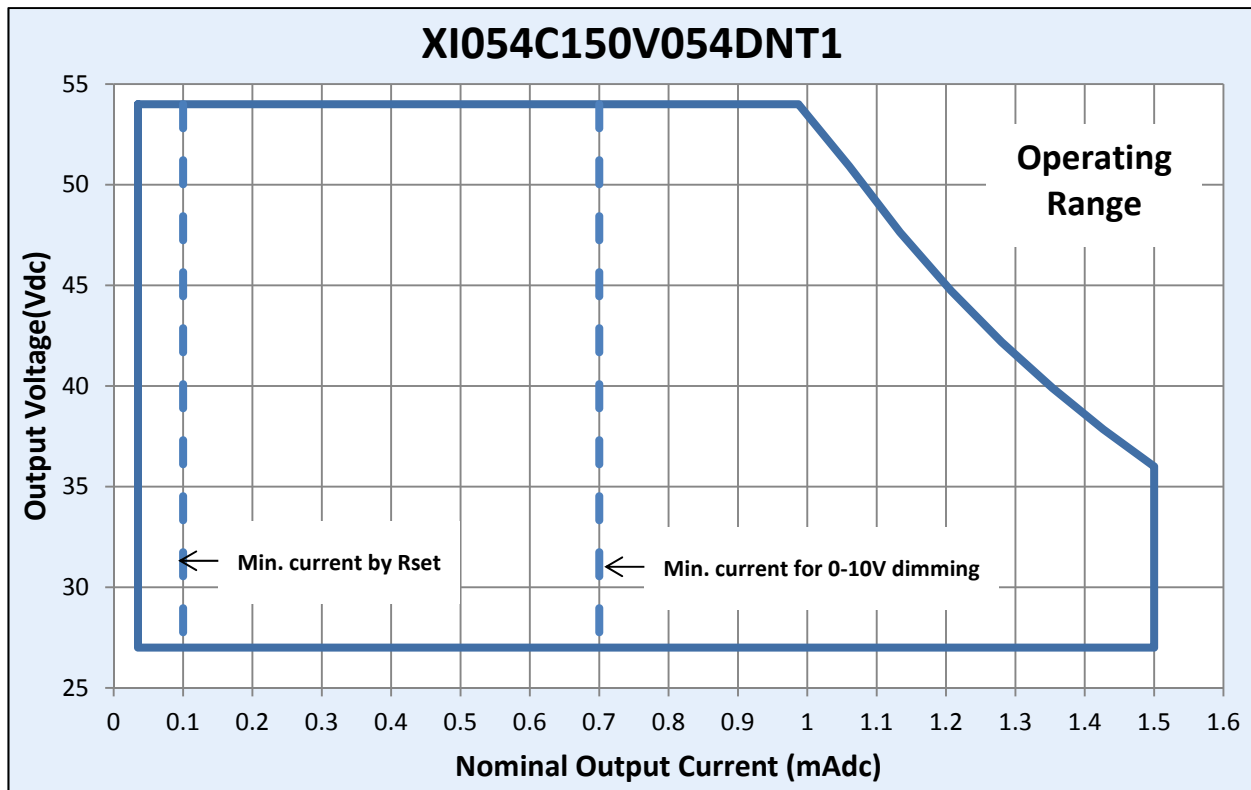


Any through hole or SMD resistor with $>0.25W$ and $>20V$ can be used as RSET2 between Rset2 and SGND pins.

