PO Box 177 ● 1601 Fredrikstad NORWAY ● sales@mascot.no ● www.mascot.no

Model 3823

16 W max out • 90-264 VAC input

- Universal input voltage (90-264VAC)
- Fixed output voltages
- 2-pin IEC 60320 C8 connector
- Short circuit proof
- ECO-design compliance:

  CoC Tier 2, DoE level VI, CEC, MEPS

- Approvals:

  - Medically certified
    Safety: EN 60601-1 ed. 3.1
    EMC: EN 60601-1-2 ed. 4
  - UL approved

- Custom specifications on request:

  Output voltage, connectors, cords, logo print, housing/open frame/IP rating and certificates. For more information: custom design info sheet

Available versions

5V / 2,4A | 6V / 2A | 7,5V / 1,6A | 9V / 1,33A | 12V / 1,33A | 15V / 1,06A | 18V / 0,88A | 24V / 0,66A

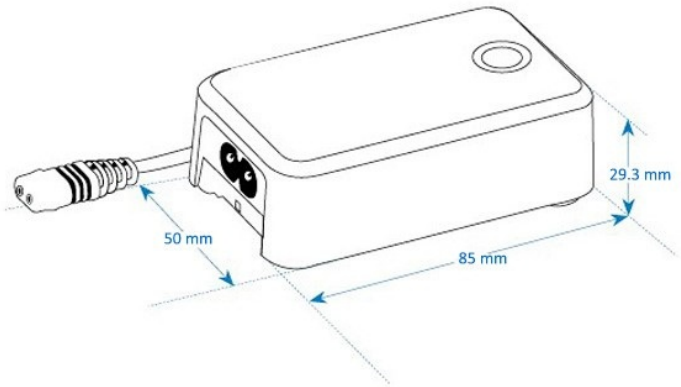
Notes:
Plug-in/desktop unit
90-264V
Exchangeable AC and DC plugs available
Order plugs and mains cord separately

SPECIFICATIONS FOR TYPE 3823:		5V	6V	7.5V	9V	12V	15V	18V	24V
Input voltage and current:		90 - 264VA 0.3A Max	90 - 264VA 0.3A Max	90 - 264VA 0.3A Max	90 - 264VA 0.3A Max	90 - 264VA 0.4A Max	90 - 264VA 0.4A Max	90 - 264VA 0.4A Max	90 - 264VA 0.4A Max
Line frequency:		47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz
Output voltage:		5V ± 5.0%	6V ± 5.0%	7.5V ± 5.0%	9V ± 5.0%	12V ± 5.0%	15V ± 5.0%	18V ± 5.0%	24V ± 5.0%
Max output power:		12W	12W	12W	12W	16W	16W	16W	16W
Min. output current:		0A	0A	0A	0A	0A	0A	0A	0A
Max. output current:		2.4A	2A	1.6A	1.33A	1.33A	1.06A	0.88A	0.66A
Load regulation (0 - 100% load. Measured on cable):		< 6%	< 5%	< 4%	< 4%	< 4%	< 4%	< 4%	< 4%
Mains regulation: (Mains variation: 90 - 264V, 100% load)		< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%
Ripple:		< 400mV p-p	< 300mV p-p	< 300mV p-p	< 300mV p-p	< 300mV p-p	< 200mV p-p	< 200mV p-p	< 500mV p-p
Standby power:	Input voltage 230VAC	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W
	Input voltage 115VAC	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W	<0.075W
Average efficiency at 100%,75%,50% and 25% load	Input voltage 230VAC	>80.3%	>83.3%	>83.3%	>83.3%	>84.8%	>84.8%	>84.8%	>84.8%
	Input voltage 115VAC	>80.3%	>83.3%	>83.3%	>83.3%	>84.8%	>84.8%	>84.8%	>84.8%
Switch frequency approx.:		30kHz-65kHz	30kHz-65kHz	30kHz-65kHz	30kHz-65kHz	30kHz-65kHz	30kHz-65kHz	30kHz-65kHz	30kHz-65kHz
Overshoot (90 - 10% load variation): Undershoot (10 - 90% load variation): Measured on pcb		< 200mV < 250mV	< 200mV < 250mV	< 200mV < 250mV	< 200mV < 250mV	< 250mV < 350mV	< 300mV < 350mV	< 300mV < 350mV	< 350mV < 500mV
Hold up time (Vout down to 90%) at 115VAC: Hold up time (Vout down to 90%) at 230VAC:		> 6ms > 55ms	> 6ms > 55ms	> 6ms > 55ms	>6ms >55ms	> 6ms > 55ms	>6ms >55ms	>6ms >55ms	> 6ms > 55ms
Temperature range: *Operating: *With derating: *Storage:		-20 to +40ºC +60ºC -25 to +85ºC							
Derating:		0.4W/ºC over 40ºC							
Safety:		EN 60601-1 3.1rd							
Insulation class :		Class II							
Insulation voltage: Primary – secondary:		4000VAC / 5700VDC							
EMC standards:		EMC med. EN 60601-1-2 / Emission EN 61000-6-3 / Immunity EN 61000-6-1							
IP-degree		IP4X							
Input terminal		2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS).							
Output terminals:		Cord with/without plug. Exchangeable plugs available.							
Dimensions:		85 x 50 x 29.3mm							
Weight:		130g.							

