GUS350

SPECIFICATIONS (1/2)

CA978-01-01

ITEMS \ MODEL				GUS350-12	GUS350-24	GUS350-36	GUS350-48
INPUT							
Input Voltage Range & Input Frequency	(*2)(*12)		-	85 - 265VAC (47 - 63Hz)			
Efficiency (Typ.)	(*1)	115VAC	%	93.0	94.0	94.0	94.0
		230VAC	%	95.0	95.5	95.5	95.5
Input Current (Typ.)	(*1)	115VAC	A	3.4			
		230VAC	A	1.7			
Inrush Current (Typ.)	(*1)(*3)	115/230VAC	A	25 / 50 at Cold Start			
Power Factor (Typ.)	(*1)	115/230VAC	-	0.99 / 0.95			
Leakage Current	(*9)		-	Less than 0.75mA			
OUTPUT							
Nominal Output Voltage			V	12	24	36	48
Output Voltage Initial Set Accuracy			-	Fixed (+/- 2.5%)			
Output Voltage Initial Set Accuracy (With trimmer)	(*16)		-	+/- 1%			
Output Voltage Adjustment Range (With trimmer)	(*16)		V	11.7 - 12.9	23.4 - 25.9	35.1 - 38.8	46.8 - 51.8
Maximum Output Current			A	29.2	14.6	9.8	7.4
Maximum Output Power			W	350.4	350.4	352.8	355.2
Maximum Line Regulation	(*4)(*5)		mV	48	96	144	192
Maximum Load Regulation	(*4)(*6)		mV	96	192	288	384
Temperature Coefficient	(*4)		-	Less than 0.02% / °C			
Maximum Ripple & Noise	(*1)(*4)(*17)		mV	240	360	480	480
Hold-up Time (Typ.)	(*1)		ms	12			
PROTECTIVE FUNCTION							
Over Current Protection	(*7)		A	> 30.66	> 15.33	> 10.29	> 7.77
Over Voltage Protection	(*8)		V	13.80 - 16.20	27.60 - 32.40	41.40 - 48.60	55.20 - 64.80
FUNCTION							
Remote ON/OFF Control	(*13)(*15)		-	Possible			
Remote Sensing			-	None			
Parallel Operation			-	None			
Series Operation	(*13)		-	Possible			
ENVIRONMENT							
Operating Temperature	(*10)		-	-20 to +70°C, start up at -40°C			
Storage Temperature			-	-40 to +85°C			
Operating Humidity			-	10 to 95%RH (Non Condensing)			
Storage Humidity			-	10 to 95%RH (Non Condensing)			
Vibration	(*14)		-	At no operating, 10 - 55Hz (Sweep for 1min), X,Y,Z 1hour each, 19.6m/s^2 constant for mounting B,C; 49m/s^2 constant for mouning A,C,D			
Shock	(*14)		-	Less than 196m/s^2 (time : 11 ± 5 ms)			
Cooling			-	Convection Cooling			
ISOLATION							
Withstand Voltage			-	Input - FG : 2.0kVAC (20mA), Input - Output : 3.0kVAC (20mA) Output - FG : 500VAC (100mA) for 1min			
Isolation Resistance			-	More than 100MΩ at 25°C and 70%RH, Output - FG : 500VDC			

GUS350

SPECIFICATIONS (2/2)

