

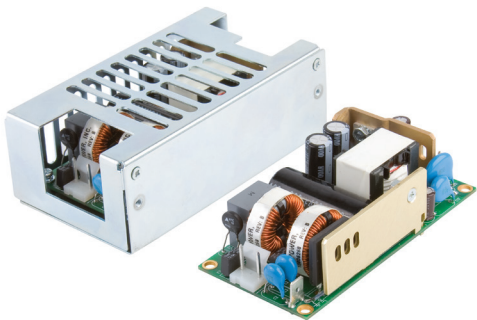
130W Fan cooled

100W Convection cooled

AC-DC power supplies 

Designed for class I or class II applications, the ECS130 can provide 100W convection cooled (70W convection cooled with cover kit fitted) or 130W when fan cooled with >0.283m³/min airflow. It has medical approvals with 2 x MOPP (input to output) and meets IEC/UL/EN62368-1 safety approval for information technology equipment.

The ECS130 is available in two versions, standard as a 101.6 x 50.8mm (4" x 2") open frame with a 32.5mm profile, alternatively, the -C version is supplied with a 114.0 x 64.0 x 39.0mm vented cover kit fitted. With high efficiency, high power density, low leakage currents and medical 2 X MOPP rating, the ECS130 is ideal for medical, industrial electronics and ITE applications requiring a compact, high power density chassis mount power supply.



Features

Applications

Dimensions

101.6 x 50.8 x 32.5mm (4.00" x 2.00" x 1.28")

Documentation

For further information click the link or scan the code

→ [xppower.com](https://www.xppower.com)



- ▶ 130W fan cooled 100W convection cooled
- ▶ 101.6 x 50.8mm (4" x 2") footprint, 32.5mm profile
- ▶ Regulated single outputs 12V to 48VDC
- ▶ Input range 80 to 264VAC
- ▶ Medical & ITE safety approvals
- ▶ Class I & class II construction
- ▶ <0.5W no load input power
- ▶ Low leakage current
- ▶ 3 year warranty

Models & ratings

Model number ⁽²⁾	Output		Output voltage	Output current ⁽¹⁾
	Forced Cooled (10CFM)	Convection-cooled		
ECS130US12	130W	100W	12.0VDC	10.9A
ECS130US15	130W	100W	15.0VDC	8.7A
ECS130US18	130W	100W	18.0VDC	7.3A
ECS130US24	130W	100W	24.0VDC	5.4A
ECS130US28	130W	100W	28.0VDC	4.7A
ECS130US48	130W	100W	48.0VDC	2.7A

Notes:

1. For covered versions, add suffix '-C' to model number or order part no. ECM130 COVER for standalone cover, see derating curve.
The cover is not suitable for Class II installations. '-C'

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Input voltage range	80		264	VAC	<90VAC, see derating curves
Input frequency	47		63	Hz	
Input current		1.9/1.1		A	At 115/230VAC full load
No load input power			<0.5	W	
Inrush current			40	A	At 230VAC, cold start at 25°C
Earth leakage current			260	µA	At 264VAC/60Hz max
Input protection	Internal T3.15A/250V fuse in line and neutral				
Power factor		>0.5			At 230VAC full load

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Efficiency		88		%	
Isolation: Input to output Input to ground Output to ground	4000			VAC	2 x MOPP
	1500			VAC	1 x MOPP
	500			VDC	1 x MOPP
Switching frequency		65		kHz	
Power density			0.79 (13)	W/cm ³ (W/in ³)	
MTBF		715		khrs	MIL-HDBK-217F at 25°C, GB