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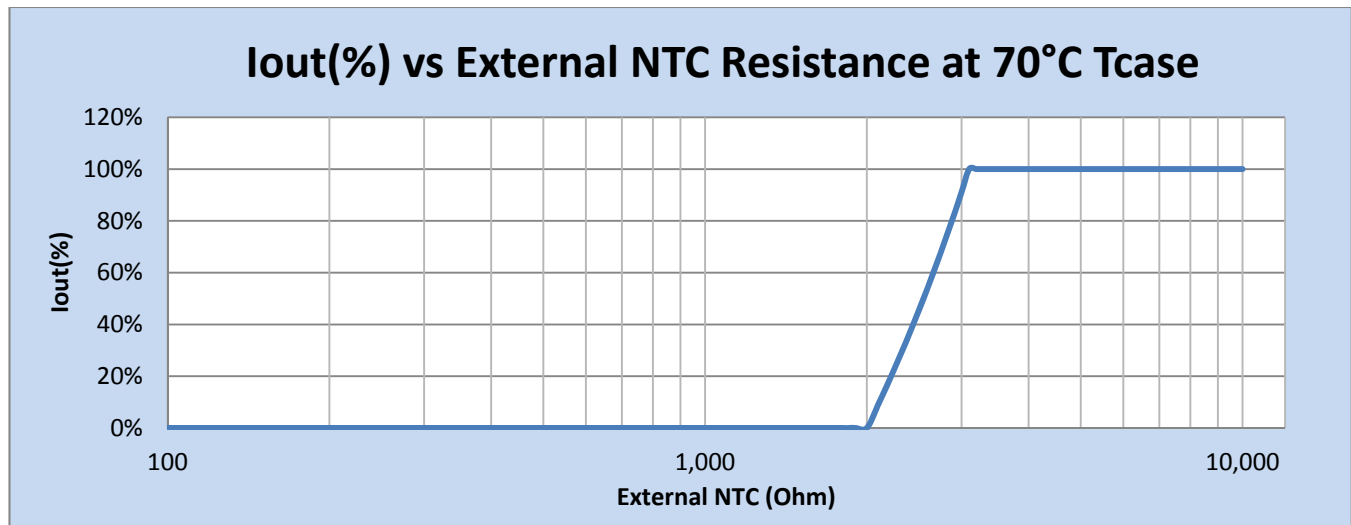
Operating Window:



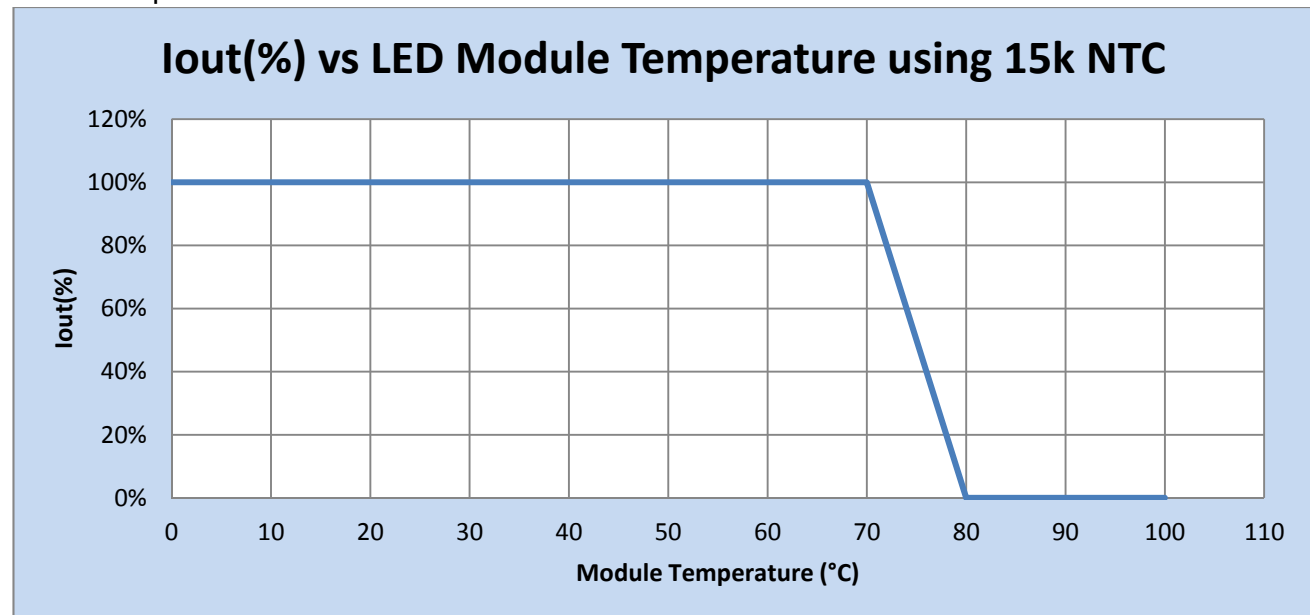
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Module Thermal Protection:



