


**SERIES:** ETMA 200W U | **DESCRIPTION:** MEDICAL AC-DC POWER SUPPLY

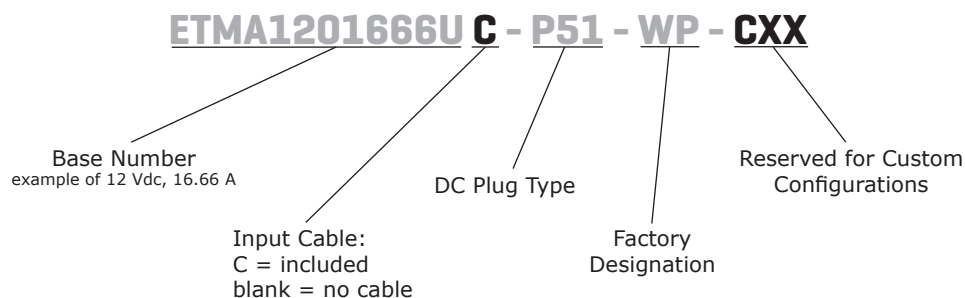
**FEATURES**

- up to 200 W power
- universal input (90~264 Vac)
- single regulated output from 12~48 V
- over voltage, overload and short circuit protections
- medical 60601-1 4th edition safety approvals
- designed for 2 x MOPP applications
- active PFC
- level V efficiency
- custom designs available



MODEL	output voltage	output current max	output power max	ripple <sup>1</sup> max	efficiency level
	(Vdc)	(A)	(W)	(mVp-p)	
ETMA1201666U	12	16.66	200	240	V
ETMA1601250U	16	12.5	200	300	V
ETMA1901053U	19	10.53	200	300	V
ETMA2001000U	20	10	200	300	V
ETMA240833U	24	8.33	200	300	V
ETMA360555U	36	5.55	200	300	V
ETMA480416U	48	4.16	200	300	V

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with 10  $\mu$ F aluminum electrolytic and 0.1  $\mu$ F ceramic capacitors.

**PART NUMBER KEY**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 90 Vac, 60 Hz			3	A
inrush current	at 230 Vac, cold start			150	A
no load power consumption				0.5	W

## OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation			±1		%
load regulation			±5		%
hold-up time	at 115 Vac	16			ms
temperature coefficient			±0.05		%/°C

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	12 V output	110		133	%
	16, 20 V outputs	110		130	%
	19 V output	111		137	%
	24, 36 V outputs	110		125	%
	48 V output	110		120	%
overload protection	shutdown and auto restart	110		160	%
short circuit protection	continuous, auto restart				

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 2 seconds			5,656	Vdc
	input to frame ground for 2 seconds			2,121	Vdc
insulation resistance	input to output, at 500 Vdc	20			MΩ
	input to frame ground, at 500 Vdc	20			MΩ
safety approvals	medical UL/cUL (UL 60601-1), EN 60601-1, IEC 60601-1 4th edition				
EMI/EMC	FCC 47 CFR Part 18, CE, EN 61000-3-(2, 3), EN 55011, IEC 61000-4-(2, 3, 4, 5, 6, 8, 11)				
leakage current	earth, at 264 Vac		190	300	μA
	enclosure, at 264 Vac		10	100	μA
MTBF	at 25°C, max. load	140,000			hours
RoHS compliant	yes				