Standard output cordsets

Versions	Part no.	Type	AWG	Length (M)	Notes
5V * 6V * 7,5V * 9V * 12V * 15V * 18V	131606	Female conn	20	1.2	EMI core, UL 1185
24V	131607		22		

Technical drawing



EU & UK Declaration of Conformity

We, the responsible manufacturer;

Company Name:	**Mascot Electronics AS**
Postal Address:	**P.O.Box 177, N-1601 Fredrikstad, NORWAY**
Visiting Address:	**Mosseveien 109, N-1624 Gressvik, NORWAY**
Telephone:	**(+47) 69 36 43 00** E-mail: **sales@mascot.com** WEB: **www.mascot.com**

declare that this Declaration is issued under our sole responsibility and belongs to the following product(s):

Product and intended purpose:	**Power Supply Unit**
Brand(s):	**and/or mascot** (may also carry additional customer name, logo or trade mark)
Type(s)/Model(s)/ UDI-DI:	**3823-xx** (for explanation of "xx", see Description below) (may also carry additional customer model name or part number)
Batch / Serial No./ UDI-PI:	**all CE- and/or UKCA- marked products produced from the date indicated below** (for production date: see marking on the product)
Description:	**Input:** max. 0.4 A, 100-240 VAC 50-60 Hz, Class II **Output:** 3823-50: 5.0 - 5.9 VDC max. 2.4 A 3823-60: 6.0 - 7.0 VDC max. 2.0 A 3823-75: 7.1 - 9.0 VDC max. 1.71 A 3823-90: 9.0 - 10.0 VDC max. 1.33 A 3823-12: 10.0 - 14.9 VDC max. 1.6 A 3823-15: 15.0 - 16.9 VDC max. 1.07 A 3823-18: 17.0 - 19.9 VDC max. 0.94 A 3823-24: 20.0 - 29.9 VDC max. 0.8 A

The product(s) described above are in conformity with the relevant European Union harmonisation legislation for CE-marking:

93/42/EEC	**EU Directive - General Medical Devices (MDD)**, Risk Class I Device *will from 26.05.2021 be repealed by "MDR" Regulation (EU) 2017/745*
Regulation (EU) 2017/745	**EU Medical Devices Regulation (MDR)**, Risk Class I Device *will from 26.05.2021 repeal "MDD" Directive*
2014/30/EU	**EU Directive - Electromagnetic Compatibility (EMC)** recast, repealing Directives 2004/108/EC & 89/336/EEC
2009/125/EC	**EU Directive - Energy Related Products, Ecodesign (ERP)** recast, repealing Directive 2005/32/EC (EUP)
2015/863/EU	**EU Directive - Restriction on use of Hazardous Substances in EEE ("RoHS3")** recast, repealing Directives 2002/95/EC, 2008/35/EC & 2011/65/EU

The product(s) described above are in conformity with the relevant U.K. legislation for UKCA-marking:

Electrical Equipment (Safety) Regulations 2016
Electromagnetic Compatibility (EMC) Regulations 2016
The Medical Devices (Amendment etc.) (EU Exit) Regulations 2020, Risk Class I Device
Ecodesign for Energy-Related Products (External Power Supplies) Regulations 2020 Draft Regulation, awaiting implementation
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

EU & UK Declaration of Conformity

The following harmonised standards and technical specifications have been applied:

