CUI INC®

SERIES: ETMA 250W U | **DESCRIPTION:** MEDICAL AC-DC POWER SUPPLY

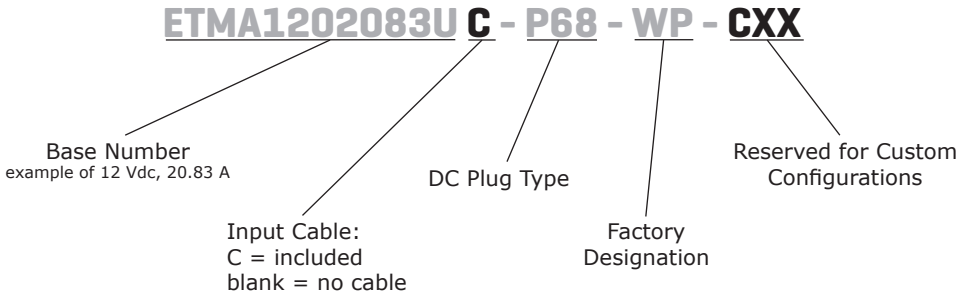
FEATURES

- up to 250 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 (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
ETMA1202083U	12	20.83	250	240	V
ETMA1601563U	16	15.63	250	300	V
ETMA1901316U	19	13.16	250	300	V
ETMA2001250U	20	12.5	250	300	V
ETMA2401042U	24	10.42	250	300	V
ETMA360694U	36	6.94	250	300	V
ETMA480521U	48	5.21	250	300	V

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with 10 µF aluminum electrolytic and 0.1 µF 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			3.5	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				
over voltage protection	12 V output 16 V output 19 V output 20 V output 24, 36 V outputs 48 V output	110 110 111 118 110 110		133 130 137 130 125 120	% % % % % %
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 input to frame ground for 2 seconds			4,242 2,121	Vdc Vdc
insulation resistance	input to output, at 500 Vdc input to frame ground, at 500 Vdc	20 20			MΩ MΩ
safety approvals	medical UL/cUL UL 60601-1, TUV EN 60601-1, CB IEC 60601-1 4th edition				
EMI/EMC	FCC Part 18 Class B, EN 60601-1, EN 55011				
MTBF	at 25°C, max. load	140,000			hours
RoHS compliant	yes				

ENVIRONMENTAL

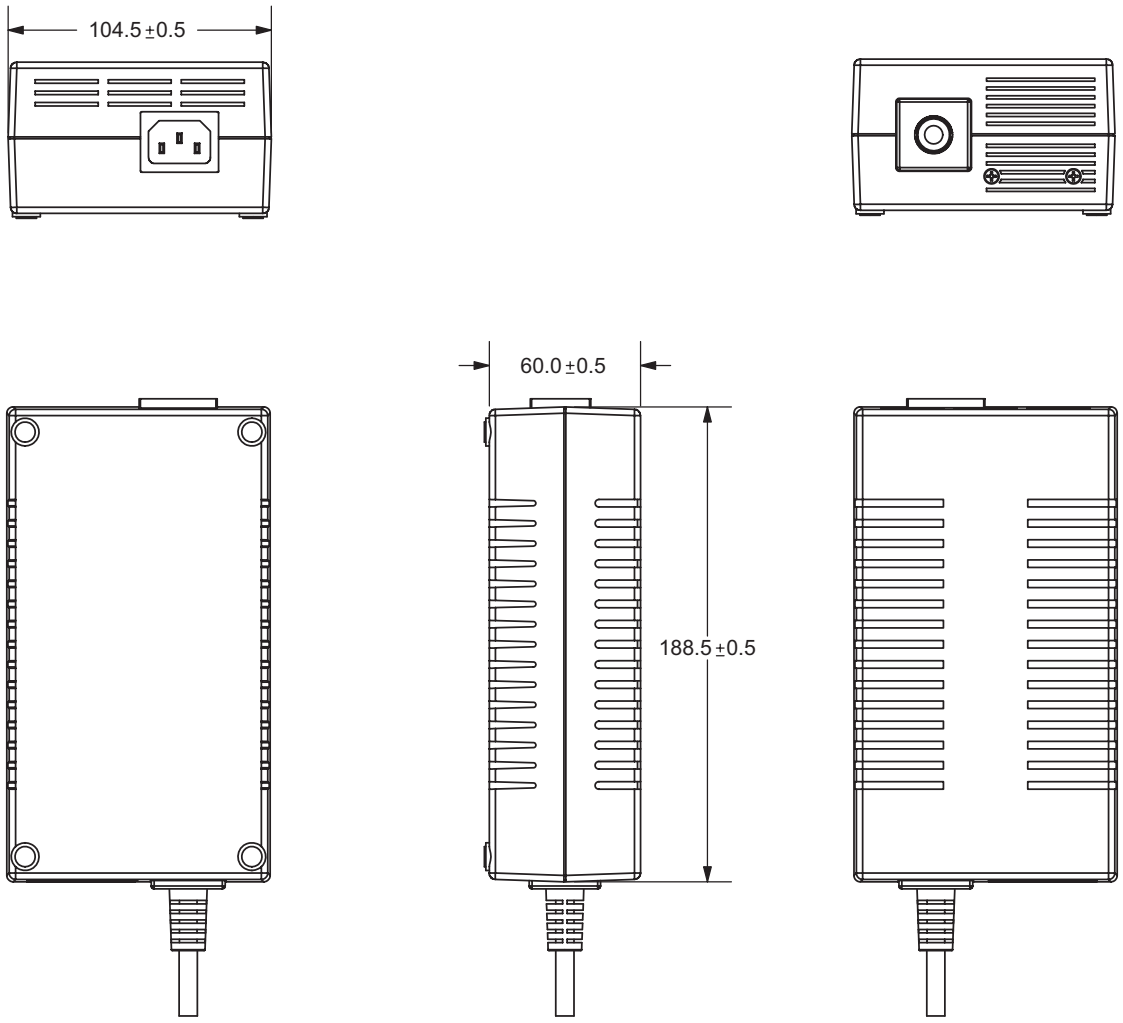
parameter	conditions/description	min	typ	max	units
operating temperature		0		50	°C
storage temperature		-10		70	°C
humidity	non-condensing	20		90	%

