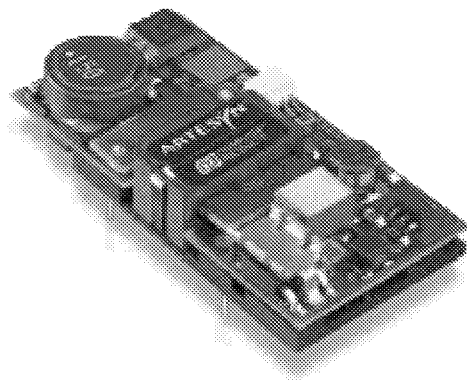


CXA10 SERIES

Single and dual output



- 4:1 input voltage range
- Approved to EN60950, UL1950, CSA C22.2 No. 234/950
- Operating ambient temperature of -40 °C to +70 °C in still air
- High demonstrated reliability with conservative component deratings
- Complies with ETS 300 019-1-3/2-3
- Complies with ETS 300 132-2 input voltage and current requirements
- Fully compliant with ETS 300 386-1
- Pin compatible with NFC10 and BXA10 series
- Basic insulation system (input to output)

The CXA10 series, comprising five different models has been conceived as a cost-effective replacement for relevant BXA10 and NFC10 units. The series is intended for use primarily in the telecommunications and data communication markets and offers a wide input voltage range and is available in both single and dual outputs.

[2 YEAR WARRANTY]

SPECIFICATION

All specifications are typical at nominal input, full load at 25 °C unless otherwise stated

OUTPUT SPECIFICATIONS		MINIMUM	TYPICAL	MAXIMUM
Voltage accuracy	All outputs		±1.0%	±1.5%
Line regulation (Low line to high line)	Singles & dual positives Dual negatives		±0.1% ±0.2%	±0.2% ±0.4%
Load regulation (not incl. cross regulation)	Full load to minimum load		±0.1%	±0.2%
Ripple and noise 20MHz bandwidth	3.3V and 5.0V All others All models		30mV pk-pk 60mV pk-pk 12mV rms	50mV pk-pk 100mV pk-pk 20mV rms
Temperature coefficient			±0.01%/ °C	±0.02%/ °C
Overvoltage protection (clamp type)				See table
Short circuit protection	Singles Duals (single short) Duals (dual short)	Continuous Continuous Continuous	Short <20mΩ Short <20mΩ Short <20mΩ	
Transient response	Minimum load to FL		±1.0%	±2.0%
Load cross regulation (See Note 1)	Minimum load to FL		±5.0%	±7.0%
Minimum load (See Note 5)	All outputs	10%		
INPUT SPECIFICATIONS		MINIMUM	TYPICAL	MAXIMUM
Input voltage range	48Vin nominal	18VDC		75VDC
Input fuse (See Note 11)	1.5A			
Max. input rise and fall time	48V	5V/ms ETS300-132		
UVLO turn ON voltage	All inputs	88%	94%	100%
UVLO turn OFF voltage (See Note 6)	All inputs	77%	86%	94%
Remote ON/OFF (See Note 8) Logic compatibility	CMOS/TTL/Open Collector			
ON	Open circuit			
OFF		0VDC		1VDC

10 Watt DC/DC converters

INPUT VOLTAGE	OUTPUT VOLTAGE	OVERVOLTAGE PROTECTION (1)	OUTPUT CURRENT (MAX.) (10)	TYPICAL EFFICIENCY	MODEL NUMBER (4)
18-75VDC	3.3V	3.9V	2.0A	78%	CXA10-48S3V3
18-75VDC	5.0V	6.8V	2.0A	81%	CXA10-48S05
18-75VDC	12V	16V	0.83A	83%	CXA10-48S12
18-75VDC	±5V	±6.8V	1.0A	81%	CXA10-48D05
18-75VDC	±12V	±16V	0.41A	83%	CXA10-48D12

ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS

ETS 300 386-1 table 5

Conducted emissions	EN55022, See Note 7 EN55022, external filter, VDE0878, 48V models	Level A Level B
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Radiated emissions		
ESD air	EN61000-4-2, level 3	
ESD contact	EN61000-4-2, level 4	
Surge (500V)	EN61000-4-5, level 3,4	
Fast transients	EN61000-4-4, level 3,4	
Radiated immunity	EN61000-4-3, level 3	
Conducted immunity	EN61000-4-6, level 3	

GENERAL SPECIFICATIONS

Efficiency	See table	
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Isolation voltage	Input/output test voltage	1500VDC
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Switching frequency	Fixed	400kHz
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Approvals and standards	See Notes 8, 9,10, 11 and 12	EN60950, UL1950 CSA C22.2 No. 234/950
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Case Material	Open-frame	None
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Material flammability	UL94V-0	
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Weight	12g (0.42 oz)	
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MTBF	MIL-HDBK-217F Parts stress method Ground Benign @ 25 °C Representative model, 48S05 @ 48Vin	456,621 hours
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ENVIRONMENTAL SPECIFICATIONS