(International editions and comments indicated in brackets):

Electrical Safety (to MDR/MDD-Directives):

EN 60601-1	EN 60601-1:2006 + /AC:2010 +/A1:2013 Medical electrical equipment, Edition 3.1 (IEC 60601-1:2005 + /A1:2012) (also IEC 60601-1:2005 Amd.2:2020, but not yet harmonized as EN-norm)
EN 60601-1-11	EN 60601-1-11:2010 Medical electrical equipment and systems used in the home healthcare environment, Edition 1.0 (IEC 60601-1-11:2010 +/COR1:2011, Ed.1.0) (also IEC 60601-1-11:2015 +/A1:2020, Ed.2.1, but not yet harmonized as EN-norm)

Electromagnetic Compatibility (to MDR/MDD-Directives):

EN 60601-1-2	EN 60601-1-2:2015 Medical equipment, EMC - Requirements and tests, Edition 4.0 (IEC 60601-1-2:2014, Edition 4.0)

Electromagnetic Compatibility (to EMC-Directive):

EN 61000-6-1	EN 61000-6-1:2007 Immunity-residential, comm. & light-industrial environment, Edition 2.0 (IEC 61000-6-1:2005, Edition 2.0) (*also IEC 61000-6-1:2016, Edition 3.0, not yet an EN-norm*)
EN 61000-6-3	EN 61000-6-3:2007 + /A1:2011 & /AC:2012 Emission-residential, comm. & light-industrial environment, Edition 2.1 (IEC 61000-6-3:2007 + /A1:2010)

Ecodesign to EU ERP-Directive:

Commission Regulation (EC) No 2019/1782	implementing Directive 2005/32/EC with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies (Repealing Commission Regulation (EC) No 2009/278)

Ecodesign for U.K.:

Draft Regulation only (awaiting implementation)	Draft "Ecodesign for Energy-Related Products (External Power Supplies) Regulations 2020"

Ecodesign for U.S.A. (Note: depends on battery used !):

US Code of Federal Regulations (CFR) Also called "DoE compliance"	10 CFR Part 430 - Energy Conservation Program for Consumer Products, 10 CFR Part 430, Subpart B - Test Procedures, 10 CFR Appendix Y to Subpart B of Part 430, Uniform Test Method for Measuring the Energy Consumption of Battery Chargers or 10 CFR Appendix Z to Subpart B of Part 430, Uniform Test Method for Measuring the Energy Consumption of External Power Supplies, whichever applicable.
California Code of Regulations (CCR) Also called "CEC-400 compliance" referring to CEC-400-2017-002 "2016 Appliance Efficiency Regulations" issued by California Energy Commission	CCR Title 20 - Public Utilities and Energy, Division 2 - State Energy Resources Conservation and Development Commission, Chapter 4 - Energy Conservation, Article 4 - Appliance Efficiency Regulations, Sections 1601 to 1609

Restriction of the Use of certain Hazardous Substances (RoHS) for EU:

2015/863/EU "RoHS3"	EU Directive - Restriction on use of Hazardous Substances in EEE Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment

Restriction of the Use of certain Hazardous Substances for UK:

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Additional Information:

Compliance with harmonised standards and technical specifications may have been verified by the manufacturer, by third party testing or by a Certification Body (NCB).

The products are considered Risk Class I devices according to EU Medical Devices Directive, EU Medical Devices Regulation and the U.K. Medical Devices (Amendment etc.) (EU Exit) Regulations 2020.

The product(s) may be produced at production sites (for specific product: see "Made in"-marking on the product):
- Mascot Baltic OÜ, Taevakivi 15, EE-13619 Tallinn, ESTONIA
- Mascot Power Supplies (Ningbo) Co.,Ltd, No.128 Jinchuan Road, Zhenhai, Ningbo 315221, CHINA

The production sites are certified to standard EN 29001:2015 (ISO 9001:2015) by:
- Mascot Baltic OÜ: Metrosert, certificate ref. K-144
- Mascot Power Supplies (Ningbo) Co.,Ltd: DNV-GL, certificate ref. 179027-2015

Signed on behalf of Mascot Electronics AS

Fredrikstad, Norway	2021-03-11	Finn-Erik Wallin, Compliance Manager
Place of issue	Date of issue	Name, function, signature