

DC/DC Converter

Made in Europe 

Single Output Isolated Series GW

Input voltage 12 ÷ 220 V
Voltage regulated
High efficiency
High industrial standard
Intended for 19" rack and
Stand - alone use



Input:

Input voltage (DC) 12 ÷ 220 V_{DC} see table
-20 % +30 % for U_{In} = 12 V,
±30 % for U_{In} ≥ 24 V

Input current max.
(Dimension input cable
and eventual prefuse)

$$I_{INmax} = \frac{2,1 \times P_{OUTnom}}{U_{INnom}}$$

Use ext. fuse at least one band
higher with delay characteristic
Ensure effective cross-sectional
area of cable is to VDE 0100
check temperature, limit cabel run
and note voltage drop especially at
low input voltages

Output:

Output voltage (DC) see table
Output current (DC) see table
Efficiency > 70 ÷ 90 %

Regulation:

Line regulation ≤ 0,2% U_{Out}
(max. source voltage variation)
Load regulation ≤ 0,2% U_{Out}
(0 ÷ 100% output load change)
Dynamic response ≤ 2 ms
Ripple and noise < 1% at U_{Out} ≤ 24 V
≤ 300 mV_{pk-pk} at U_{Out} > 24 V
Temperature coefficient ≤ 0,02% /K

Protection:

Overload protection Current limit at 1,1 ÷ 1,3 I_{Nom}
short circuit protection
Overvoltage protection Option
Thermal protection shut down with automatic
recovery

Environmental conditons:

Operating temperature 0 ÷ +50°C
Derating 2,5%/K
+50 ÷ +60°C
Cooling free air convection
Switching frequency 40 ÷ 100 kHz

Safety:

Safety standard EN60950
Isolation
input - output: U_{In} and U_{Out} ≤ 60 V: 500 V_{rms}
U_{In} 60 ÷ 130 V, U_{Out} ≤ 130 V: 2 kV_{rms}
U_{In} 130 ÷ 250 V, U_{Out} ≤ 250 V: 3 kV_{rms}
input-ground and output-ground U_{In} or U_{Out} 60 ÷ 130 V: 1 kV_{rms}
U_{In} or U_{Out} 130 ÷ 250 V: 1,5 kV_{rms}
disconnect the anti-interference
capacitors input-output and
output-ground

EMC:

Input EMI filter EN50081-1
Input immunity EN50082-2

Operating and Control:

Remote sense standard
up to 0,25 V per wire
Ext. On/Off consult factory
Indicator "ON" LED green
Adjustment voltage ± 5%, potentiometer
front-panel

Connectors:

Input and Output Euro-Cassette:
H15- Connector, to DIN 41612
19" Cassette:
screw-terminal

Physical Specification:

Front-panel 19" Cassette: 19" front-panel
colour AL anodized,
Euro-Cassette:
front-panel mask
Dimensions see table and drawing
Weight see table

Input Voltage (V)	Output Voltage (V) / Current (A)	Cassette		Model Number
		Euro	19"	
12	5/4	A		GW12/5/4
12	5/8	B		GW12/5/8
12	5/12	C		GW12/5/12
12	5/16	E		GW12/5/16
12	5/20	G		GW12/5/20
12	5/28	J		GW12/5/28
12	5/50		x	GW12/5/50
12	12/1,7	A		GW12/12/1,7
12	12/3,4	B		GW12/12/3,4
12	12/5,1	C		GW12/12/5,1
12	12/6,8	E		GW12/12/6,8
12	12/8,5	G		GW12/12/8,5
12	12/12	J		GW12/12/12
12	12/21		x	GW12/12/21
12	15/1,4	A		GW12/15/1,4
12	15/2,8	B		GW12/15/2,8
12	15/4,2	C		GW12/15/4,2
12	15/5,6	E		GW12/15/5,6
12	15/7	G		GW12/15/7
12	15/10	J		GW12/15/10
12	15/17		x	GW12/15/17
12	24/0,8	A		GW12/24/0,8
12	24/1,6	B		GW12/24/1,6
12	24/2,4	C		GW12/24/2,4
12	24/3,2	E		GW12/24/3,2
12	24/4	G		GW12/24/4
12	24/5,6	J		GW12/24/5,6
12	24/10		x	GW12/24/10
12	48/0,4	A		GW12/48/0,4
12	48/0,8	B		GW12/48/0,8
12	48/1,2	C		GW12/48/1,2
12	48/1,6	E		GW12/48/1,6
12	48/2	G		GW12/48/2
12	48/2,8	J		GW12/48/2,8
12	48/5		x	GW12/48/5
12	60/0,3	A		GW12/60/0,3
12	60/0,6	B		GW12/60/0,6
12	60/0,9	C		GW12/60/0,9
12	60/1,2	E		GW12/60/1,2
12	60/1,5	G		GW12/60/1,5
12	60/2,1	J		GW12/60/2,1
12	60/4		x	GW12/60/4
12	110/0,15	A		GW12/110/0,15
12	110/0,3	B		GW12/110/0,3
12	110/0,45	C		GW12/110/0,45
12	110/0,6	E		GW12/110/0,6
12	110/0,75	G		GW12/110/0,75
12	110/1,05	J		GW12/110/1,05
12	110/2		x	GW12/110/2

