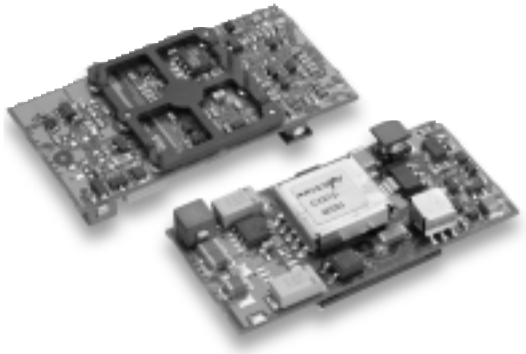
ARTESYN TECHNOLOGIES

CXE15 SERIES

Single output

NEW Product



- **High efficiency topology, 87% typical at 5V**
- **Industry standard footprint**
- **Wide operating temperature, -40˚C to +70˚C (natural convection)**
- **90% to 100% output trim**
- **No minimum load**
- **Overvoltage protection**
- **Remote on/off**

The CXE15 is a new high efficiency open frame isolated 15 Watt converter series in an industry standard footprint. The first four models in the series feature an input voltage range of 33 to 75VDC and are available in output voltages of 5V, 3.3V, 2.5V and 1.8V. The output voltage on each model is adjustable from 90% to 110% of the nominal value. Typical efficiencies for the models are 87% for the 5V, 86% for the 3.3V, 85% for the 2.5V and 83% for the 1.8V version. The CXE15 series also has a remote on/off capability. Overcurrent and overvoltage protection features are included as standard. With full international safety approval (pending) including EN60950 and cUL1950, the CXE15 reduces compliance costs and time to market.

[2 YEAR WARRANTY]

CE (LVD) VDE

SPECIFICATION

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

OUTPUT SPECIFICATIONS		
Voltage adjustability		90% to 100%
Set point accuracy		± 4% max.
Line regulation	Low line to high line	0.3% max.
Load regulation	Full load to min. load	2% max.
Minimum load		0%
Overshoot	At turn-on and turn-off	None
Undershoot		None
Ripple and noise (See Note 1)	5Hz to 20MHz	100mV pk-pk 35mV rms
Transient response (See Note 2)		5.5% max. deviation 400µs recovery to within total error band
INPUT SPECIFICATIONS		
Input voltage range	48Vin nominal	33 to 75VDC
Input current	No load Remote OFF	30mA max. 20mA max.
Input current (max.) (See Note 4)	48V models	0.55A max. @ Io max. and Vin = 33 to 75V
Input reflected ripple	(See Note 6)	5mA (pk-pk) typ.
Active high remote ON/OFF Logic compatibility ON OFF		Open collector ref to -input Open circuit or <12VDC <1.2VDC
Undervoltage lockout	48Vin: power up 48Vin: power down	33V (typ) 30V (typ)
Start-up time (See Note 7)	Power up Remote ON/OFF	1.5ms (typ) 2.5ms (typ)

EMC CHARACTERISTICS		
Conducted emissions	EN55022 (See Note 3) EN55022 (See Note 3)	Level A Level B
Radiated emissions	EN55022 (See App. Note 116)	Level B
Immunity:		
ESD air	EN61000-4-2	8kV (TBD), 15kV (TBD)
ESD contact	EN61000-4-2	6kV (TBD), 8kV (TBD)
Radiated field enclosure	EN61000-4-3	10V/m (TBD)
Conducted (DC power)	EN61000-4-6	10V (TBD)
Conducted (signal)	EN61000-4-6	10V (TBD)
Input transients	ETS 300 132-2, ETR 283	
GENERAL SPECIFICATIONS		
Efficiency		See table
Operational insulation	Input/output	1500VDC
Switching frequency	Fixed	265kHz typ.
Approvals and standards (pending) (See Note 5)		VDE0805, EN60950 IEC950, UL/cUL1950 CSA C22.2 No. 950
Material flammability		UL94V-0
Weight		12g (0.42oz)
MTBF	MIL-HDBK-217F @ 25°C, 100% load ground benign	>TBD hours
ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating ambient temperature Non-operating	-40°C to +70°C -40°C to +120°C

15 Watt
High efficiency DC/DC converters

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OVP	OUTPUT VOLTAGE	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER
							LINE	LOAD	
10.8W	33-75VDC	2.3VDC	1.8V	0A	6A	83%	0.3%	2.0%	CXE15-48S1V8
15W	33-75VDC	3.2VDC	2.5V	0A	6A	85%	0.3%	1.5%	CXE15-48S2V5
15W	33-75VDC	4.0VDC	3.3V	0A	4.5A	86%	0.1%	0.5%	CXE15-48S3V3
15W	33-75VDC	6.0VDC	5.0V	0A	3A	87%	0.1%	0.5%	CXE15-48S05

Notes
1 Measured as per recommended set-up.
2 di/dt = 0.1A/µs, Vin = 48VDC, Tc = 25°C, load change = 0.5 Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
3 The CXE15 meets level A and level B conducted emissions only with external components connected before the input pins to the converter. Full details are given in Application Note 116 on the website.
4 Recommended input fusing is a 2A HRC 200V rated fuse.
5 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
6 Measured with external Pi filter. See Application Note 116 for recommended external filter.
7 Start-up into resistive load.

PROTECTION	
Short circuit protection	Continuous
Overvoltage protection	Non-latching clamp
TELECOM SPECIFICATION	
Central office interface A	ETS300-132-2, input voltage and current requirements

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

Pin Connections

Pin No.	*Function*
1	Vin -
2	Vin+
3	On/Off (Optional)
4	Vout +
5	Trim (Optional)
6	Vout -