

30WAC-DC Reliable Green Interchangeable Medical Adaptor **GEM30I** series





User's Manual



Features

- Interchangeable AC plugs (plug kit sold sperately)
- Medical safety approved (2 x MOPP) accroding 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 $^\circ \rm C$ wide range working temperature
- Class II power (no earth pin)
- · Protections: Short circuit / Overload / Over voltage
- · Fully enclosed plastic case

Eco Medical 2xM0PP BFrated

- 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

- Various DC plug quick adapter accessory available (Plug kit sold sperately, please refer to :<u>https://www.meanwell.com/upload/pdf/DC_plug.pdf</u>)
- · 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 (<100µA), 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 $\begin{cases} P1J: Plug for standard model, 2.1 <math>\psi \times 5.5 \psi \times 11$ mm, C+ tuning fork type Other option available by customer requested (See page 4~5) Output voltage Interchangeable AC plug Rated wattage



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

ТҮРЕ					(A) (47) (41) (41)	
	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	GEM30109-P1	J GEM30I12-P1J	GEM30I15-P1J	GEM30I18-P1J	GEM30I24-P1J	GEM30I48-P1			
	SAFETY MODEL NO.	GEM30I05	GEM30I07	GEM30I09	GEM30I12	GEM30I15	GEM30I18	GEM30I24	GEM30I48			
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V			
	RATED CURRENT	4A	3.33A	3.33A	2.5A	2A	1.66A	1.25A	0.625A			
	CURRENT RANGE	0~4A	0~3.33A	0~3.33A	0~2.5A	0~2A	0~1.66A	0~1.25A	0~0.625A			
	RATED POWER (max.)	20W	25W	30W	30W	30W	30W	30W	30W			
OUTPUT	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%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%			
		±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%			
		±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%			
	SETUP. RISE. HOLD UP TIME						-2.070	-2.070	-2.070			
	VOLTAGE RANGE Note.7	500ms, 100ms, 16ms/230VAC 500ms, 100ms, 16ms/115VAC at full load 80 ~ 264VAC 113 ~ 370VDC										
	FREQUENCY RANGE	47 ~ 63Hz										
		82%	86%	87%	97%	97%	9,90/	88 5%	00%			
INPUT	EFFICIENCY (Typ.) AC CURRENT											
	INRUSH CURRENT (max.)		1A / 115VAC 0.6A / 230VAC Cold start 30A / 115VAC 65A / 230VAC									
				65A/230VAC								
	LEAKAGE CURRENT(max.)		100µA/264VAC									
	OVERLOAD		ed output power									
PROTECTION					matically after fa	ult condition is r	emoved					
	OVER VOLTAGE		ed output voltage									
			: Clamp by zen		it short							
	WORKING TEMP.	-25 ~ +70°C (Refer to "Derating Curve") 20% ~ 90% RH non-condensing										
	WORKING HUMIDITY STORAGE TEMP., HUMIDITY		~ 95% RH non-									
ENVIRONMENT	TEMP. COEFFICIENT	±0.03% /°C (condensing								
	VIBRATION		,	noried for COmi	n. each along X, Y	7 2 2 2 2 2						
	SAFETY STANDARDS				•		TD TC 004 annu	avad				
				-1-11, IUV BS	EN/EN60601-1/6	0001-1-11, EAC	TP TC 004 appr	oved				
	ISOLATION LEVEL	Pimary - Secon										
	WITHSTAND VOLTAGE	I/P-O/P:5656VI	-	0.5°C / 700/ DI								
	ISOLATION RESISTANCE		hms / 500VDC /				T (1	1/11/				
	EMC EMISSION	Parameter Standard Test Level / Note										
		Radiated emission BS EN/EN55011 (CISPR11),FCC PART 18 Class B										
		Harmonic current BS EN/EN61000-3-2 Class A										
SAFETY &		Voltage flicker BS EN/EN61000-3-3										
EMC (Note. 8)		BS EN/EN60601-1-2, BS EN/EN61204-3 Parameter Standard Test Level / Note										
(11018.0)		Parameter			andard							
	EMC IMMUNITY	ESD			SEN/EN61000-4-2	2		15KV air ; Level 4				
		RF field susceptibility			EN/EN61000-4-3	3		10V/m(80MHz~2)				
		EET hursts						9~28V/m(385MH	2~5.76GHZ)			
		EFT bursts			EN/EN61000-4-4			Level 3, 2KV				
		Surge susceptibility			EN/EN61000-4-5			Level 3, 1KV/Line-Line				
		Conducted sus	. ,		SEN/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										
	LIFE	3 vezre · 100%	load 40°C, 12ho	urs / day			>95% Inte	errupuons 250 pe	nous			
				,								
OTHERS	MTBF DIMENSION		/IIL-HDBK-217F(mm (I *\\//*ㅂ)	23 ()								
		75.5*39.1*56.2mm (L*W*H)										
CONNECTOR	PACKING	192g ; 60pcs / 12.5kg / CARTON										
	PLUG CABLE	See page 4~5 ; other type available by customer requested 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 compression of the private on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 							the					



