

3 GEN 600 SERIES

AC/DC Single & Multi Output: 200 - 600 Watts



Features

- 1 to 9 fully isolated outputs
- · 2V to 28V standard output modules with series or parallel operation
- 200W 600W output power levels
- Zero load operation
- EN61000-3-2 compliant
- Safety approvals IEC950, EN60950, UL1950
- Low leakage current <1.75mA
- Universal input 88 264 VAC with PFC
- · Modular design, total flexibility
- Compact design, low profile 65mm
- · Delivery within one week for most models
- · Individual output signals options
- Suitable for a wide range of high tech applications
- Parallel operation of modules ... derate by 10%
- Optional ... medically approved models to IEC601-1, UL2601

Output Output Voltage No. of Module V Slots Α Range 3~5.6V 1 5V 30A 1 12V 20A 5~13V 2 1 3 18V 15A 8~20V 1 24V 12A 12~28V 4 1 5 24V ЗA 10~28V 1 24V ЗA 10~28V 5V 10A 3~5.6V 6 1 24V ЗA 10~28V 80A 1.5~5.6V 2 70 5V (with current limit adjustment)

Specifications

INPUT VOLTAGE:	88~264 VAC (125~370 VDC)	
FREQUENCY:	47Hz - 63Hz (400Hz optional)	
INRUSH CURRENT:	50A maximum	
HARMONICS & PFC:	Power factor typically 0.98 in accordance with EN61000-3-2	
OUTPUT POWER:	400W for input module "B" 600W for input module "C"	
OUTPUT ADJUSTMENT:	Multi-turn potentiometer	
LINE REGULATION:	±0.1% typical	
LOAD REGULATION:	$\pm 0.2\%$ for 50% load change	
CROSS REGULATION:	±0.5% maximum	
TRANSIENT RESPONSE:	<10%, <0.5 ms 25% - 75% load change	
TEMP. CO-EFFICIENT:	±0.02% per °C	
RIPPLE & NOISE:	1.0% or 100mV pk - pk	
PROTECTION:	Overvoltage protection on all outputs. Constant current limiting on each output. Thermal protection	
MAINS FAILURE:	5ms warning signal	
MODULE ISOLATION:	100V isolation between each output and 500V to chassis.	
MARGIN:	±10% trim	
MINIMUM LOAD:	Zero, except module 70 which has a 5% minimum load to meet regulation specs.	
REMOTE SENSE:	Single outputs only, 0.5V drop	
EMC:	EN55022, FCC level B conducted EN61000-4-2 level 3 ESD EN61000-4-3 level 3 radiated field EN61000-4-4 level 3 fast transients EN61000-4-5 level 5 input line surges	
HOLD-UP TIME:	20ms after loss of AC power	
EFFICIENCY:	Typically 80%	
ISOLATION:	Input - output: 3000 VAC Input - chassis: 1500 VAC	
SWITCHING FREQUENCY:	200kHz	
LEAKAGE CURRENT:	<2.03mA, 250 VAC, 60Hz	
MTBF:	400,000 hours per MIL HBK 217F	
OPERATING TEMP:	-10°C to 50°C at full load, derate to 50% at 70°C	
SHOCK:	3000 bumps, 10G (16ms) half sine	
VIBRATION:	10-200Hz, 1.5G	
HUMIDITY:	5% to 95% RH	
DIMENSIONS:	280 x 127 x 65mm 2.5kg.	



3 GEN 600 SERIES

AC/DC Single & Multi Output: 200 - 600 Watts

Mechanical Specifications - 4 Slot



Connectors:

- J1 Line input connector
- J2 Options
 - See AN105 for Pin-out
- J3 Output Signals
- See AN105 for Pin-out

J4 Output connector

Accessories: 61069 Parallel link 61070 Series link 362D010 "U" link OPCONN4 Mating connector for options + Module 1-6 signals OPCONN6 Mating connector for Module 70 signals

3 Gen 4 slot signal options:

- **03** mains power fail + logic enable
- 05 mains power fail + logic inhibit
- 06 mains power fail + logic enable + bias supply voltage
- 07 mains power fail + logic inhibit + bias supply voltage

Options: Mutually exclusive

Standard output signals:

Output control signals are available on all output modules Modules 1 to 6:

- Power good signal
- Output inhibit signal
- Remote adjust (margin)

Module 70 additional features (See AN105):

- Adjustable current limit
- · Foldback or straight line current limiting
- · Bias voltage
- Selectable output inhibit or enable
- (Dual output modules: Output signals are available on the first $\{top\}$ output only)

How to Order

Replace (-) with K if production configuration is required.

Series

Series

Number of slots

Power

Slot A

Slot B

Slot B

Slot C

Use 0 for unfilled slots

Specification of Power Supply detailed above:

- 4 slot series
- Maximum output power: 600W
- 5V @ 30A; 12V @ 20A; 12V @ 20A; 24V @ 3A;
- Mains power failure signal + Logic inhibit

Production configuration:

Units are shipped with nominal output voltages unless production configuration is specified. We can configure to your exact requirements, through use of appropriate parallel and series busbars and through voltage adjustment to specific set points.

