



User's Manual



Video



ANSI/AAMI ES60601-1/-1-11



IEC60601-1/-1-11



TPTC004



Features

- 2 pole USA plug, Class II power unit
- Medical safety approved (2 × MOPP) according to ANSI/AAMI ES60601-1/-1-11
- Extremely low leakage current
- No load power consumption<0.1W
- Energy efficiency Level VI (except 5~9V for Level V)
- -25~+60°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage
- LED indicator for power on
- Various DC plug quick adapter accessory available (Plug kit sold sperately, please refer to : https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

Description

GSM18U is a highly reliable, 18W wall-mounted style single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard USA AC power plug, adopting the input range from 80VAC to 264VAC. The entire series supplies different output voltages between 5VDC and 48VDC that can satisfy the demands for various kinds of miniature medical devices. The circuitry design meets the international medical standards (2 × MOPP), having an ultra low leakage current (<50 μ A), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 88% and the extreme low no-load power consumption below 0.1W, GSM18U is compliant with USA EISA 2007/DoE and Canada NRCAN; the supreme feature allows the adaptor to save the energy when it is either under the operating mode or the standby mode. The entire series utilizes the 94V-0 flame retardant plastic case, providing the double insulation that effectively prevents electrical shock. GSM18U is approved with the international medical safety certificates.

Model Encoding

GSM18U05-P1J

- DC plug type { P1J : Plug for standard model, 2.1 ψ × 5.5 ψ × 11mm, c+, tuning fork type
Other options available by customer requested (see Page 4~5)
- Output voltage
- USA 2 pin AC plug
- Rated wattage
- Series name

Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device

GTIN CODE

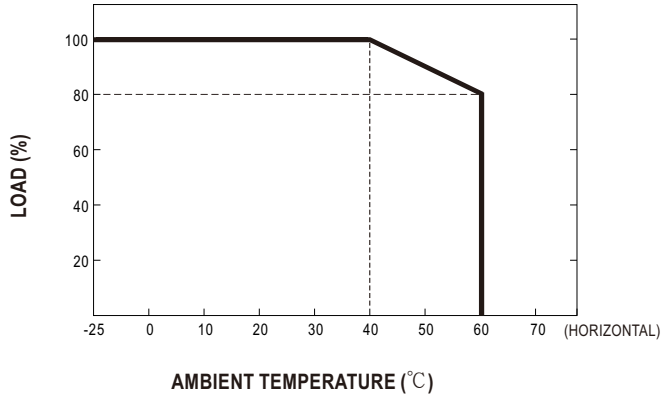
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>



