



IM30P – IM40P Series

30 - 40 Watt AC - DC Medical Interchangeable Wall Plug-In
IEC 60601-1-2 4th Edition EMC, DoE Level VI, RoHS 2

Date: 11/14/18

Rev: 090118

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The IM30P – IM40P Series switch mode medical grade power supply offers 30 Watts to 40 Watts output power, with an output voltage range of 5 Vdc – 48 Vdc. Case style is interchangeable with choice of US, European, British, and Australian style AC prongs, along with ES/EN/IEC 60601-1 3.1 Edition safety approvals, IEC 60601-1-2 4th Edition EMC, and DoE Level 6 efficiency.

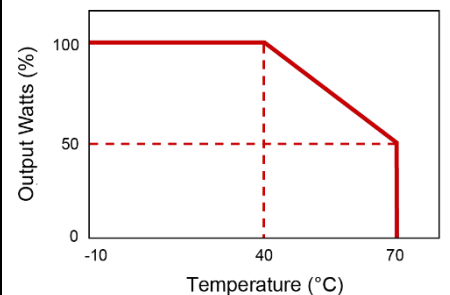


Input Voltage	80 to 275 Vac
Input Frequency	47 to 63 Hz
Input Current (Low Line)	0.93 A Typ. at 100 Vac
Input Current (High Line)	0.54 A Typ. at 240 Vac
Output Voltage & Current	See Table on Page 2
Ripple & Noise (P-P)	See Table on Page 2
Temperature Coefficient	± 0.04% / °C Max.
Transient Response Time	50% Load Change at 110 Vac Input: 4 ms
Efficiency	85 – 88%
No Load Power Consumption	< 0.1 Watts
Line Regulation	± 1% Max at Full Load
Load Regulation	± 5% Max.
Start-Up Time	3 s Max.
Hold-Up Time	8 ms Min.
Inrush Current	115 A @ 100 Vac Max. at 25°C Cold Start 270 A @ 240 Vac Max. at 25°C Cold Start
Mean Time Between Failure	Full Load, 25°C Ambient (MIL-HDBK-217F): 200,000 Hrs. Min.
Dielectric Withstand	Primary to Secondary: 4000 Vac
Operating Temperature	See Derating Curve
Storage Temperature	-40 to 85°C
Altitude (Operational)	5,000 m
Industry Compliance	Directive 2011/65/EU (RoHS 2), DoE Level VI
EMC Requirements	Meets Emissions/Immunity Limits of: IEC 60601-1-2:2014 (4 th Edition)
EMI Requirements	Meets Conduction Limits of: FCC Class B, CISPR-11 Class B, and EN 55011 Class B
Safety Compliance	UR/cUR (ES 60601-1:2005(R2012), CSA C22.2 No. 60601-1:14), TUV/T-mark (EN 60601-1:2006/A1:2013), CE, CB (IEC 60601-1 3.1 Ed.)

Features:

- Universal Input 100 - 240 Vac
- Available with U.S., European, British, and Australian AC Prongs
- Short Circuit Protection
- 100% Burn-In
- RoHS 2 Compliant
- 2x MOPP Protection
- DoE Level VI

Derating Curve



Derate Linearly from 100% at 40°C to 50% at 70°C



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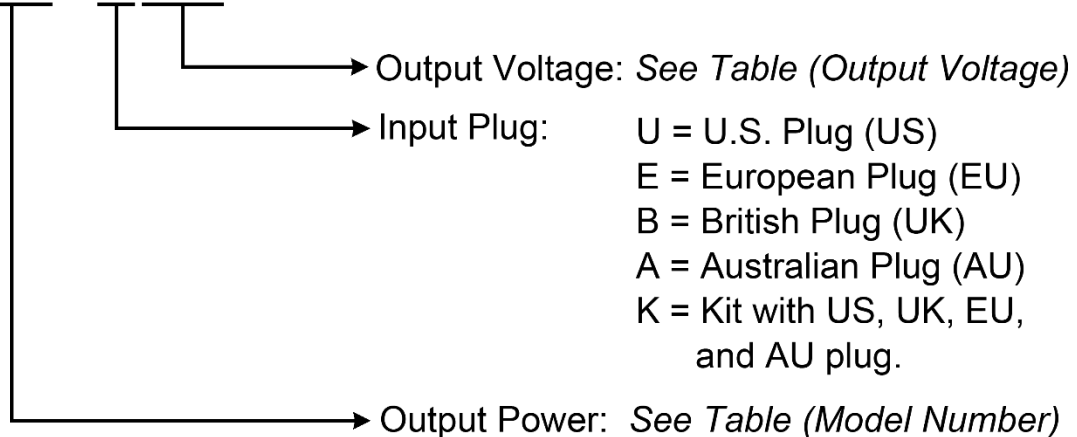
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Output Voltage and Current Table

