

GEN 750W SPECIFICATIONS

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08/27/06
NLI, RAD

OUTPUT RATING

MODEL	GEN	6-100	8-90	12.5-60	20-38	30-25	40-19	60-12.5	80-9.5	100-7.5	150-5	300-2.5	600-1.3	REV.
1. Rated output voltage (*1)	V	6	8	12.5	20	30	40	60	80	100	150	300	600	
2. Rated output current (*2)	A	100	90	60	38	25	19	12.5	9.5	7.5	5	2.5	1.3	
3. Rated output power	W	600	720	750	760	750	760	750	760	750	750	750	780	

INPUT CHARACTERISTICS

	V	6	8	12.5	20	30	40	60	80	100	150	300	600	
1. Input voltage/freq. (*3)	---	85-265Vac continuous, 47-63Hz, single phase.												
2. Input current (at 100/200Vac)	A	10.5/5												
3. Power Factor	---	0.99@100/200Vac, rated output power.												
4. Efficiency (*4)	%	76/78	77/80	81/84	82/85	82/85	83/87	83/87	83/87	83/87	83/87	83/87	83/87	83/87
5. Inrush current at 100/200V	A	Less than 25A												

CONSTANT VOLTAGE MODE

	V	6	8	12.5	20	30	40	60	80	100	150	300	600	
1. Max. Line regulation (*5)	---	0.01% of rated output voltage +2mV												
2. Max. Load regulation (*6)	---	0.01% of rated output voltage +2mV												
3. Ripple and noise (p-p, 20MHz) (*10)	mV	60	60	60	60	60	60	60	80	80	100	150	300	
4. Ripple r.m.s. 5Hz-1MHz (*10)	mV	8	8	8	8	8	8	8	8	8	10	25	60	
5. Temperature coefficient	PPM/°C	100PPM/°C from rated output voltage, following 30 minutes warm-up.												
6. Temperature drift	---	0.05% of rated Vout over 8hrs interval following 30 minutes warm-up. Constant line, load & temp.												
7. Rem. sense compensation/wire	V	1	1	1	1	1.5	2	3	4	5	5	5	5	
8. Up-prog. Response time, 0-Vomax (*9)	mS	80												
9. Down-prog. response time:	Full load	150											250	
	No load	500	600	700	800	900	1000	1100	1200	1500	2000	2500	4000	
10. Transient response time	mS	Time for output voltage to recover within 0.5% of its rated output for a load change 10-90% of rated output current. Output set-point: 10-100%. Less than 1mS, for models up to and including 100V. 2mS, for models above 100V.												
11. Hold-up time	mS	More than 20mS, 100Vac, rated output power.												

CONSTANT CURRENT MODE

	V	6	8	12.5	20	30	40	60	80	100	150	300	600	
1. Max. Line regulation (*5)	---	0.01% of rated output current +2mA												
2. Max. Load regulation (*7)	---	0.02% of rated output current +5mA												
3. Ripple r.m.s. 5Hz-1MHz (*8)	mA	200	180	120	76	63	48	38	29	23	18	13	8	
4. Temperature coefficient	PPM/°C	100PPM/°C from rated output current, following 30 minutes warm-up.												
5. Temperature drift	---	0.05% of rated Iout over 8hrs. interval following 30minutes warm-up. Constant line, load & temperature.												
6. Warm up drift	---	Less than 0.1% of rated output current over 30 minutes following power on or output voltage change or load current change												

ANALOG PROGRAMMING AND MONITORING

1. Vout voltage programming	---	0-100%, 0-5V or 0-10V, user select. Accuracy and linearity: +/-0.5% of rated Vout.												
2. Iout voltage programming	---	0-100%, 0-5V or 0-10V, user select. Accuracy and linearity: +/-1% of rated Iout.												
3. Vout resistor programming	---	0-100%, 0-5/10Kohm full scale, user select. Accuracy and linearity: +/-1% of rated Vout.												
4. Iout resistor programming	---	0-100%, 0-5/10Kohm full scale, user select. Accuracy and linearity: +/-1.5% of rated Iout.												
5. On/off control	---	By electrical Voltage: 0-0.6V/2-15V or dry contact, user selectable logic.												
6. Output current monitor	---	0-5V or 0-10V, user selectable. Accuracy: 1%.												
7. Output voltage monitor	---	0-5V or 0-10V, user selectable. Accuracy: 1%.												
8. Power supply OK signal	---	4-5V-OK, 0V-Fail. 500ohm series resistance.												
9. Parallel operation	---	Possible, up to 4 units in master/slave mode with single wire current balance connection.												
10. Series operation	---	Possible (with external diodes), up to 2 units.												
11. CV/CC indicator	---	CV: TTL high (4-5V), source current: 10mA, CC: TTL low (0-0.6V), sink current: 10mA.												
12. Enable/Disable	---	Dry contact. Open: off, Short: on. Max. voltage at Enable/Disable in: 6V.												
13. Local/Remote analog Control	---	By electrical signal or Open/Short: 0-0.6V or short: Remote, 4-5V or open: Local												
14. Local/Remote analog Indicator	---	Open collector. Local: Open, Remote: On. Maximum voltage: 30V, maximum sink current: 5mA												

PROGRAMMING AND READBACK (RS232/485, Optional IEEE Interface)

1. Vout programming accuracy	---	0.05% of actual output voltage +0.05% of rated output voltage												
2. Iout programming accuracy	---	0.1% of actual output current +0.1% of rated output current												
3. Vout programming resolution	---	0.012% of full scale												
4. Iout programming resolution	---	0.012% of full scale												
5. Vout readback accuracy	---	0.1% of actual output voltage +0.1% of rated output voltage												
6. Iout readback accuracy	---	0.1% of actual output current +0.3% of rated output current												
7. Vout readback resolution	---	0.012% of full scale												
8. Iout readback resolution	---	0.012% of full scale												

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REV.

