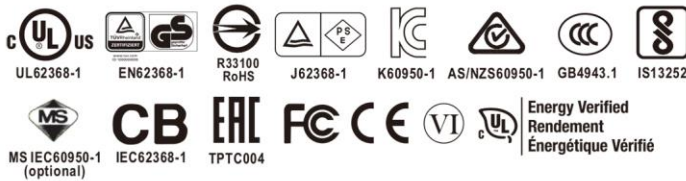




E-Star Power Development Co., Ltd. (E-STAR)  
 1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City  
 22069, Taiwan (R.O.C.)  
 Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

**40W Desktop power supply < GST40A**



**Features**

- **Global certificates**
- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14, Class I power unit
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EISA 2007/DoE, NRCAN, Korea K-MEPS, AU/NZ MEPS, EU ErP and CoC Version 5
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- Pass LPS
- -30~+70°C wide range working temperature
- LED indicator for power on
- **Various DC plug quick adapter accessory available**
- 3 years warranty

**Applications**

- Consumer electronic devices
- Telecommunication devices
- Office facilities
- Industrial equipments

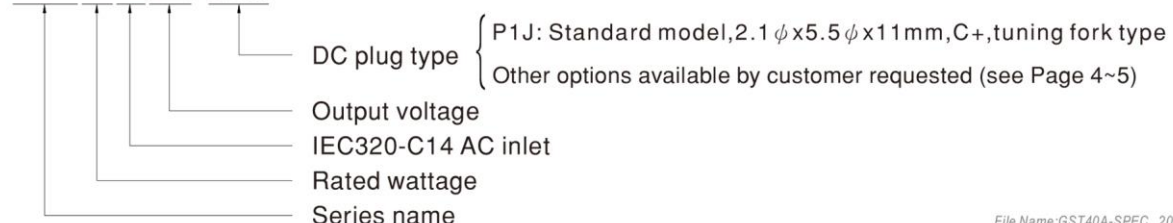
**Description**

GST40A is a highly reliable, 40W desktop style single-output green adaptor series. This product is a class I power unit (with FG), equipped with a standard IEC320-C14 AC inlet and adopting the input range from 90VAC to 264VAC. The entire series supplies different models with output voltages ranging between 5VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices.

With the efficiency up to 92% and the extremely low no-load power consumption below 0.075W, GST40A is compliant with USA EISA 2007/DoE, Canada NRCAN, Australia and New Zealand MEPS, Korea K-MEPS, EU ErP and Code of Conduct (CoC) Version 5. 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. GST40A is certified for the international safety regulations.

