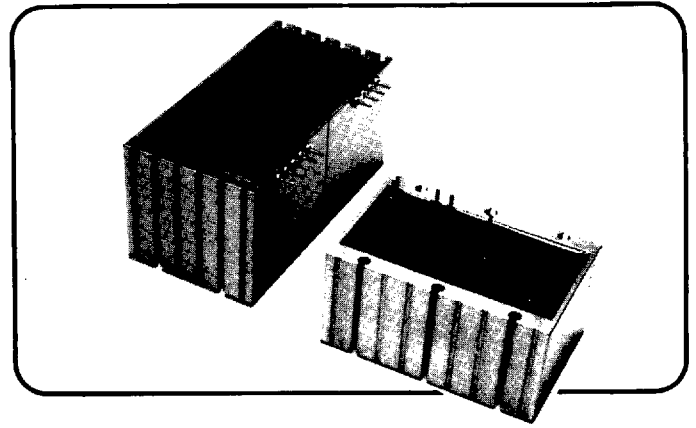


Higher Power ASP Switching Pre-Regulator AC-DC Regulated 300 Watt Converter

Features:

- High Reliability
- Short Circuit Protected
- Turn Off Capability
- MOSFET Switching
- MIL-STD-704A Conditioning
- Designed For MIL Environment



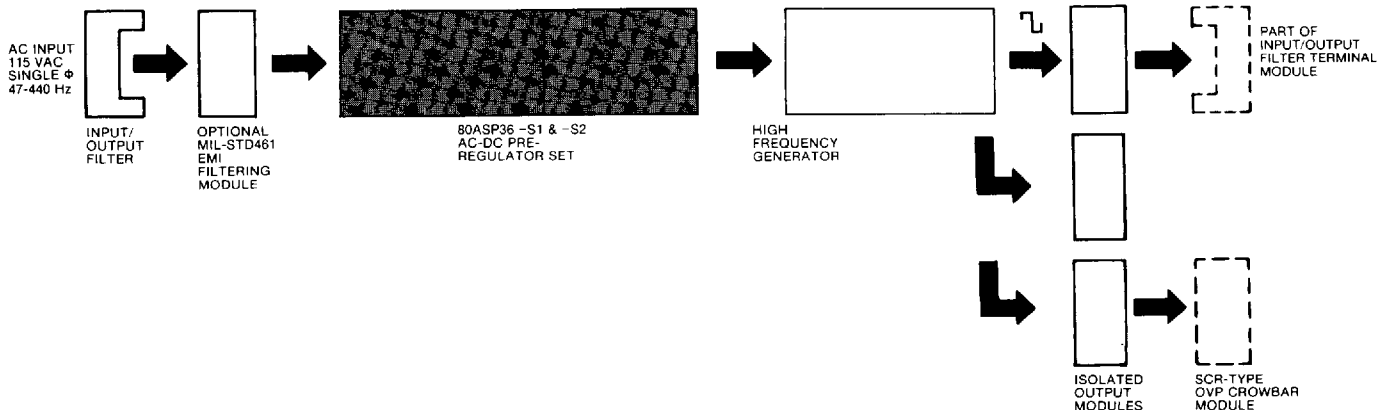
ASP Switching Pre-Regulator

The ASP AC input switching preregulator provides input line conditioning for the DC-AC generator (inverter) modules. It is designed to accept a MIL-STD 704A, 115VAC, single phase, 47-440 Hz input and then to rectify, filter, regulate and provide a non-isolated DC output to the high frequency generator. The ASP input can also accept 110-160 VDC source voltage.

AC/DC conversion and DC regulation are accomplished by using a full-wave rectifier/filter module (-S1) in conjunction

with a DC-DC switching regulator module (-S2) which utilizes a high-efficiency pulse-width modulated switching circuit, and high power MOSFETS.

Small size and high efficiency make this set of modules extremely suitable for the first stage of power conversion in aircraft, shipboard, ground vehicle or ground support applications.



