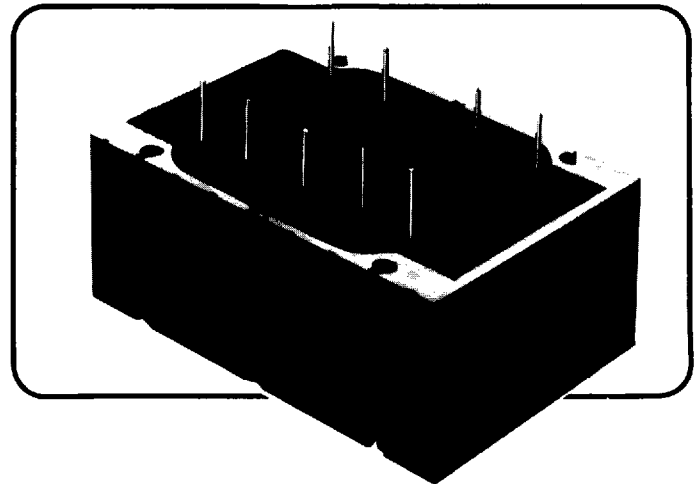


ATDC Series 100 Watt 3 ϕ AC-DC Converter

Features:

- 24 or 36 VDC Output
- 3 ϕ , 400 Hz input
- High power - 100 watt output
- Accepts positive transients of MIL-STD-704A/B.

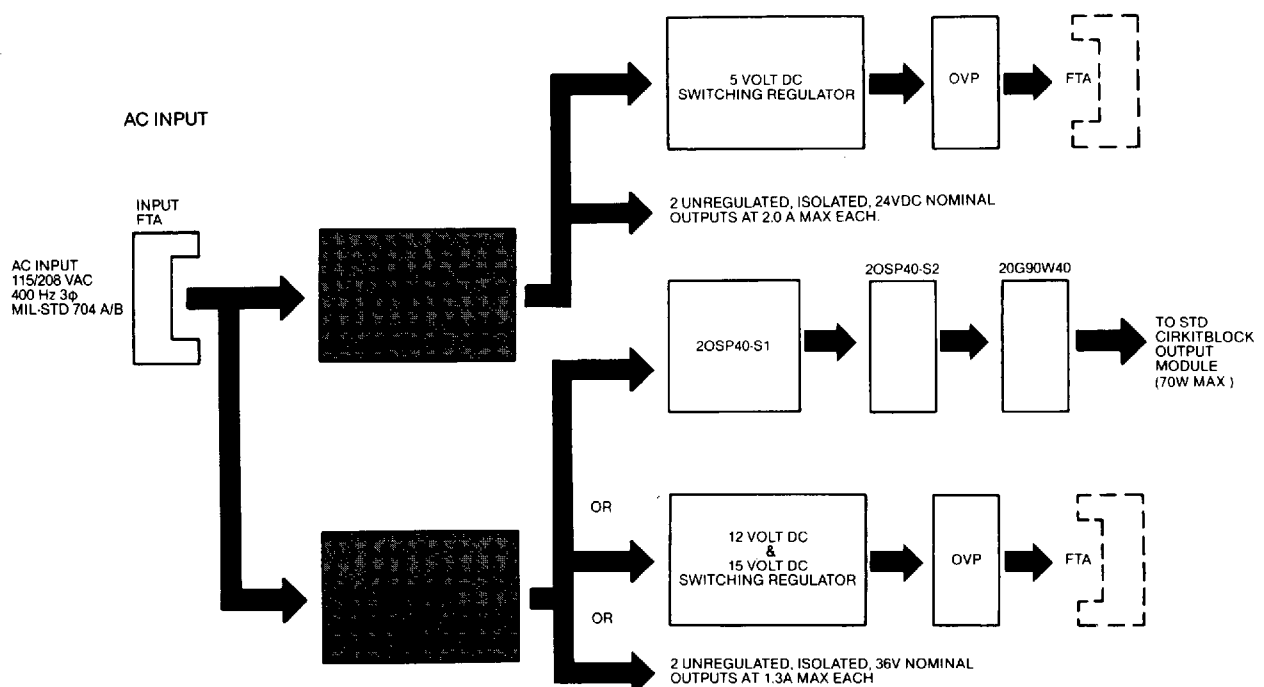


ATDC Series 100 Watt 3 ϕ AC-DC Converter

The ATDC series Cirkitblock® modules are miniature AC-DC converters that accept 3-phase 400 Hz input (115/200 VAC) and convert it to dual isolated DC outputs. These outputs are suitable for driving the standard DC input switching regulators as well as the 20SP40-S1, -S2 switching preregulator. In addition to these functions, the ATDC series will provide unregulated, isolated DC voltage

for such requirements as driving relays, lamps and heaters.

