https://product.tdk.com/en/power/gus
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350W to 1000W Compact Single Output General Purpose Power Supplies



Industrial | Test | LED | Broadcast | COMM | Semi-Fab

The compact 350W, 600W and 1000W rated GUS power supplies are designed to provide reliable performance at an economical price. The GUS models are available with 12, 24, 36 and 48V output voltages and have efficiencies up to 95%. All models are certified to IEC62368-1, designed to meet IEC61010-1 and meet Class B radiated and conducted EMI standards. Remote on/off is an option for all models, with the GUS350 having an optional output voltage adjustment function (standard on GUS600 and GUS1000). The GUS600 and GUS1000 models have an internal cooling fan with the GUS350 being convection cooled.

Features	Benefits
• Compact Size	• Saves Space in System
• Conservative Electrolytic Capacitor Ratings	• Long Field Life
• Class B Conducted and Radiated EMI	• Easier System EMC Compliance
• IEC62368-1 Certification, Compliant to IEC61010-1	• Quicker System Compliance

Model Selector

Model	Voltage (V)	Output Adjustment (V) (Specify ADJ option suffix for GUS350, standard on the GUS600 and GUS1000)	Max Current (A)	Max Output Power (W)	Ripple & Noise (mV)	Ovevoltage (V)	Overcurrent (A)	Efficiency (typ) (115 / 230Vac) (%)
GUS350-12	12	11.7 - 12.9	29.2	350.4	240	13.80 - 16.20	>30.66	93 / 95
GUS600-12	12	11.7 - 12.9	50	600	240	13.80 - 16.20	>52.50	92 / 94
GUS1000-12	12	11.7 - 12.6	66.7 (83.4 peak)	800.4 (1000.8 peak)	240	13.80 - 16.20	>87.6	91 / 93
GUS350-24	24	23.4 - 25.9	14.6	350.4	360	27.60 - 32.40	>15.33	94 / 95.5
GUS600-24	24	23.4 - 25.9	25	600	360	27.60 - 32.40	>26.25	93 / 95
GUS1000-24	24	23.4 - 25.9	41.7	1000.8	360	27.60 - 32.40	<43.8	93 / 95
GUS350-36	36	35.1 - 38.8	9.8	352.8	480	41.40 - 48.60	>10.29	94 / 95.5
GUS600-36	36	35.1 - 38.8	16.7	601.2	480	41.40 - 48.60	>17.54	93 / 95
GUS1000-36	36	35.1 - 38.8	27.8	1000.8	480	41.40 - 48.60	>29.2	93.3 / 95.3
GUS350-48	48	46.8 - 51.8	7.4	355.2	480	55.20 - 64.80	>7.77	94 / 95.5
GUS600-48	48	46.8 - 51.8	12.6	604.8	480	55.20 - 64.80	>13.23	93 / 95
GUS1000-48	48	46.8 - 51.8	20.9	1003.2	480	55.20 - 64.80	22	93.5 / 95.5

GUS350	24	/	R
Model and Output power	Output voltage 12, 24, 36, 48		

Blank	No options
R	Remote On/Off
ADJ	Output voltage adjustment potentiometer (option for GUS350 only, standard on the GUS600 and GUS1000)
/D	DIN rail mounting bracket (GUS350-24 only)

Related Products

Type	Part Number(s)	Description
AC-DC power supplies	RWS-B	50 to 1500W, industrial 7-year warranty
AC-DC power supplies	CUS-M	30 to 1500W, industrial/medical 5-year warranty

