

Series 50AC

Regulated 55 Watt AC-DC Switchers

Hi Reliability Hi Efficiency/Isolated
Single, Dual, and Triple Outputs

Typical Characteristics

Test Conditions: 25° C ambient
Input Voltage: 90-130 VAC or 170 - 240 VAC (47-440 Hz)
Line/Load Regulation: See specifications below
Converter Frequency: 40-60 KHz typical
Operating Temperature: -25° C to +70° C ambient
Output Voltage Temperature Coefficient: 0.02% / ° C
Storage Temperature: -55° C to +125° C
Isolation: 1200 VRMS
Short Circuit Protection: Continuous

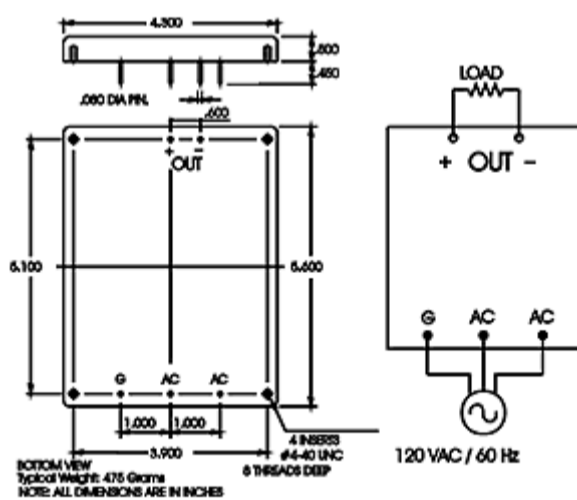
This series of low profile 45-55 Watt AC to DC switchers come in 12 different models. These units offer high efficiency and precise regulation throughout the operating temperature range of -25° C to +70° C ambient, with no heat sink or electrical heating required. The 50AC Series keeps a maximum of 0.500" height while still offering you 1200 volts RMS isolation in a rugged encapsulated case. The convenience of PC mounting and the availability of three outputs should aid your circuit design.

Features

- Low profile 0.500"
- Low weight
- Encapsulated semiconductors, conservatively rated for maximum reliability
- Excellent voltage regulation
- Excellent load regulation
- Up to 55 watts output power at 70° C ambient
- Low output ripple
- Isolation: 1200V RMS
- Single, dual and triple outputs
- No heat sink required
- Miniature size
- No output capacitor required
- Shielding

Low Capacity Option: All units can be manufactured with isolation capacity of 70pF. Contact factory.

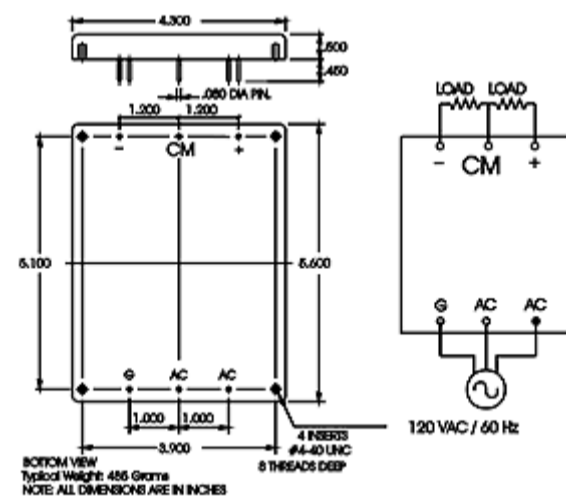
Series 50AC Single Output



NOTE: The recommended torque for mounting screws is 3 to 5 In-Lbs.

[Larger Size Drawing And Schematic \[1\]](#)

Series 50AC Dual Output



NOTE: The recommended torque for mounting screws is 3 to 5 In-Lbs.

[Larger Size Drawing And Schematic \[2\]](#)

Series 50AC Single Output
Input Voltage 90-130VAC (47-440Hz)
(Optional 170-240VAC, 47-440 Hz)***

Pico Part No.	Output Voltage (VDC)	Max. Load Current (mA)	Max. Output Power (watts)	EFF @ Full Load Typical (%)*	Output Voltage Ripple @ Full Ld. 1-1 MHz BW mv p-p	Output Voltage Tolerance (± %)*	V LD. Reg. 10%-100% Load** (± %)*	Line Regulation (± %)*	Price (US \$)
50AC5S	5	9000	45	75	50	1.0	0.75	0.2	452.12
50AC12S	12	4583	55	80	50	0.5	0.30	0.2	452.12
50AC15S	15	3667	55	83	50	0.5	0.30	0.2	452.12
50AC24S	24	2292	55	86	50	0.5	0.30	0.2	452.12
50AC28S	28	1964	55	86	50	0.5	0.30	0.2	452.12