Input Voltage (V)	Output Voltage (V) / Current (A)	Cassette		Model Number
		Euro	19"	
24	5/7	A		GW24/5/7
24	5/14	B		GW24/5/14
24	5/21	C		GW24/5/21
24	5/28	E		GW24/5/28
24	5/35	G		GW24/5/35
24	5/50	J		GW24/5/50
24	5/85		x	GW24/5/85
24	12/3	A		GW24/12/3
24	12/6	B		GW24/12/6
24	12/9	C		GW24/12/9
24	12/12	E		GW24/12/12
24	12/15	G		GW24/12/15
24	12/21	J		GW24/12/21
24	12/40		x	GW24/12/40
24	15/2,5	A		GW24/15/2,5
24	15/5	B		GW24/15/5
24	15/7,5	C		GW24/15/7,5
24	15/10	E		GW24/15/10
24	15/12,5	G		GW24/15/12,5
24	15/17,5	J		GW24/15/17,5
24	15/30		x	GW24/15/30
24	24/1,6	A		GW24/24/1,6
24	24/3,2	B		GW24/24/3,2
24	24/4,8	C		GW24/24/4,8
24	24/6,4	E		GW24/24/6,4
24	24/8	G		GW24/24/8
24	24/11,2	J		GW24/24/11,2
24	24/20		x	GW24/24/20
24	48/0,6	A		GW24/48/0,6
24	48/1,2	B		GW24/48/1,2
24	48/1,8	C		GW24/48/1,8
24	48/2,4	E		GW24/48/2,4
24	48/3	G		GW24/48/3
24	48/4,2	J		GW24/48/4,2
24	48/8		x	GW24/48/8
24	60/0,5	A		GW24/60/0,5
24	60/1	B		GW24/60/1
24	60/1,5	C		GW24/60/1,5
24	60/2	E		GW24/60/2
24	60/2,5	G		GW24/60/2,5
24	60/3,5	J		GW24/60/3,5
24	60/6		x	GW24/60/6
24	110/0,3	A		GW24/110/0,3
24	110/0,6	B		GW24/110/0,6
24	110/0,9	C		GW24/110/0,9
24	110/1,2	E		GW24/110/1,2
24	110/1,5	G		GW24/110/1,5
24	110/2,1	J		GW24/110/2,1
24	110/4		x	GW24/110/4

Input Voltage (V)	Output Voltage (V) / Current (A)	Cassette		Model Number
		Euro	19"	
48,60,110,220	5/7	A		GW.../5/7
48,60,110,220	5/14	B		GW.../5/14
48,60,110,220	5/21	C		GW.../5/21
48,60,110,220	5/28	E		GW.../5/28
48,60,110,220	5/35	G		GW.../5/35
48,60,110,220	5/50	J		GW.../5/50
48,60,110,220	5/85		x	GW.../5/85
48,60,110,220	12/3,5	A		GW.../12/3,5
48,60,110,220	12/7	B		GW.../12/7
48,60,110,220	12/10,5	C		GW.../12/10,5
48,60,110,220	12/14	D		GW.../12/14
48,60,110,220	12/17,5	F		GW.../12/17,5
48,60,110,220	12/25	J		GW.../12/25
48,60,110,220	12/45		x	GW.../12/45
48,60,110,220	15/2,8	A		GW.../15/2,8
48,60,110,220	15/5,6	B		GW.../15/5,6
48,60,110,220	15/8,4	C		GW.../15/8,4
48,60,110,220	15/11,2	D		GW.../15/11,2
48,60,110,220	15/14	F		GW.../15/14
48,60,110,220	15/20	J		GW.../15/20
48,60,110,220	15/35		x	GW.../15/35
48,60,110,220	24/2	A		GW.../24/2
48,60,110,220	24/4	B		GW.../24/4
48,60,110,220	24/6	C		GW.../24/6
48,60,110,220	24/8	D		GW.../24/8
48,60,110,220	24/10	F		GW.../24/10
48,60,110,220	24/14	J		GW.../24/14
48,60,110,220	24/25		x	GW.../24/25
48,60,110,220	48/0,8	A		GW.../48/0,8
48,60,110,220	48/1,6	B		GW.../48/1,6
48,60,110,220	48/2,4	C		GW.../48/2,4
48,60,110,220	48/3,2	D		GW.../48/3,2
48,60,110,220	48/4	F		GW.../48/4
48,60,110,220	48/5,6	J		GW.../48/5,6
48,60,110,220	48/10		x	GW.../48/10
48,60,110,220	60/0,6	A		GW.../60/0,6
48,60,110,220	60/1,2	B		GW.../60/1,2
48,60,110,220	60/1,8	C		GW.../60/1,8
48,60,110,220	60/2,4	D		GW.../60/2,4
48,60,110,220	60/3	F		GW.../60/3
48,60,110,220	60/4,2	J		GW.../60/4,2
48,60,110,220	60/7,5		x	GW.../60/7,5
48,60,110,220	110/0,35	A		GW.../110/0,35
48,60,110,220	110/0,7	B		GW.../110/0,7
48,60,110,220	110/1,05	C		GW.../110/1,05
48,60,110,220	110/1,4	D		GW.../110/1,4
48,60,110,220	110/1,75	F		GW.../110/1,75
48,60,110,220	110/2,5	J		GW.../110/2,5
48,60,110,220	110/4,5		x	GW.../110/4,5