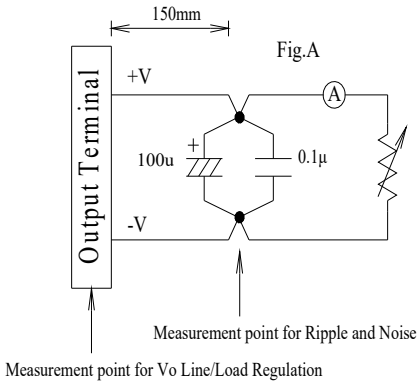
CA978-01-01

ITEMS \ MODEL			GUS350-12	GUS350-24	GUS350-36	GUS350-48
STANDARD AND COMPLIANCE						
Safety		-	Approved by IEC/EN/UL/CSA 62368-1 (Altitude ≤ 5,000m) Designed to meet IEC61010-1 (Altitude ≤ 5,000m) Designed to meet IEC62477-1 (OVC III) (Altitude ≤ 4,000m)			
Conducted Emission	(*11)		Designed to meet EN55011/EN55032-B, FCC-ClassB, VCCI-B			
Radiated Emission	(*11)		Designed to meet EN55011/EN55032-B, FCC-ClassB, VCCI-B			
Harmonic Current	(*1)(*11)	-	Designed to meet IEC61000-3-2, Class A			
Immunity	(*11)(*18)	-	Designed to meet IEC61000-6-2, IEC61000-4-2, -3, -4, -5, -6, -8, -11			
Line DIP		-	Designed to meet SEMI-F47 at 230VAC Only			
MECHANICAL						
Weight (Typ.)		g	550			
Size (W x H x D)		mm	101.6 x 41 x 127 (Refer to Outline Drawing)			

*Read instruction manual carefully, before using the power supply unit.

=NOTES=

*1. At 115VAC/230VAC, Ta=25°C, nominal output voltage, maximum output power.
*2. For cases where conformance is required to meet various safety specs (UL, CSA, EN), input voltage range shall be from 100 - 240VAC (50-60Hz).
*3. Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
*4. Refer to Fig. A for measurement of Vo, line and load regulation, and ripple voltage.
*5. Input voltage from 85 to 265VAC at constant output current.
*6. Constant input voltage and output current from no load to maximum output current.
*7. Hiccup with automatic recovery, however power supply may be latched for protection when output is shorted and manual reset is required (Re power on) .
Avoid operating at over load or short circuit condition.
*8. Inverter shut down method. When OVP is triggered, output will be shut down, and manual reset of power supply is required to re-power on.
*9. Apply the appropriate measurement method according to the required standard: UL, CSA, and EN (at 60Hz), Ta=25°C.



*10. For details, Refer to OUTPUT DERATING CURVE (CA978-01-02_).
Maximum load start up at -40°C is possible. However, it may not fulfill all the specifications.
*11. The specifications are based on TDK-Lambda standard measurement conditions.
The power supply is considered a component which will be installed into a final equipment.
The final equipment should be re-evaluated that it meets EMC requirement.
*12. When the input voltage is less than 115VAC, output derating is required. Refer to OUTPUT DERATING CURVE (CA978-01-02_)
Avoid operating the unit out of the specified input voltage range.
*13. Refer to instruction manual (CA978-04-01_).
*14. Using 4 mounting holes on chassis. The result is evaluated by TDK-Lambda standard measurement condition.
The equipment should be re-evaluated to meet its vibration and shock requirement.
*15. Remote ON/OFF control function is provided on option model /R.
*16. Output voltage adjustment function is provided on option model /ADJ.
*17. Ripple & noise are measured at 20MHz by using a 150mm twisted pair of load wires terminated with a 0.1uF and 100uF capacitor.
*18. Refer to immunity test data (CA978-58-01_).

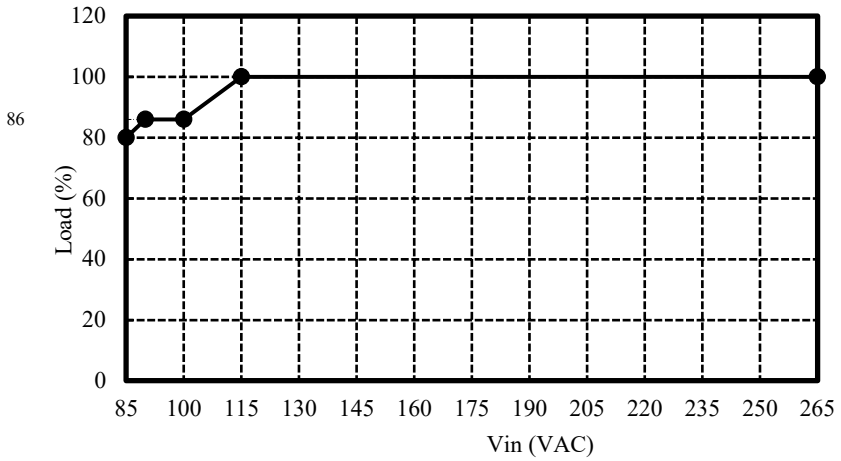
GUS350

SPECIFICATIONS (1/2)

