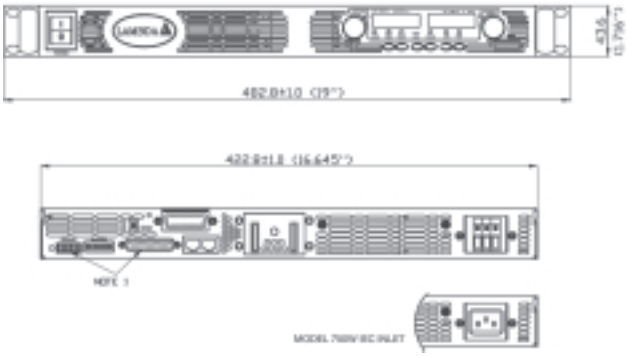
Series GEN

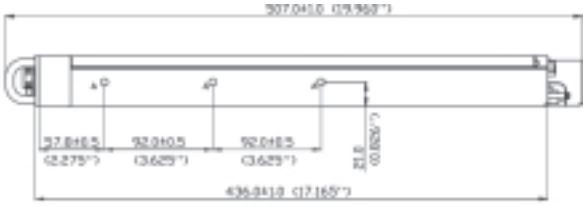
Programmable DC Power Supplies
750W / 1500W in 1U

Built-in RS-232 & RS-485 Interface
IEEE488.2 SCPI (GPIB) optional

Highest Power Density available 1500W in 1U
Wide Range Input 85 - 265Vac...47/63Hz Continuous, single phase,
Active Power Factor Correction (0.99 typical)
Output Voltage up to 600V, Current up to 200A
Built-in RS-232/RS-485 Interface
Last Setting Memory
High Resolution 16 bits ADCs & DACs
Reliable Encoders for Voltage and Current Adjustment
Constant Voltage/Constant Current auto-crossover
Parallel Operation with Active Current Sharing
Independent Remote ON/OFF and Remote Enable/Disable
External Analog Programming and Monitoring
Reliable Modular and SMT Design
19" Rack Mounted ATE and OEM applications
Optional Isolated Analog Programming and Monitoring
Optional IEEE 488.2 SCPI (GPIB) Interface
LabView® and LabWindows® drivers

Outline Drawing Gen 750W/1500W Units





NOTE

1. PLUG CONNECTORS INCLUDED WITH THE POWER SUPPLY
2. CHASSIS SLIDES MOUNTING HOLES #10-32 MARKED „A“
   GENERAL DEVICES P/N: CC301-00-S160 OR EQUIVALENT

Laborstromversorgungen

1 INPUT CHARACTERISTICS	
1. Input voltage/freq. (*1)	85~265Vac continuous, 47~63Hz, single phase
2. Power Factor	0.99 @100/200Vac, rated output power.
3. EN61000-3-2,3 compliance	Complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power.
4. Input current 100/200Vac	750W :Less than 25A, 1500W :Less than 50A
5. Inrush current 100/200Vac	More than 20mS , 100Vac , at 100% load.
6. Hold-up time	750W :10.5A / 5A, 1500W :21A / 11A

2 POWER SUPPLY CONFIGURATION	
1. Parallel Operation	Up to 4 units in master/slave mode with single wire current balance connection
2. Series Operation	Up to 2 units. with external diodes. 600V Max to Chassis ground

3 ENVIRONMENTAL CONDITIONS	
1. Operating temp	0~50 °C, 100% load.
2. Storage temp	-20~70°C
3. Operating humidity	30~90% RH (non-condensing).
4. Storage humidity	10~95% RH (non-condensing).
5. Vibration	MIL-810E, method 514.4 , test cond. I-3.3.1. The EUT is fixed to the vibrating surface.
6. Shock	Less than 20G , half sine , 11mSec. Unit is unpacked.
7. Altitude	Operating: 10000ft (3000m) , Non operating: 40000ft (12000m).