Higher Power ASP Switching Pre-Regulator AC-DC Regulated 300 Watt Converter

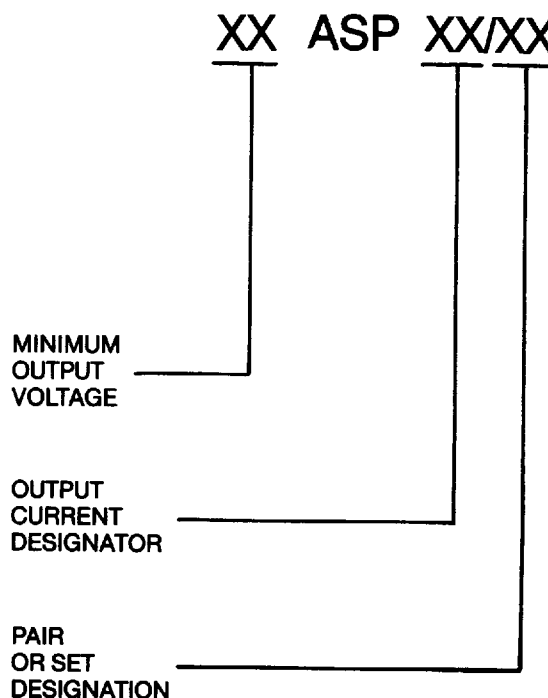
DESIGN INFORMATION

AC Voltage Input Range	Nominal AC Input Voltage Volts RMS	Total Power Delivered Watts	Eff. @ Vin Nom. Full Load	DC Output Voltage All Cond.		Model Number
				Min.	Max.	
95-132	115	300	86%	80	85	80ASP36-S1 & -S2

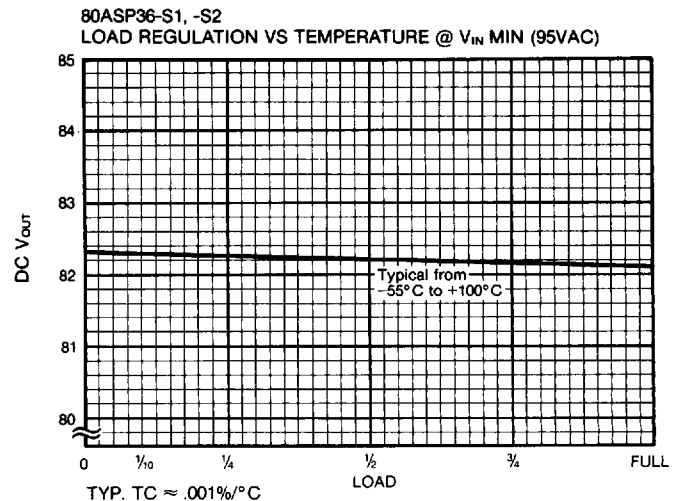
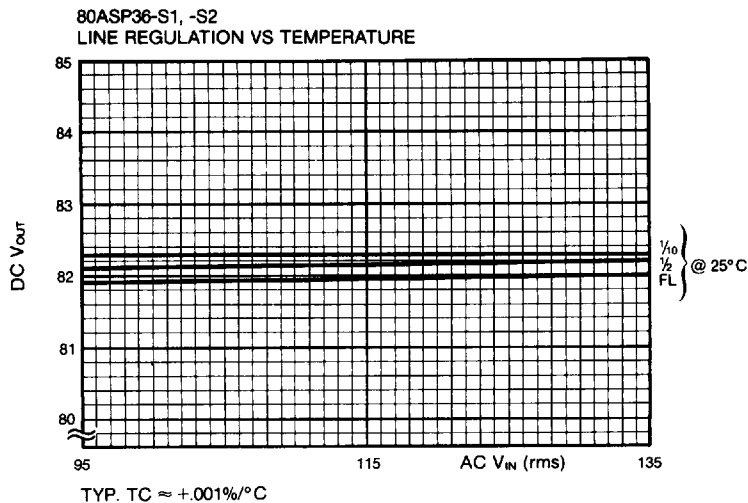
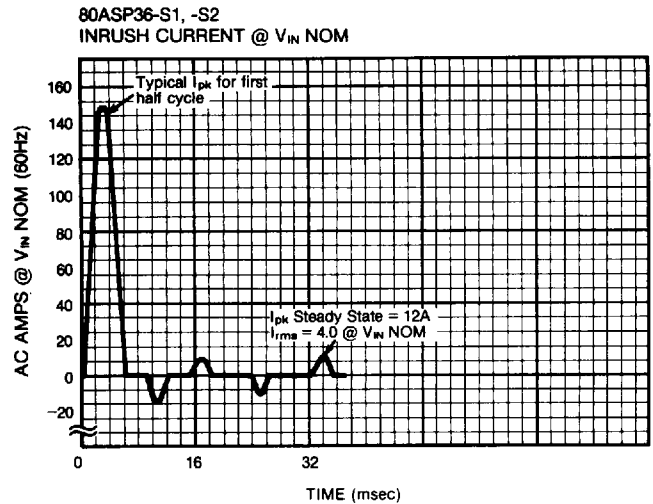
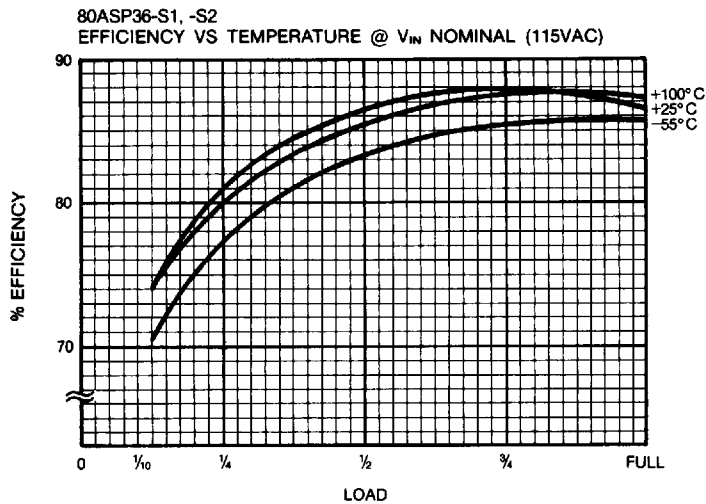
SPECIFICATIONS:

