



40W AC-DC Reliable Green Interchangeable Medical Adaptor **GEM40I** series



■ Features

- Interchangeable AC plugs (plug kit sold sperately)
- Medical safety approved (2 x MOPP) according to ANSII/AAMI ES60601-1/ES60601-1-11,BS EN/EN60601-1/BS EN/EN60601-1-11
- Extremely Low leakage current
- No load power consumption< 0.1W
- **Energy efficiency Level VI**
- -25~+70°C wide range working temperature
- Class II power (no earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- [Various DC plug quick adapter accessory available \(Plug kit sold sperately, please refer to :https://www.meanwell.com/upload/pdf/DC_plug.pdf\)](https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

■ Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device
- Sleep apnea devices

■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

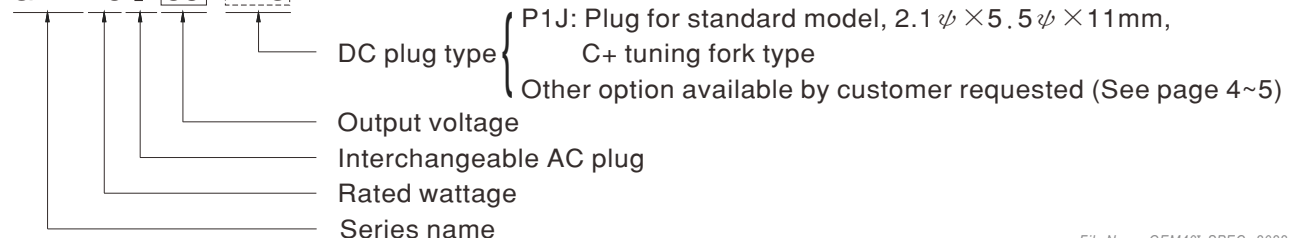
■ Description

GEM40I is a highly reliable, 40W wall-mounted style single-output green medical adaptor series, which is compact and convenient for carry. This product is equipped with an interchangeable AC plug (4 types, including European type, USA type, U.K. type and Australian type) that makes it very suitable for businessmen to use in the major countries around the globe. GEM40I is a class II power unit (no FG), accepting the input range from 80VAC to 264VAC that it can satisfy the demands for various types of medical electrical devices. The circuitry design meets the international medical standards (2*MOPP), having an ultra low leakage current (<100µA), fitting the medical devices in direct electrical contact with the patients.

With the working efficiency up to 90.5% and the extremely low no-load power consumption below 0.1W, GEM40I is compliant with the latest USA energy regulation EISA 2007/DoE(Level VI) and EU ErP. The supreme feature allows the adaptor to save the energy when it is under either the operating mode or the standby mode. The entire series is approved for international safety regulations; moreover, it adopts the 94V-0 flame retardant plastic case that it can effectively prevent users from electric hazard.

■ Model Encoding

GEM40 I 05 -P1J





Interchangeable AC plug Specifically for GEM06/12/18/30/40/60I

TYPE					
	Australian type	U.K type	European type	US type	Mix four type
ORDER NO.	AC plug-AU2	AC plug-UK2	AC plug-EU2	AC plug-US2	AC plug-MIX2