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Output voltage	12		48	VDC	
Output voltage trim		±10%			
Initial set accuracy			±1	%	
Minimum load	No minimum load required				
Line regulation			±0.5	%	
Load regulation		±1			
Start up delay		1		s	
Start up rise time		50		ms	
Hold up time		16		ms	At 115VAC
Transient response			4	%	Deviation, recovery to within 1% in 500µs for a 50-75-50% load change
Ripple & noise		1		mV pk-pk	20MHz bandwidth
Overvoltage protection	115		140	% Vnom	Recycle input to reset
Overload protection	110		160	%	
Short circuit protection	Continuous trip and restart (hiccup mode)				
Temperature coefficient			0.05	%/°C	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & conditions
Operating temperature	-40		+70	°C	Derate linearly from +50°C at 2.5%/°C to 50% load at +70°C
Storage temperature	-40		+85	°C	
Cooling	Convection and fan cooled				
Humidity	5		95	%RH	Non-condensing
Operating altitude			5000	m	
Vibration	2g rms, 5Hz to 500Hz, 3 axes				

Emissions - EMC

Phenomenon	Standard	Test level	Notes & conditions
Conducted	EN55011/32	Class B	
Radiated	EN55011/32	Class A	Level B suffix '-B' models
Harmonic current	EN61000-3-2	Class A	
Voltage flicker	EN61000-3-3		

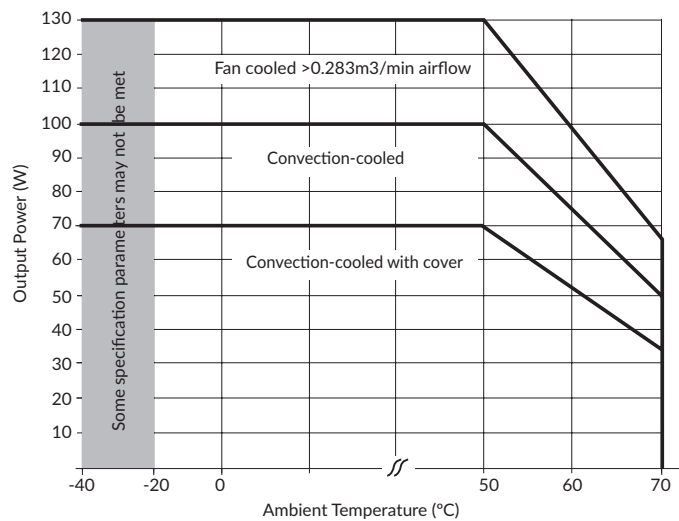
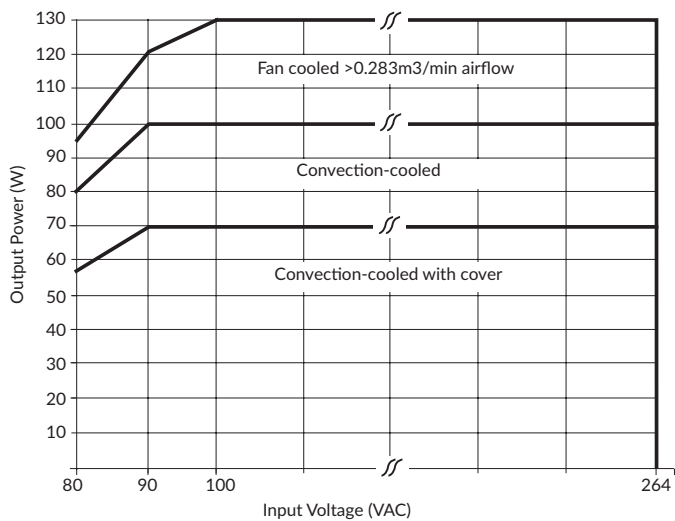
Immunity - EMC

Phenomenon	Standard	Test Level	Criteria	Notes & conditions
ESD immunity	EN61000-4-2	3	A	±6kV contact, ±15kV air discharge
Radiated immunity	EN61000-4-3	3	A	
EFT/burst	EN61000-4-4	3	A	
Surge	EN61000-4-5		A	Installation class 3
Conducted	EN61000-4-6	3	A	
Dips and interruptions	EN61000-4-11	30% for 10ms	A	230VAC
		60% for 100ms	B	
		100% for 5000ms	B	
	EN60601-1-2	30% for 500ms	A	
		60% for 100ms	A	
		100% for 10ms	A	
		100% for 5000ms	B	