MECHANICAL

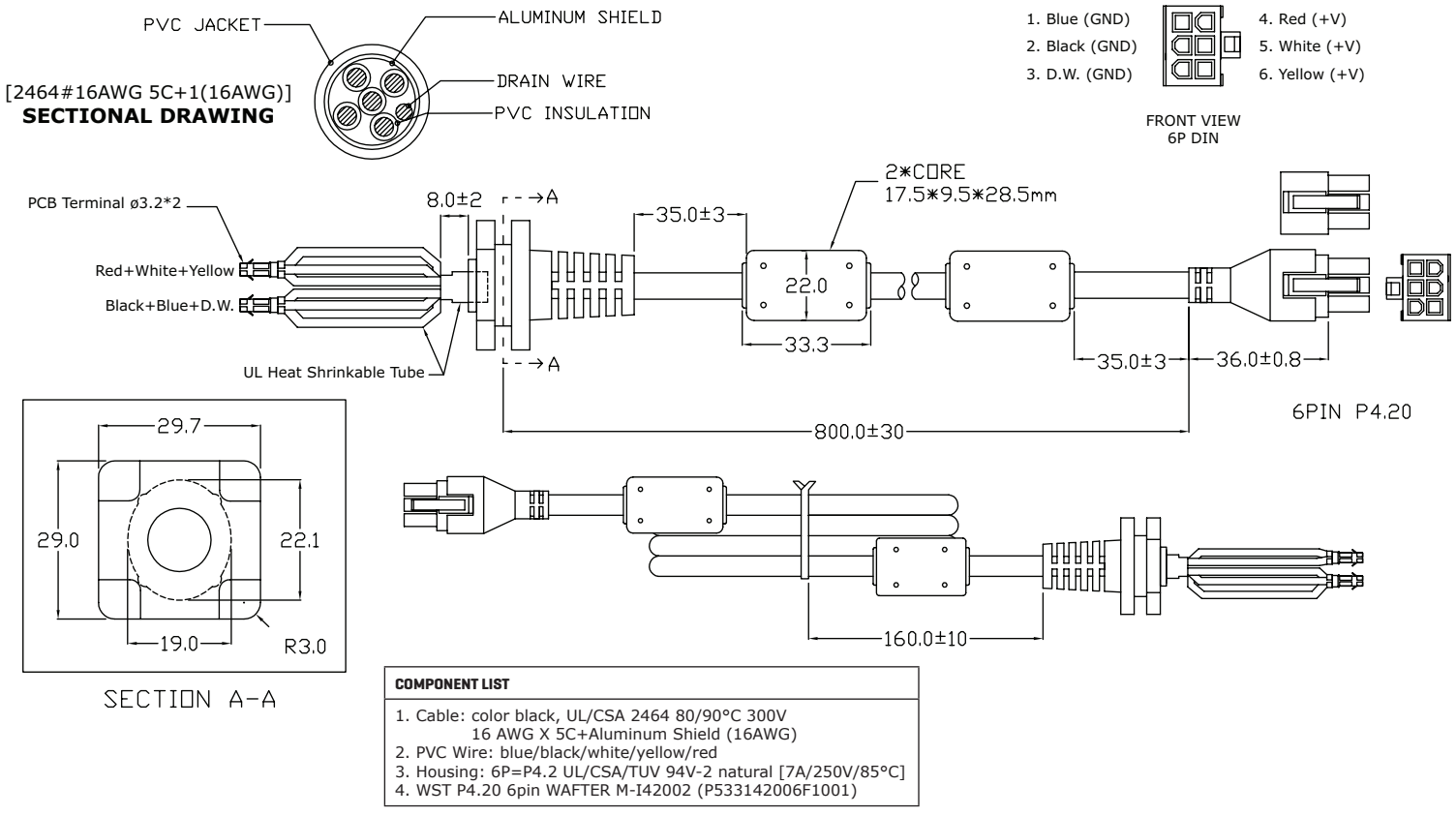
parameter	conditions/description	min	typ	max	units
dimensions	7.42 x 4.11 x 2.36 (188.5 x 104.5 x 60 mm)				inch
weight			1.06		kg
input plug	IEC320 / C14				