The modules measure 2" x 3" x 1.15" and weigh approximately 14 ounces. The ATDC offers excellent economies in converting standard aircraft 3-phase, 400 Hz primary power to low level DC with conversion efficiencies of 80% or better at rated load and nominal inputs.



ATDC Series

100 Watt 3 ϕ AC-DC Converter

DESIGN INFORMATION

Input Voltage Min. Max. 3 ϕ AC-LL 400Hz	Output Voltage @ Vin Nom NL to Rated Load Min. Max. DC	Output Current (Each Section) (Amperes) Max.	Minimum Efficiency	Model Number
180 220	21.7 28.3	2.0	80%	24ATDC20A
180 220	34.8 44.9	1.3	80%	36ATDC13

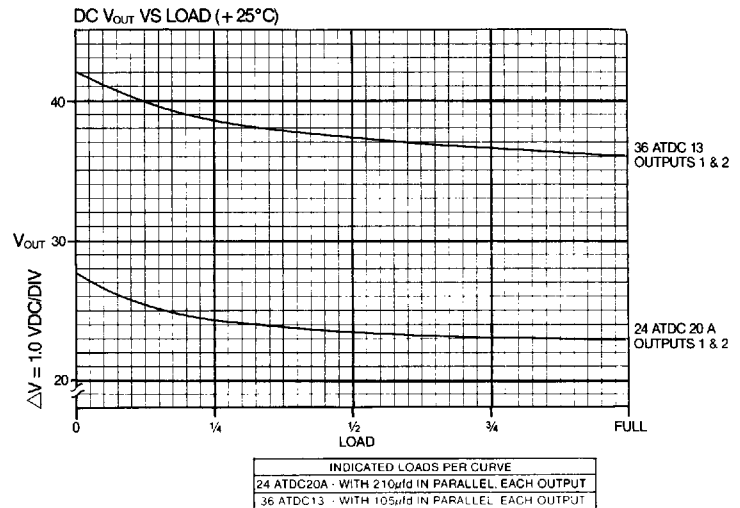
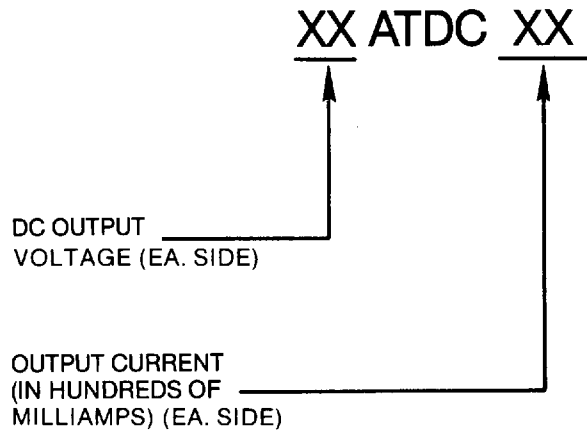
SPECIFICATIONS