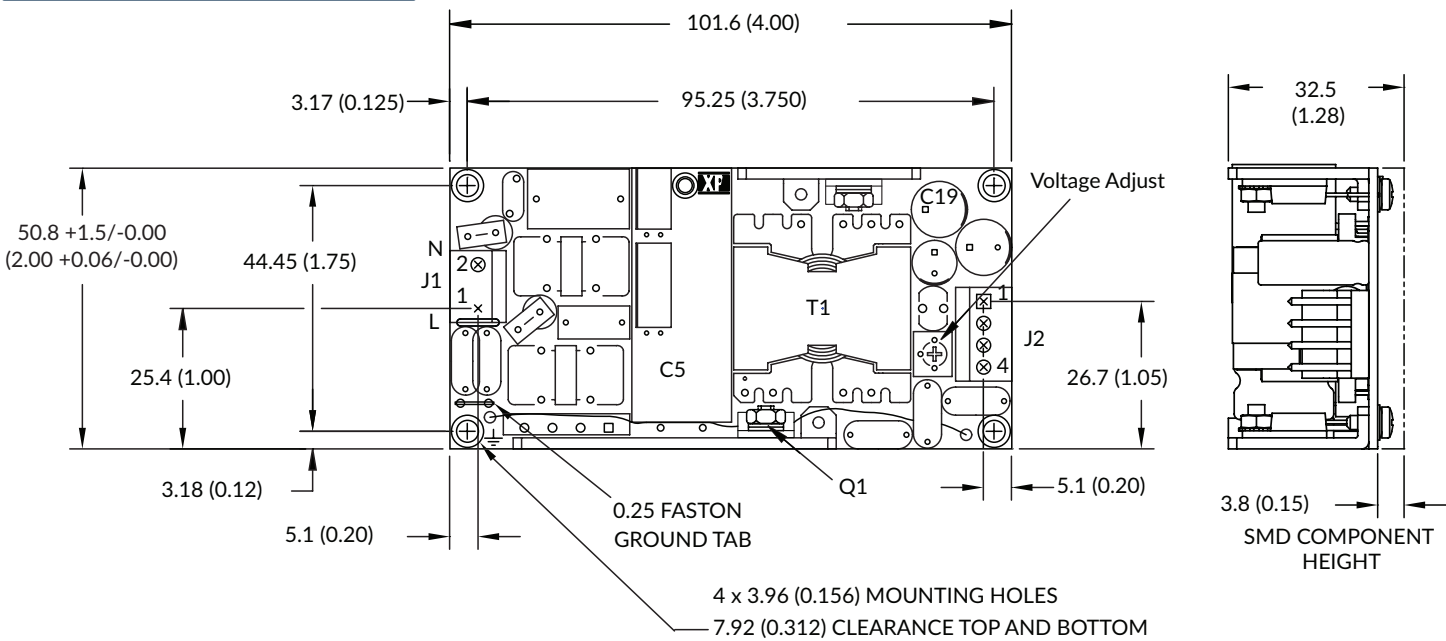
Safety approvals

Certification	Standard	Notes & Conditions
CB	IEC60950-1:2005 Ed 2 / IEC62368-1:2014	
	IEC60601-1 CB report	
UL	UL62368-1 & CAN/CSA C22.2 No. 62368-1-14	
	CSA 22.2 No. 60601-1, ANSI/AMMI ES60601-1	
EN	EN62368-1:2014/A11:2017	
	TUV 60601-1, including risk management	
Equipment protection class	Class I & II	
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

Derating Curve



Mechanical details



Input Connector J1 Molex PN 09-65-2038	
Pin 1	Line
Pin 2	Neutral
0.25" Faston	Earth

J1 mates with Molex Housing PN 09-50-1031,
J2 mates with Molex Housing PN 09-50-1041 and both with Molex Series 5194 Crimp Terminals

Output Connector J2 Molex PN 09-65-2048	
Pin 1	+V1
Pin 2	+V1
Pin 3	RTN
Pin 4	RTN

Notes:

1. All dimensions in mm (inches). Tolerance .xx = 0.50 (±0.02); .xxx = 0.25 (±0.01)
2. Weight:175g (0.386 lbs)