

# OPUS C DC Power Systems

## 19" 12U Rack or Wall mounting



OPUS C 24-8.0 R12U  
OPUS C 48-8.0 R12U  
OPUS C 60-8.0 R12U  
OPUS C 110-8.0 R12U  
OPUS C 220-8.0 R12U



POWER  
GENERATION &  
DISTRIBUTION



PROCESS  
INDUSTRY



DEFENCE &  
SECURITY



TELECOM



## Product Description

OPUS C DC power systems are robust, free convection cooled, N+1 redundant backup power solutions for critical infrastructure applications such as transmission and distribution substations, process industries and telecommunications.

OPUS C DC power systems consist of MRC-rectifiers, VIDi+ controllers, Connections for mains and battery and load distribution MCB.

## Features

- Convection cooling
- Models for 24, 48, 60, 110, 220 VDC
- Max 8.0 kW output power
- N+1 redundancy
- Plus or Minus Grounded or Floating
- Battery connection:
- 1 string with full current, MCB protection
- Load Distribution Modules as options:
- 2-pole or 1-pole MCB
- Options: Battery LVD, Load LVD, extra battery connections, Temperature sensors, IP21

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# Technical Specifications

General construction		Environment and standards	
Cooling	Natural convection	Operating temperature	-20°C ... +45°C
Protection	IP 20 Option IP21	Humidity max	95% relative humidity, non-condensing
Controller user interface	Display and local control in front panel	Altitude max	2000 m above sea level
Distribution and Connections	Behind front panel	Safety	IEC/EN 60950-1
Colour	Frame RAL 7024	EMC	Emissions: IEC/EN 61000-6-4 Immunity: IEC/EN 61000-6-2 Harmonic currents IEC/EN 61000-3-2 Voltage fluctuation & flicker: IEC/EN 61000-3-3
Dimensions	Height 12U (533 mm) Width 19" (482 mm) Depth 370 mm		

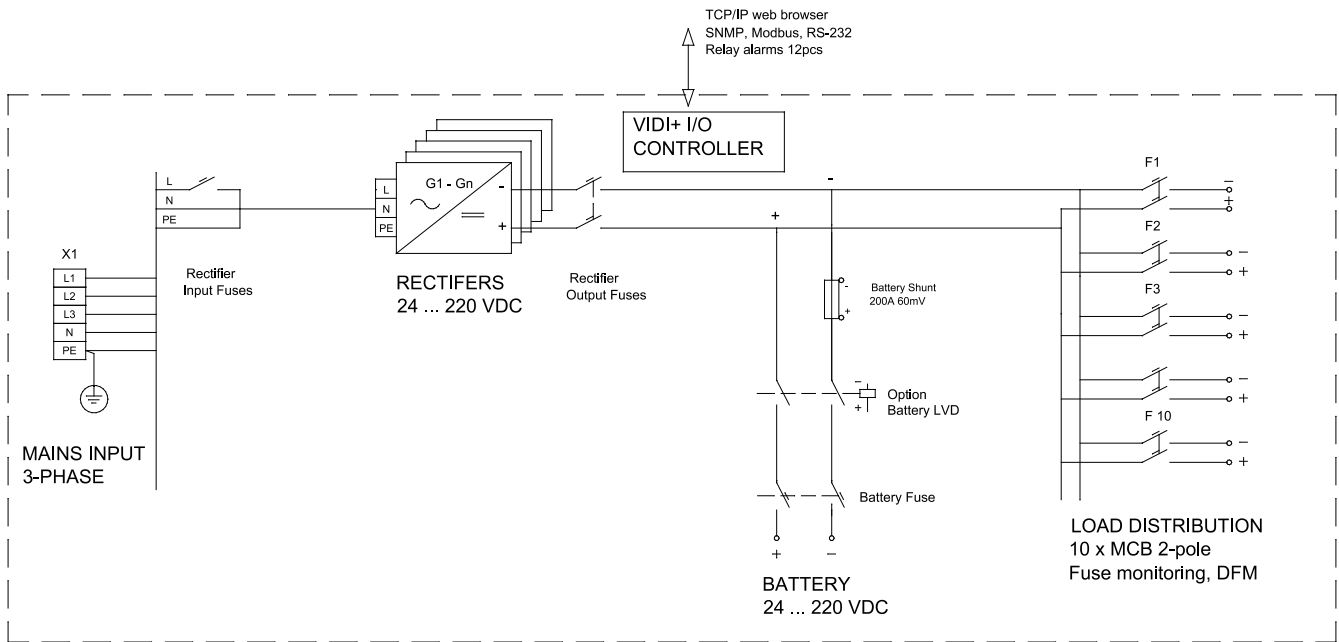
Input	OPUS C 24-, OPUS C 48-, OPUS C 60-, OPUS C 110-, OPUS C 220-				
AC-connection	3W + N + PE				
Nominal voltage	230 / 400 VAC				
Range, full	180 – 275 VAC				
Range, reduced	140 – 180 VAC				
Frequency	45 to 65 Hz				
Internal protection	16 A MCB / rectifier module				
Mains terminal	Terminal blocks 10 mm <sup>2</sup>				
	OPUS C 24-6.6	OPUS C 48-9.6	OPUS C 60-9.6	OPUS C 110-9.6	OPUS C 220-9.6
Nominal current	10.2 A			15.4 A	
Maximum current	13.8 A			19.4 A	
Inrush current per rectifier	14.7 A			18 A	
Recommended mains fuse	3 x 25 A				