*Readings Taken at 115VAC-60Hz. at full load

**10% minimum load required

*** All units available with 170-240VAC input. Add H prefix to part number - \$40 per unit cost added.

**Series 50AC Dual Output
Input Voltage 90-130VAC (47-440Hz)
(Optional 170-240VAC, 47-440 Hz)*****

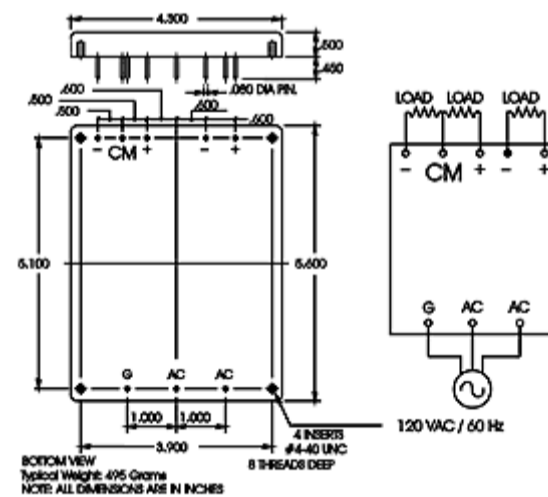
Pico Part No.	Output Voltage (VDC)	Max. Load Current (mA) per output	Max. Output Power (watts) per output	EFF @ Full Load Typical (%)*	Output Voltage Ripple @ Full Ld. 1-1 MHz BW mv p-p	Output Voltage Tolerance (± %)* at full load each output	V LD. Reg. 10%-100% Load** (± %)*	Line Regulation (± %)* at full load each output	Price (US \$)
50AC5D	± 5	4500	22.5	75	50	1.0	0.75	0.2	474.79
50AC12D	± 12	2291	27.5	80	50	0.5	0.3	0.2	474.79
50AC15D	± 15	1833	27.5	83	50	0.5	0.3	0.2	474.79

*Readings Taken at 115VAC-60Hz.

**10% minimum load required

*** All units available with 170-240VAC input. Add H prefix to part number - \$40 per unit cost added.

Series 50AC Triple Output



Options Available per MIL-STD-883:

- Expanded operating temperature (-55° C to +85° C)
- Stabilization Bake: (125° C ambient)
- Temperature Cycle: -55° C. to +125° C
- Hi Temp, Burn in

NOTE: The recommended torque for mounting screws is 3 to 5 In-Lbs.
Larger Size Drawing And Schematic [3]

**Series 50AC Triple Output
Input Voltage 90-130VAC (47-440Hz)
(Optional 170-240VAC, 47-440 Hz)*****

Main Output Voltage	Auxiliary Output Voltage
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Pico Part No.	Output Voltage (VDC)	Max. Load Current (mA) Output	Max. Output Power (watts) Output	V LD. Reg. 25%-100% Load (\pm %)*	Output Voltage Ripple @ Full Ld. 1-1 MHz BW mv p-p	Output Voltage (DC) Per Output	Max. Load Current (mA) Per Output	Max. Output Power (watts) Per Output	Volt. Load Reg. 25%-100% Load** (\pm %)*	Output Ripple @ Full Ld. 1-1 MHz BW mv p-p*	EFF @ Full Load Typical (%)	Price (US \$)
50AC5T12	5	8000	40	0.75	50	\pm 12	208	2.5	1.0	50	75	497.46
50AC5T15	5	8000	40	0.75	50	\pm 15	167	2.5	1.0	50	75	497.46
50AC12T5	12	3750	45	0.25	50	\pm 5	500	2.5	1.0	50	77	497.46
50AC15T5	15	3000	45	0.25	50	\pm 5	500	2.5	1.0	50	79	497.46
	Common Characteristics Main Output Voltage Tolerance \pm 0.5% Main Line Regulation \pm 0.2%					Common Characteristics Auxiliary Output Voltage Tolerance \pm 5% Auxillary Line Regulation \pm 0.2%						
*Measurements Taken at 115VAC-60Hz. **10% minimum load required ***All units available with 170-240VAC input. Add H prefix to part number - \$40 per unit cost added.												

For immediate engineering assistance or to place an order:

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