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Specifications

Model		GUS350	GUS600	GUS1000
Input				
AC Input Voltage Range (Operating)	Vac	85 - 265 (1)		
Nominal Input Voltage Range	Vac	100 - 240 (Note: Safety certified for 90 - 264Vac only)		
AC Input Frequency	Hz	47 - 63		
Input Current (115/230Vac)	A	3.4 / 1.7	6 / 3	12V: 4 / 4, 24-48V: 10 / 5
Inrush Current at 115/200Vac (Cold Start)	A	25 / 50		
Leakage Current	mA	< 0.75		< 0.5
Power Factor (10/200Vac)	-	0.99 / 0.95		
Harmonic Compliance	-	Meets IEC61000-3-2. Class A		
Hold Up Time (typical)	ms	12		11
Efficiency	-	See model selector table		
Conducted & Radiated EMI	-	EN55011/EN55032-B		
Immunity	-	IEC61000-6-2 IEC61000-4-2, -3, -4, -5, -6, -8, -11		
Safety Certifications and Markings	-	IEC/EN/UL/CSA 62368-1. CE Mark and UKCA Mark. Designed to meet IEC 61010-1 and IEC62477-1 (OVC III)		
Output				
Switching Frequency	kHz	40 to 260	50 to 300	40 to 300
Line Regulation	-	12V: 48, 24V: 96, 36V: 144, 48: 192		12V: 60, 24V: 120, 36V: 180, 48: 240
Load Regulation	-	12V: 96, 24V: 192, 36V: 288, 48: 384		12V: 120, 24V: 240, 36V: 360, 48: 480
External Load Capacitance (Maximum)	uF	12V: 10,000, 24V: 7,200, 36V: 1,400, 48V: 1,300	12V & 24V: 10,000, 36V: 7,500, 48V:1,500	12-36V: 10,000, 48V: 5,000
Ripple & Noise	-	See model selector table		
Temperature Coefficient	%/°C	0.02		
Minimum Load	-	No minimum load required		
Overcurrent Protection	%	See model selector table		
Overvoltage Protection	-	Latching (unit shutdown), cycle AC input to reset		
Overtemperature Protection	-	Latching (unit shutdown), cycle AC input to reset		
Remote Sense	-	No		
Remote On/Off	-	Specify option R		
Indicators	-	Green LED indicates DC is OK		
Environmental				
Operating Temperature	°C	-20 to +70 (See derating curves below) (-40 start-up)		
Storage Temperature	°C	-40 to +85		
Humidity (non condensing)	%RH	Operating and Storage: 10 - 95		
Cooling	-	Convection	Internal fan	
Altitude	m	<5000 (<4,000 for IEC62477-1)		
Withstand Voltage (For 1 minute)	Vac	Input to ground 2,000, Input to output 3,000, Output to ground 500 for 1 minute		
Vibration (Non operating)	-	10-55Hz (Sweep for 1min.) 19.6m/s2 Constant X,Y,Z 1 hour each		
Shock (Non operating)	-	Less than 196m/s2, 11ms, ±X, ±Y, ±Z 3 times each		
Other				
Weight (Typ)	g	550	800	910
Size (WxHxD)	mm	101.6 x 41 x 127	101.6 x 41 x 152.4	101.6 x 41 x 177.8
Size (WxHxD)	Inches	4 x 1.61 x 5	4 x 1.61 x 6	4 x 1.61 x 7
Connectors	-	Screw terminal input and output. Signal connectors JST S2B-EH. See output drawings		
MTBF - Telcordia SR-332 issue 3*	Hours	1,573,939 (at 25°C, 12V, 230Vac)	2,480,315 (at 25°C, 12V, 115Vac)	1,193,215 (at 25°C, 12Vdc, 115Vac)
Warranty	Years	3 years		

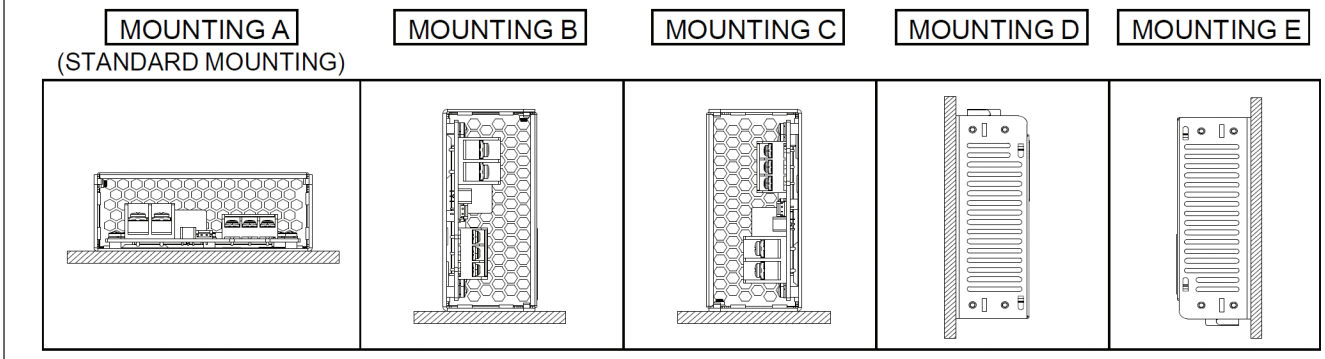
Notes:
See website for detailed specifications, test methods and installation manual
(1) Derate below 115Vac input. See derating curves
(*) ambient, at full load, output voltage, Vac input, full load

