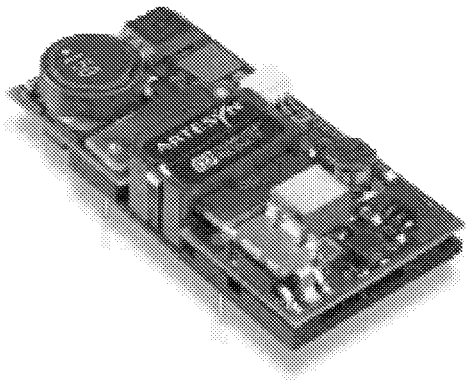
ARTESYN™
TECHNOLOGIES

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 ℃ to +70 ℃ 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 ℃ 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%/ ℃	±0.02%/ ℃
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 UVLO turn OFF voltage (See Note 6)	All inputs All inputs	88% 77%	94% 86%	100% 94%
Remote ON/OFF (See Note 8) Logic compatibility ON OFF	CMOS/TTL/Open Collector Open circuit	 0VDC		 1VDC

10 Watt DC/DC converters

INPUT VOLTAGE	OUTPUT VOLTAGE	OVERVOLTAGE PROTECTION [2]	OUTPUT CURRENT (MAX.) [3][5]	TYPICAL EFFICIENCY	MODEL NUMBER [8]
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
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
Isolation voltage	Input/output test voltage	1500VDC
Switching frequency	Fixed	400kHz
Approvals and standards	See Notes 8, 9,10, 11 and 12	EN60950, UL1950 CSA C22.2 No. 234/950
Case Material	Open-frame	None
Material flammability		UL94V-0
Weight		12g (0.42 oz)
MTBF	MIL-HDBK-217F Parts stress method Ground Benign @ 25 ℃ Representative model, 48S05 @ 48Vin	456,621 hours

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

Notes

1 Negative output voltage deviation when positive load is changed.
2 Guaranteed minimum output voltage range.
3 TVS spec : 6V7 min. @ 10mA, 10V5 @ 57A
3V9 @ 10mA
17.8V @ 10A
4 On dual output models, OVP protection is on negative outputs only.
5 Below 10% load unit will meet regulation specs., however it may exceed ripple and noise specs.
6 With respect to minimum input voltage.
7 With one external ITW Paktron 4.7µF film capacitor across the input.
8 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.
9 Unit provides basic insulation up to the 75VDC maximum input voltage.
10 Maximum continuous output power not to exceed 10 Watts. 6.6 Watts for the 3V3 model.
11 User must provide 1.5A in line fuse in order to comply with safety approvals.
12 Maximum temperature on components Q100, CR101, CR102 not to exceed 120 ℃. See Application Note for details.

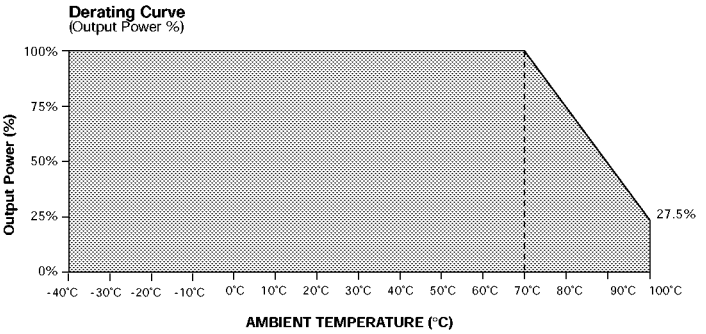


Figure 1: Natural Convection (0.1m/s)
Typical derating - See Application Note

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

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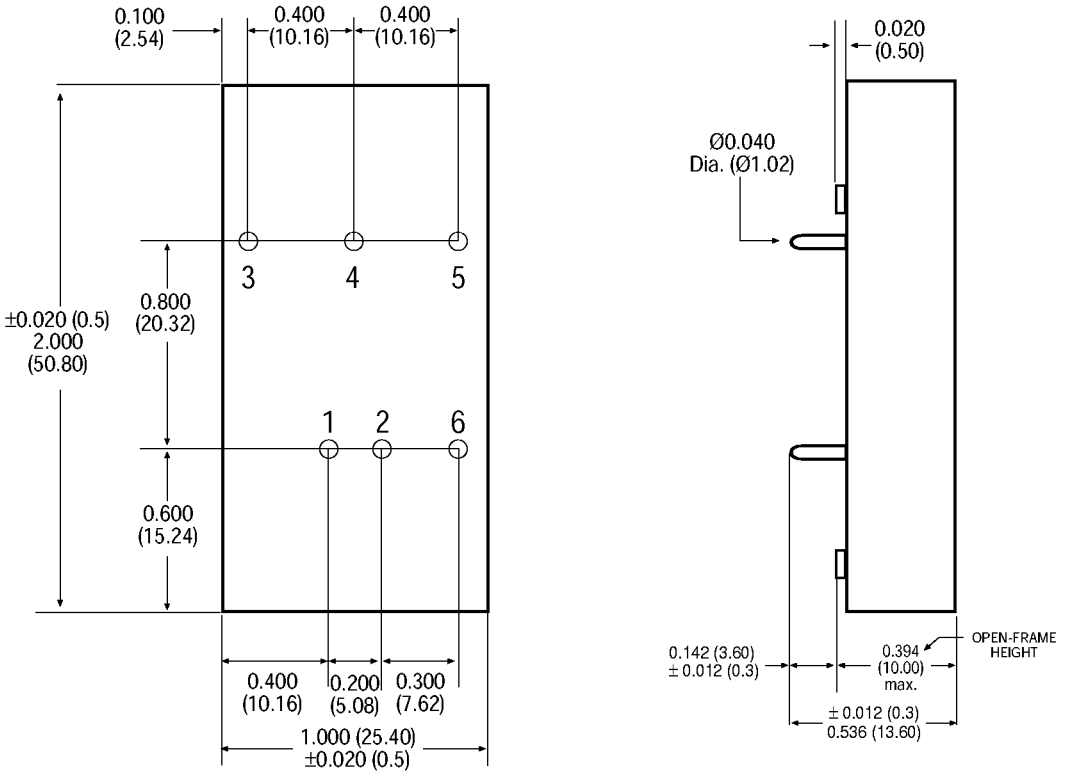
PIN CONNECTIONS		
PIN NUMBER	SINGLE OUTPUT	DUAL OUTPUT
1	+ Input	+ Input
2	– Input	- Input
6 *	Remote ON/OFF	Remote ON/OFF
3	+ Output	+ Output
4	No Pin	Common
5	- Output	- Output

* 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