

Series LAC & TLAC

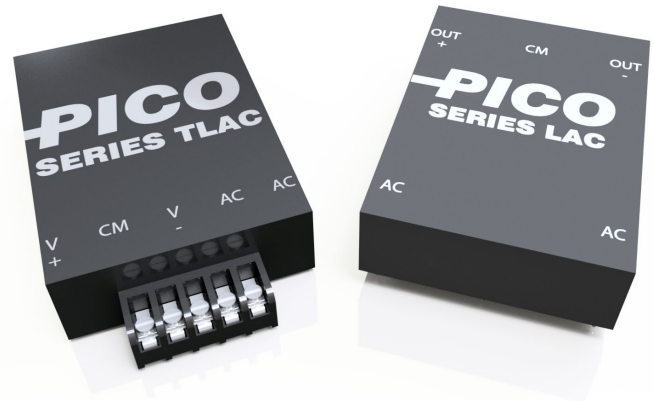
10W Isolated Regulated AC-DC Power Supply



PRODUCT OVERVIEW

The LAC series is a linear AC-DC power supply available in single, dual and triple outputs. They offer excellent line and load regulation and very low output ripple - 1mVRMS. The highly reliable module is capable of up to 10W power in a wide ambient temperature range -25°C to +70°C and continuously protected against short circuits. These modules are the perfect design choice for your most stringent industrial applications.

The through hole and terminal strip packages have threaded inserts to mount securely for high vibration and shock applications.



FEATURES

- Up to 10W output power
- Single, dual and triple outputs
- Very low output ripple - 1mVRMS
- Through hole or terminal strip
- Continuous short-circuit protection
- 115VAC input (105-125VAC)
- No external components required



T	LAC	24	/100	S
MOUNTING	SERIES NAME	OUTPUT VOLTAGE	OUTPUT CURRENT (SINGLE OR DUAL)	NUMBER OF OUTPUTS
BLANK = THROUGH HOLE T = TERMINAL STRIP	LAC	5 = 5V 12 = 12V 15 = 15V 24 = 24V 512 = 5V & ±12V 515 = 5V & ±15V	/100 = 100mA /120 = 120mA /200 = 200mA /300 = 300mA /500 = 500mA /1000 = 1000mA /2000 = 2000mA	S = SINGLE OUTPUT D = DUAL OUTPUT A = TRIPLE OUTPUT @ 4.13-4.25W B = TRIPLE OUTPUT @ 5.38-5.50W

MODEL LIST**SINGLE OUTPUT**

Through Hole	Terminal Strip	Output Voltage [VDC]	Output Current		Output Power [W]	Line Regulation [%] max	Load Regulation [%] max	Package Reference		Package Height [in]
			Min. [mA]	Max. [mA]				LAC	TLAC	
LAC5/500S	TLAC5/500S	5	0	500	2.5	0.05	0.2	L1	T1	0.875
LAC5/1000S	TLAC5/1000S	5		1000	5	0.05	0.2	L2	T2	1.25
LAC5/2000S	TLAC5/2000S	5		2000	10	0.05	0.2	L3	T3	1.56
LAC12/120S	TLAC12/120S	12		120	1.44	0.1	0.1	L1	T1	0.875
LAC12/200S	TLAC12/200S	12		200	2.4	0.1	0.1	L2	T2	1.25
LAC12/500S	TLAC12/500S	12		500	6	0.1	0.1	L3	T3	1.56
LAC15/120S	TLAC15/120S	15		120	1.8	0.1	0.1	L1	T1	0.875
LAC15/200S	TLAC15/200S	15		200	3	0.1	0.1	L2	T2	1.25
LAC15/500S	TLAC15/500S	15		500	7.5	0.1	0.1	L3	T3	1.56
LAC24/100S	TLAC24/100S	24		100	2.4	0.1	0.1	L1	T1	0.875
LAC24/300S	TLAC24/300S	24		300	7.2	0.1	0.1	L3	T3	1.56

