

Installation Unit Primary Switched Power Supply 1200 W

EXWUI 140.10 programmable V/I

Programming Voltage 0 - 5V



Ordering Information

Type	Output	Input Voltage	Housing Dimensions see drawing	Article No.* ¹
EXWUI 140.10	V = 0V - 140V* I = 0A - 10A*	100 - 240Vac 145 - 227Vdc	270x150x108mm	750-111-00

* Delivery condition

*¹ Housing inside chrome plated, housing outside anodized

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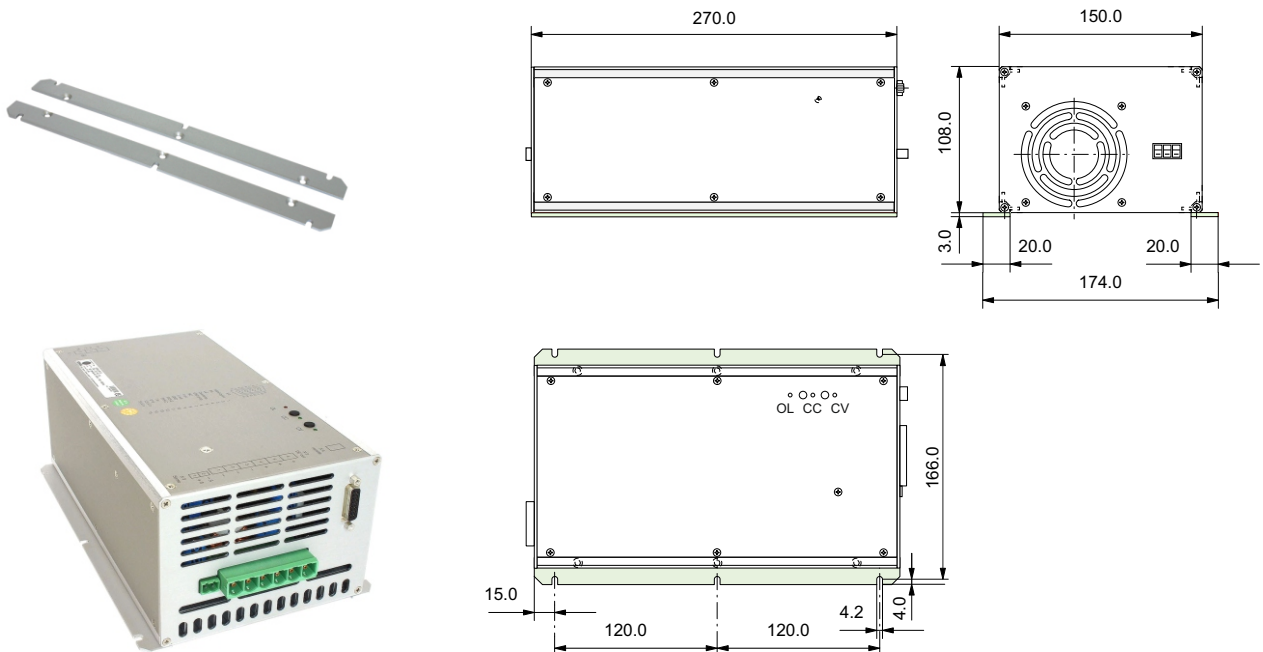
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Accessories			Article No.
Mains Connection	X1	Connector - PC 4/3-ST-7.62 screwable connection 3 pole, max. 4mm ² flex	400-056-00
DC-Output Connection	X2	Connector - PC 6/6-ST-10.16 screwable connections 6-pole, max. 6mm ² flex	400-084-00
Sense Lead Connection (for sense connection only)	X3	Connector - MSTB 2.5/2-ST-5.08 screwable connections 2-pole, max 2.5mm ² flex	400-085-00
I/O-Signal Connection	X4	Connector D-Sub 15 pole male solderable connection up to AWG 20 (0.5mm ² flex)	400-067-00