Options:

Series GW.. Euro- Cassette:

Female plug H15
 Overvoltage protection, Euro- Cassette A, B, C
 Overvoltage protection, Euro- Cassette D ÷ J
 19" Front-panel
 - colour AL anodized
 - colour RAL 7032
 Sub front-panel
 2 T wider than mounting width
 - colour AL anodized
 - colour RAL 7032
 other colours consult factory
 mounting bracket for stand-alone model
 - horizontal
 - vertical
 Signal - relay
 Ext. On/Off

Series GW.. 19" Cassette:


mounting bracket for stand-alone model
 - horizontal
 Ext. On/Off
 Overvoltage protection 19" Cassette
 $U_{out} \leq 60 V$

T = 5,08 mm

Model Number:

replace points (...) with the input voltage!

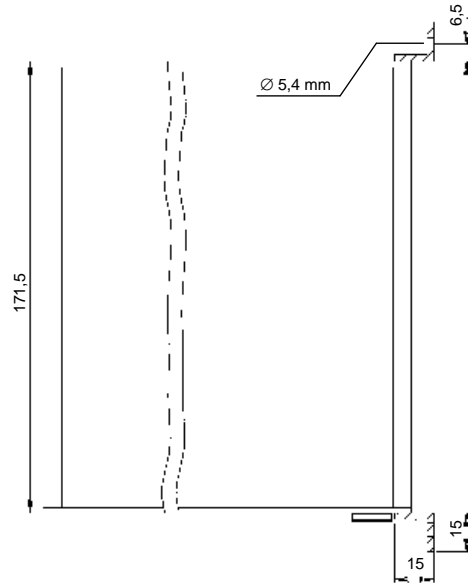
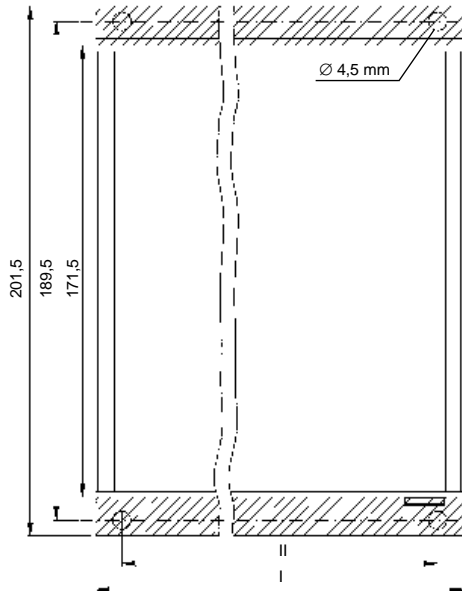
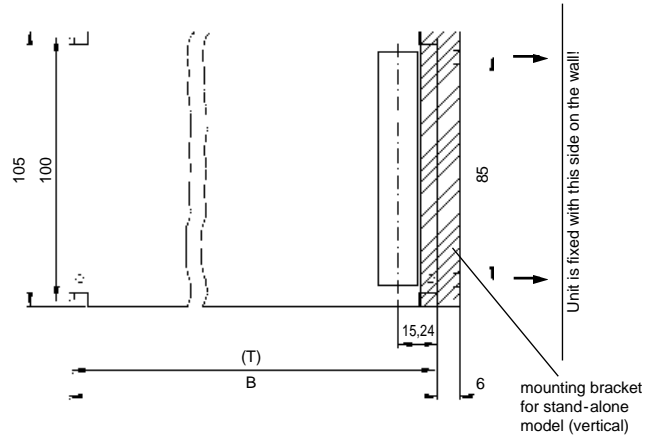
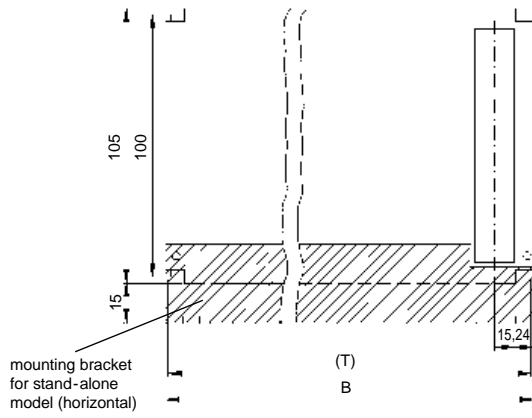
Pin Assignment: Euro - Cassette