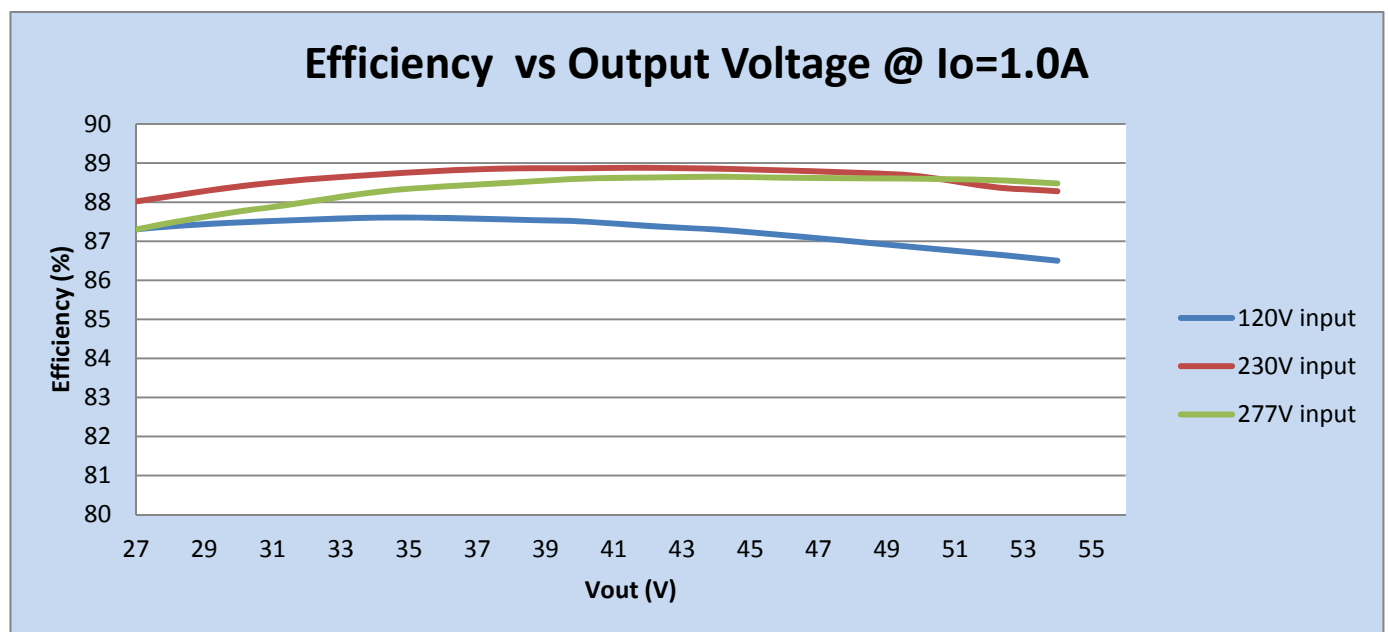
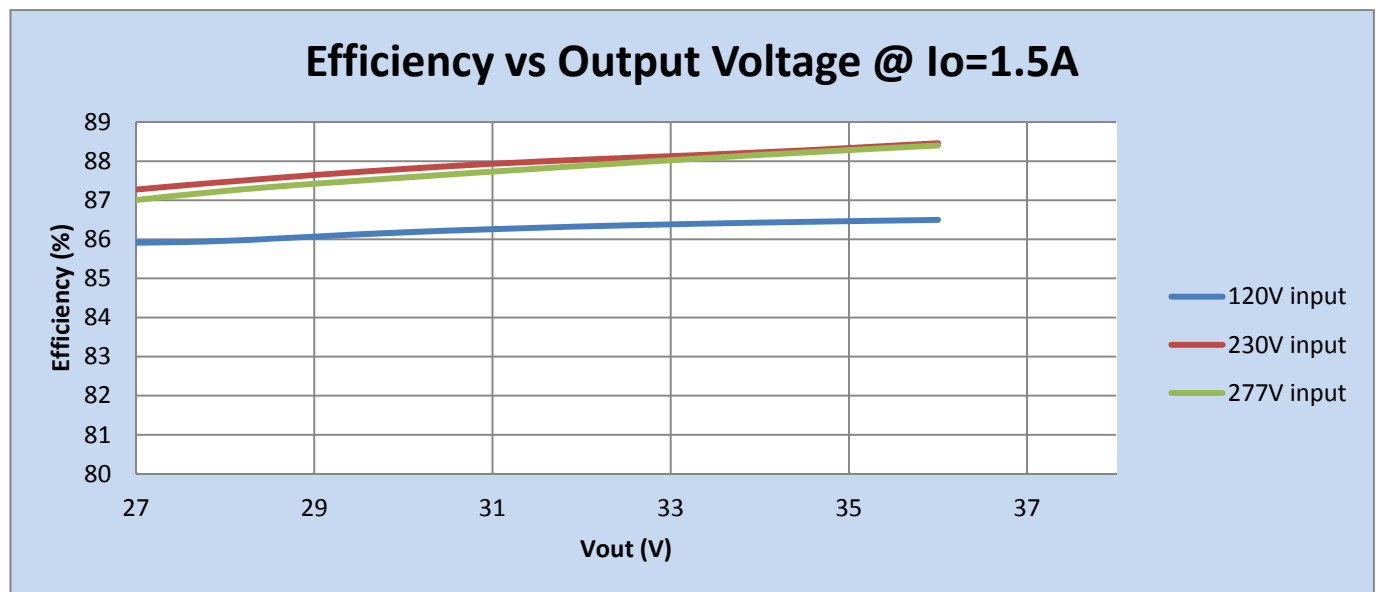
For example: Using NTC Vishay 15kOhm $\pm$ 2% NTC, B25/85=3700 (238I 615 54I53), the output current Vs module temperature behavior is as follows.