Input:	95-132 VAC, Single phase, 47-440 Hz, (or) 110-160 VDC
Output:	300 W
Rated Load:	3.75 Amps (max.)
Operating Temperature:	- 55 °C to + 100 °C (case)
Storage Temperature:	- 65 °C to + 125 °C
Temperature Coefficient:	0.02%/°C Max.
Power Factor:	.65 Lead (apparent)
Weight:	S1 — 18 OZ MAX, S2 — 12 OZ MAX
Case Finish:	Gold anodize per MIL-A-8625-II Class 2 over aluminum
Terminals:	0.040" diameter solderable per MIL-T-10727
Isolation:	(all terminals to case): S1—1000 VDC allowing 10 μ A leakage Max. S2— 750 VDC allowing 10 μ A leakage Max.
Inrush:	150A (see note 5)

PART NUMBER DESIGNATION



TYPICAL CHARACTERISTICS



APPLICATIONS INFORMATION

To insure optimum performance of the ASP modules, the following applications information is offered.

1. Do not ground either output terminal of an ASP module.
2. Do not exceed rated output power when module is re-trimmed higher, or rated load current when module is re-trimmed to a lower output voltage.
3. Do not increase output voltage more than 5 percent above the rated value. Above this value, a zener diode may conduct.
4. ASP modules have current limiting to protect the active components. Dissipation can increase substantially however, during overload conditions. Therefore, when operating ASP modules with unregulated output modules (TD type), ensure that the ASP modules are not subjected to sustained over-

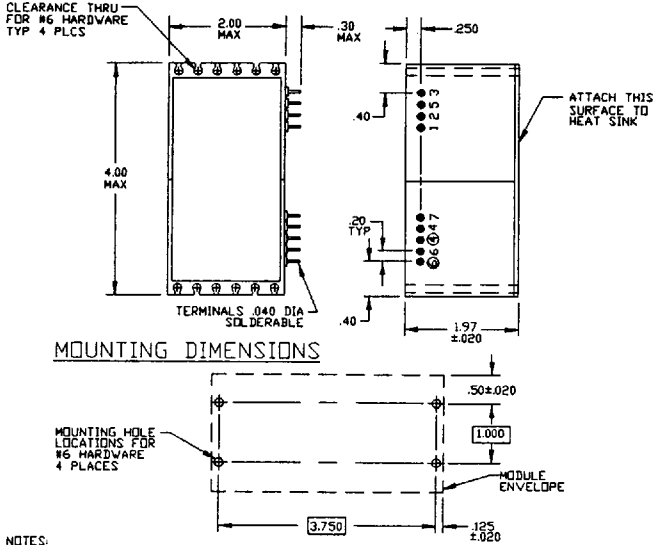
loads or short circuits which are reflected back from the load through the generator module.