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P1JR 5.5 2.1 11.0 P1R 5.5 2.5 9.5 P1MR 5.5 2.5 9.5 P1MR 5.5 2.5 9.5 P1MR 5.5 2.5 9.5 P1MR 5.5 2.5 11.0 Barrel Style Type No. A B C P2J 5.5 2.1 11.0 P P2J 5.5 2.1 11.0 P <th></th> <th>DC output plug Standard plug: P1J</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Unit:mm</th>		DC output plug Standard plug: P1J							Unit:mm		
C plug changeable through: 		Р			Pin Assigr	nment	t				
Image able through: Outside ● ● ● ■ Inside (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.j Example quick adapter accessory: Image able 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.reference Example quick adapter accessory: Image: Compared and the standard part without MOQ Optional DC plug: (Available in customized cable or quick adapter Optional DC plug: (Available in customized cable or quick adapter Image: Compared and the standard part without MOQ Image: Compared and the standard part without MOQ Image: Compared and the standard part without MOQ Optional DC plug: (Available in customized cable or quick adapter Image: Compared and the standard part without MOQ Image: Compared and the standard part without MOQ					Outsi	de ⊖—€	— ⊕	Inside			
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Tuning Fork Style Type No. A B C Quick Adapter Accessory Image: Constraint of the second stress stress of the second stress of the second stress stress of the second stress of the second stress stress of the second stress stress of the second stress the second stress stress of the second stress stress of		Example quick adapter ac	cessory:								
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OD ID L Accessory P11 5.5 2.1 9.5 P1 5.5 2.1 9.5 P1 5.5 2.5 9.5 P1 0.5 2.5 11.0 P1 P1 0.5 2.5 11.0 P1 P1 0.5 2.5 11.0 P1 P1< P1< P1		Tuning For	k Style	Type N	10.						
P1L 5.5 2.5 9.5 P1M 5.5 2.5 11.0 P1R 5.5 2.1 9.5 P1R 5.5 2.1 11.0 P1R 5.5 2.5 11.0 P2I 5.5 2.1 11.0 P2I 5.5 2.1 11.0 P2I 5.5 2.5 11.0 P2IR 5.5 2.1 11.0 P2IR 5.5 2.5 11.0 P2IR 5.5 2.5 11.0 P2IR 5.5 2.5 11.0 P2IR 5.5 2.5 11.0 None <			-		OD			-	Accessory		
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$\frac{P2JR}{(Right-angled)} = \frac{5.5}{2.5} = \frac{2.1}{11.0}$ $\frac{P2LR}{5.5} = \frac{5.5}{2.5} = \frac{9.5}{9.5}$ $\frac{P2MR}{5.5} = \frac{5.5}{2.5} = \frac{11.0}{10}$ $\frac{10}{10} = \frac{10}{10}$ $\frac{10}{1$									None		
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$\frac{1}{10000000000000000000000000000000000$											
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			(Right-angled)								
Lock Style Type No. OD ID L Min. Pin Style Floating Locking SWITCHCRAFT original or equivalent P2S(S761K) 5.53 2.03 12.06 Min. Pin Style P2D(760K) 5.53 2.03 9.52 P2D(760K) 5.53 2.54 9.52 Min. Pin Style Type No. A B C OD ID L P3B 4.0 1.7 11.0 Available Available Current rating: 5A max.					Δ.						
A Floating Locking P2S(S761K) 5.53 2.03 12.06 P2K(761K) 5.53 2.54 12.06 None Min. Pin Style Type No. A B C Min. Pin Style P3A 2.35 0.7 11.0 Available P3B 4.0 1.7 11.0 Available		Lock S	tyle	Туре М	1()			L			
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Min. Pin Style Page Page<									None		
SWITCHCRAFT original or equivalent P2D(760K) 5.53 2.54 9.52 Min. Pin Style Type No. A B C OD ID L P3B 4.0 1.7 11.0 Available Current rating: 5A max.											
Min. Pin Style Type No. A B C OD ID L P3A 2.35 0.7 11.0 P3B 4.0 1.7 11.0			SWITCHCRAFT original or equivalent				54	9.52			
C P3A 2.35 0.7 11.0 Available P3B 4.0 1.7 11.0 Current rating: 5A max.		Min Din 9	Style	Type	Δ						
P3B 4.0 1.7 11.0 (Current rating: 5A max.)					OD	ID		L			
		A.	+	P3A	2.3	5 0.7	7	11.0	Available		
				P3B	4.0	1.7	7	11.0	(Current rating: 5A max.)		
EIAJ equivalent P3C 4.75 1.7 11.0				P3C	4.7	5 1.7	,	11.0			



30WAC-DC Reliable Green Interchangeable Medical Adaptor **GEM30I** series

Center Pin Style	Type No.	A OD	B ID	C L	D Center Pin	Quick Adapter Accessory	
	P4A	5.5	3.4	11.0	1.0		
	P4B	6.5	4.4	11.0	1.4	Available (Current rating: 7.5A max.)	
	P4C	7.4	5.1	5.1 11.0		(ourrentrating, 7.5Amax.)	
Min. DIN 3 Pin with Lock (male)	Type No.	F	in Assi	gnment			
	туретчо.	PIN No).	Output			
		1		+Vo		Available	
	R6B	2		-Vo		(Current rating: 7.5A max.)	
KYCON KPPX-3P equivalent		3		+Vo			
Min. DIN 4 Din with Look (mole)	Type No	F	Pin Assignment				
Min. DIN 4 Pin with Lock (male)	Type No.	PIN No).	Output			
	R7B	1		+Vo		Available (Current rating: 7.5A max.)	
		2		-Vo			
KYCON KPPX-4P equivalent		3		-Vo			
		4 +Vo					
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment PIN No. Output					
	R7BF	1).	+Vo			
		2		-Vo		None	
		3		-Vo		_	
KYCON KPJX-CM-4S equivalent		4		+Vo			
Stripped and tinned leads	Type No.	Pin Assignment				4	
Stripped and timed leads		PIN No).	Outpu	ıt		
	by customer	1 (Ribbec	1)	+Vo		None	
L I 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