Output	OPUS C 24-5.5	OPUS C 48-8.0	OPUS C 60-8.0	OPUS C 110-8.0	OPUS C 220-8.0
Grounding	floating	+ or floating	+ grounded	floating	floating
Nominal voltage	24 VDC	48 VDC	60 VDC	110 VDC	220 VDC
Voltage range	21 -31 VDC	42 – 58 VDC	51 – 72 VDC	97 – 132 VDC	189 – 265 VDC
Ripple noise	< 100 mVp-p	< 100 mVp-p	< 100 mVp-p	< 100 mVp-p	< 100 mVp-p
Rectifiers	Max 5	Max 5	Max 5	Max 5	Max 5
Maximum current	229A @ 24V	164A @ 48V	134A @ 60V	72A @ 110V	36A @ 220V
Power max.	5.5 kW	8.0 kW	8.0 kW	8.0 kW	8.0 kW
Redundant power	4.4 kW	6.4 kW	6.4 kW	6.4 kW	6.4 kW
Output terminals	Loads connected to distribution breakers				

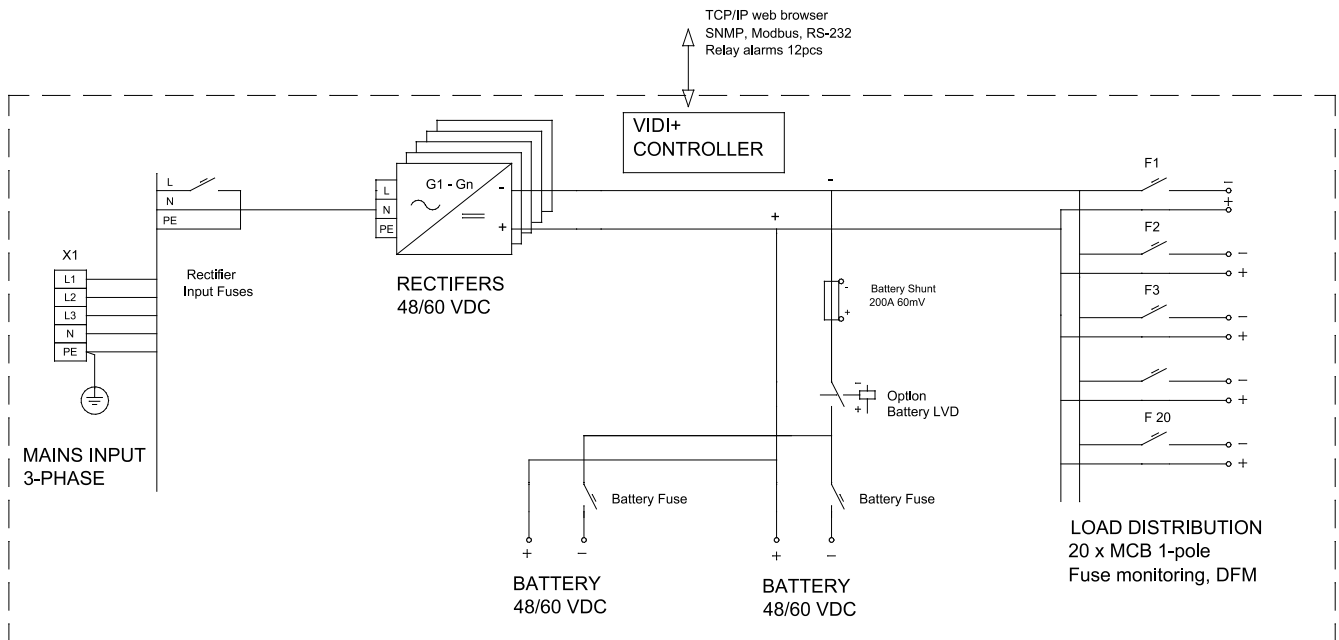
Battery connection	OPUS C 24-5.5	OPUS C 48-8.0	OPUS C 60-8.0	OPUS C 110-8.0	OPUS C 220-8.0
2-pole MCB	1 x 250A	1 x 250A	1 x 250A	1 x 100A	1 x 50A
1-pole MCB	N/A	2 x 200A	2 x 200A 1-p	N/A	N/A

