

GK Series: MONOVOLT

Primary switched DC/DC-Converter for use in 19" applications to DIN41494, single output, 30 to 120 Watts output power.

Features

- Convection cooled
- Safety according EN60950
- CE marked for compliance to EMC and Low Voltage Directives
- No minimum load required
- Remote sense
- External on/off
- Overvoltage (OVP) and short circuit protected

Ordering information

Description: MONOVOLT GK Series; 30W output power

Type	Output	Order-code
GK Series; 30W Output power		
GK 30-2 12VDC 3U x 8HP	5V/6A	116-010166A
GK 30-2 24VDC 3U x 8HP	5V/6A	116-010167J
GK 30-2 48VDC 3U x 8HP	5V/6A	116-010168F

GK Series; 60W Output power

GK 60-2 24VDC 3U x 8HP	5V/12A	116-010034B
GK 60-2 24VDC 3U x 8HP	12V/5A	116-010035K
GK 60-2 24VDC 3U x 8HP	15V/4A	116-010036G
GK 60-2 24VDC 3U x 8HP	24V/2,5A	116-010037D

GK 60-2 48VDC 3U x 8HP	5V/12A	116-010038A
GK 60-2 48VDC 3U x 8HP	12V/5A	116-010039J
GK 60-2 48VDC 3U x 8HP	15V/4A	116-010040K
GK 60-2 48VDC 3U x 8HP	24V/2,5A	116-010041G

GK Series; 120W Output power

GK 120 24VDC 3U x 14HP	5V/20A	116-010132C
GK 120 24VDC 3U x 14HP	12V/10A	116-010133L
GK 120 24VDC 3U x 14HP	24V/5A	116-010135E
GK 120 48VDC 3U x 14HP	5V/20A	116-010136B
GK 120 48VDC 3U x 14HP	12V/10A	116-010137K
GK 120 48VDC 3U x 14HP	24V/5A	116-010139D

Accessories:

Reduced height front panel: GK30	148-10012F
Reduced height front panel: GK60	148-10021E
Reduced height front panel: GK120	148-10019G
Mating connector coded H15 to DIN 41612	17-10115K
Coding keys (pkt 10)	17-10064F



GK-Series MONOVOLT Power Supplies

Technical Data MONOVOLT GK Series

Input data

Input voltage:	12VDC (9..18V), 24VDC (18..36V), 48VDC (36...72V)
Inrush - current limit:	line impedance dependent
Input overvoltage protection:	by thyristor crowbar
Hold up time (Nominal V_{IN} ; 100% I_{OUT}):	>3ms
Efficiency:	typ. >70%

Safety (Compliant with Low Voltage Directive 73/23/EEC)

Isolation: input-output	0,5kVDC
Isolation: input-chassis	0,5kVDC
Isolation: output-chassis	0,5kVDC

EMC (Compliant with EMC Directive 89/336/EEC)

Emmissions:	EN 55022
Immunity:	EN 50082-2
Electro Static Discharge:	EN 61000-4-2
Electrical fast transients/Burst:	EN 61000-4-4
RF Conducted disturbance:	EN 50141
RF Field susceptibility:	EN 50140

Environmental

Operating temperature:	0°C to +70°C
Storage temperature:	-25°C to +85°C
Relative humidity:	Non-condensing 5% - 95%

Physical

Case material/finish: Clear anodised, ventilated aluminium cassette with cooling cutouts and front or rear heat sinks as applicable.
DIN 41494 part 5 compatible

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Output specifications

GK30		V1
Output voltage:		5V
Adjustment range:		4,8-5,5V
Output current:		0-6A
Ripple:		<40mV _{pp}
Line regulation (100% I _{OUT}): Δ iV _{OUT}		<0,2%
Load regulation static (10...90% I _{OUT}): Δ iV _{OUT}		<0,2%
Transient response (10...90% I _{OUT}):		1ms
Switching frequency, converter type:		85kHz forward converter
Output current limit:		>6,5A
Short circuit protection:		continuous, automatic restart
Overvoltage protection (OVP):		6-6,7V
Temperature coefficient/°C:		0,02%
Remote SENSE max.,NOTE:		0,5V
Derating above 55°C:		1W/°C above 55°C

GK60		V1	V1	V1	V1
Output voltage:		5V	12V	15V	24V
Adjustment range:		4,5-5,5V	11-13V	13,5-16,5V	22-26V
Output current:		0-12A	0-5A	0-4A	0-2,5A
Ripple:				<40mV _{pp}	
Line regulation (100% I _{OUT}): Δ iV _{OUT}		<0,3%	<0,2%	<0,2%	<0,2%
Load regulation static (10...90% I _{OUT}): Δ iV _{OUT}				<0,2%	
Transient response (10...90% I _{OUT}):		0,8ms	0,5ms	0,5ms	0,5ms
Switching frequency, converter type:				75kHz push-pull converter	
Output current limit:		>12,5A	>5,3A	>4,3A	>2,7A
Short circuit protection:				continuous, automatic restart	
Overvoltage protection (OVP):		5,5-6,0V	13,2-15,0V	16,5-18,0V	26,4-30,0V
Temperature coefficient/°C:				0,02%	
Remote SENSE max.,NOTE:				0,5V	
Derating above 55°C:				2W/°C above 55°C	

GK120		V1	V1	V1	V1
Output voltage:		5V	12V	15V	24V
Adjustment range:		4,5-5,5V	10,8-13,2V	13,5-16,5V	21,6-26,4V
Output current:		0-20A	0-10A	0-8A	0-5A
Ripple:				<40mV _{pp}	
Line regulation (100% I _{OUT}): Δ iV _{OUT}				<0,2%	
Load regulation static (10...90% I _{OUT}): Δ iV _{OUT}				<0,2%	
Transient response (10...90% I _{OUT}):				0,5ms	
Switching frequency, converter type:				85kHz push-pull converter	
Output current limit:		>22A	>11A	>8,8A	>5,5A
Short circuit protection:				continuous, automatic restart	
Overvoltage protection (OVP):		5,0-7,0V	12,0-16,5V	15,0-21,0V	27,0-29,0V
Temperature coefficient/°C:				0,02%	
Remote SENSE max.,NOTE:				0,5V	
Derating above 55°C:				4W/°C above 55°C	

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Mechanical Details

DC-DC

GK30, GK60

Front view dimensions: 3U, 128,5, 40,24, 8HP.

Side view dimensions: 162, 190, 110.

Weight: GK30, GK60 850g

GK120

Front view dimensions: 128,5, 3U, 70,72, 14HP.

Side view dimensions: 162, 190, 110.

Weight: GK120 1350g

Pin allocation - H15 connector

PIN	Function	GK30	GK60	GK120
4	+Vout	+Vout	+Vout	+Vout
6	+Vout	+Vout	+Vout	+Vout
8	-Vout	-Vout	-Vout	-Vout
10	-Vout	-Vout	-Vout	-Vout
12	+SENSE	+SENSE	+SENSE	+SENSE
14	-SENSE	-SENSE	-SENSE	-SENSE
16	—	—	—	—
18	—	—	—	—
20	—	—	—	—
22	—	Ext on/off	Ext on/off	Ext on/off
24	-Vin	-Vin	-Vin	-Vin
26	-Vin	-Vin	-Vin	-Vin
28	+Vin	+Vin	+Vin	+Vin
30	+Vin	+Vin	+Vin	+Vin
32	GND	GND	GND	GND

Note: Sense lines must be connected. For maximum compensation for supply lead voltage drop they should be connected as close to the load as possible

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