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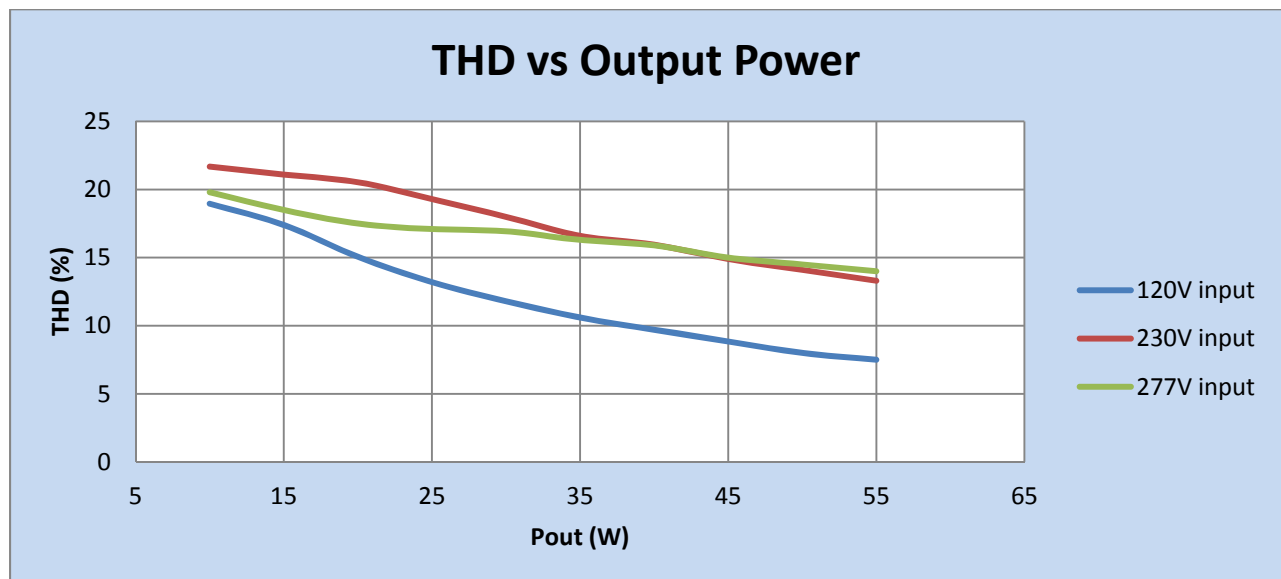
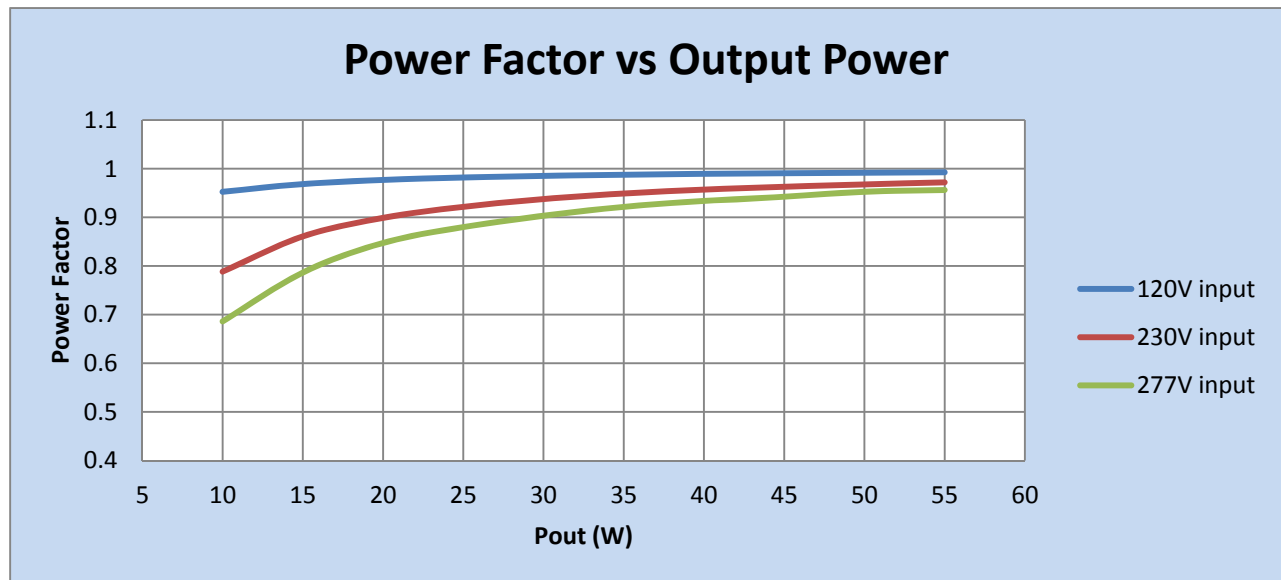
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Performance Plots:



