

Model 3820

120 W max out • 90-264 VAC input

- Universal input voltage (90-264VAC)
- Fixed output voltages
- 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](#)

Notes:

Desktop

90-264V

2-pin IEC 60320

Exchangeable DC plugs

Order plugs and mains cord separately



Available versions

12V / 8,33A

24V / 5A

30V / 4A

36V / 3,33A

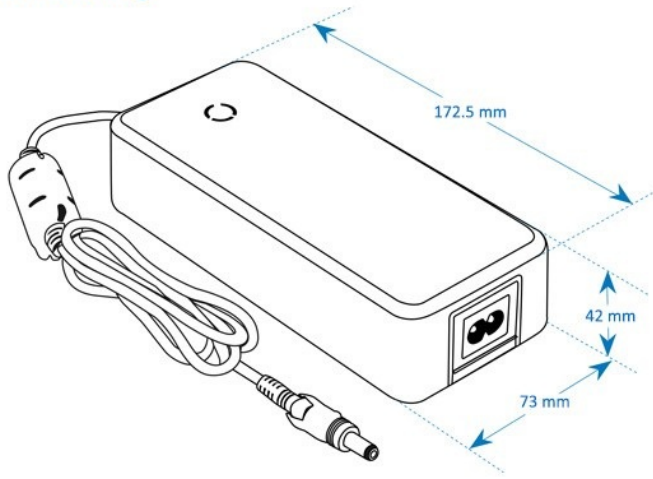
48V / 2,5A

SPECIFICATIONS FOR MASCOT TYPE 3820:		12V	24V	30V	36V	48V
Input voltage:		90 - 264VAC	90 - 264VAC	90 - 264VAC	90 - 264VAC	90 - 264VAC
Line frequency:		47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz	47 - 63Hz
Output voltage:		12V ± 2.5%	24V ± 2.5%	30V ± 2.5%	36V ± 2.5%	48V ± 2.5%
Max output power:		100W	120W	120W	120W	120W
Min. output current:		0A	0A	0A	0A	0A
Max. output current:		8.33A	5A	4A	3.33A	2.5A
Load regulation (0 - 100% load. Measured on PSB):		< 1%	< 1%	< 1%	< 1%	< 1%
Mains regulation: (Mains variation: 90 - 264V, 100% load)		< 0,5%	< 0,5%	< 0,5%	< 0,5%	< 0,5%
Ripple & Noise: (at 20MHz bandwidth)		< 100mV p-p	< 100mV p-p	< 100mV p-p	< 100mV p-p	< 200mV p-p
Efficiency (at 100% load, 230V) approx.:		90%	91%	91%	91%	91%
Standby power:	<0.15W	<0.15W	<0.15W	<0.15W	<0.15W	<0.15W
	<0.15W	<0.15W	<0.15W	<0.15W	<0.15W	<0.15W
Average efficiency at 100%,75%, 50% and 25% load	>89%	>89%	>89%	>89%	>89%	>89%
	>89%	>89%	>89%	>89%	>89%	>89%
Efficiency level VI:		Yes	Yes	Yes	Yes	Yes
Switch frequency approx.:		45kHz	45kHz	45kHz	45kHz	45kHz
Overshoot (90 - 10% load variation):		< 300mV	< 280mV	< 280mV	< 280mV	< 280mV
Undershoot (10 - 90% load variation): Measured on pcb		< 300mV	< 250mV	< 400mV	< 400mV	< 350mV
Hold up time:		>15ms	>15ms	>15ms	>15ms	>15ms
Temperature range: *Operating: *With derating: *Storage:		-20 to +40°C +60°C -25 to +85°C				
Derating:		2.5W/°C over 40°C				
Safety:		IEC 60601-1 3.1rd				
Insulation class:		Class II or Class I				
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 IEC320 C8 connector / 3-pins IEC320 C14 connector / 3-pins fixed wire				
Output terminals:		Cord with/without plug. Exchangeable plugs available.				
Dimensions:		172.5 x 73 x 42mm				
Weight:		530g.				

Standard output cordsets

Versions	Part no.	Type	AWG	Length (M)	Notes
12V	131616	Open ends	14	0.75	EMI core, OD: 5.6mmØ, UL 1185
24V	131581	Female conn	16	1.2	EMI core, UL1185
30V * 36V * 48V	151514		18		Coax w. EMI core UL 1185

Technical drawing




EU 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: **3820-series**
(may also carry additional customer model name or part number)
Batch / Serial No./UDI-PI: **all CE-marked products produced from the date indicated below**
(for production date: see marking on the product)
Description: **Input: max. 1,6 A 100-240 VAC 50-60 Hz, Class I or II**
Output: type 3820-12: 12.0-14.9 VDC (fixed within the range), max. 8.33 A
type 3820-18: 15.0-20.9 VDC (fixed within the range), max. 8 A
type 3820-24: 21.0-26.9 VDC (fixed within the range), max. 5.71 A
type 3820-30: 27.0-32.9 VDC (fixed within the range), max. 4.44 A
type 3820-36: 33.0-38.9 VDC (fixed within the range), max. 3.63 A
type 3820-42: 39.0-44.9 VDC (fixed within the range), max. 3.07 A
type 3820-36: 45.0-50.0 VDC (fixed within the range), max. 2.66 A

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

93/42/EEC	EU Directive - General Medical Devices (MDD), Risk Class I Device <i>will from 26.05.2021 be repealed by "MDR" Regulation (EU) 2017/745</i>
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 following harmonised standards and technical specifications have been applied:

(International editions and comments indicated in brackets):

Electrical Safety and Electromagnetic Compatibility to MDR/MDD-Directives:

EN 60601-1	EN 60601-1:2006 + /AC:2010 +/A1:2013 (IEC 60601-1:2005 + /A1:2012)	Medical electrical equipment, Edition 3.1
EN 60601-1-2	EN 60601-1-2:2015 (IEC 60601-1-2:2014, Edition 4.0)	Medical equipment, EMC - Requirements and tests, Edition 4.0

Ecodesign (to 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 2019/1782 from 2020-04-01) (Note: not applicable to Medical Devices, ref. Article 1.2)
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Ecodesign for U.S.A.:

US Code of Federal Regulations (CFR) Also called "DoE compliance"	10 CFR Part 430 - Energy Conservation Program for Consumer Products,
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

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 the General Medical Devices Directive.

EU Declaration of Conformity



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

The most recent issue of this Declaration is available at www.mascot.com.

Fredrikstad, Norway

Place of issue

2020-06-29

Date of issue

Signed on behalf of Mascot Electronics AS


Finn-Erik Wailin, Compliance Manager

Name, function, signature