

DC/DC Converter

Made in Europe 

Single Output Isolated Series GWL

Input voltage 24 ÷ 220 V
Output power up to 1800 W
Voltage regulated
High efficiency
Intended for 19" rack and
Stand-alone use

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 standard (not 24 V, 48 V ÷ 60 V)
Input current max. $I_{INmax} = \frac{1,8 \times P_{OUTnom}}{U_{INnom}}$
(Dimension input cable and eventual prefuse)

Fuse Input option (rear side)
Decoupling diode option (rear side)

Output:

Output voltage (DC) see table
Output current (DC) see table
Output power see table
Decoupling diode option (rear side)
Efficiency > 80 ÷ 90 %

Regulation:

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

Protection:

Overload protection current limit at $1,1 \times I_{nom}$
short circuit protection
Overvoltage protection standard, adjusted fix +10 % U_{out}
Thermal protection temperature regulated
Decoupling diode option (rear side)
Signal relay standard
Shut down deviation of $U_{in} \pm 30 %$

Environmental conditons:

Operating temperature -25° C ÷ +70° C
Derating 2,5 % / K
+50 ÷ +70° C
Power - boost with ext. fan, see table
Cooling free air convection, power-boost
with ext. fan (> 1,5 m/s)
Switching frequency 100 kHz

Safety:

Safety standard EN60950
Isolation input - output: U_{in} and $U_{out} \leq 60$ V: 500 V_{rms}
 $U_{in} 60 \div 130$ V, $U_{out} \leq 60$ V: 2 kV_{rms}
 $U_{in} 130 \div 250$ V, $U_{out} \leq 250$ V: 3 kV_{rms}
input-ground, output -ground: U_{in} or $U_{out} \leq 60$ V: 500 V_{rms}
 U_{in} or $U_{out} 60 \div 130$ V: 1 kV_{rms}
 U_{in} or $U_{out} 130 \div 250$ 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
Ext. on/off standard
Current share standard
Input control signal: Power Fail at -25 % U_{in}
(neg. or pos. Logic)
Output control signal: Power Good
(neg. or pos. Logic)
Indicador "ON" LED green
Adjustment voltage ± 10 %, potentiometer
front-panel

Connectors:

Input $U_{in} 24$ V, 48-60 V ($I > 30$ A):
input bus M8 threaded stud
 $U_{in} 110$ V, 220 V ($I < 30$ A):
screw - terminal
6 mm² fixed / 4 mm² variable
Output $U_{out} \leq 48$ V ($I > 30$ A):
input bus M8 threaded stud
 $U_{out} \geq 60$ V ($I < 30$ A):
screw - terminal
6 mm² fixed / 4 mm² variable
Signals Combicon 12 pole 0,2 ÷ 2,5 #
female multipoint connector with
screw-terminal included
with delivery

Physical Specification:

Front-panel front-panel mask 19", 3U
Dimensions see table and drawing
Weight Case A: 13,0 kg
Case B: 15,4 kg