DUAL OUTPUT

Through Hole	Terminal Strip	Output Voltage [±VDC]	Output Current		Output Power [±W]	Line Regulation [%] max	Load Regulation [%] max	Package Reference		Package Height [in]
			Min. [±mA]	Max. [±mA]				LAC	TLAC	
LAC5/200D	TLAC5/200D	5	0	200	1	0.1	0.05	L2	T2	1.25
LAC5/300D	TLAC5/300D	5		300	1.5	0.1	0.05	L3	T3	1.56
LAC12/100D	TLAC12/100D	12		100	1.2	0.1	0.02	L1	T1	0.875
LAC12/300D	TLAC12/300D	12		300	3.6	0.1	0.02	L3	T3	1.56
LAC15/100D	TLAC15/100D	15		100	1.5	0.1	0.02	L1	T1	0.875
LAC15/300D	TLAC15/300D	15		300	4.5	0.1	0.02	L3	T3	1.56
LAC24/100D	TLAC24/100D	24		100	2.4	0.2	0.01	L2	T2	1.25
LAC24/200D	TLAC24/200D	24		200	4.8	0.2	0.01	L3	T3	1.56

Note 2: Dual output loads must be balanced.

TRIPLE OUTPUT

Through Hole	Terminal Strip	Output Voltage [VDC]	Main / Auxiliary					Package Reference		Package Height [in]
			Output Current Min. [mA]	Output Current Max. [mA]	Output Power [W]	Line Regulation [%] max	Load Regulation [%] max	LAC	TLAC	
LAC512A	TLAC512A	5 / ±12	0 / 0	250 / 120	1.25 / 1.44	0.2 / 0.2	0.2 / 0.1	L3	T3	1.56
LAC512B	TLAC512B	5 / ±12		500 / 120	2.5 / 1.44	0.2 / 0.2	0.2 / 0.1	L3	T3	1.56
LAC515A	TLAC515A	5 / ±15		250 / 100	1.25 / 1.5	0.2 / 0.2	0.2 / 0.1	L3	T3	1.56
LAC515B	TLAC515B	5 / ±15		500 / 100	2.5 / 1.5	0.2 / 0.2	0.2 / 0.1	L3	T3	1.56

Note 3: Auxiliary outputs must be balanced.

SPECIFICATIONS (V_{IN} , Full Load, $T_A = +25^\circ\text{C}$, 1 hour warm up unless otherwise specified)**INPUT**

Parameter	Condition	Min.	Typ.	Max.	Units
Input Voltage Range		105	115	125	VAC
Input Frequency		50	60	440	Hz
Input Fuse Recommendation		-	0.5	-	A

OUTPUT

Parameter	Condition	Min.	Typ.	Max.	Units	
Line Regulation		-	-	0.2	±%	
Output Ripple	1MHz bandwidth	-	-	1	mVRMS	
Output Voltage Tolerance	Nominal V_{IN} , Full Load	Triple output models	-	-	0.5	±%
		All other models	-	-	1	

ENVIRONMENTAL

Parameter	Condition	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient without derating	-25	-	+70	°C
Storage Temperature Range	Ambient	-55	-	+85	°C
Temperature Coefficient		-	0.02	-	%/°C
Cooling	Free Air Convection				