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GUS350 Immunity

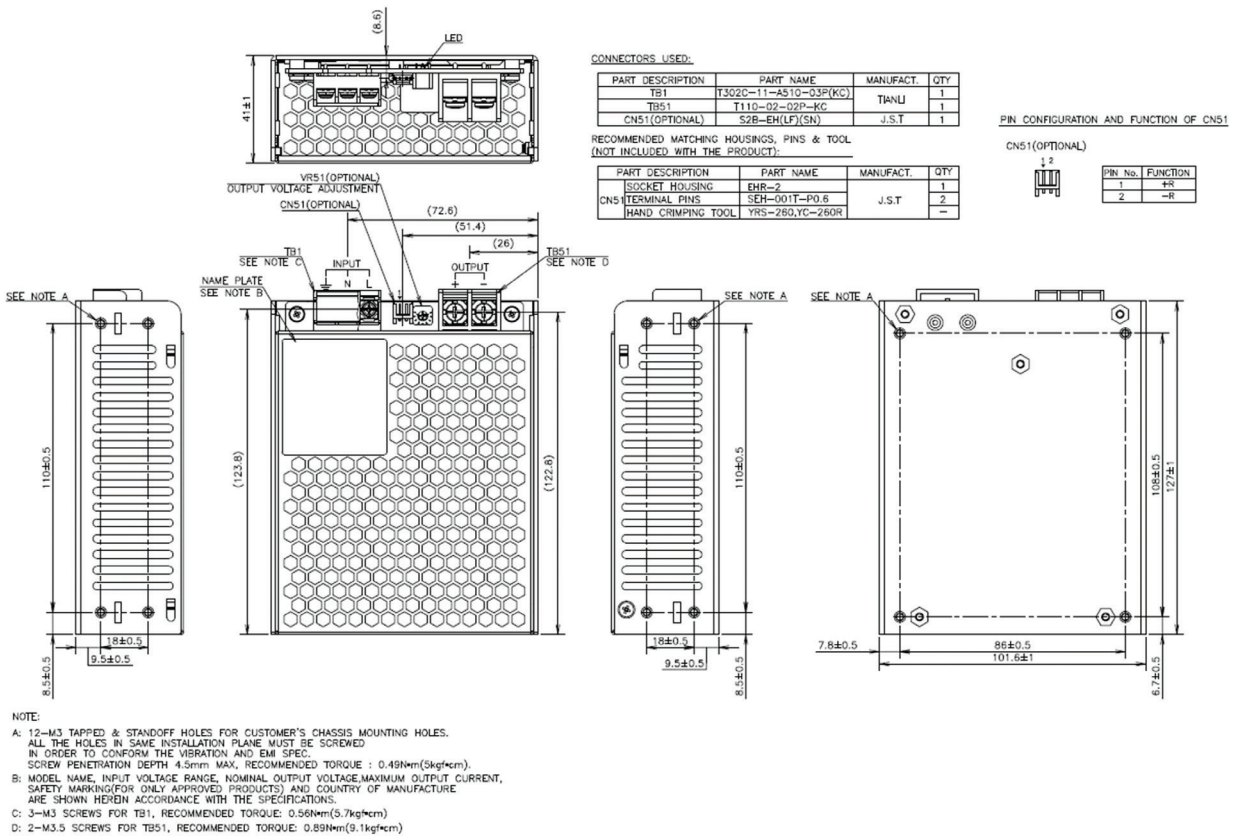
Test	Standard	Test Level	Criteria	Notes:
ESD	EN61000-4-2	Contact Discharge: 8kV Air Discharge: 15kV	A	-
Radiated Susceptibility	EN61000-4-3	Radiation Field Strength 3V/m Radiation Field Strength 10V/m	A	Electromagnetic Frequency: 1.4 - 6GHz Electromagnetic Frequency: 80 - 1000GHz
Electrical Fast Transient Burst	EN61000-4-4	Input Power Port and Enclosure Port: 4kV Output Power Port and Signal Port: 2kV	A	-
Surge	EN61000-4-5	Common Mode: 4kV Normal Mode: 2kV	A	-
Conducted Susceptibility	EN61000-4-6	10V	A	-
Magnetic fields	EN61000-4-8	30A/m	A	-
Voltage Dips and Input Interruptions	IEC61000-4-11 100-120Vac input	Dip: 20% 5000ms	A	-
		Dip: 30% 500ms	A	-
		Dip: 60% 200ms	A/B	A: ≤150W, B: >150W
		Dip: 100% 10ms	A	-
		Dip: 100% 20ms	A/B	A: ≤200W, B: >200W
		Dip: 100% 5000ms	B	-
	IEC61000-4-11 200-240Vac input	Dip: 20% 5000ms	A	-
		Dip: 30% 500ms	A	-
		Dip: 60% 200ms	A	-
		Dip: 100% 10ms	A	-
		Dip: 100% 20ms	A/B	A: ≤200W, B: >200W
		Dip: 100% 5000ms	B	-
SEMI F47 Line Dip	SEMI F47	-	-	At input voltages > 200Vac