MIL-STD COMPLIANCE

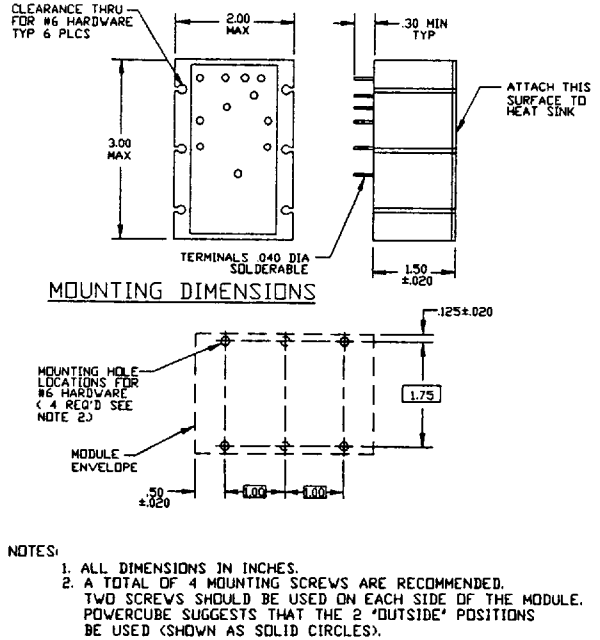
1. Meets environmental conditions of MIL-E-5400.
2. Meets MIL-STD-1399, Types 1 & 2 (except 2500V transient and power factor) assuming nominal is 115VAC.
3. MIL-STD-704A dropout condition can be supported with a maximum of 70 watts output from the input set. (Consult factory)
4. Additional filtering can be designed to meet MIL-STD-461 (Notice 1 and sections specified by the user).
5. Soft start module available to limit inrush to 10A.

Higher Power ASP Switching Pre-Regulator AC-DC Regulated 300 Watt Converter

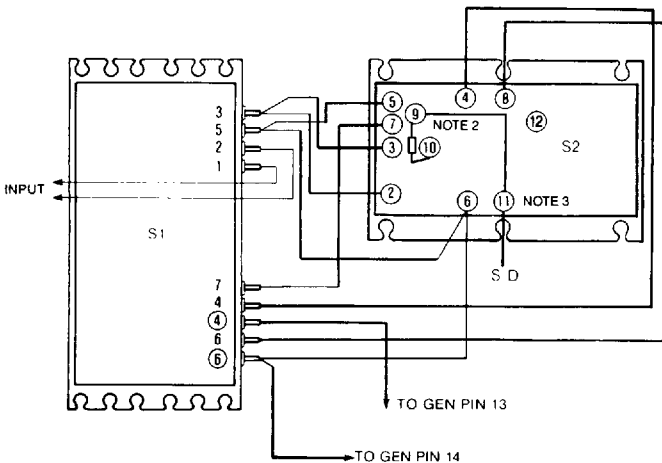
DIMENSIONAL DRAWING -S1



DIMENSIONAL DRAWING -S2



FUNCTIONAL DRAWING



- NOTE
1. USE COAXIAL CABLE FOR SYNC CONNECTIONS IN ORDER TO ELIMINATE NOISE
 2. PIN 9 IS CLOCK COMMON } USED FOR SWITCHER
PIN 10 IS CLOCK SIGNAL } GENERATOR SYNCING
 3. JUMPER FROM S2-9 TO S2-11
USED WHEN REMOTE SHUTDOWN NOT REQUIRED.
 4. TO USE CLOCK AND/OR SHUTDOWN FUNCTION
CONSULT FACTORY

ELECTRICAL SCHEMATIC