GENERAL

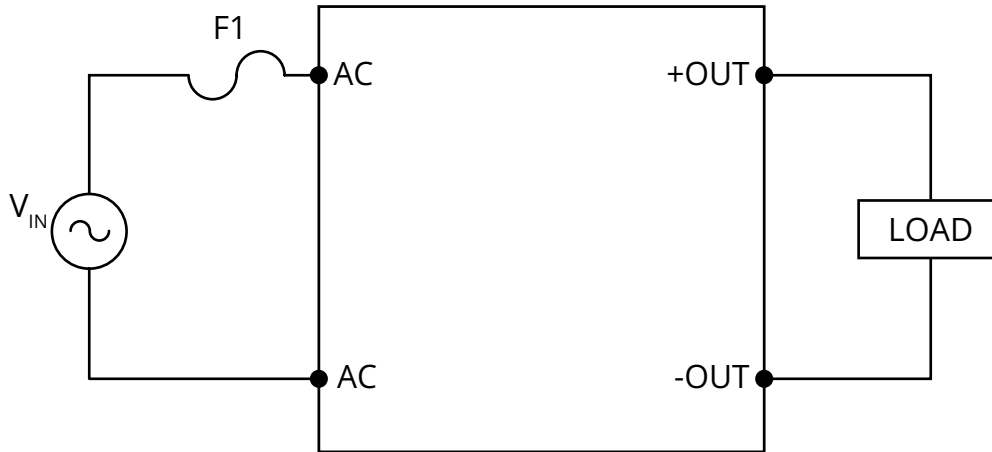
Parameter	Condition	Min.	Typ.	Max.	Units
Operating Frequency		25	-	35	kHz
Insulation Resistance		-	100	-	MΩ
Size (L x W x H)	L1 package	3.5 x 2.5 x 0.875 (88.9 x 63.5 x 22.225)			inches (mm)
	L2 package	3.5 x 2.5 x 1.25 (88.9 x 63.5 x 31.75)			
	L3 package	3.5 x 2.5 x 1.56 (88.9 x 63.5 x 39.624)			
	T1 package	4.1 x 2.5 x 0.875 (104.14 x 63.5 x 22.225)			
	T2 package	4.1 x 2.5 x 1.25 (104.14 x 63.5 x 31.75)			
	T3 package	4.1 x 2.5 x 1.56 (104.14 x 63.5 x 39.624)			
Weight	L1/T1 package	-	340	-	grams
	L2/T2 package	-	490	-	
	L3/T3 package	-	605	-	
Case	Diallyl Phthalate (DAP)				
Potting	Vacuum Impregnated Epoxy				

PROTECTIONS & FEATURES

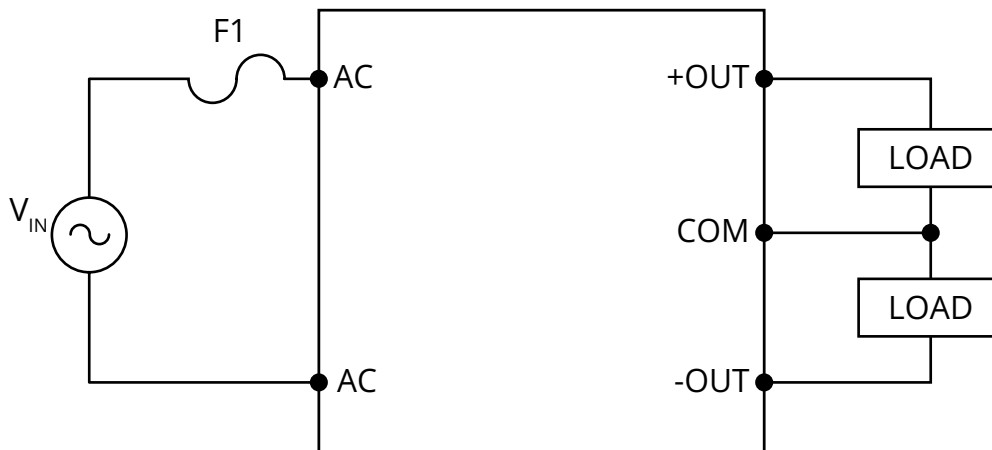
Parameter	Condition	Min.	Typ.	Max.	Units
Short circuit	Continuous, auto-recovery				