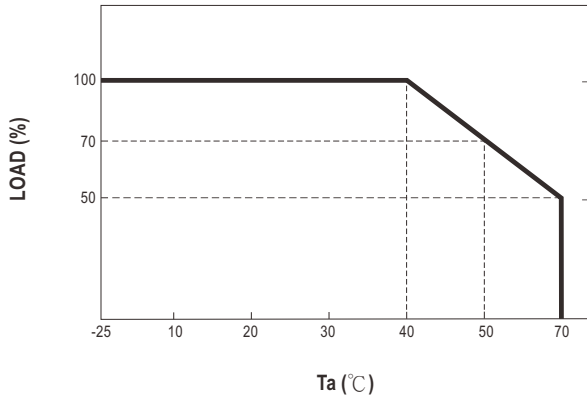
SPECIFICATION

ORDER NO.	GEM40I05-P1J	GEM40I09-P1J	GEM40I12-P1J	GEM40I15-P1J	GEM40I18-P1J	GEM40I24-P1J	GEM40I48-P1J	
OUTPUT	SAFETY MODEL NO.	GEM40I05	GEM40I09	GEM40I12	GEM40I15	GEM40I18	GEM40I24	GEM40I48
	DC VOLTAGE Note.2	5V	9V	12V	15V	18V	24V	48V
	RATED CURRENT	5A	4A	3.33A	2.66A	2.22A	1.66A	0.83A
	CURRENT RANGE	0 ~ 5A	0 ~ 4A	0 ~ 3.33A	0 ~ 2.66A	0 ~ 2.22A	0 ~ 1.66A	0 ~ 0.83A
	RATED POWER (max.)	25W	36W	40W	40W	40W	40W	40W
	RIPPLE & NOISE (max.) Note.3	100mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.4	± 5.0%	± 5.0%	± 3.0%	± 3.0%	± 2.0%	± 2.0%	± 2.0%
	LINE REGULATION Note.5	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
	LOAD REGULATION Note.6	± 5.0%	± 5.0%	± 3.0%	± 3.0%	± 2.0%	± 2.0%	± 2.0%
	SETUP, RISE, HOLD UP TIME	500ms, 30ms, 16ms/230VAC 500ms, 30ms, 16ms/115VAC at full load						
INPUT	VOLTAGE RANGE Note.7	80 ~ 264VAC 113 ~ 370VDC						
	FREQUENCY RANGE	47 ~ 63Hz						
	EFFICIENCY (Typ.)	84%	87%	88%	88%	88%	89%	90.5%
	AC CURRENT	1A / 115VAC 0.6A / 230VAC						
	INRUSH CURRENT (max.)	Cold start 30A / 115VAC 65A / 230VAC						
LEAKAGE CURRENT(max.)	Touch current < 100µA/264VAC							
PROTECTION	OVERLOAD	105 ~ 160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed						
	OVER VOLTAGE	110 ~ 140% rated output voltage Protection type : Clamp by zener diode, output short						
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve")						
	WORKING HUMIDITY	20% ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-25 ~ +85°C, 10 ~ 95% RH non-condensing						
	TEMP. COEFFICIENT	± 0.03% / °C (0 ~ 40°C)						
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC (Note. 8)	SAFETY STANDARDS	TUV BS EN/EN60601-1/BS EN/EN60601-1-11,ANSI/AAMI ES60601-1/ES60601-1-11(3.1 version), CAN/CSA-C22 NO. 60601-1-3 rd edition, EAC TP TC 004 approved						
	ISOLATION LEVEL	Primary - Secondary: 2 x MOPP						
	WITHSTAND VOLTAGE	I/P-O/P:5656VDC						
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH						
	EMC EMISSION	Parameter	Standard			Test Level / Note		
		Conducted emission	BS EN/EN55011 (CISPR11),FCC PART 18			Class B		
		Radiated emission	BS EN/EN55011 (CISPR11),FCC PART 18			Class B		
		Harmonic current	BS EN/EN61000-3-2			Class A		
	Voltage flicker	BS EN/EN61000-3-3			-----			
	EMC IMMUNITY	BS EN/EN60601-1-2, BS EN/EN61204-3						
Parameter		Standard			Test Level / Note			
ESD		BS EN/EN61000-4-2			Level 4, 15KV air ; Level 4, 8KV contact			
RF field susceptibility		BS EN/EN61000-4-3			Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)			
EFT bursts		BS EN/EN61000-4-4			Level 3, 2KV			
Surge susceptibility		BS EN/EN61000-4-5			Level 3, 1KV/Line-Line			
Conducted susceptibility		BS EN/EN61000-4-6			Level 2, 3V			
Magnetic field immunity		BS EN/EN61000-4-8			Level 4, 30A/m			
Voltage dip, interruption	BS EN/EN61000-4-11			>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods				
OTHERS	LIFE	3 years : 100% load 40°C, 12hours / day						
	MTBF	400Khrs min. MIL-HDBK-217F(25°C)						
	DIMENSION	75.5*39.1*56.2mm (L*W*H)						
	PACKING	200g ; 60pcs / 13kg / CARTON						
CONNECTOR	PLUG	See page 4 - 5 ; other type available by customer requested						
	CABLE	See page 4 - 5 ; other type available by customer requested						
NOTE	<p>1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</p> <p>2.DC voltage: The output voltage set at point measure by plug terminal & 50% load.</p> <p>3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf & 47µf capacitor.</p> <p>4.Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5.Line regulation is measured from low line to high line at rated load.</p> <p>6.Load regulation is measured from 10% to 100% rated load.</p> <p>7.Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>8.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>							

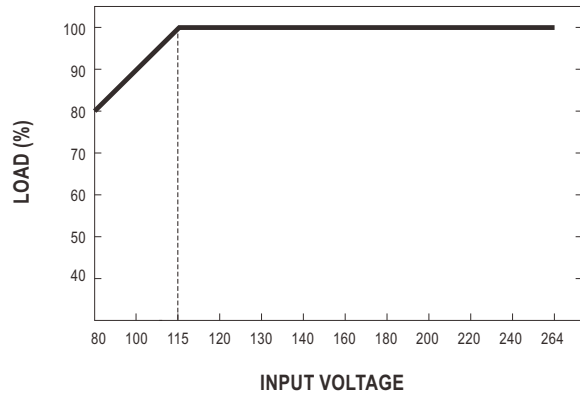


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Derating Curve


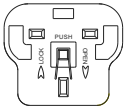
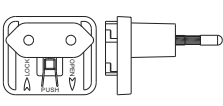
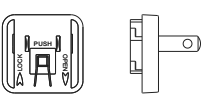