H15-Connector	Euro - Cassette	
	A	B, C, D, E, F, G, J
+ Input	z28, d30	z28, d30
- Input	d22, z24, d26	d22, z24, d26
+ Output	z8, d10	z8, d10, z12
- Output	z12, d14	d14, z16, d18
+ Sense	d6	d6
- Sense	z4	z4
Ext. On/Off	z20	z20
	z32	z32

Dimensions Euro - Cassette

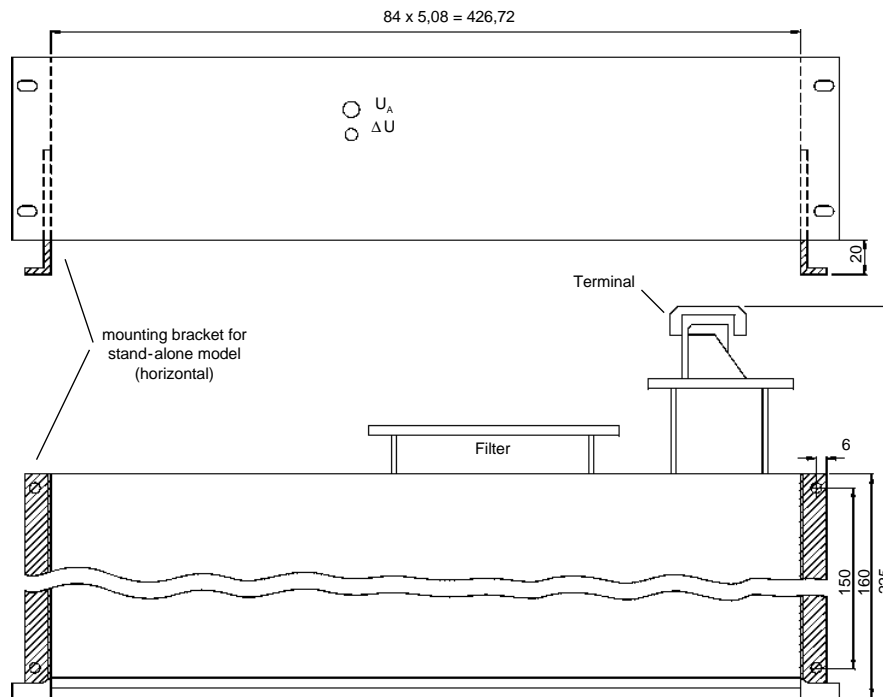
Euro- Cassette	Dimensions w x h x d (mm)	Mounting bracket		Weight (kg)	Case width (T)
		I (mm)	II (mm)		
A	52,3 x 105 x 171,5	52,3	40,3	0,8	10
B	103,1 x 105 x 171,5	103,1	91,1	1,3	20
C	159,0 x 105 x 171,5	159,0	147,0	1,7	31
D	189,5 x 105 x 171,5	189,5	177,5	2,1	37
E	204,7 x 105 x 171,5	204,7	192,7	2,3	40
F	219,9 x 105 x 171,5	219,9	207,9	2,5	43
G	235,2 x 105 x 171,5	235,2	223,2	2,7	46
J	301,2 x 105 x 171,5	301,2	289,2	3,3	59

Dimensions in mm



Euro-Cassette (with mounting bracket, horizontal)

Euro-Cassette (with mounting bracket, vertical)



19" Cassette