Model Number	Output Voltage	Output Current <i>Limited to Output Power</i> ¹	Ripple & Noise (mV P-P) ²	Output Power
IM30P __ _R	5.00 – 5.99 Vdc	5.01 – 6.00 A	100	30 Watts
IM30P __ _R	6.5 – 8.0 Vdc	3.75 – 4.62 A	100	30 Watts
IM35P __ _R	9 – 11 Vdc	3.18 – 3.89 A	100	35 Watts
IM40P __ _R	12 – 13 Vdc	3.08 – 3.33 A	100	40 Watts
IM40P __ _R	14 – 16 Vdc	2.50 – 2.86 A	120	40 Watts
IM40P __ _R	17 – 21 Vdc	1.90 – 2.35 A	120	40 Watts
IM40P __ _R	22 – 27 Vdc	1.48 – 1.82 A	120	40 Watts
IM40P __ _R	28 – 33 Vdc	1.21 – 1.43 A	120	40 Watts
IM40P __ _R	34 – 40 Vdc	1.00 – 1.18 A	200	40 Watts
IM40P __ _R	41 – 48 Vdc	0.83 – 0.98 A	200	40 Watts

IM□□P□□□R



Notes:

1. To find Output Current:

Output Current = Max Power ÷ Output Voltage

Example: Output Current for IM40PK24R (24 Vdc Output, 40 Watts)

Output Current = 40 W ÷ 40 V

Output Current = 1.67 A

2. Measured w/ 0.1 µF ceramic capacitor & 47 µF electrolytic capacitor in parallel and a 20 MHz Bandwidth-limited scope.



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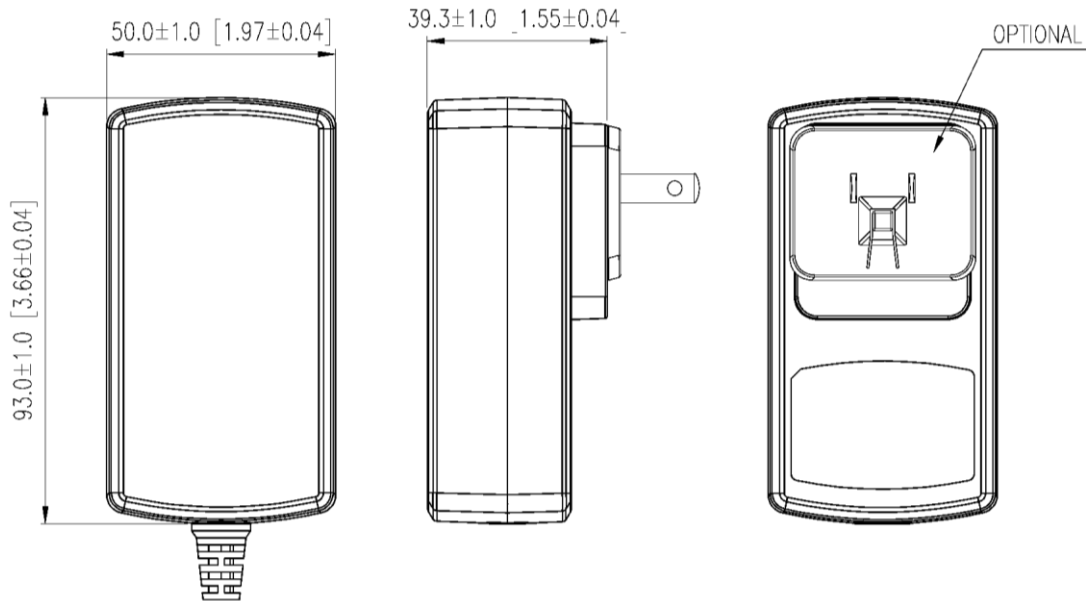
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Mechanical Specification (mm),[in]



U	IMPUR	<i>US Plug</i>	E	IMPER	<i>European Plug</i>
A	IMPAR	<i>Australian Plug</i>	B	IMPBR	<i>British Plug</i>

Note: Output connector to be specified by customer.

APX will be happy to recommend the appropriate connector for your application needs.

The cable length and wire gauge will be dependent on Energy Efficiency level requirements.