CA978-01-02 OUTPUT DERATING

OUTPUT DERATING VERSUS INPUT VOLTAGE

Input Voltage (VAC)	Load (%)
85	80
90~100	86
115~265	100



OUTPUT DERATING VERSUS OPERATING AMBIENT TEMPERATURE (Ta)

1. GUS350-12

Mounting A

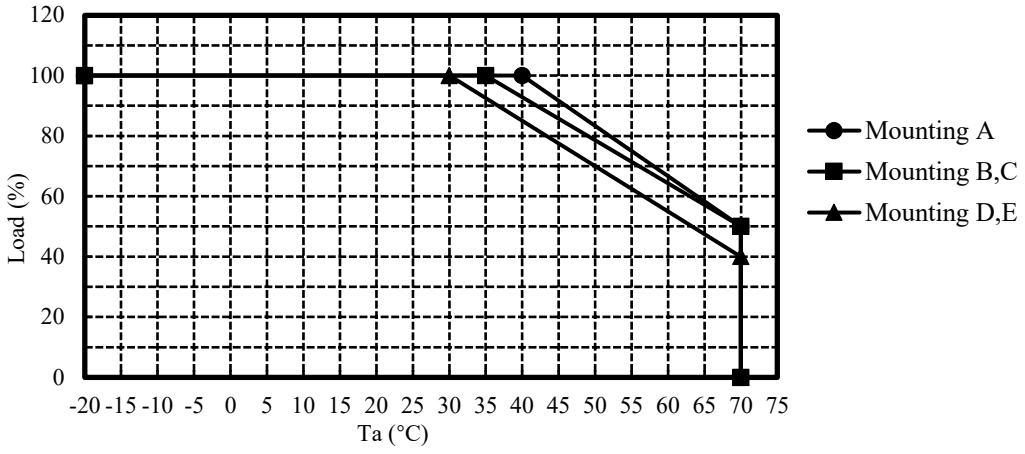
Ta (°C)	Load (%)
-20 - +40	100
+70	50

Mounting B,C

Ta (°C)	Load (%)
-20 - +35	100
+70	50

Mounting D,E

Ta (°C)	Load (%)
-20 - +30	100
+70	40



SPECIFICATIONS (2/2)

CA978-01-02 OUTPUT DERATING

2. GUS350-24,-36,-48

Mounting A,B,C

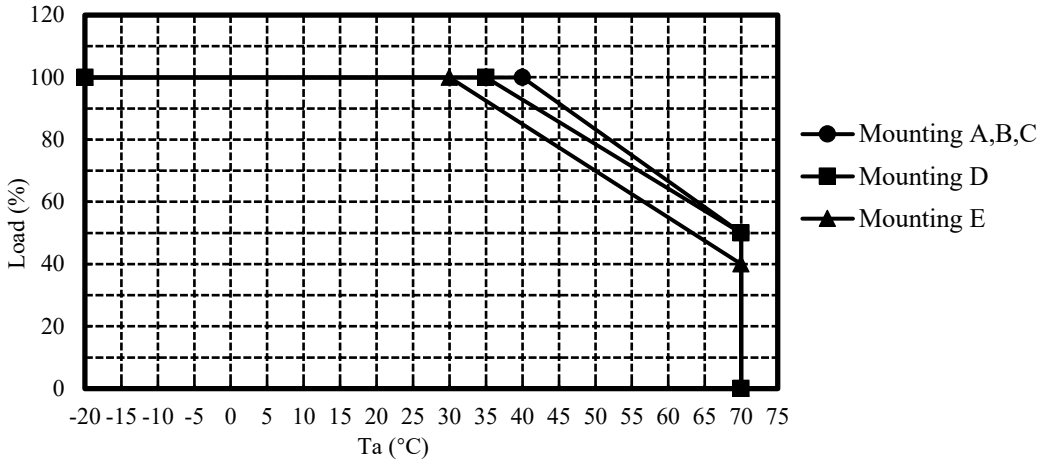
Ta (°C)	Load (%)
-20 - +40	100
+70	50

Mounting D

Ta (°C)	Load (%)
-20 - +35	100
+70	50

Mounting E

Ta (°C)	Load (%)
-20 - +30	100
+70	40



MOUNTING A (STANDARD MOUNTING) MOUNTING B MOUNTING C MOUNTING D MOUNTING E