TYPICAL CONNECTION CIRCUIT

SINGLE OUTPUT

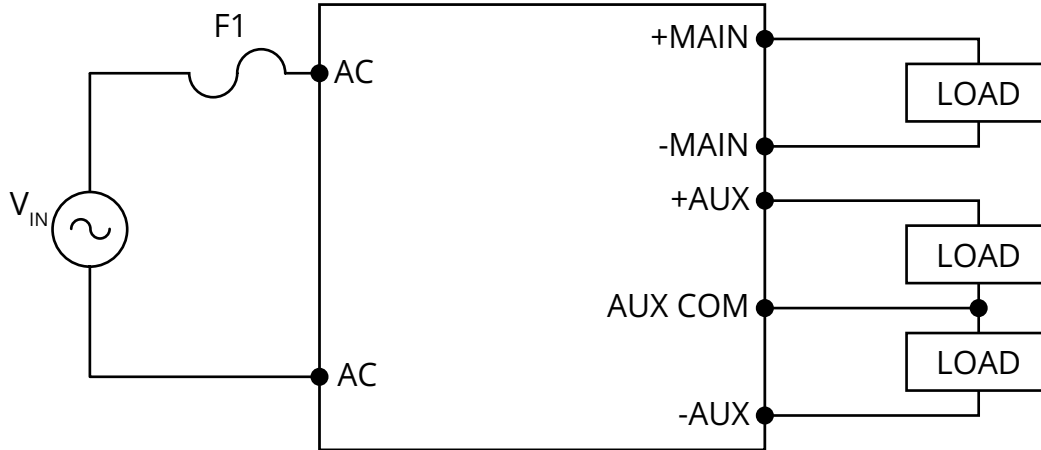


DUAL OUTPUT



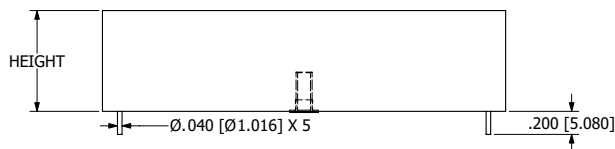
TYPICAL CONNECTION CIRCUIT

TRIPLE OUTPUT

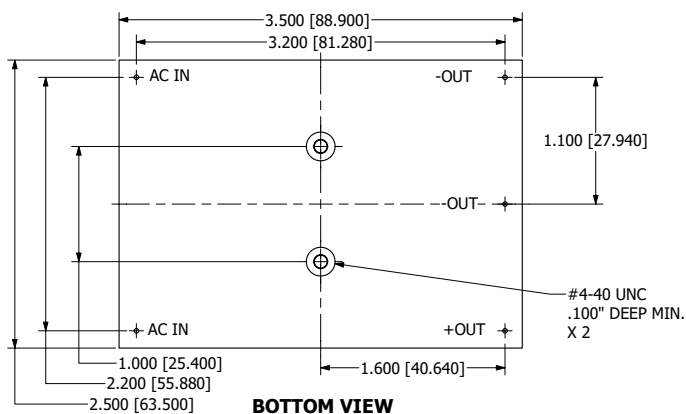


MECHANICAL DRAWINGS

SERIES LAC - SINGLE OUTPUTS



PACKAGE	HEIGHT
L1	.875 [22.225]
L2	1.25 [31.75]
L3	1.56 [39.624]

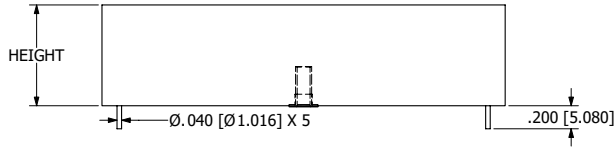


NOTES

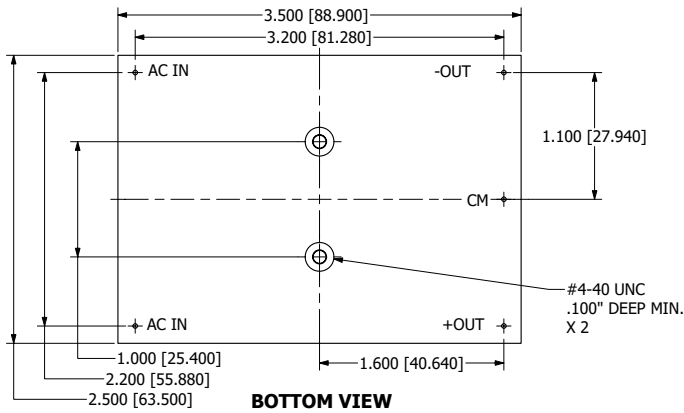
- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. THE RECOMMENDED TORQUE FOR MOUNTING SCREWS IS 3-5 IN-LBS.