Note:

Calculate power requirements by summing output powers calculated at Nominal output voltages



3 GEN 1000 SERIES

AC/DC Single & Multi Output: 600 - 1000 Watts



Features

- 1 to 13 fully isolated outputs
- 2V to 28V standard output modules with series or parallel operation
- 600W and 1000W output power levels
- · Zero load operation
- EN61000-3-2 compliant
- Safety approvals IEC950, EN60950, UL1950
- Low leakage current <1.75mA
- Universal input 88 264 VAC with PFC
- Modular design, total flexibility
- Compact design, low profile 65mm
- Delivery within one week for most models
- Individual output signals options
- Suitable for a wide range of high tech applications
- Parallel operation of modules ... derate by 10%
- Optional ... medically approved models to IEC601-1, UL2601

Output Module	Ou V	tput A	Voltage Range	No. of Slots
1	5V	30A	3~5.6V	1
2	12V	20A	5~13V	1
3	18V	15A	8~20V	1
4	24V	12A	12~28V	1
5	24V 24V	3A 3A	10~28V 10~28V	1
6	5V 24V	10A 3A	3~5.6V 10~28V	1
70	5V (with cu adjustm	80A rrent limit lent)	1.5~5.6V	2

Specifications

INPUT VOLTAGE:	88~264 VAC (125~370 VDC) • 180~264 VAC for >800W units	
FREQUENCY:	47Hz - 63Hz (400Hz optional)	
INRUSH CURRENT:	50A maximum	
HARMONICS & PFC:	Power factor typically 0.98 in accordance with EN61000-3-2	
OUTPUT POWER:	600W for input module " C " 1000W for input module " D "	
OUTPUT ADJUSTMENT:	Multi-turn potentiometer	
LINE REGULATION:	±0.1% typical	
LOAD REGULATION:	±0.2% for 50% load change	
CROSS REGULATION:	±0.5% maximum	
TRANSIENT RESPONSE:	<10%, <0.5 ms 25% - 75% load change	
TEMP. CO-EFFICIENT:	±0.02% per°C	
RIPPLE & NOISE:	1.0% or 100mV pk - pk Optional low noise modules available down to 100μ V rms.	
PROTECTION:	Overvoltage protection on all outputs. Constant current limiting on each output. Thermal protection	
MAINS FAILURE:	5ms warning signal	
MODULE ISOLATION:	100V isolation between each output and 500V to chassis.	
MARGIN:	±10% trim	
MINIMUM LOAD:	Zero, except module 70 which has a 5% minimum load to meet regulation specs.	
REMOTE SENSE:	Single outputs only, 0.5V drop	
EMC:	EN55022, FCC level B conducted EN61000-4-2 level 3 ESD EN61000-4-3 level 3 radiated field EN61000-4-4 level 3 fast transients EN61000-4-5 level 5 input line surges	
HOLD-UP TIME:	20ms after loss of AC power	
EFFICIENCY:	Typically 80%	
ISOLATION:	Input - output: 3000 VAC Input - chassis: 1500 VAC	
SWITCHING FREQUENCY:	200kHz	
LEAKAGE CURRENT:	<2.03mA, 250 VAC, 60Hz	
MTBF:	400,000 hours per MIL HBK 217F	
OPERATING TEMP:	0°C to 50°C at full load, derate to 50% at 70°C	
SHOCK:	3000 bumps, 10G (16ms) half sine	
VIBRATION:	10 - 200Hz, 1.5G	
HUMIDITY:	5% to 95% RH	
DIMENSIONS:	280 x 187 x 65mm 3.5kg	

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Connectors:

J2 Options

Accessories:

J1 Line input connector

J4 Output connector

61069 Parallel link

61070 Series link 362D010 "U" link

Module 70 signals

See AN105 for Pin-out J3 Output Signals

See AN105 for Pin-out

OPCONN4 Mating connector for options + Module 1-6 signals

OPCONN6 Mating connector for

3 GEN 1000 SERIES

AC/DC Single & Multi Output: 600 - 1000 Watts

Mechanical Specifications - 6 Slot



3 Gen 6 slot signal options:

03 mains power fail + logic enable

05 mains power fail + logic inhibit

06 mains power fail + logic enable + bias supply voltage

07 mains power fail + logic inhibit + bias supply voltage

Options: Mutually exclusive

How to Order

Standard output signals:

Output control signals are available on all output modules Modules 1 to 6:

- · Power good signal
- Output inhibit signal
- · Remote adjust (margin)

Module 70 additional features (See AN105):

- Adjustable current limit
- · Foldback or straight line current limiting
- · Bias voltage
- · Selectable output inhibit or enable

(Dual output modules: Output signals are available on the first {top} output only)



· 6 slot series

- Maximum output power: 1000W
- 5V @ 30A; 12V @ 20A; 12V @ 20A; 24V @ 12A; 24V @ 3A; 24V @ 3A

• Mains power failure signal + logic inhibit

Production configuration:

Units are shipped with nominal output voltages unless production configuration is specified. We can configure to your exact requirements, through use of appropriate parallel and series busbars and through voltage adjustment to specific set points.

Note:

Calculate power requirements by summing output powers calculated at Nominal output voltages