GUS Mounting



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Outline Drawing GUS350



CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
TB1	T302C-11-A510-03P(KC)	TIANLI	1
TB51	T110-02-02P-KC		1
CN51(OPTIONAL)	S2B-EH(LF)(SN)	J.S.T	1

RECOMMENDED MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

	PART DESCRIPTION	PART NAME	MANUFACT.	QTY
CN51	SOCKET HOUSING	EHR-2	J.S.T	1
	TERMINAL PINS	SEH-001T-P0.6		2
	HAND CRIMPING TOOL	YRS-260,YC-260R		—

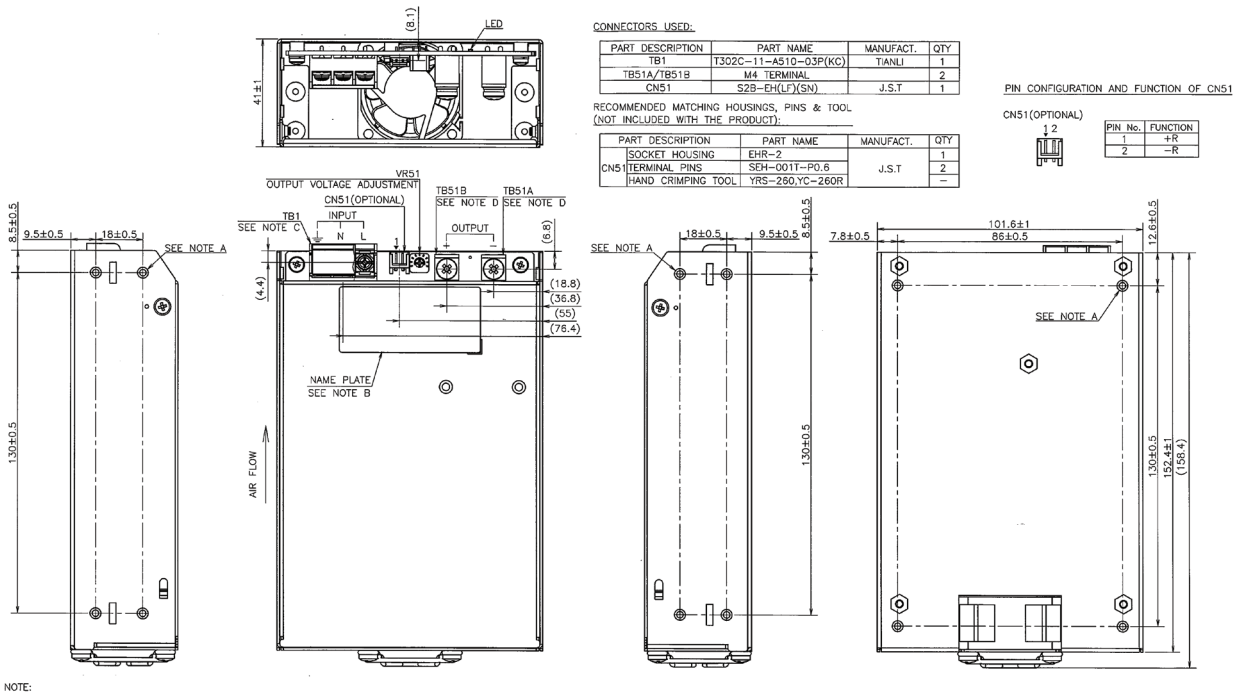
PIN CONFIGURATION AND FUNCTION OF CN51

CN51(OPTIONAL)

PIN No.	FUNCTION
1	+R
2	−R

NOTE:
A: 12−M3 TAPPED & STANDOFF HOLES FOR CUSTOMER'S CHASSIS MOUNTING HOLES. ALL THE HOLES IN SAME INSTALLATION PLANE MUST BE SCREWED IN ORDER TO CONFORM THE VIBRATION AND EMI SPEC. SCREW PENETRATION DEPTH 4.5mm MAX, RECOMMENDED TORQUE : 0.49N•m(5kgf•cm).