MECHANICAL DRAWINGS

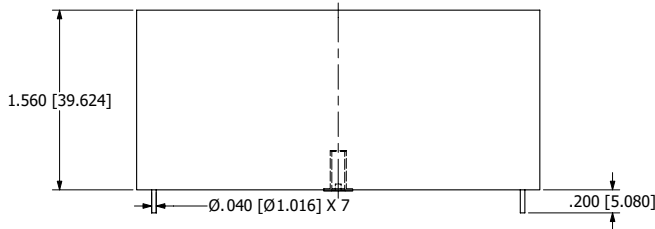
SERIES LAC - DUAL OUTPUTS



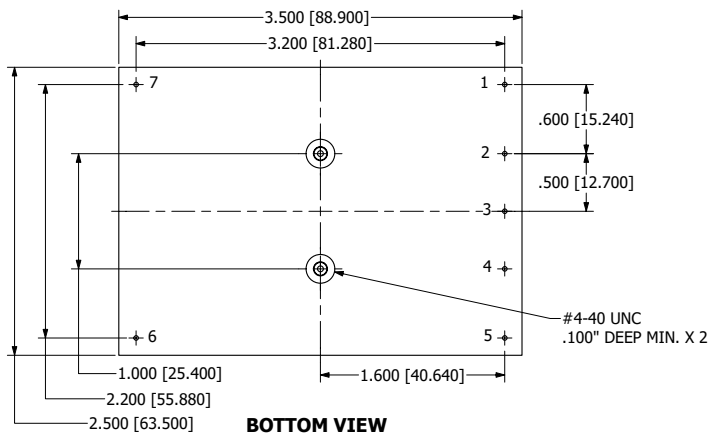
PACKAGE	HEIGHT
L1	.875 [22.225]
L2	1.25 [31.75]
L3	1.56 [39.624]



SERIES LAC - TRIPLE OUTPUTS

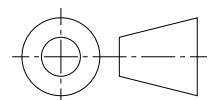


PIN	FUNCTION	PIN DIAMETER
1	-VOUT [AUX]	.040 [1.016]
2	+VOUT [AUX]	.040 [1.016]
3	COM [AUX]	.040 [1.016]
4	+VOUT [MAIN]	.040 [1.016]
5	-VOUT [MAIN]	.040 [1.016]
6	AC IN	.040 [1.016]
7	AC IN	.040 [1.016]



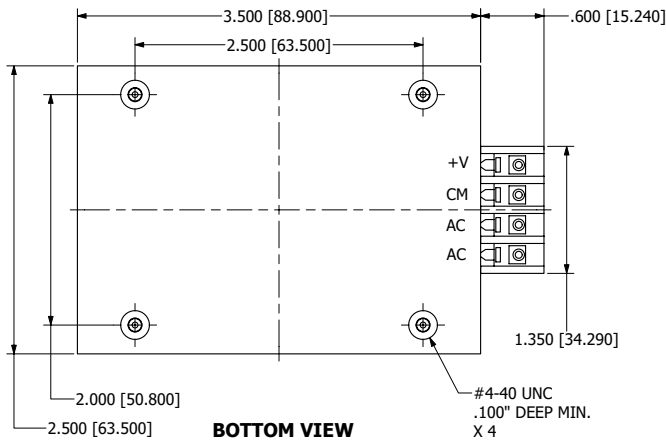
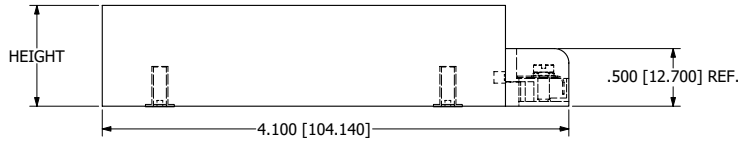
NOTES

- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. THE RECOMMENDED TORQUE FOR MOUNTING SCREWS IS 3-5 IN-LBS.



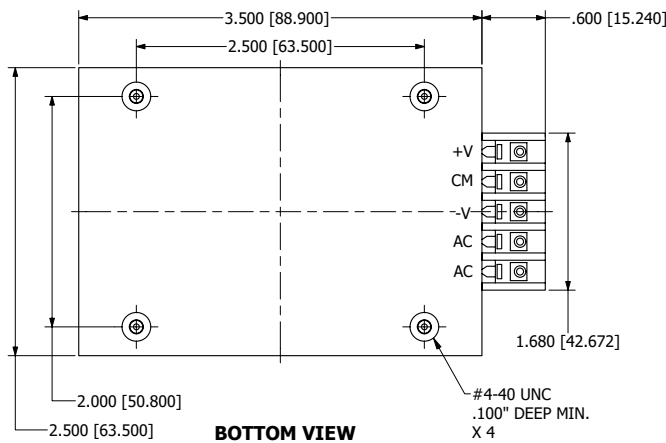
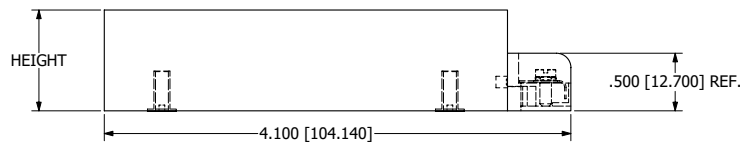
MECHANICAL DRAWINGS