24ATDC20A

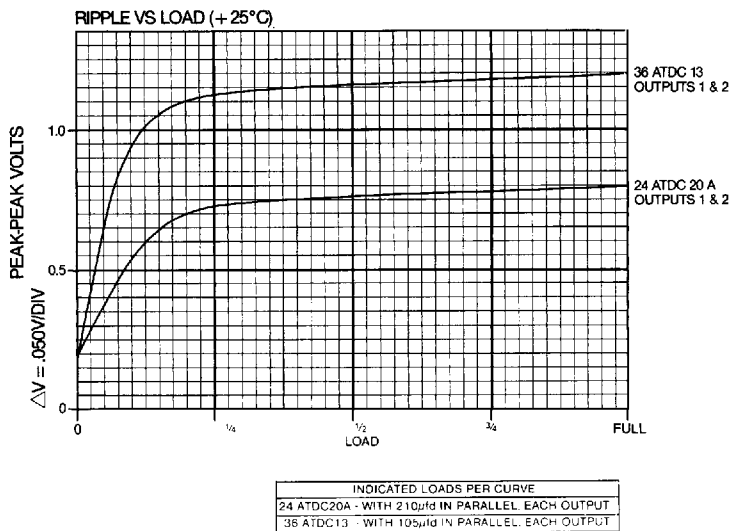
36ATDC13

	Output 1 (F&E) Output 2 (A&J)	Output 1 (F&E) Output 2 (A&J)
Input Voltage:	115/200V rms $\pm$ 10%, 3 ϕ per MIL-STD-704A/B. Nominal input is 200V rms line-to-line, 3 balanced phases, 400 Hz, $\pm$ 10%	115/200V rms $\pm$ 10%, 3 ϕ per MIL-STD-704A/B. Nominal input is 200V rms line-to-line, 3 balanced phases, 400 Hz, $\pm$ 10%
Input Current (AC) at Vin Nom & rated loads, each phase:	415mA rms (Max.)	425mA rms (Max.)
Input Current (AC) at Vin Nom & no load, each phase:	60mA rms (Max.)	60mA rms (Max.)
Phase current unbalance:	33mA rms (Max.)	38mA rms (Max.)
Output Voltage:	24VDC Nominal	36VDC Nominal
Power Factor:	Typically >90%	Typically >90%
Rated Load:	2.0A each side (210 μ fd external) may be paralleled for 4.0A Max.	1.3A each side (105 μ fd external) may be paralleled for 2.6A Max.
Ripple At Vin Nom & Rated load (25°C):	1.2Vp-p (Max.)	1.4Vp-p (Max.)
Operating Temperature:	-55°C to +100°C (case)	-55°C to +100°C (case)
Storage Temperature:	-65°C to +125°C	-65°C to +125°C
Weight:	14 oz. (Max.)	14 oz. (Max.)
Finish:	Anodize per MIL-A-8625-II, Class 2	Anodize per MIL-A-8625-II, Class 2

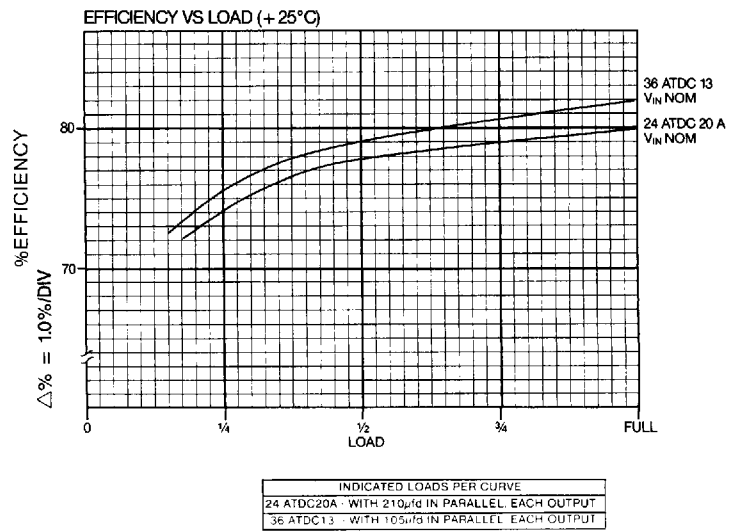
PART NUMBER DESIGNATION



AC V_{IN} NOM = 200V RMS, L-L, 400 Hz, 3 ϕ



AC V_{IN} NOM = 200V RMS, L-L, 400 Hz, 3 ϕ



AC V_{IN} NOM = 200V RMS, L-L, 400 Hz, 3 ϕ

APPLICATIONS INFORMATION

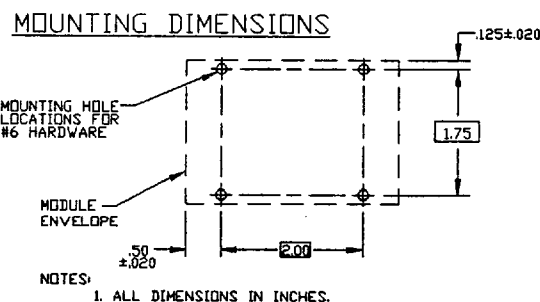
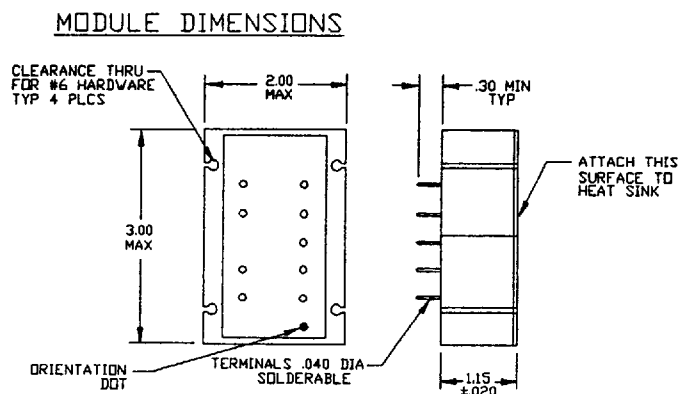
1. Always mount ATDC modules to a grounded heat sink.
2. When using the ATDC modules to drive an RS (or SL) series switching regulator, it is recommended that the 3-phase, 400 Hz input lines be fused, or protected by a three pole circuitbreaker (fuses should be rated at one ampere max). This precaution will protect the ATDC module (and crowbar, if one is used) from damage in the event of a failure in the switching regulator.

3. The dual outputs of a single ATDC module may be connected in parallel without derating. Seek applications assistance when designing to parallel the outputs of more than one ATDC module.
4. Additional filtering may be required in some applications. Consult factory.

ATDC Series

100 Watt 3 ϕ AC-DC Converter

DIMENSIONAL DRAWINGS



ELECTRICAL SCHEMATIC