4 EMC	
1.Applicable Standards:	
2.ESD	IEC1000-4-2. Air-disch.-8KV, contact disch.-4KV
3.Fast transients	IEC1000-4-4. 2KV
4.Surge immunity	IEC1000-4-5. 1KV line to line, 2KV line to ground
5.Conducted immunity	IEC1000-4-6, 3V
6.Radiated immunity	IEC1000-4-3, 3V/m
7.Conducted emission	EN55022B,FCC part 15J-B,VCCI-2
8.Radiated emission	EN55022A,FCC part 15-A,VCCI-1
9.Voltage dips	EN61000-4-11
10. Conducted emission	EN55022B, FCC part 15-B, VCCI-2.
11. Radiated emission	EN55022A, FCC part 15-A, VCCI-1.

5 SAFETY	
1.Applicable standards:	CE Mark, UL60950,EN60950 listed. Vout<60V: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.
2.Withstand voltage	Vout<60V models :Input-Outputs (SELV): 3.0KVrms 1min, Input-Ground: 2.0KVrms 1min. 60<Vout<600V 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: 2KVrms 1min.
3.Insulation resistance	More than 100Mohm at 25°C , 70% RH, 500Vdc

6 MECHANICAL CONSTRUCTION	
1. Cooling	Forced air flow : from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.
2. Dimensions (WxHxD)	W: 422.8mm, H: 43.6mm, D: 432.8mm (excluding connectors, encoders, handles, etc.)
3. Weight	750W: 7Kg (15 Lbs) 1500W: 8.5Kg (18 Lbs)
4. AC Input connector	750W: IEC320 AC Inlet. 1500W: Screw terminal block, Phoenix P/N: FRONT-4-H-7.62 , with strain relief
5.Output connectors	6V to 60V models: bus-bars (hole Ø 8.5mm). 80V to 600V models: Terminal block, Phoenix P/N: FRONT-4-H-7.62

*1: For cases where conformance to various safety standards (UL, IEC etc.) is required, to be described as 100-240Vac (50/60Hz).

Options:

RS-232/RS-485 Interface built-in Standard
GPIB Interface
Voltage Programming Isolated Analog Interface
Current Programming Isolated Analog Interface

Vertrieb: FIV Franke Industrievertretungen / Tel.: +49 (0)721 - 94159 10 / Fax: +49 (0)721 - 94159 11 / E-mail: info@franke-iv.de

MODEL	GEN	6-200	8-180	12.5-120	20-76	30-50	40-38	60-25	80-19	100-15	150-10	300-5	600-2.6		x
1.Rated output voltage(*1)	V	6	8	12.5	20	30	40	60	80	100	150	300	600		x
2.Rated Output Current(*2)	A	200	180	120	76	50	38	25	19	15	10	5	2.6		x
3.Rated Output Power	W	1200	1440	1500	1520	1500	1520	1500	1520	1500	1500	1500	1560		x
4.Efficiency at 100/200Vac (*3)	%	77/80	78/81	81/84	83/86	83/86	84/88	84/88	84/88	84/88	84/88	83/87	83/87	x	x

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

CONSTANT VOLTAGE MODE

1.Max.line regulation (0.01% of Vo+ 2mV)(*4)	mV	2.6	2.8	3.3	4	5	6	8	10	12	17	32	62	x	x
2.Max load regulation (0.01% of Vo+2mV)(*5)	mV	2.6	2.8	3.3	4	5	6	8	10	12	17	32	62	x	x
3.Ripple and noise p-p 20MHz	mV	60	60	60	60	60	60	60	80	80	100	120	300	x	x
4.Ripple r.m.s 5Hz~1MHz	mV	8	8	8	8	8	8	8	8	8	10	20	60	x	x
5.Remote sense compensation/line	V	1	1	1	1	1.5	2	3	4	5	5	5	5	x	x
6.Temp. coefficient	PPM/°C	100PPM/°C of rated output voltage,following 30 minutes warm up												x	x
7.Up-prog. response time, 0~Vo Rated		80mS , N.L/F.L , resistive load							150mS , N.L/F.L , resistive load				250	x	x
8.Down-prog response time full-load	mS	10	50			80			150				250	x	x
9.Down-prog response time no-load	mS	500	600	700	800	900	1000	1100	1200	1500	2000	2500	4000	x	x
10.Transient response time (*8)		Less than 1mSec for models up to and including 100V. 2msec for models above 100V												x	x