Type	Article No.	Article No. mounted on device
Kit 01 Kit consisting of: 2 x mounting strip 6 x special screw M4 x 6	402-110-00	402-110-10

Dimensions in mm



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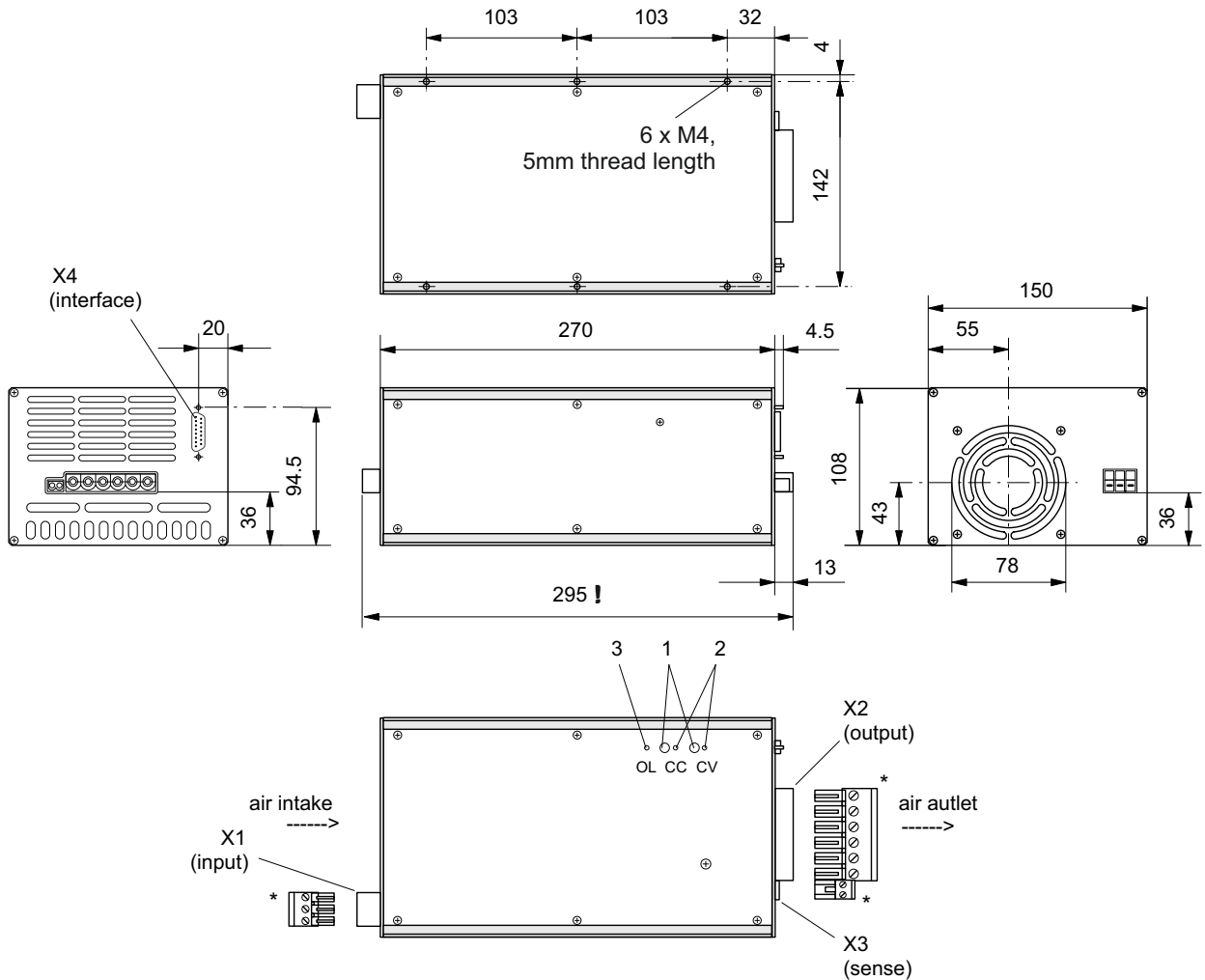


Dimensions in mm without accessories

X1 = Mains connection
X2 = DC-Output connection

X3 = Sense lead connection
X4 = I/O-Signal connection

1 = Potentiometer
2 = LED, green
3 = LED, red



* = accessory, see ordering information

! : Please note: plugs and conneted electrical lines protrude the general outline of the unit.
Please refer to the data sheets of the respective accessories.