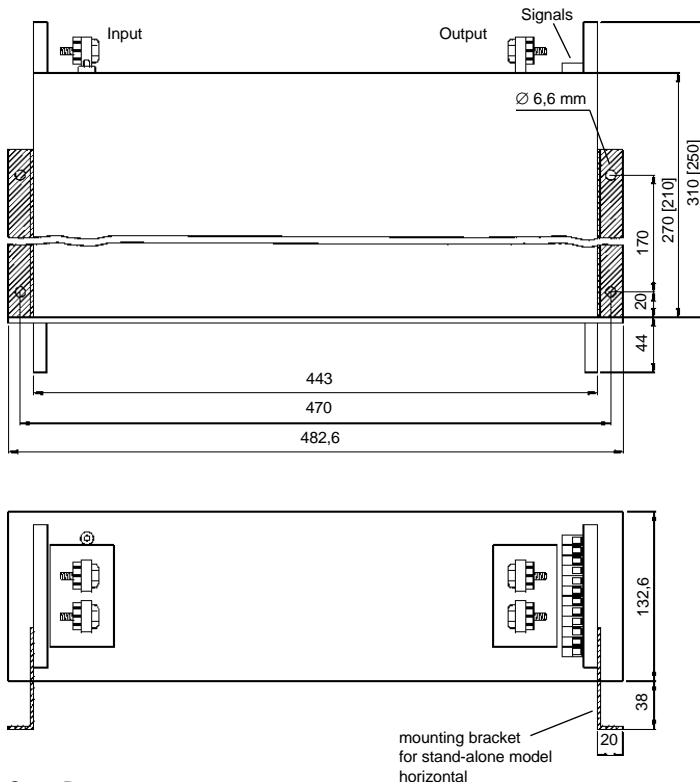
Input Voltage (V)	Output Voltage / Current (V) / (A)	Power free air convection (ext. fan) (W)	Case		Model Number
			A	B	
24	12/55 (70)	650 (850)	x		GWL24/12/55
24	12/85 (110)	1000 (1300)		x	GWL24/12/85
24	15/45 (60)	675 (900)	x		GWL24/15/45
24	15/75 (95)	1100 (1400)		x	GWL24/15/75
24	24/35 (40)	850 (1000)	x		GWL24/24/35
24	24/55 (65)	1300 (1550)		x	GWL24/24/55
24	48/17 (20)	850 (1000)	x		GWL24/48/17
24	48/27 (32)	1300 (1550)		x	GWL24/48/27
24	60/14 (17)	850 (1000)	x		GWL24/60/14
24	60/22 (26)	1300 (1550)		x	GWL24/60/22
24	110/8 (9)	850 (1000)	x		GWL24/110/8
24	110/12 (14)	1300 (1550)		x	GWL24/110/12
24	220/4 (4,5)	850 (1000)	x		GWL24/220/4
24	220/6 (7)	1300 (1550)		x	GWL24/220/6
48-60, 110, 220	12/65 (85)	800 (1000)	x		GWL.../12/65
48-60, 110, 220	12/100 (125)	1200 (1500)		x	GWL.../12/100
48-60, 110, 220	15/55 (70)	850 (1050)	x		GWL.../15/55
48-60, 110, 220	15/85 (105)	1300 (1600)		x	GWL.../15/85
48-60, 110, 220	24/40 (50)	1000 (1200)	x		GWL.../24/40
48-60, 110, 220	24/60 (75)	1500 (1800)		x	GWL.../24/60
48-60, 110, 220	48/20 (25)	1000 (1200)	x		GWL.../48/20
48-60, 110, 220	48/30 (37)	1500 (1800)		x	GWL.../48/30
48-60, 110, 220	60/17 (20)	1000 (1200)	x		GWL.../60/17
48-60, 110, 220	60/25 (30)	1500 (1800)		x	GWL.../60/25
48-60, 110, 220	110/9 (11)	1000 (1200)	x		GWL.../110/9
48-60, 110, 220	110/13 (16)	1500 (1800)		x	GWL.../110/13
48-60, 110, 220	220/4,5 (5,5)	1000 (1200)	x		GWL.../220/4,5
48-60, 110, 220	220/7 (8)	1500 (1800)		x	GWL.../220/7

Options:

- Decoupling diode - Input I ≤ 20 A
- Decoupling diode - Output I ≤ 20 A
- Decoupling diode - Input I > 20 A
- Decoupling diode - Output I > 20 A
- Fuse Input
- Front-panel
- Colour RAL 7032
- other colours consult factory
- Mounting bracket for stand-alone model - horizontal

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

Dimensions in mm



Case B
Values in brackets [...] Case A

Dimensions

Case	Dimensions	
	w x h x d (mm)	Depth incl. contact rail (mm)
A	482,6 x 132,6 x 210	250
B	482,6 x 132,6 x 270	310

Pin Assignment

Combicon 12-pole	GWL..
Signal relay	12
NOC	11
Signal relay	10
NCC	9
+ Sense	7
- Sense	6
Current Share	5
Common 0 V Output	4
Ext. on/off	3
Input Power Fail	1
Output Power Good	2