PROTECTIVE FUNCTIONS	V	6	8	12.5	20	30	40	60	80	100	150	300	600
1.Foldback protection	---	Output shut-down when power supply change from CV to CC. User presetable.											
2.Over-voltage protection	---	Inverter shut-down, manual reset by AC input recycle or by OUT button or by communication port command.											
3.Over-voltage trip point	V	0.5~7.5	0.5~10	1~15	1~24	2~36	2~44	5~66	5~88	5~110	5~165	5~330	5~660
4.Output under voltage limit	---	Preset by front panel or communication port. Prevents from adjusting Vout below limit. Raises the PS_OK signal in case of output voltage is below limit.											
5.Over temperature protection	---	User selectable, latched or non latched.											

FRONT PANEL

1.Control functions	---	Vout/Iout manual adjust by separate encoders (coarse and fine adjustment).	
	---	OVP/UVL manual adjust by Vout. Adjust encoder.	
	---	Address selection by Voltage Adjust encoder. No of address:31.	
	---	Go to local control.	
	---	Output on/off	
	---	AC on/off	
	---	Front panel lock	
	---	Foldback control	
	---	Baud rate selection: 1200, 2400, 4800, 9600 and 19200.	
---	Re-start modes (automatic restart, safe mode).		
2.Display	---	Vout:	4 digits, accuracy: 0.5% of rated output voltage +/-1 count.
	---	Iout:	4 digits, accuracy: 0.5% of rated output current +/-1 count.
3.Indications	---	VOLTAGE, CURRENT, ALARM, FINE, PREVIEW, FOLDBACK, LOCAL, OUTPUT ON.	

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ENVIRONMENTAL CONDITIONS

1.Operating temperature	---	0~50°C, 100% load.
2.Storage temperature	---	-20~70°C
3.Operating humidity	%	30~90% RH (no condensation).
4.Storage humidity	%	10~95% RH (no condensation).
5.Altitude	---	Maximum 3000m. Derate output current by 2%/100m above 2000m. Alternatively, derate maximum ambient temperature by 1°C/100m above 2000m.

MECHANICAL

1.Cooling	---	Forced air cooling by internal fans.
2.Weight	Kg	Less than 7Kg.
3.Dimensions (WxHxD)	mm	W: 422.8, H: 43.6, D: 432.8 (Refer to Outline drawing).
4.Vibration	---	MIL-810E, method 514.4, test condition I-3.3.1
5.Shock	---	Less than 20G, half sine, 11mS. Unit is unpacked.

SAFETY/EMC

1.Applicable standards:	Safety	---	UL60950 listed, EN60950. Vouts60V: Output is SELV, IEEE/Isolated analog are SELV. 60<Vout<400V: Output is hazardous, IEEE/Isolated analog are SELV. 400<Vout<600V: Output is hazardous, IEEE/Isolated analog are not SELV.
	EMC	---	EN55024
2.Withstand voltage	---	Vouts60V models: Input-Outputs (SELV): 3.0KVrms 1min, Input-Ground: 2.0KVrms 1min, 60<Vouts600V models: Input-Haz. Output: 2.5KVrms 1min, Input-SELV: 3KVrms 1min, Hazardous Output-SELV: 1.9KVrms 1min, Hazardous Output-Ground: 1.9KVrms 1min, Input-Ground: 2.0KVrms 1min.	
3.Insulation resistance	---	More than 100Mohm at 25°C, 70%RH.	
4.Conducted emission	---	EN55022B, FCC part 15-B, VCCI-2	
5.Radiated emission	---	EN55022A, FCC part 15-A, VCCI-1	

NOTES:

- *1: Minimum voltage is guaranteed to maximum 0.2% of rated output voltage.
- *2: Minimum current is guaranteed to maximum 0.4% of rated output current.
- *3: For cases where conformance to various safety standards (UL, IEC, etc...) is required, to be described as 100-240Vac (50/60Hz).
- *4: At 100/200Vac input voltage and maximum output power.
- *5: From 85~132Vac or 170~265Vac, constant load.
- *6: From No-Load to Full-Load, constant input voltage. Measured at the sensing point in Remote Sense.
- *7: For load voltage change, equal to the unit voltage rating, constant input voltage.
- *8: For 6V models the ripple is measured at 2~6V output voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.
- *9: With rated, resistive load.
- 10* For 6V~300V models: Measured with JEITA RC-9131A (1:1) probe. For 600V model: Measured with 10:1 probe.

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