



30W AC-DC Reliable Green Interchangeable Medical Adaptor

GEM30I seriesANSI/AAMI ES60601-1
ES60601-1-11

BS EN/EN60601-1-11

CB**EAC****FCC****C****CE****UK****CA****IP21****VI**

IEC60950-1

TPTC004



■ Features

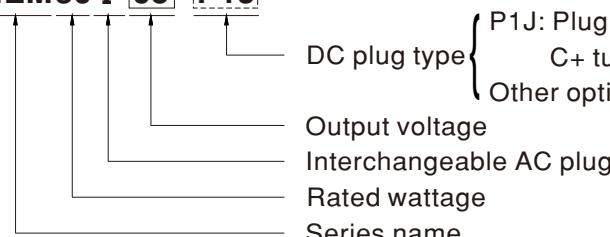
- Interchangeable AC plugs (plug kit sold separately)
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1/ES60601-1-11, BS EN/EN60601-1/BS EN/EN60601-1-11
- Extremely Low leakage current
- No load power consumption < 0.1W
- **Energy efficiency Level VI**
- -25~+70°C wide range working 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 separately, please refer to :https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

■ Description

GEM30I is a highly reliable, 30W 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. GEM30I 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 (<100 μ A), fitting the medical devices in direct electrical contact with the patients.

With the working efficiency up to 90% and the extremely low no-load power consumption below 0.1W, GEM30I 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

GEM30 I [05]-[P1J]

DC plug type { P1J: Plug for standard model, 2.1 ϕ × 5.5 ϕ × 11mm,
C+ tuning fork type
Other option available by customer requested (See page 4~5)

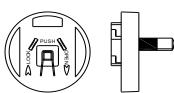
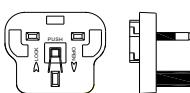
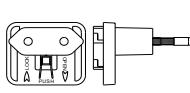
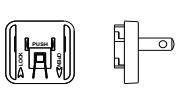
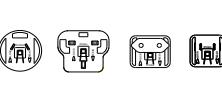
Output voltage

