

## Heinzinger Distribution Line GEN+ Serie & GEN Serie



### Technical details

#### GEN+

#### GEN

General	
1U to 3U 19" standard rack package	1U to 3U 19" standard rack package
Constant voltage (CV) /constant current (CC) operation with automatic transition	Constant voltage (CV) /constant current (CC) operation with automatic transition
Constant power (CP) limit	
Internal resistance simulation	
Control Interfaces	
High resolution ADCs & DACs	High resolution ADCs & DACs
RS232/RS485, LAN(LXI 1.5), USB 2.0, AnyBus ready, as standard	RS232/RS485 built in as standard
Isolated analog interface built in as standard	Isolated analog interface built in as standard
Integrated Anybus Compact interface platform	
Programming	
Arbitrary waveform generator with Auto-Triggering	
Slew rate control (V/I)	
Two user programmable output control pins (open drain) to activate external devices	
Safe or Auto re-start and last setting memory	Safe or Auto re-start and last setting memory
Easy auto-configuration for parallel systems up to 20kW	Parallel Operation with Active Current Sharing
Environmental	
Fan speed profile controlled by ambient temperature and load	Safe or Auto re-start and last setting memory
Efficiency up to 92%	Parallel Operation with Active Current Sharing
Mechanical	
High contrast, wide viewing angle alphanumeric LCD display with brightness and dimming control	Safe or Auto re-start and last setting memory
2x reliable encoder controls	Parallel Operation with Active Current Sharing
Optional blank front panel option (for remote or slave operation)	Optional blank front panel option (for remote or slave operation)
Front panel filter option	
Specifications	
Up to 5kW in 1U Up to 10kW in 2U Up to 15kW in 3U	Up to 2.4kW in 1U Up to 5kW in 2U Up to 15kW in 3U
Wide range of popular worldwide AC inputs: 1 phase: 85VAC - 265VAC 3 phases: 208VAC - 480VAC 3 phases wide range: 342VAC - 528VAC Frequency: 47 - 63Hz	Wide range of popular worldwide AC inputs: 1 phase: 85VAC - 265VAC 3 phases: 208VAC - 480VAC Frequency: 47 - 63Hz
Output Voltage up to 600V	Output Voltage up to 600V
Output Current up to 1500A	Output Current up to 600A
5 years warranty	5 years warranty

## Technical description

	GEN+	GEN
<b>General</b>	<b>GEN+</b>	<b>GEN</b>
Function	<b>High Performance switching power supply with increased accuracy</b>	Performance switching power supply
Input Voltage		see type list
Input Frequency		47 ... 63Hz
Power Factor (type at rated output power)		1-Phase: 0.99@230VAC, 3-Phase: 0.93@200/380VAC
Operating Temperature		0°-50°C, 100%load
<b>Display</b>	<b>GEN+</b>	<b>GEN</b>
Output voltage	<b>4 digits, Accuracy 0.05% of rated output voltage +/- 1 digit</b>	4 digits, Accuracy 0.05% of rated output voltage +/- 1 digit
Output current	<b>4 digits, Accuracy 0.2% of rated output current +/- 1 digit</b>	4 digits, Accuracy 0.2% of rated output current +/- 1 digit
Indications	<b>Alpha numeric display: Voltage, Current, CV, CC, CP, Ext. Voltage, Ext. Current, Address, LFP, Autostart, Safestart, Foldback, V/I, Remote communication, RS/USB/LAN/IEEE communication, Trigger, Load/Store Cell</b>	By LED: Voltage, Current, Alarm, Fine, Preview, Foldback, Local, Output On, Front Panel Lock, CV/CC
<b>Functions and Features</b>	<b>GEN+</b>	<b>GEN</b>
Parallel operation	<b>Up to 4 identical units in master/slave mode</b>	Up to 4 identical units in master/slave mode
Series operation	<b>2 identical units</b>	2 identical units
Daisy chain	<b>Power supplies can be connected in daisy chain to synchronize turn-on and turn-off</b>	n.a.
Constant power control	<b>Limits output power to a programmable value</b>	n.a.
Output resistor control	<b>Emulates series resistance in the range of 1 - 1000mOhms</b>	n.a.
Slew rate control	<b>Programmable output rise and fall slew rate in the range of 0.0001 - 999.9 V/msec or A/msec</b>	n.a.
Arbitrary waveforms	<b>Profiles of up to 100 steps</b>	n.a.
<b>Interfaces for remote control (built in)</b>	<b>GEN+</b>	<b>GEN</b>
Vout analog voltage programming 0V-5V or 0V-10V selectable	<b>Accuracy and linearity: +/- 0.15% of rated Vout</b>	Accuracy and linearity: +/- 0.5% of rated Vout
Iout analog voltage programming 0V-5V or 0V-10V selectable	<b>Accuracy and linearity: +/- 0.4% of rated Iout</b>	Accuracy and linearity: +/- 1% of rated Iout
Built in digital interface	<b>RS232/485, USB, LAN(LXI compliant)</b>	RS232/485
Optional digital interfaces	<b>IEEE</b>	LAN (LXI compliant), IEEE
Warranty	<b>5 years</b>	5 years

## Technical description

	GEN+	GEN
<b>Voltage Stabilization</b>	<b>GEN+</b>	<b>GEN</b>
Setting range	approximately 0% to 100% Unom	approximately 0% to 100% Unom
Line regulation (at 85-132VAC or 170-265VAC, constant load)	0.01% of rated Vout	0.01% of rated Vout + 2mV
Load regulation (on load step from 0% to 100%)	0.01% of rated Vout + 5mV	0.015% of rated Vout + 5mV
Response time (on load current change from 10% to 90%)	< 1msec for models up to 100V, < 2msec for models above 100V	< 1msec for models up to 100V, < 2msec for models above 100V
Temperature Stability (under constant conditions, 8hrs interval, after 30min warm-up)	0.01% of rated Vout	0.01% of rated Vout
Temperature coefficient (after 30min warm-up)	50PPM	50PPM
Ripple rms 5Hz to 1MHz (depending on rated Vout and power)	6-100mV	6-140mV
<b>Current stabilization</b>	<b>GEN+</b>	<b>GEN</b>
Setting range	approximately 0.4% to 100% Inom	approximately 0.4% to 100% Inom
Line regulation (at 85-132VAC or 170-265VAC, constant load)	0.05% of rated Iout	0.01% of rated Iout + 2mA
Load regulation (on output voltage change of around 10% due to load change)	0.08% of rated Iout	0.02% of rated Iout + 5mA
Temperature Stability (under constant conditions, 8hrs interval, after 30min warm-up)	0.01% of rated Iout	0.01% of rated Iout
Temperature coefficient (after 30min warm-up)	All models: 10V - 100V: 100PPM/°C of rated Iout 150V - 600V: 70PPM/°C of rated Iout	Depending on model: 70-300PPM/°C of rated Iout
Ripple rms 5Hz to 1MHz	1.7kW model: 0.15% - 0.18% 10kW model: 0.04% - 0.12%	2.4kW model: 0.13% - 0.23% 10kW model: 0.04% - 0.53%
<b>Scope of Supply</b>	<b>GEN+</b>	<b>GEN</b>
	Unit according to type description	Unit according to type description
	Interface cable	Interface cable
	User Manual (English)	User Manual (English)