Thermal performance	Operating ambient temperature Non-operating	-40 °C to +70 °C, See curves -55 °C to +105 °C
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ETS 300 019-2-3	Classes T3.1 to T3.5	
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Air temperature	Low: IEC 68-2-1 High: IEC 68-2-2 Change: IEC 68-2-1	-40 °C +70 °C -40 °C to +70 °C
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Relative humidity	IEC 68-2-56 IEC 68-2-30	10% to 100% RH Condensation
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Vibration, Class 3M5	IEC68-2-6 MIL-STD-202F	2 to 9 Hz, 3mm disp. 9 to 200Hz 1g Method 204 cond. A
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Shock, Class 3M5	IEC-68-2-29 MIL-STD-202F	Method 213B cond. A
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Notes

- Negative output voltage deviation when positive load is changed.
- Guaranteed minimum output voltage range.
- TVS spec : 6V7 min. @ 10mA, 10V5 @ 57A
3V9 @ 10mA
17.8V @ 10A
- On dual output models, OVP protection is on negative outputs only.
- Below 10% load unit will meet regulation specs., however it may exceed ripple and noise specs.
- With respect to minimum input voltage.
- With one external ITW Paktron 4.7µF film capacitor across the input.
- For units with optional remote ON/OFF, please add the suffix '-S' to the model number, e.g. CXA10-48S05-S. Additional alphanumeric suffixes maybe added to indicate minor modifications not affecting the safety approvals.
- Unit provides basic insulation up to the 75VDC maximum input voltage.
- Maximum continuous output power not to exceed 10 Watts. 6.6 Watts for the 3V3 model.
- User must provide 1.5A in line fuse in order to comply with safety approvals.
- Maximum temperature on components Q100, CR101, CR102 not to exceed 120 °C. See Application Note for details.

Derating Curve
(Output Power %)

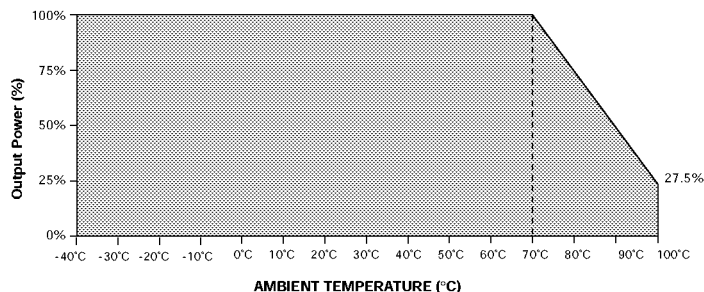


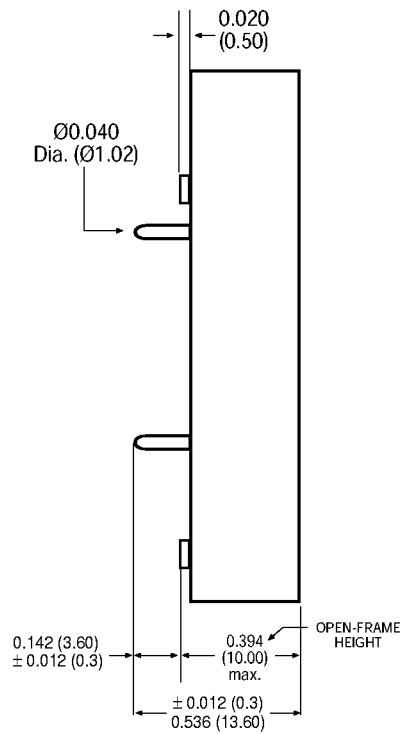
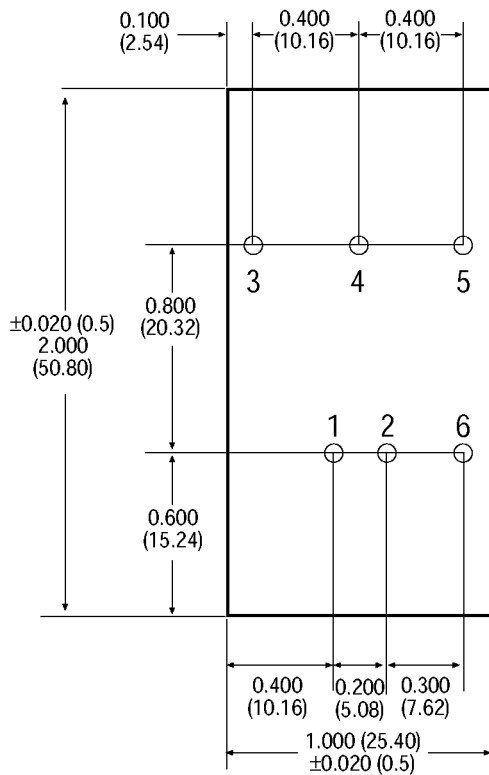
Figure 1: Natural Convection (0.1m/s)
Typical derating - See Application Note

**CAUTION: Hazardous internal voltages and high temperatures.
Ensure that unit is not user accessible.**

10 Watt DC/DC converters

PIN CONNECTIONS		
PIN NUMBER	SINGLE OUTPUT	DUAL OUTPUT
1	+ Input	+ Input
2	- Input	- Input
6 *	Remote ON/OFF	Remote ON/OFF
3	+ Output	+ Output
4	No Pin	Common
5	- Output	- Output

* Optional remote ON/OFF pin. please add the suffix '-S' to the model number, e.g. CXA10-48S05-S. See Note 8.



ALL DIMENSIONS IN INCHES (mm)
Tolerance on all dimensions of ±0.005 (0.127)
Unless otherwise specified