Interchangeable AC plug

Rated wattage

Series name

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

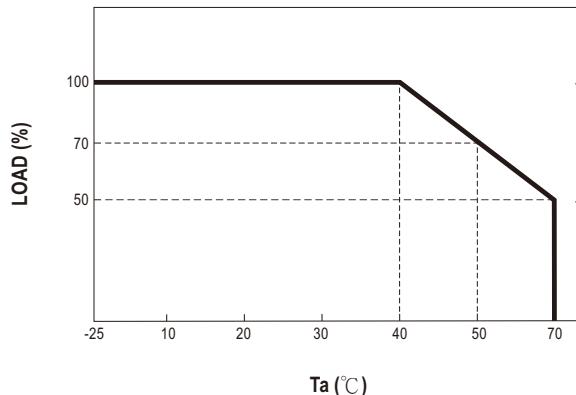
ORDER NO.	GEM30I05-P1J	GEM30I07-P1J	GEM30I09-P1J	GEM30I12-P1J	GEM30I15-P1J	GEM30I18-P1J	GEM30I24-P1J	GEM30I48-P1J							
OUTPUT	SAFETY MODEL NO.	GEM30I05	GEM30I07	GEM30I09	GEM30I12	GEM30I15	GEM30I18	GEM30I24							
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V							
	RATED CURRENT	4A	3.33A	3.33A	2.5A	2A	1.66A	1.25A							
	CURRENT RANGE	0 ~ 4A	0 ~ 3.33A	0 ~ 3.33A	0 ~ 2.5A	0 ~ 2A	0 ~ 1.66A	0 ~ 1.25A							
	RATED POWER (max.)	20W	25W	30W	30W	30W	30W	30W							
	ripple & noise (max.) Note.3	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p							
	VOLTAGE TOLERANCE Note.4	± 5.0%	± 5.0%	± 5.0%	± 3.0%	± 3.0%	± 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%	± 5.0%	± 3.0%	± 3.0%	± 2.0%	± 2.0%							
INPUT	SETUP, RISE, HOLD UP TIME	500ms, 100ms, 16ms/230VAC	500ms, 100ms, 16ms/115VAC	at full load											
	VOLTAGE RANGE Note.7	80 ~ 264VAC	113 ~ 370VDC												
	FREQUENCY RANGE	47 ~ 63Hz													
	EFFICIENCY (Typ.)	82%	86%	87%	87%	87%	88%	88.5%	90%						
	AC CURRENT	1A / 115VAC	0.6A / 230VAC												
	INRUSH CURRENT (max.)	Cold start 30A / 115VAC	65A / 230VAC												
	LEAKAGE CURRENT(max.)	Touch current < 100µA/264VAC													
	OVERLOAD	120 ~ 200% 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 STANDARDS	ANSI/AAMI ES60601-1 / 60601-1-11, TUV BS EN/EN60601-1 / 60601-1-11, 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													
SAFETY & EMC (Note. 8)	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											
	EMC IMMUNITY	Voltage flicker	BS EN/EN61000-3-3	-----											
		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)											
OTHERS	CONNECTOR	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											
NOTE	Voltage dip, interruption								>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods						
	LIFE								3 years : 100% load 40°C, 12hours / day						
OTHERS	MTBF								400Khrs min. MIL-HDBK-217F(25°C)						
	DIMENSION								75.5*39.1*56.2mm (L*W*H)						
CONNECTOR	PACKING								192g ; 60pcs / 12.5kg / CARTON						
	PLUG								See page 4~5 ; other type available by customer requested						
CONNECTOR	CABLE								See page 4~5 ; other type available by customer requested						
	1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient. 2.DC voltage: The output voltage set at point measure by plug terminal & 50% load. 3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µF & 47µF capacitor. 4.Tolerance: includes set up tolerance, line regulation, load regulation. 5.Line regulation is measured from low line to high line at rated load. 6.Load regulation is measured from 10% to 100% rated load. 7.Derating may be needed under low input voltage. Please check the derating curve for more details. 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." (available on http://www.meanwell.com)														
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx															



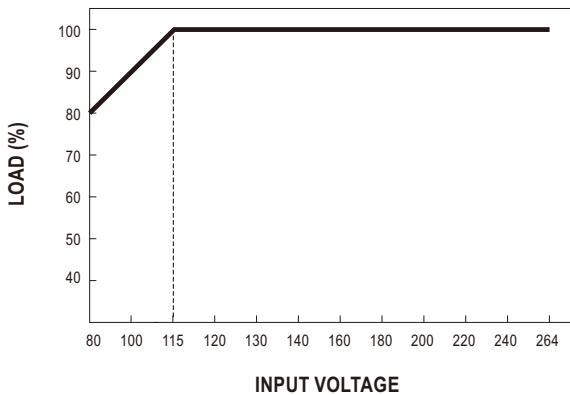
30W AC-DC Reliable Green Interchangeable Medical Adaptor

GEM30I series

■ Derating Curve



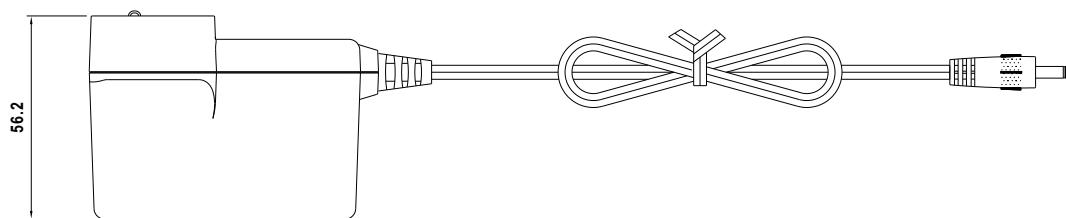
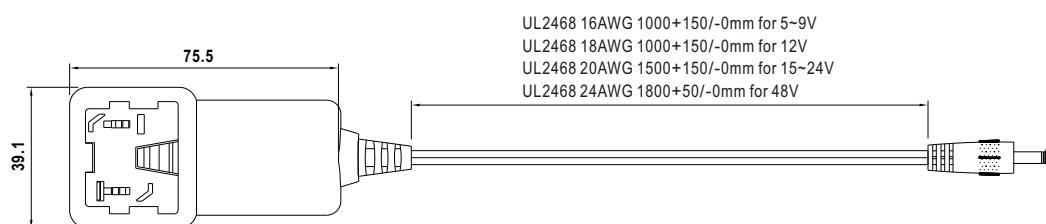
■ Static Characteristics