## ENVIRONMENTAL

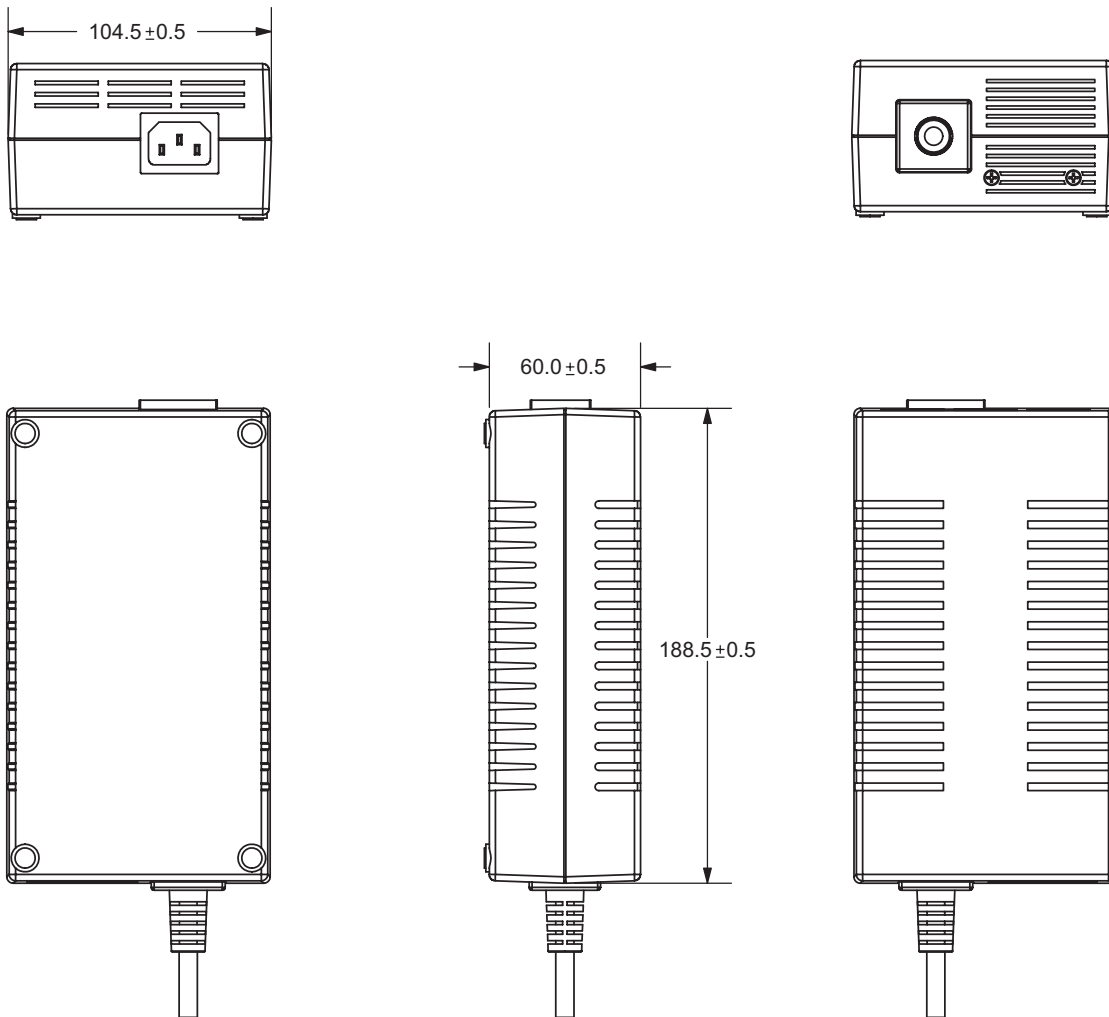
parameter	conditions/description	min	typ	max	units
operating temperature		0		50	°C
storage temperature		-10		70	°C
humidity	non-condensing	20		90	%

## MECHANICAL

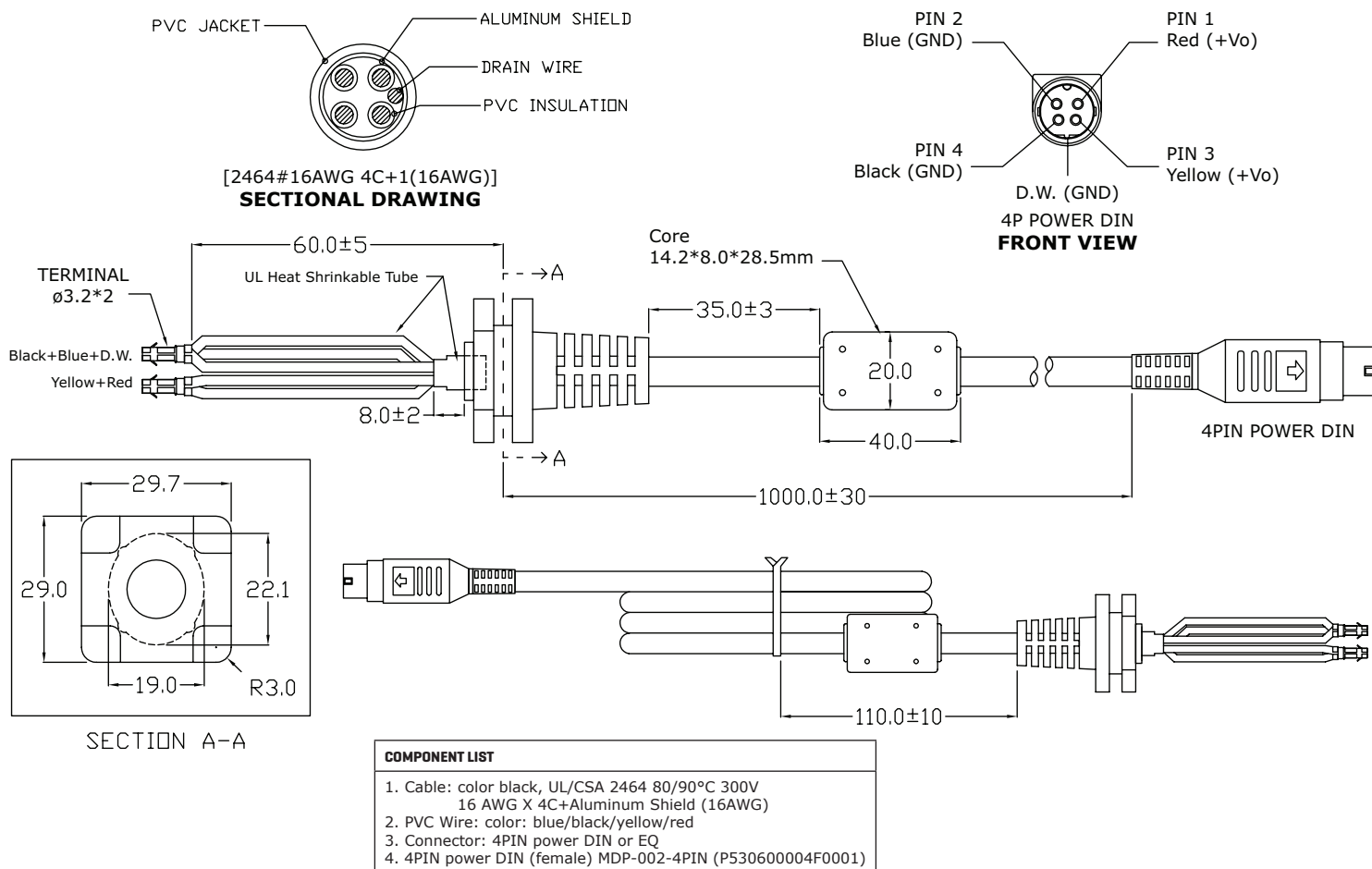
parameter	conditions/description	min	typ	max	units
dimensions	7.42 x 4.11 x 2.36 (188.5 x 104.5 x 60 mm)				inch
input plug	IEC320 / C14				
weight			1.06		kg