B: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE,MAXIMUM OUTPUT CURRENT, SAFETY MARKING(FOR ONLY APPROVED PRODUCTS) AND COUNTRY OF MANUFACTURE ARE SHOWN HEREIN ACCORDANCE WITH THE SPECIFICATIONS.
C: 3−M3 SCREWS FOR TB1, RECOMMENDED TORQUE: 0.56N•m(5.7kgf•cm)
D: 2−M3.5 SCREWS FOR TB51, RECOMMENDED TORQUE: 0.89N•m(9.1kgf•cm)

Outline Drawing GUS600



CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
TB1	T302C-11-A510-03P(KC)	TIANLI	1
TB51A/TB51B	M4 TERMINAL		2
CN51	S2B-EH(LF)(SN)	J.S.T	1

RECOMMENDED MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

	PART DESCRIPTION	PART NAME	MANUFACT.	QTY
CN51	SOCKET HOUSING	EHR-2	J.S.T	1
	TERMINAL PINS	SEH-001T-P0.6		2
	HAND CRIMPING TOOL	YRS-260,YC-260R		—

PIN CONFIGURATION AND FUNCTION OF CN51

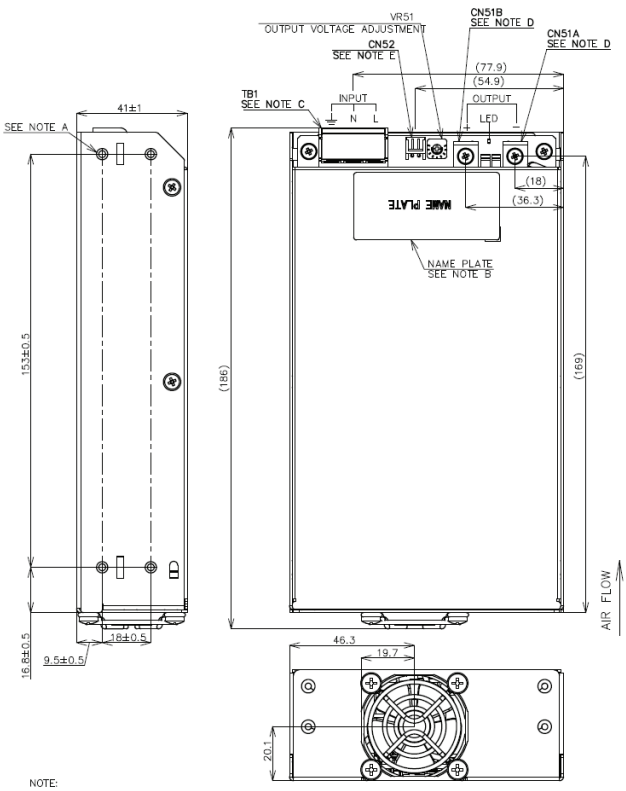
CN51(OPTIONAL)