Load Distribution Options	OPUS C 24-6.6	OPUS C 48-9.6	OPUS C 60-9.6	OPUS C 110-9.6	OPUS C 220-9.6
1-pole MCB, 2...63A	Max 20 loads	Max 20 loads	Max 20 loads	N/A	N/A
2-pole MCB, 2...63A	Max 10 loads	Max 10 loads	Max 10 loads	Max 10 loads	Max 10 loads

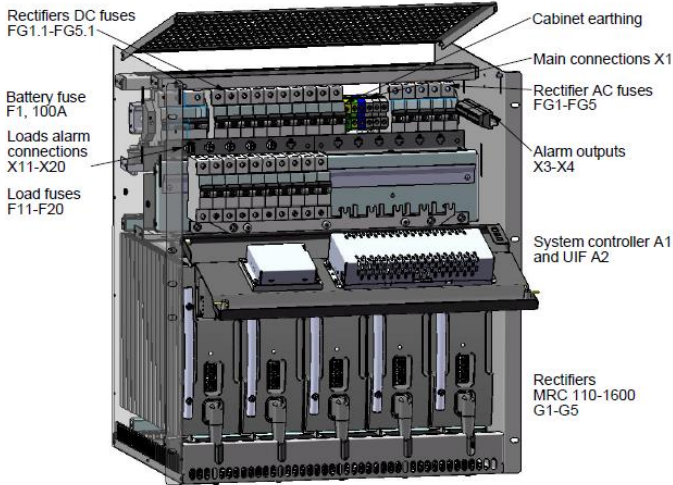
## Block Diagram, 2-pole systems



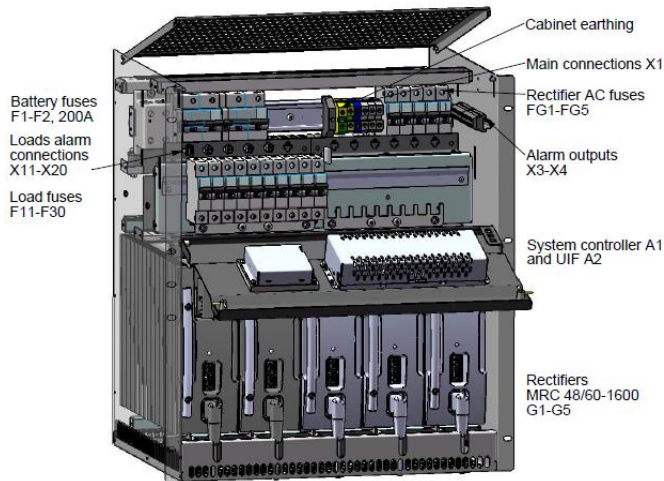
## Block Diagram, 1-pole systems, positive or negative pole grounded



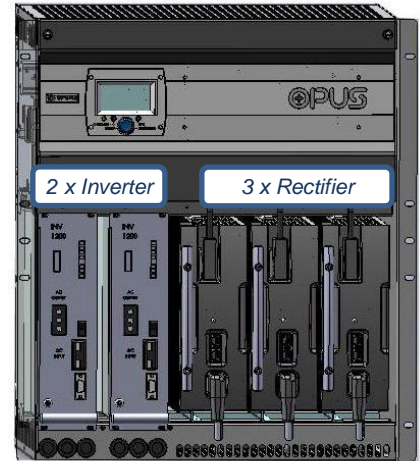
### OPUS C 110-8.0 R 12U Floating



### OPUS C 48/60-8.0 R 12U 1-pole



Option: Modular UPS rack 19" 12U



Static bypass, manual bypass, AC-distribution

#### Other options

- Wall mounting kit including IP21 drip water cover
- NTC Temperature sensor
- Battery LVD contactors
- Controllers: VIDI+, VIDI+ I/O, VIDI-BM, VIDI-LVD

## Order Information

Name	Order number	Description
OPUS C 24 5.5 R 12U F	95MS012	24VDC, 5.5 kW, 12U rack, floating
OPUS C 48 8 R 12U F	9220X0000098	48VDC, 8.0 kW, 12U rack, floating
OPUS C 48 8 R 12U P	95MS010	48VDC, 8.0 kW, 12U rack, plus grounded
OPUS C 60 8 R 12U P	95MS014	48VDC, 8.0 kW, 12U rack, plus grounded
OPUS C 110 8 R 12U F	95MS011	110VDC, 8.0 kW, 12U rack, floating
OPUS C 220 8 R 12U F	95MS013	220VDC, 8.0 kW, 12U rack, floating

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