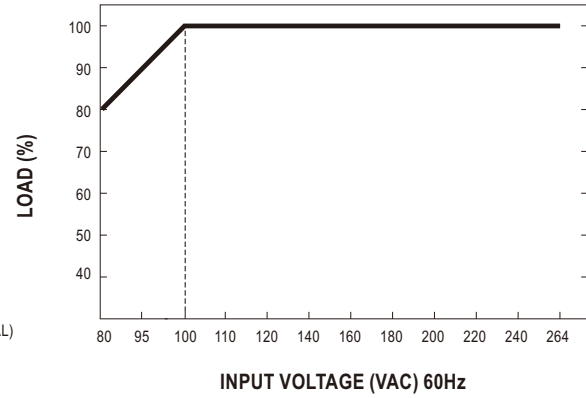
SPECIFICATION

ORDER NO.		GSM18U05-P1J	GSM18U07-P1J	GSM18U09-P1J	GSM18U12-P1J	GSM18U15-P1J	GSM18U18-P1J	GSM18U24-P1J	GSM18U48-P1J
OUTPUT	SAFETY MODEL NO.	GSM18U05	GSM18U07	GSM18U09	GSM18U12	GSM18U15	GSM18U18	GSM18U24	GSM18U48
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	48V
	RATED CURRENT	3A	2A	2A	1.5A	1.2A	1A	0.75A	0.375A
	CURRENT RANGE	0 ~ 3A	0 ~ 2A	0 ~ 2A	0 ~ 1.5A	0 ~ 1.2A	0 ~ 1A	0 ~ 0.75A	0 ~ 0.375A
	RATED POWER (max.)	15W	15W	18W	18W	18W	18W	18W	18W
	RIPPLE & NOISE (max.) Note.3	60mVp-p	80mVp-p	80mVp-p	120mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p
	VOLTAGE TOLERANCE Note.4	± 5.0%	± 5.0%	± 5.0%	± 3.0%	± 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%	± 1.0%
	LOAD REGULATION	± 5.0%	± 5.0%	± 5.0%	± 3.0%	± 3.0%	± 3.0%	± 2.0%	± 2.0%
	SETUP, RISE TIME Note.6	500ms, 30ms / 230VAC 1000ms, 30ms / 115VAC at full load							
HOLD UP TIME (Typ.)	16ms / 230VAC 16ms / 115VAC at full load								
INPUT	VOLTAGE RANGE Note.7	80 ~ 264VAC 113 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	80%	83%	84%	86%	87%	87%	87%	88%
	AC CURRENT (Typ.)	0.5A / 115VAC 0.25A / 230VAC							
	INRUSH CURRENT (Typ.)	55A / 230VAC 30A / 115VAC							
	LEAKAGE CURRENT(max.)	Touch current < 50μA/264VAC							
PROTECTION	OVERLOAD	105 ~ 170% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	5.25 ~ 7.5V	7.88 ~ 10.13V	9.45 ~ 12.6V	12.6 ~ 17.2V	15.75 ~ 20.25V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover							
ENVIRONMENT	WORKING TEMP.	-25 ~ +60℃ (Refer to "Derating Curve")							
	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	± 0.03% / °C (0~40℃)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC (Note. 8)	SAFETY STANDARDS	IEC 60601-1:2005+A1+A2; IEC 60601-1-11:2015+A1, ANSI/AAMI ES60601-1:2005+A2; ANSI/AAMI HA60601-1-11+A1 CAN/CSA C22.2 No. 60601-1:2014+A2; CSA C22.2 NO. 60601-1-11:2015+A1, EAC TP TC 004 approved							
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP							
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC							
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃ / 70% RH							
	EMC EMISSION	Parameter			Standard			Test Level / Note	
		Conducted emission			FCC PART 15 / CISPR22			Class B	
		Radiated emission			FCC PART 15 / CISPR22			Class B	
OTHERS	MTBF	3889.1K hrs min. Telcordia SR-332 (Bellcore) ; 794.6K hrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	79*54*33mm (L*W*H)							
	PACKING	185g ; 60pcs / 12.1Kg / 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	1. All parameters are specified at 115VAC input, rated load, 25℃ 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 0.1 μ F & 47 μ F 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. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 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." (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx								