■ Mechanical Specification

Unit:mm

TYPE				
Australian type				



■ DC output plug

- ◎ Standard plug: P1J

Unit:mm

P1J	Pin Assignment
 	 Outside \ominus \oplus Inside

- ◎ DC plug changeable through:

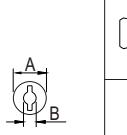
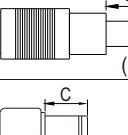
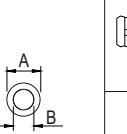
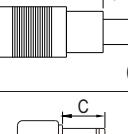
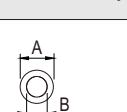
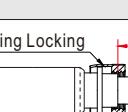
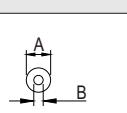
- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

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

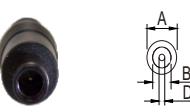
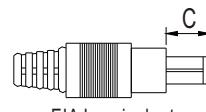
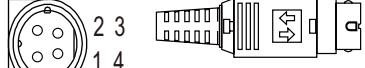
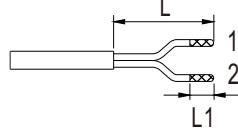
Example quick adapter accessory:



- ◎ 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	5.5	2.1	9.5	Available (Current rating: 7.5A max.)
	P1L	5.5	2.5	9.5	
	P1M	5.5	2.5	11.0	
	P1IR	5.5	2.1	9.5	
	P1JR	5.5	2.1	11.0	
	P1LR	5.5	2.5	9.5	
	P1MR	5.5	2.5	11.0	
Barrel Style		Type No.	A	B	None
  	P2I	5.5	2.1	9.5	
	P2J	5.5	2.1	11.0	
	P2L	5.5	2.5	9.5	
	P2M	5.5	2.5	11.0	
	P2IR	5.5	2.1	9.5	
	P2JR	5.5	2.1	11.0	
	P2LR	5.5	2.5	9.5	
	P2MR	5.5	2.5	11.0	
Lock Style		Type No.	A	B	None
  	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	
Min. Pin Style		Type No.	A	B	Available (Current rating: 5A max.)
 	P3A	2.35	0.7	11.0	
	P3B	4.0	1.7	11.0	
	P3C	4.75	1.7	11.0	

30W AC-DC Reliable Green Interchangeable Medical Adaptor **GEM30I** series

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.)	
		PIN No.		Output			
		1		+Vo			
	R6B	2		-Vo		Available (Current rating: 7.5A max.)	
		3		+Vo			
Min. DIN 4 Pin with Lock (male)		Pin Assignment					
	R7B	PIN No.		Output		Available (Current rating: 7.5A max.)	
		1		+Vo			
		2		-Vo			
		3		-Vo			
		4		+Vo			
Min. DIN 4 Pin with Lock (female)	R7BF	Pin Assignment				None	
		PIN No.		Output			
		1		+Vo			
		2		-Vo			
		3		-Vo			
		4		+Vo			
Stripped and tinned leads	by customer	Pin Assignment				None	
		PIN No.		Output			
		1 (Ribbed)		+Vo			
Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)		2 (Letter)		-Vo			

■ Installation Manual

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