PIN No.	FUNCTION
1	+R
2	−R

NOTE:
A: 12−M3 COUNTERSINK & BURRING TAPPED HOLES FOR CUSTOMER'S CHASSIS MOUNTING HOLES. ALL THE HOLES IN SAME INSTALLATION PLANE MUST BE SCREWED IN ORDER TO CONFORM THE VIBRATION AND EMI SPEC. SCREW PENETRATION DEPTH 4mm MAX, RECOMMENDED TORQUE : 0.49N•m(5kgf•cm).
B: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE,MAXIMUM OUTPUT CURRENT, SAFETY MARKING(FOR ONLY APPROVED PRODUCTS) AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
C: 3−M3 SCREWS FOR TB1, RECOMMENDED TORQUE: 0.56N•m(5.7kgf•cm)
D: 2−M4 SCREWS FOR TB51A & TB51B, RECOMMENDED TORQUE: 1.18N•m(12kgf•cm)

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Outline Drawing GUS1000



NOTE:

A: 12−M3 TAPPED & STANDOFF HOLES FOR CUSTOMER'S CHASSIS MOUNTING HOLES. ALL MUST BE SCREWED IN ORDER TO CONFORM THE VIBRATION AND EMI SPEC. SCREW PENETRATION DEPTH 4.5mm MAX. RECOMMENDED TORQUE : 0.49N•m(5kgf•cm).

B: MODEL NAME, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE,MAXIMUM OUTPUT CURRENT, SAFETY MARKING(FOR ONLY APPROVED PRODUCTS) AND COUNTRY OF MANUFACTURE ARE SHOWN HEREIN ACCORDANCE WITH THE SPECIFICATIONS.

C: 3−M3 SCREWS FOR TB1, RECOMMENDED TORQUE: 0.49N•m(5kgf•cm~8.2kgf•cm)

D: 2−M4 SCREWS FOR CN51A & CN51B, RECOMMENDED TORQUE: 1.18N•m(12kgf•cm).

E: CN52 IS OPTIONAL PART

CONNECTORS USED:

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
TB1	T302C−11−A510−03P(KC)	TIANLI	1
CN51A/CN51B	M4 TERMINAL		2
CN52(NOTE E)	S2B−EH(LF)(SN)	J.S.T	1

RECOMMENDED MATCHING HOUSINGS, PINS & TOOL (NOT INCLUDED WITH THE PRODUCT):

PART DESCRIPTION	PART NAME	MANUFACT.	QTY
CN52 SOCKET HOUSING	EHR−2	J.S.T	1
CN52 TERMINAL PINS	SEH−001T−P0.6	J.S.T	2
CN52 HAND CRIMPING TOOL	YRS−260,YC−260R	J.S.T	−

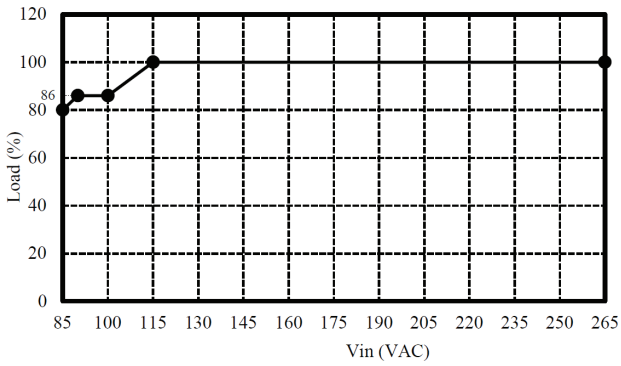
PIN CONFIGURATION AND FUNCTION OF CN52
CN52(SEE NOTE E)