SERIES TLAC - SINGLE OUTPUTS



PACKAGE	HEIGHT
L1	.875 [22.225]
L2	1.25 [31.75]
L3	1.56 [39.624]

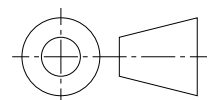
SERIES TLAC - DUAL OUTPUTS



PACKAGE	HEIGHT
L1	.875 [22.225]
L2	1.25 [31.75]
L3	1.56 [39.624]

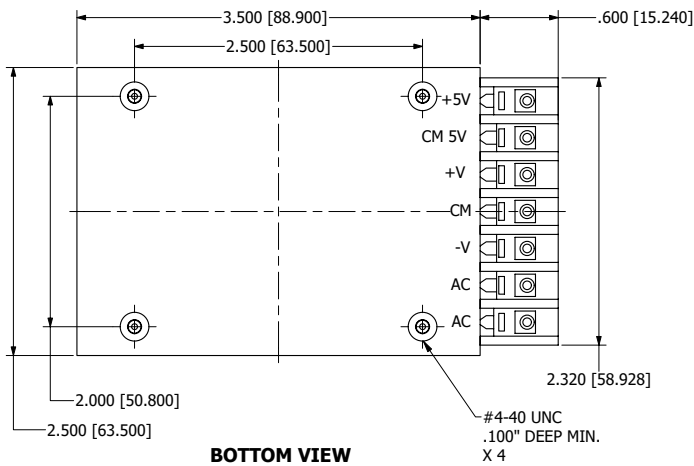
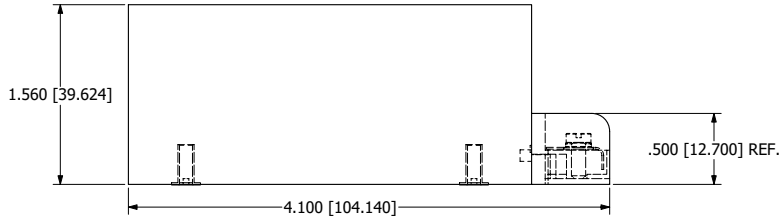
NOTES

- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. THE RECOMMENDED TORQUE FOR MOUNTING SCREWS IS 3-5 IN-LBS.



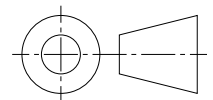
MECHANICAL DRAWINGS

SERIES TLAC - TRIPLE OUTPUTS



NOTES

- a. ALL DIMENSIONS ARE IN INCHES, [] = MM
- b. THE RECOMMENDED TORQUE FOR MOUNTING SCREWS IS 3-5 IN-LBS.



Pico warrants each product manufactured by us and sold by us or an authorized representative, to be free from defects in material and workmanship. If properly used, it will perform within its applicable specifications for a period of one year after original shipment. Pico's obligation under this guarantee is limited to repairing or replacing our product to the original purchaser. This warranty is in lieu of all other warranties, express or implied and constitutes fulfillment of our obligations to the purchaser. We do not guarantee that the products can be used for a particular purpose other than those solely covered by the product's specifications. Pico must be notified if the product must meet particular certifications and/or standards. We assume no liability, in any event, for consequential damages, for anticipated or lost profits, incidental damages or loss of time or other losses incurred by the purchaser or any third party in connection with products covered by this warranty or otherwise. The purchaser will indemnify and hold Pico harmless for any damages, losses, costs, etc. from usage not within the product's specifications. Pico must be consulted before usage of its products in a nuclear, radioactive or space environment.

We reserve the right to discontinue products without notice, We reserve the right to make modifications to any existing catalog products without notice, at any time, without the obligation to modify units previously sold.