**Model Encoding**

**GST 40 A 05 -P1J**





**40W Desktop power supply < GST40A**

**SPECIFICATION**

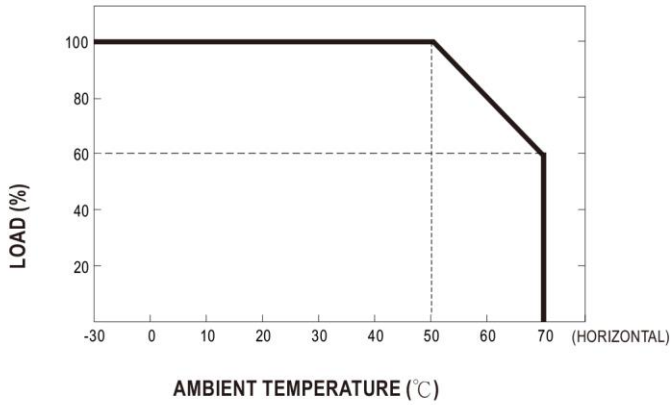
ORDER NO.	GST40A05-P1J	GST40A07-P1J	GST40A09-P1J	GST40A12-P1J	GST40A15-P1J	GST40A18-P1J	GST40A24-P1J	GST40A48-P1J		
OUTPUT	SAFETY MODEL NO.	GST40A05	GST40A07	GST40A09	GST40A12	GST40A15	GST40A18	GST40A24	GST40A48	
	DC VOLTAGE <small>Note.2</small>	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	5A	5.34A	4.45A	3.34A	2.67A	2.22A	1.67A	0.84A	
	CURRENT RANGE	0 ~ 5A	0 ~ 5.34A	0 ~ 4.45A	0 ~ 3.34A	0 ~ 2.67A	0 ~ 2.22A	0 ~ 1.67A	0 ~ 0.84A	
	RATED POWER (max.)	25W	40W	40W	40W	40W	40W	40W	40W	
	RIPPLE & NOISE (max.) <small>Note.3</small>	120mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	
	VOLTAGE TOLERANCE <small>Note.4</small>	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.5%	±2.5%	
	LINE REGULATION <small>Note.5</small>	±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%	±2.5%	±2.5%	
	SETUP, RISE TIME <small>Note.6</small>	1000ms, 50ms / 230VAC    1000ms, 50ms / 115VAC at full load								
HOLD UP TIME (Typ.)	50ms / 230VAC    15ms / 115VAC at full load									
INPUT	VOLTAGE RANGE	90 ~ 264VAC    127 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	84.5%	87.5%	88.5%	89.5%	90%	90%	91%	92%	
	AC CURRENT (Typ.)	1A / 115VAC    0.5A / 230VAC								
	INRUSH CURRENT (max.)	Cold start    35A / 115AC    65A / 230VAC								
	LEAKAGE CURRENT(max.)	0.75mA / 240VAC								
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	5.2 ~ 6.8V	7.8 ~ 10.2V	9.4 ~ 12.2V	12.6 ~ 16.2V	15.7 ~ 20.3V	18.9 ~ 24.3V	25.2 ~ 32.4V	50.4 ~ 64.8V	
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")								
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing								
	TEMP. COEFFICIENT	±0.03% / °C (0~50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note. 8)	SAFETY STANDARDS <small>Note. 7</small>	UL62368-1, CSA C22.2 No.62368-1, TUV EN62368-1, BSMI CNS 14336-1, CCC GB4943.1, PSE J62368-1, AS/NZS 60950.1, BIS IS13252, KC K60950-1, EAC TP TC 004 approved; SIRIM MS IEC62368-1 (optional) approved								
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH								
	EMC EMISSION	Parameter	Standard					Test Level / Note		
		Conducted emission	EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1 EAC TP TC 020,MSIP KN32					Class B		
		Radiated emission	EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1 EAC TP TC 020,MSIP KN32					Class B		
		Harmonic current	EN61000-3-2,GB9254					Class A		
	Voltage flicker	EN61000-3-3					-----			
	EMC IMMUNITY	Parameter	Standard					Test Level /Note		
		ESD	EN61000-4-2					Level 4, 15KV air; Level 4, 8KV contact		
RF field susceptibility		EN61000-4-3					Level 2, 3V/m			
EFT bursts		EN61000-4-4					Level 2, 1KV			
Surge susceptibility		EN61000-4-5					Level 3, 1KV/Line-Line , 2KV/Line-FG			
Conducted susceptibility		EN61000-4-6					Level 2, 3V			
Magnetic field immunity		EN61000-4-8					Level 2, 3A/m			
Voltage dips , interruption	EN61000-4-11					>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods				
OTHERS	MTBF	736.4K hrs min. MIL-HDBK-217F(25°C)								
	DIMENSION	125*50*31.5mm (L*W*H)								
	PACKING	0.28Kg; 40pcs/12.02Kg/1.04CUFT								
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 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. 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. 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."									



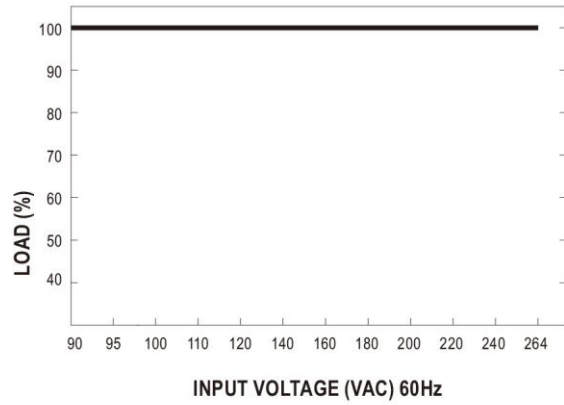
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**40W Desktop power supply < GST40A**