MECHANICAL DRAWING

units: mm

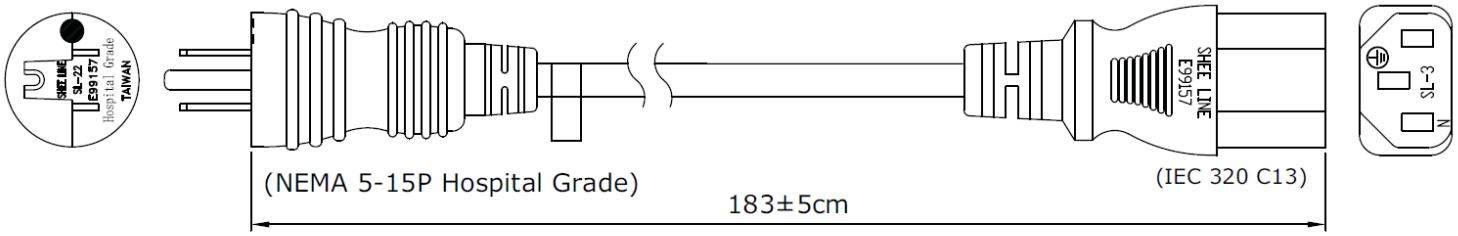


DC CORD



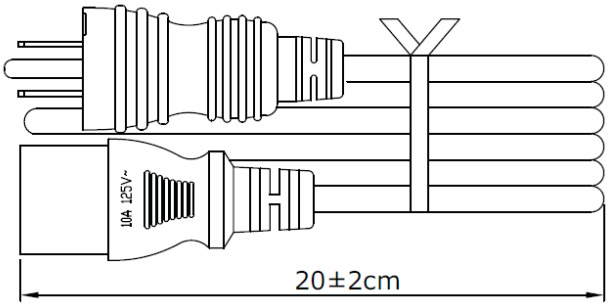
COMPONENT LIST
1. Cable: color black, UL/CSA 2464 80/90°C 300V 16 AWG X 5C+Aluminum Shield (16AWG)
2. PVC Wire: blue/black/white/yellow/red
3. Housing: 6P=P4.2 UL/CSA/TUV 94V-2 natural [7A/250V/85°C]
4. WST P4.20 6pin WAFTER M-I42002 (P533142006F1001)

AC CORD



SPECIFICATION:

1) Length: 1.83m
2) Color: black
3) Plug: SL-22 (A)10 (V)125 Approval: UL/cUL
4) Connector: SL-3(A)10 (V)125 Approval: UL/cUL
5) Cable: SJT 18AWG/3C Approval: UL/CSA



REVISION HISTORY

rev.	description	date
1.0	initial release	03/05/2012
1.01	updated dc cord drawing	06/05/2012
1.02	description and warranty updated	08/21/2012
1.03	replaced TUV approval with Nemko	09/04/2013
1.04	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.

LifeElectronics
Живое партнерство

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- *Приемлемые сроки поставки, возможна ускоренная поставка.*
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- *Комплексную поставку.*
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- *Тестирование поставляемой продукции.*
- *Поставку компонентов, требующих военную и космическую приемку.*
- *Входной контроль качества.*
- *Наличие сертификата ISO.*

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

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- *Регистрацию проекта у производителя компонентов.*
- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

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