

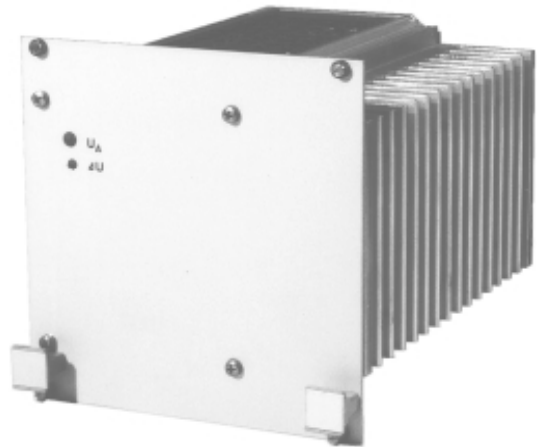
DC/DC Converter

Made in Europe 

Single Output Isolated Series GWN

Input voltage 24 ÷ 220 V
Output power up to 400 W
Voltage regulated
High efficiency
Intended for 19" rack and
Stand-alone and din rail mounting

Other available operational modes:
parallel and n + 1 redundant



Input:

Input voltage (DC)	24 V, 48 V ÷ 60 V, 110 V, 220 V ± 30 %
Inrush current limiting	U _{In} 24 V: not available U _{In} 48 V ÷ 60 V: option U _{In} 110 V, 220 V: standard
Input current max. (Dimension input cable and eventual perfuse)	$I_{INmax} = \frac{2,1 \times P_{OUTnom}}{U_{INnom}}$ 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 cable run and note voltage drop especially at low input voltages
Decoupling diode	option

Output:

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

Regulation:

Line regulation (max. source voltage variation)	≤ 0,1 % U _{out}
Load regulation (0 ÷ 100 % output load change)	≤ 0,1 % U _{out}
Dynamic response	≤ 1 ms
Ripple and noise	< 1 %
Temperature coefficient	≤ 0,02 % /K

Protection:

Overload protection	current limit at 1,1 × I _{nom} short circuit protection
Overvoltage protection	option (with suppressor diode)
Thermal protection	shut down with automatic recovery
Decoupling diode	option
Signal-relay	option (not available with options ext. on/off and power good)

Environmental conditions:

Operating temperature	- 25° C ÷ + 70° C
Derating	2,5 %/K
+50 ÷ + 70° C	
Cooling	free air convection
Switching frequency	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} ≤ 60 V: 2 kV _{rms} U _{In} 130 ÷ 250 V, U _{Out} ≤ 250 V: 3 kV _{rms}
input-ground, output -ground:	U _{In} or U _{Out} ≤ 60 V: 500 V _{rms} 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-ground and output-ground

EMC:

Input EMI filter	EN50081-1, curve B
Input immunity	EN50082-2

Operating and Control:

Remote sense	standard, up to 0,25 V per wire
Current share	standard, not available with option signal relay Z (centre zero)
Ext. on/off	standard, not available with option signal relay X or Y (NOC or NCC)
Power good	standard, not available with option signal relay X or Y (NOC or NCC)
Indication of operation	LED green
Adjustment	voltage ± 10 %, potentiometer front-panel

Connectors:

Input and Output	H15 - connector, to DIN 41612
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Physical Specification:

Front-panel	front-panel mask
Dimensions	see table and drawing
Weight	see table

Input Voltage (V)	Output Voltage (V) / Current (A)	Euro - Cassette		Model Number
		A	B	
24	5/25	x		GWN24/5/25
24	12/16	x		GWN24/12/16
24	12/25		x	GWN24/12/25
24	15/13	x		GWN24/15/13
24	15/20		x	GWN24/15/20
24	24/8	x		GWN24/24/8
24	24/13		x	GWN24/24/13
24	48/4	x		GWN24/48/4
24	48/6,5		x	GWN24/48/6,5
24	60/3,5	x		GWN24/60/3,5
24	60/5		x	GWN24/60/5
24	110/1,8	x		GWN24/110/1,8
24	110/2,8		x	GWN24/110/2,8
48-60, 110, 220	5/25	x		GWN.../5/25
48-60, 110, 220	12/16	x		GWN.../12/16
48-60, 110, 220	12/25		x	GWN.../12/25
48-60, 110, 220	15/13	x		GWN.../15/13
48-60, 110, 220	15/25		x	GWN.../15/25
48-60, 110, 220	24/8	x		GWN.../24/8
48-60, 110, 220	24/16		x	GWN.../24/16
48-60, 110, 220	48/4	x		GWN.../48/4
48-60, 110, 220	48/8		x	GWN.../48/8
48-60, 110, 220	60/3,5	x		GWN.../60/3,5
48-60, 110, 220	60/7		x	GWN.../60/7
48-60, 110, 220	110/1,8	x		GWN.../110/1,8
48-60, 110, 220	110/3,6		x	GWN.../110/3,6