CONSTANT CURRENT MODE

1.Max.line regulation (0.01% of Io+ 2mA)(*4)	mA	12	11	8.0	5.8	4.5	3.9	3.25	2.95	2.75	2.5	2.25	2.13	X	
2.Max.load regulation (0.02% of Io+5mA)(*6)	mA	25	23	17	12.6	10	8.8	7.5	6.9	6.5	6.0	5.5	5.26	X	
3.Ripple r.m.s 5Hz~1MHz . (*7)	mA	200	180	120	76	63	48	38	29	23	18	13	8	X	
4.Max.line regulation (0.01% of Io+ 2mA)(*4)	mA	22	20	14	9.6	7.0	5.8	4.5	3.9	3.5	3.0	2.5	2.26		x
5.Max.load regulation (0.02% of Io+5mA)(*6)	mA	45	41	29	20.2	15	12.6	10	8.8	8.0	7.0	6.0	5.52		x
6.Ripple r.m.s 5Hz~1MHz .(*7)	mA	400	360	240	152	125	95	75	57	45	35	25	12		x
7.Temp. coefficient	PPM/°C	100PPM/°C from rated output voltage,following 30 minutes warm up												x	x

PROTECTIVE FUNCTIONS

1. OCP	0~105% Constant Current												x	x
2. OCP Foldback	Output shut down when power supply change from CV to CC. User selectable.												x	x
3. OVP type	Inverter shut-down, manual reset by AC input recycle or by OUT button												x	x
4. OVP trip point	0.5~7.5V	0.5~10V	1~15V	1~24V	2~36V	2~44V	5~66V	5~88V	5~110V	5~165V	5~330V	5~660V	x	x
5. Over Temp. Protection	User selectable , latched or non latched												x	x

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.	x	x
2.Iout Voltage Programming	0~100%, 0~5V or 0~10V, user select. Accuracy and linearity:+/-1% of rated Iout.	x	x
3.Vout Resistor Programming	0~100%, 0~5/10Kohm full scale,user select.,Accuracy and linearity:+/-1% of rated Vout.	x	x
4.Iout Resistor Programming	0~100%, 0~5/10Kohm full scale,user select. Accuracy and linearity:+/-1.5% of rated Iout.	x	x
5.On/Off control (rear panel)	By electrical. Voltage: 0~0.6V/2~15V,or dry contact ,user selectable logic	x	x
6.Output Current monitor	0~5V or 0~10V , accuracy:1% , user selectable	x	x
7.Output Voltage monitor	0~5V or 0~10V ,accuracy:1% ,user selectable	x	x
8.Power Supply OK signal	TTL High=OK, 0V-Fail 500ohm impedance	x	x
9. CV/CC indicator	CV: TTL high (4~5V) source: 10mA, CC: TTL low (0~0.4V):10mA	x	x
10. Enable/Disable	Dry contact. Open:off , Short: on. Max. voltage at Enable/Disable in: 6V	x	x

FRONT PANEL

1.Control functions	Vout/ Iout manual adjust by separate encoders (coarse and fine adjustment selectable)	x	x
	OVP/UVL manual adjust by Volt. Adjust encoder	x	x
	AC on/off, Output on/off, Re-start modes (auto, safe), Foldback control (CV to CC), Go to local control	x	x
	Address selection by Voltage (or current) adjust encoder. Number of addresses:31	x	x
	RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch	x	x
	Baudrate selection: 1200,2400,4800,9600 and 19,200	x	x
2.Display	Voltage 4 digits , accuracy: 0.5%+/-1 count	x	x
	Current 4 digits, accuracy: 0.5%+/-1 count	x	x
3.Indications	Voltage, Current, Alarm, Fine, Preview , Foldback, Local, Output On	x	x

*1: Minimum voltage is guaranteed to maximum 0.2% of Vo Rated.
*2: Minimum current is guaranteed to maximum 0.4% of Io Rated
*3: At maximum output power.
*4: 85~132Vac or 170~265Vac, constant load.
*5: From No-load to Full-load, constant input voltage.
*6: For load voltage change, equal to the unit voltage rating, constant input voltage.
*7: 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.
*8: Time for the output voltage to recover within 0.5% of its rated for a load change 10~90% of rated output , Output setpoint:10~100%.
Accuracy -Values have been calculated at Vo Rated & Io Rated