**Derating Curve**

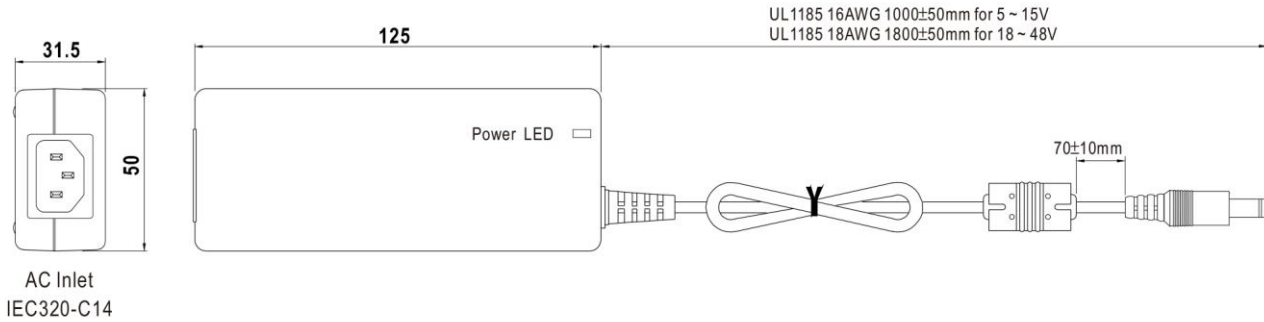


**Static Characteristics**



**Mechanical Specification**

Case No. GS60A Unit:mm



**DC output plug**

Standard plug: P1J

P1J	Pin Assignment
	Outside ⊖ ⊕ Inside -V not connected to AC FG





**40W Desktop power supply < GST40A**



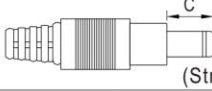
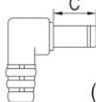


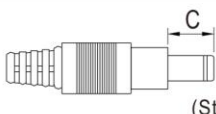
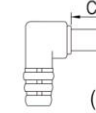


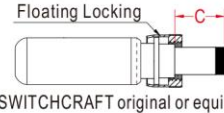




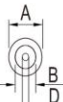
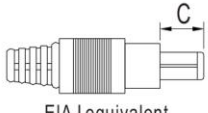
◎ DC plug changeable through:

(1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)

Example quick adapter accessory:


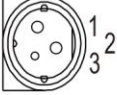






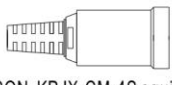




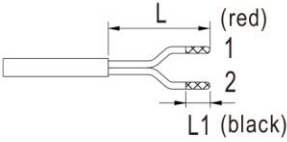


◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style		Type No.	A	B	C	Quick Adapter Accessory	
			OD	ID	L		
   (Straight)		P1I	5.5	2.1	9.5	<b>Available</b> (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	B	C	None	
			OD	ID	L		
   (Straight)		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		
	 (Right-angled)		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	C	None	
			OD	ID	L		
   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	B	C	<b>Available</b> (Current rating: 5A max.)	
			OD	ID	L		
   EIAJ equivalent		P3A	2.35	0.7	11.0		
		P3B	4.0	1.7	11.0		
		P3C	4.75	1.7	11.0		
Center Pin Style		Type No.	A	B	C	D	<b>Available</b> (Current rating: 7.5A max.)
			OD	ID	L	Center Pin	
   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	



**40W Desktop power supply < GST40A**

Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment		Quick Adapter Accessory
		PIN No.	Output	
   KYCON KPPX-3P equivalent	R6B	1	+Vo	Available (Current rating: 7.5A max.)
		2	-Vo	
		3	+Vo	
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		
		PIN No.	Output	
   KYCON KPPX-4P equivalent	R7B	1	+Vo	Available (Current rating: 7.5A max.)
		2	-Vo	
		3	-Vo	
		4	+Vo	
Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment		
		PIN No.	Output	
   KYCON KPJX-CM-4S equivalent	R7BF	1	+Vo	None
		2	-Vo	
		3	-Vo	
		4	+Vo	
DIN 5 Pin (male)	Type No.	Pin Assignment		
		PIN No.	Output	
  	R1B	1	-Vo	Available (Current rating: 7.5A max.)
		2	-Vo	
		3	+Vo	
		4	-Vo	
		5	+Vo	
Stripped and tinned leads	Type No.	Pin Assignment		
		PIN No.	Output	
  Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>5</u> mm)	by customer	1	+Vo	None
		2	-Vo	