Options:

Female plug H 15
 Overvoltage protection Output current ≤ 10 A
 Overvoltage protection Output current > 10 A
 Inrush Current limiting (not U_{in} , 24 V)
 Decoupling diode - Input
 Decoupling diode - Output
 Sub front-panel
 - Colour AL anodized
 - Colour RAL 7032
 other colours consult factory
 19" front-panel, Colour RAL 7032
 Mounting bracket
 - horizontal
 - vertical
 din-rail mounting

Signal-relay
 X: NOC Y: NCC Z: centre zero
 At Option X and Y, Ext. On/Off and Power Good not available.
 At Option Z, Ext. On/Off, Power Good and Current Share not available.

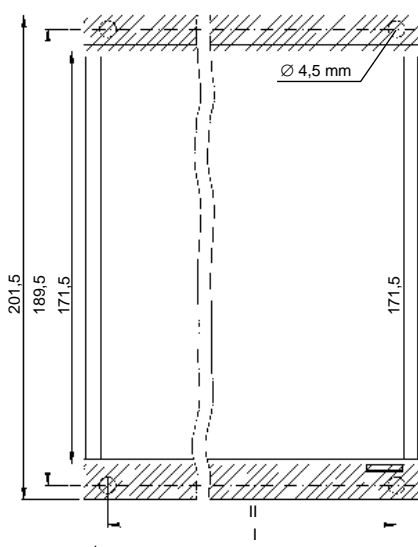
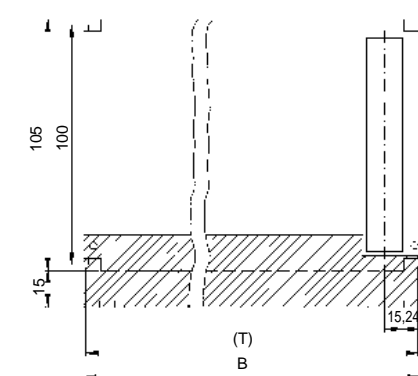
T = 5,08 mm

Dimensions

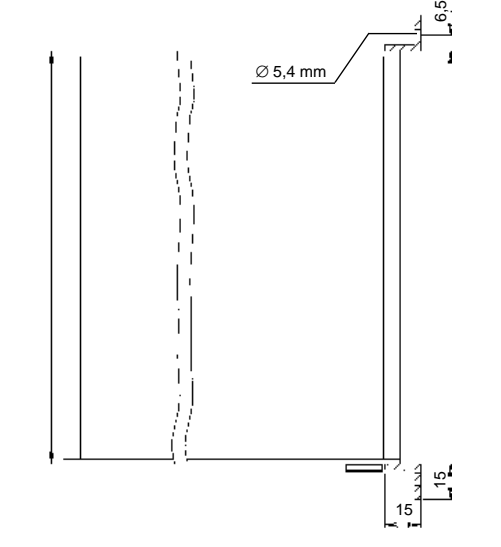
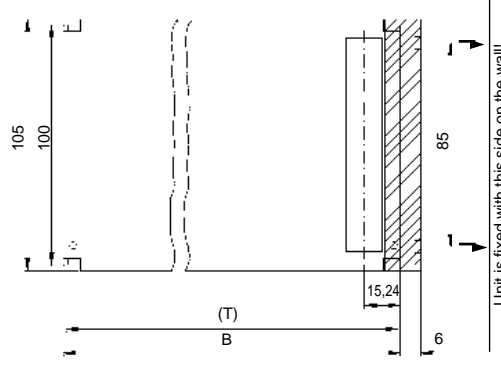
Euro-Cassette	Dimensions w x h x d (mm)	Mounting bracket		Weight (kg)	Case width (T)
		I (mm)	II (mm)		
A	127,0 x 105 x 171,5	122,8	110,8	1,9	25
B	254,0 x 105 x 171,5	249,8	237,8	3,8	50

Model Number:
 replace (...) with the input voltage

Dimensions in mm



GWN.. (with mounting bracket, horizontal)



GWN.. (with mounting bracket, vertical)

Pin Assignment

H15-connector	GWN..
+ Input	z28, d30
- Input	z24, d26
+ Output	z8, d10
- Output	z12, d14
+ Sense	d6
- Sense	z4
⊕	z32
Ext. On/Off	z20
Power Good	d18
Current Share	z16
Option Signal - relay*	
X: NOC	d18
	z20
Y: NCC	d18
	z20
Z: centre zero	z16
	d18
	z20

* Option Signal - relay:
X and Y:
 Ext. On/Off and Power Good not available
Z: Ext. On/Off, Power Good and Current Share not available