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Technical Data

Guaranteed values after a warm-up period of approx. 15 min. at nominal load, measured at the unit's output.

Type	140.10		
Output Voltage	[Vdc]	0 - 140	
Output Current	[A]	0 - 10	
Output Power*	[W]	1200	
Type of Regulation	primary switched		
Efficiency for $V_{IN} = 230Vac/250Vdc$, V_{Omax}	[%]	≥ 89	
Static *1 Voltage Regulation			
Load Change 0... 100%	[mV]	≤ 10	
Input Voltage Change ($V_{INmin} - V_{INmax}$)	[mV]	≤ 10	
Current Regulation			
Load Change 0... 100% R_{NOM}	[mA]	≤ 50	
Input Voltage Change ($V_{INmin} - V_{INmax}$)	[mA]	≤ 10	
Dynamic Voltage Regulation			
Control Deviation *1			
$\Delta I_O = 65... 100\% I_{NOM}$	[mV]	≤ 900	
Control Time for *2			
$\Delta I_O = 65... 100\% I_{NOM}$	[ms]	≤ 2	
at Load Current Change dI_O/dt	[A/μs]	0.1	
Quality *1 Voltage Regulation			
Residual Ripple (100Hz at AC-operation)	[mV _{pp}]	≤ 100	
Operating Frequency Ripple (120kHz)	[mV _{pp}]	≤ 10	
Superimposed Switching Spikes	[mV _{pp}]	≤ 300	
Start-up Delay after Mains on	[s]	1	
Power-up Time after Standby/on	[ms]	≤ 75	
Overvoltage Protection (OVP)			
Factory Setting (tol.+3V)	[V]	150	
Sense Lead Operation (load line compensation)	[V]	max. 1.0 per load line	
Overvoltage Protection			
Temperature Coefficient	[ppm/K]	150	
Input Voltage	[Vac] / [Vdc]	100 - 240 / 145 - 227 ±10%	(90 - 264 / 130 - 250)
Frequency (up to 440Hz on request)	[Hz]	50 - 60 ± 10%	(45 - 66)
in the Event of Mains Failure			
at Nominal Load : Buffer time	t_{Buff}	[ms]	≥ 15
Bridging time	t_B	[ms]	≥ 10
Prewarning time	t_p	[ms]	≥ 5
Power Factor λ according to EN 61000 3-2	≥ 0.95		
Input Current			
$I_{eff max}$ for $V_{IN} = 115/230Vac - 20\%$	[A]	14 / 8.5	
$I_{dc max}$ for $V_{IN} = 90/250Vdc$	[A]	10 / 6	
Starting Inrush Current I_p for 230Vac/220Vdc	[A]	≤ 40	
Unit Fuse (internal)	[A]	20 aM	
Air Inlet Temperature	[°C]	-20... 0... +50, without derating; internal temperature-regulated fan	
Storage Temperature Range	[°C]	-25... +70	
Weight approx.	[kg]	4	

For definitions, informations about electrical safety, EMC and mechanical stressability see description.

* See description - mains input

*1 At -20°C the values increase by factor 2

*2 At -20°C the values increase by factor 5.