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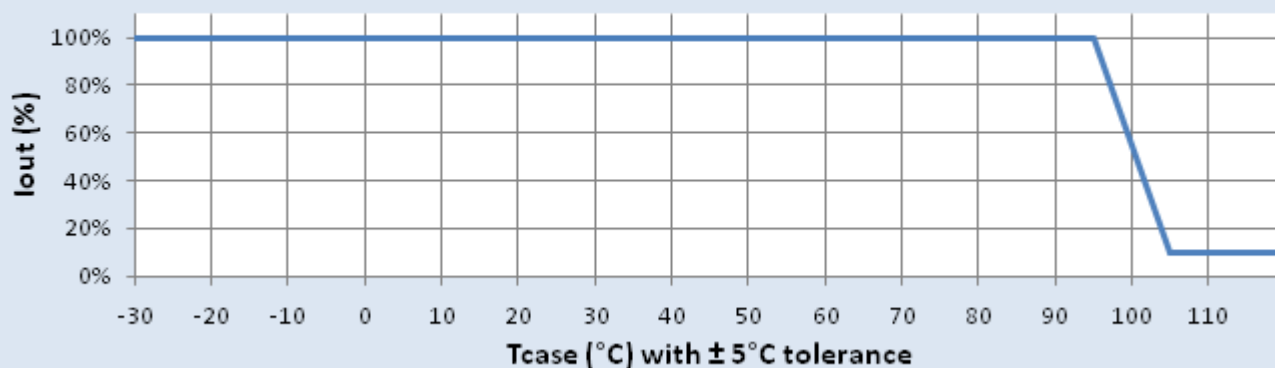