Derating Curve



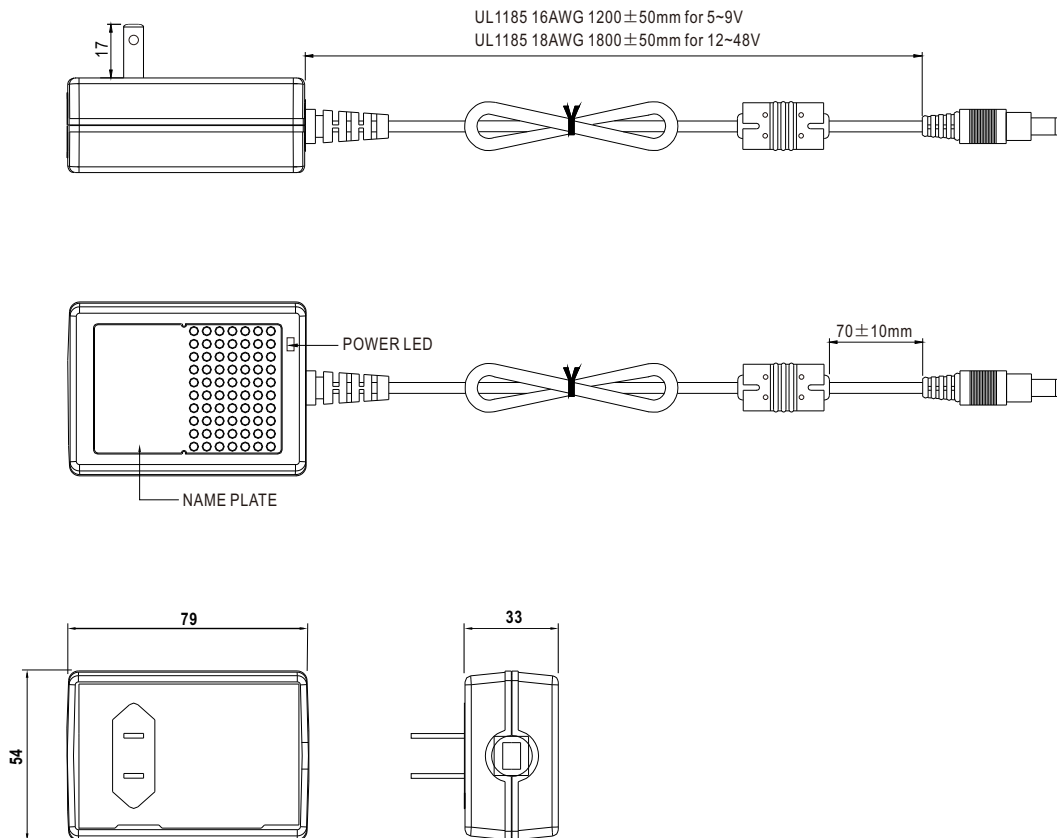
Static Characteristics



Mechanical Specification

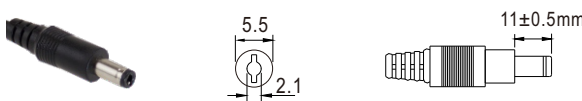
(Unit: mm , tolerance ± 1 mm)

Case No. GSM36



■ DC output plug

◎ Standard plug: P1J

P1J	Pin Assignment
	
	Outside  Inside

◎ DC plug changeable through:

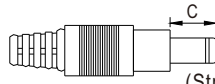
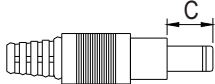
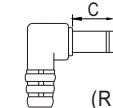
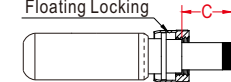
- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

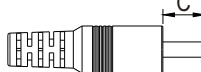
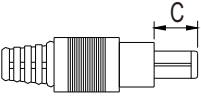
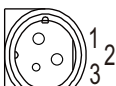
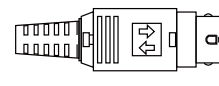
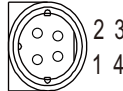
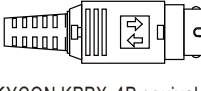
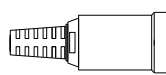
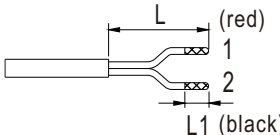
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

Example quick adapter accessory:



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

Tuning Fork Style		Type No.	A OD	B ID	C L	Quick Adapter Accessory
	 (Straight)	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	
	 (Right-angled)	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 OD	B ID	C L	None
	 (Straight)	P2I	5.5	2.1	9.5	
		P2J	5.5	2.1	11.0	
		P2L	5.5	2.5	9.5	
	 (Right-angled)	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 OD	B ID	C L	None
	 Floating Locking SWITCHCRAFT original or equivalent	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 OD	B ID	C L	Quick Adapter Accessory	
   EIAJ equivalent	P3A	2.35	0.7	11.0	Available (Current rating: 5A max.)	
	P3B	4.0	1.7	11.0		
	P3C	4.75	1.7	11.0		
Center Pin Style	Type No.	A OD	B ID	C L	D Center Pin	Available (Current rating: 7.5A max.)
   EIAJ equivalent	P4A	5.5	3.4	11.0	1.0	
	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.)
   KYCON KPPX-3P equivalent	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	+Vo			
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment				Available (Current rating: 7.5A max.)
   KYCON KPPX-4P equivalent	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
		4	+Vo			
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment				None
   KYCON KPJX-CM-4S equivalent	R7BF	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
		4	+Vo			
DIN 5 Pin (male)	Type No.	Pin Assignment				Available (Current rating: 7.5A max.)
  	R1B	PIN No.	Output			
		1	-Vo			
		2	-Vo			
		3	+Vo			
		4	-Vo			
		5	+Vo			
Stripped and tinned leads	Type No.	Pin Assignment				None
  Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 5 mm) (NOTE: The wire color is for reference only, please refer to the actual product)	by customer	PIN No.	Output			
		1	+Vo			
		2	-Vo			

Installation Manual

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

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