## MECHANICAL DRAWING

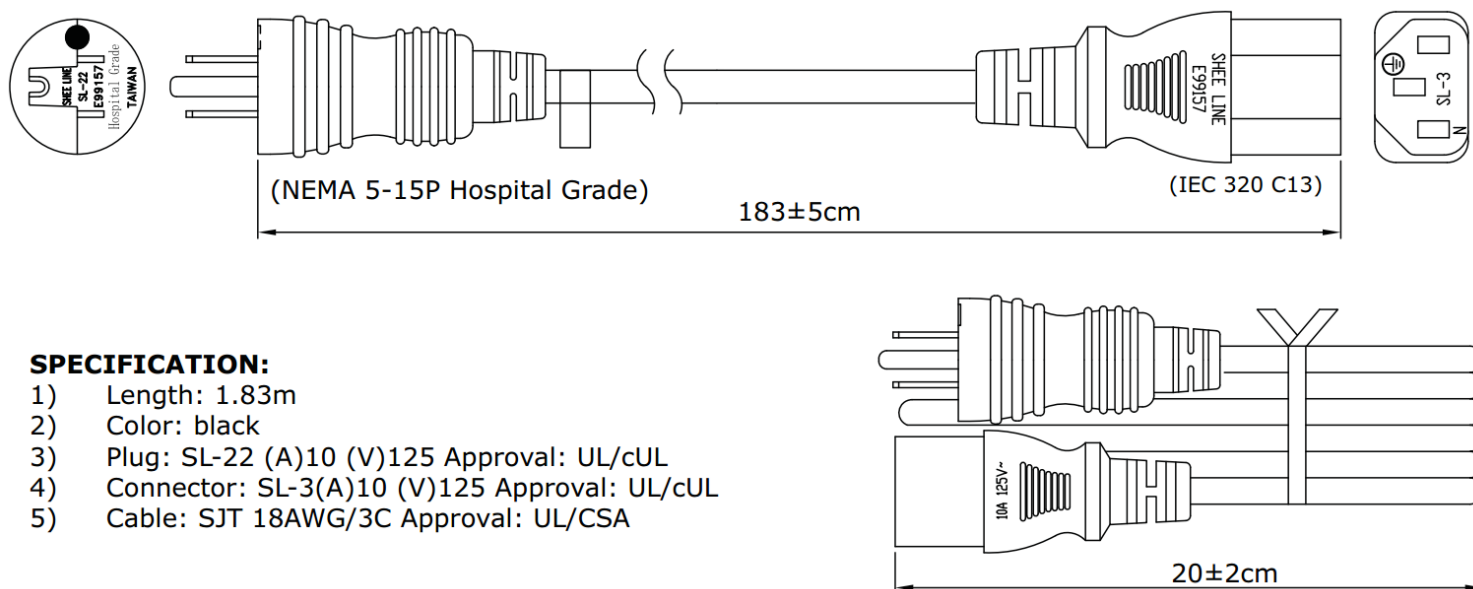
units: mm



## DC CORD



## AC CORD



## REVISION HISTORY

rev.	description	date
1.0	initial release	03/05/2012
1.01	V-Infinity branding removed, safety and EMI/EMC data updated	08/13/2012
1.02	replaced TUV approval with Nemko	09/04/2013
1.03	updated to medical 60601-1 4th edition	06/20/2017

The revision history provided is for informational purposes only and is believed to be accurate.



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This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.