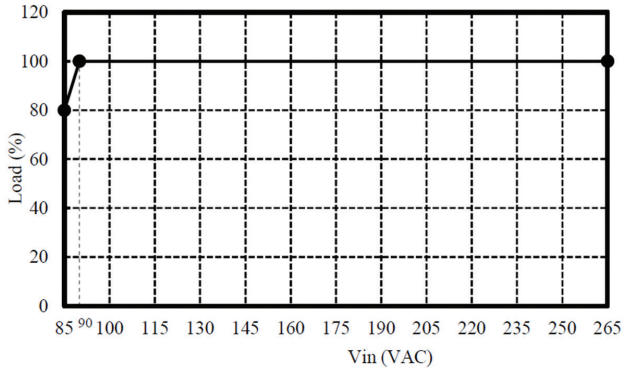
PIN No.	FUNCTION
1	R+
2	R−

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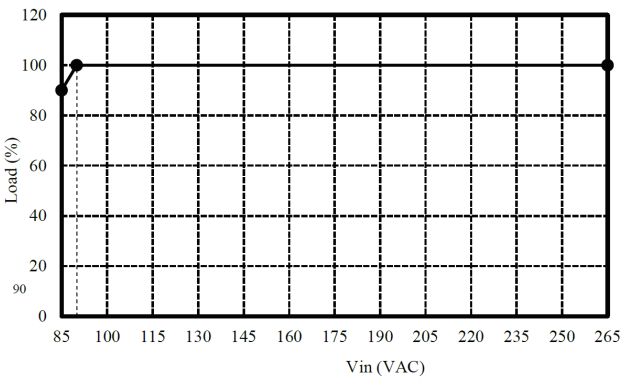
GUS350 Derating Curves vs Input Voltage



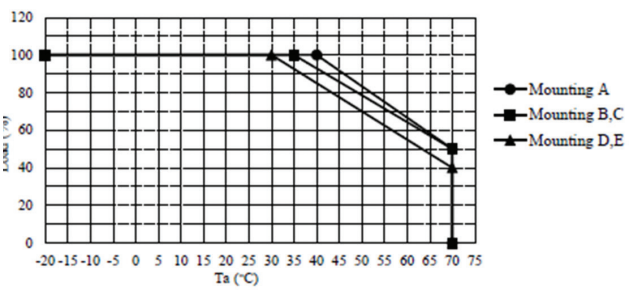
GUS600 Derating Curves vs Input Voltage



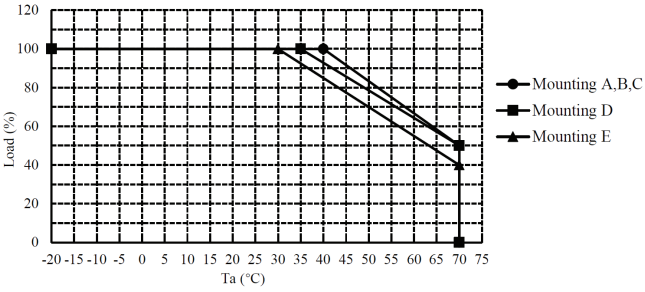
GUS1000 Derating Curves vs Input Voltage



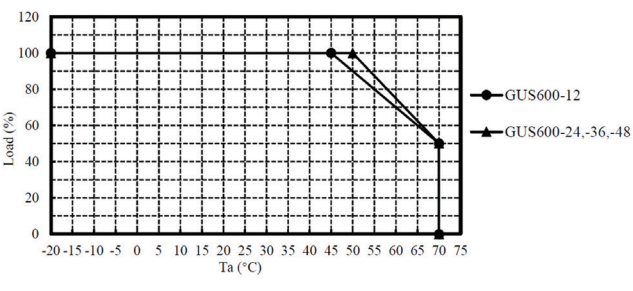
GUS350-12 Derating Curves vs Temperature



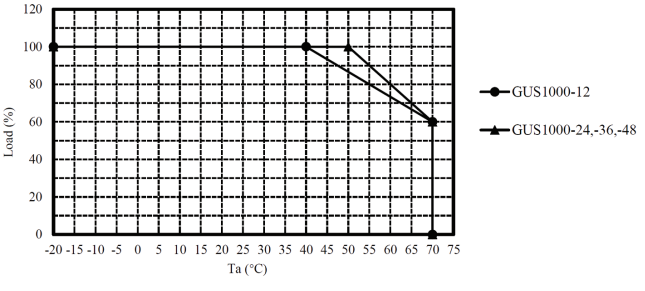
GUS350-24,-36,-48 Derating Curves vs Temperature



GUS600 Derating Curves vs Temperature



GUS1000 Derating Curves vs Temperature



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