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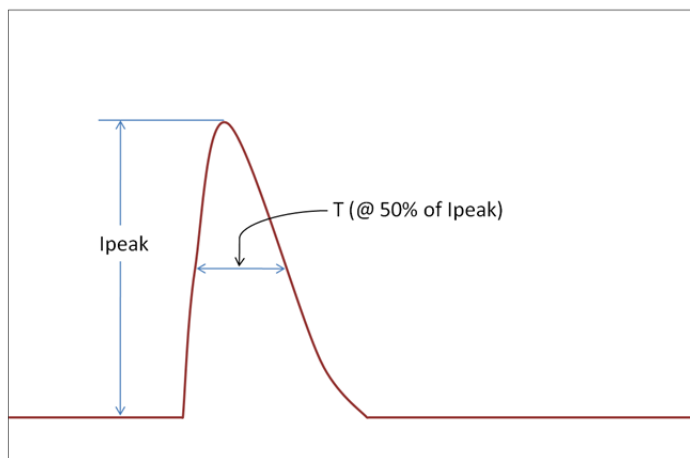
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Iout (%) Vs Tcase of the driver



Inrush Current Info:



Vin	Ipeak	T (@ 50% of Ipeak)
120 Vrms	26.6 A	86 μ s
230 Vrms	57.6 A	85 μ s
277 Vrms	65 A	83 μ s

Lifetime vs. Tcase of Driver:

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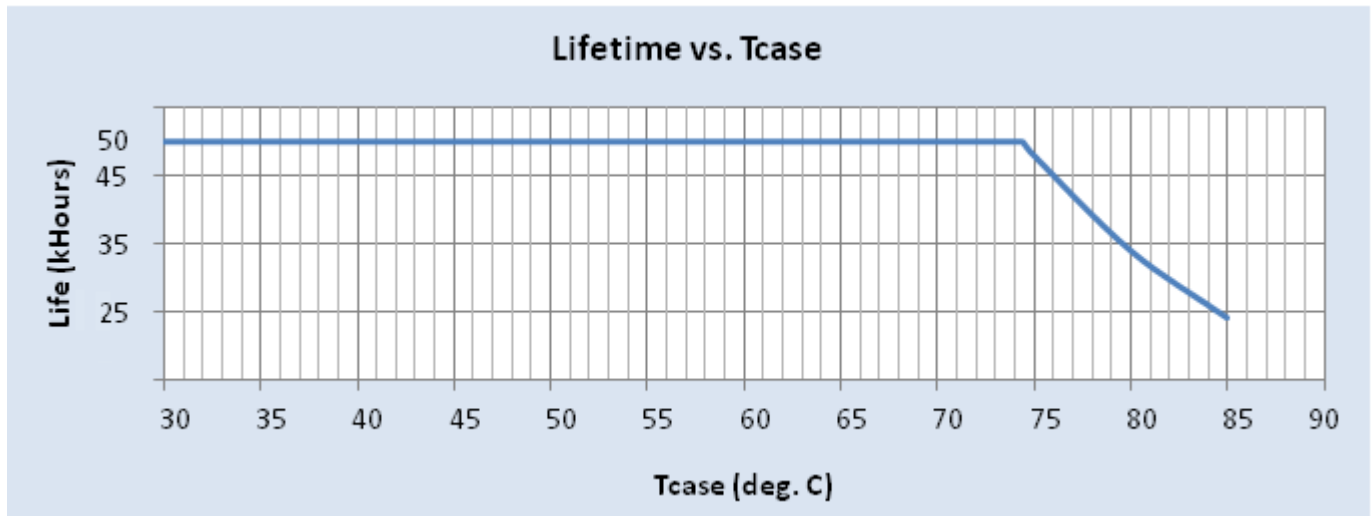
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Failure Rate Info based upon field call rate data:

- <0.01% per 1 kHr @<= Tcase 75°C

Isolation:

Isolation	Input connectors	Output + AOC and External NTC connectors	0-10V connector	Chassis
Input connectors	NA	2000	2500	2000
Output + AOC and External NTC connectors	2000	NA	2500	1500
0-10V connector	2500	2500	NA	2500
Chassis	2000	1500	2500	NA

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