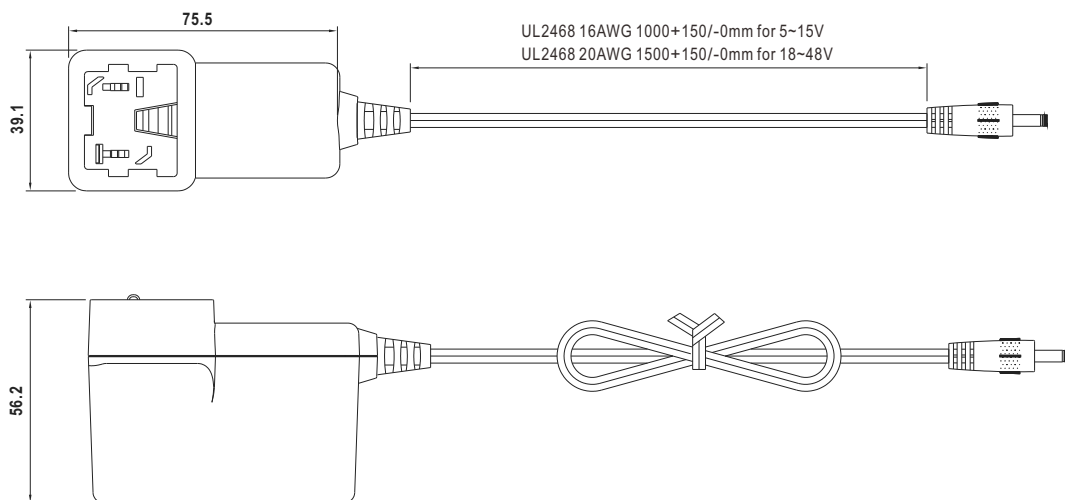
Static Characteristics



Mechanical Specification

Unit:mm

TYPE				
	Australian type	U.K type	European type	US type





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■ DC output plug

◎ Standard plug: P1J

Unit:mm

P1J	Pin Assignment
	Outside Inside

◎ DC plug changeable through:

- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

Example quick adapter accessory:



◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style		Type No.	A	B	C	Quick Adapter Accessory		
			OD	ID	L			
		P1I (Straight)	5.5	2.1	9.5	Available (Current rating: 7.5A max.)		
		P1L (Straight)	5.5	2.5	9.5			
		P1M (Straight)	5.5	2.5	11.0			
		P1IR (Right-angled)	5.5	2.1	9.5			
		P1JR (Right-angled)	5.5	2.1	11.0			
		P1LR (Right-angled)	5.5	2.5	9.5			
		P1MR (Right-angled)	5.5	2.5	11.0			
Barrel Style		Type No.	A	B	C	None		
			OD	ID	L			
		P2I (Straight)	5.5	2.1	9.5			
		P2J (Straight)	5.5	2.1	11.0			
		P2L (Straight)	5.5	2.5	9.5			
		P2M (Straight)	5.5	2.5	11.0			
		P2IR (Right-angled)	5.5	2.1	9.5			
		P2JR (Right-angled)	5.5	2.1	11.0			
		P2LR (Right-angled)	5.5	2.5	9.5			
		P2MR (Right-angled)	5.5	2.5	11.0			
		Lock Style		Type No.	A	B	C	None
					OD	ID	L	
		P2S(S761K)	5.53	2.03	12.06			
		P2K(761K)	5.53	2.54	12.06			
		P2C(S760K)	5.53	2.03	9.52			
		P2D(760K)	5.53	2.54	9.52			
		SWITCHCRAFT original or equivalent						
Min. Pin Style		Type No.	A	B	C	Available (Current rating: 5A max.)		
			OD	ID	L			
		P3A (EIAJ equivalent)	2.35	0.7	11.0			
		P3B (EIAJ equivalent)	4.0	1.7	11.0			
		P3C (EIAJ equivalent)	4.75	1.7	11.0			
		EIAJ equivalent						



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Center Pin Style	Type No.	A	B	C	D	Quick Adapter Accessory
		OD	ID	L	Center Pin	
	P4A	5.5	3.4	11.0	1.0	Available (Current rating: 7.5A max.)
	P4B	6.5	4.4	11.0	1.4	
	P4C	7.4	5.1	11.0	0.6	
Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
	R7B	Pin Assignment		Available (Current rating: 7.5A max.)		
		PIN No.	Output			
		1	+Vo			
		2	-Vo			
	R7BF	Pin Assignment		None		
		PIN No.	Output			
		1	+Vo			
		2	-Vo			
Stripped and tinned leads	Type No.	Pin Assignment		None		
		PIN No.	Output			
<p>Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)</p>	by customer	1 (Ribbed or White)	+Vo	None		
		2 (Letter or Black)	-Vo			

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>