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Technical Data: Programming / Monitoring

Type		140.10	
V- Control Set Value Input		(guaranteed values between V_{Omin} and V_{Omax})	
Linearity	[%]	0.1	
max. Linearity Error Absolute *2	[mV]	5	
Offset Error (\pm) *2	[mV]	10	
Temperature Drift	[ppm/K]	100	
max. Total Error ($\Delta\vartheta$ 35K)	[%]	0.65	
min. Output Voltage* (V_{Omin})	[mV]	≤ 200	
Actual Value Output			
Accuracy	[%]	0.4	
max. Accuracy Error Absolute*4	[mV]	100	
Offset Error (\pm) *3	[mV]	10	
Temperature Drift	[ppm/K]	50	
max. Total Error ($\Delta\vartheta$ 35K)	[%]	0.78	
Programming Times			
0 --> V_{max}	Nominal Load	[ms]	75
	Open Circuit	[ms]	40
V_{max} --> 0	Nominal Load	[ms]	75
	Open Circuit	[s]	10
I- Control Set Value Input		(guaranteed values between V_{Omin} and V_{Omax})	
Linearity	[%]	0.1	
max. Linearity Error Absolute *2	[mV]	5	
Offset Error (\pm) *2	[mV]	10	
Temperature Drift	[ppm/K]	100	
max. Total Error ($\Delta\vartheta$ 35K)	[%]	0.65	
min. Output Current			
in Case of Short Circuit*1 (impedance)	[mA]	≤ 300 ($\geq 20m\Omega$)	
Actual Value Output			
Accuracy	[%]	0.6	
max. Accuracy Error Absolute*4	[mA]	60	
Offset Error (\pm) *3	[mV]	10	
Temperature Drift	[ppm/K]	50	
max. Total Error ($\Delta\vartheta$ 35K)	[%]	0.98	
General Interface Data			
Set Value Input			
Range	[V]	0... 5	
Input Impedance	[k Ω]	10	
Actual Value Output			
Range	[V]	0... 5	
Output Impedance	[Ω]	10	
Short Circuit Current	[mA]	50	
Voltage Values 1V is equivalent to	[V]	28	
Current Values 1V is equivalent to	[A]	2	

* In the case of setpoints with programming voltage near 0V; load-dependent.

*1 When using current setpoints with programming voltage near 0V and lower short circuit impedance higher values result.

*2 With respect to the programming voltage.

*3 With respect to the monitoring output.

*4 With respect to the unit's output.

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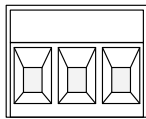
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Pin Connection X1

Mains Connection X1
(Power Combicon 3 pole / series PC 4)

L1 N PE
(+) (-) ⊕

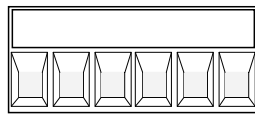


1 2 3
grid = 7.62mm

signal name		pin
L1	(+ DC)	1
N	(- DC)	2
Earth	⊕ PE	3

DC-Output Connection X2
(Power Combicon 6 pole / series PC 6)

- - + + nc nc

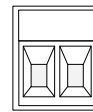


1 2 3 4 5 6
grid = 10.16mm

signal name	pin
- Output 1	1, 2
+ Output 1	3, 4
nc*	5, 6

Sense Connection X3
(Combicon 2 pole)

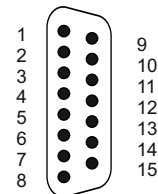
+S -S



1 2
grid = 5.08mm

signal name	pin
+ Sense 1	1
- Sense 1	2

I/O-Signal Connection X4
(D-Sub 15-pole)



signal name	pin
Standby/on	1
PA	2
LS	3
Overtemp.	4
GND prog (referring to minus sense)	5
nc*	6
Iset	7
Vset	8
GND (connected with minus sense)	9
PFS-E	10
PFS-C	11
Iactual	12
Vactual	13
12V V _h (I _{max} = 100mA)	14
5V V _h (I _{max} = 5mA)	15

All plug connectors may be plugged and unplugged only in dead conditions! Otherwise, the contacts would be damaged or destroyed.



* Pins marked „nc“ may not be connected external.

Explanations see description.

Advice

All metallic connector housings are related to protective earth.

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Output Characteristics

V/I - Ranges / Power Limiting

