

OPUS C DC Power Systems

OC0864 Wall or Floor Standing Cabinets

OPUS C 24-6.6 OC0864
OPUS C 48-9.6 OC0864
OPUS C 60-9.6 OC0864
OPUS C 110-9.6 OC0864
OPUS C 220-9.6 OC0864

Multi voltage options:
OPUS C 110-4.8 OC0864 INV/CONV



POWER
GENERATION &
DISTRIBUTION



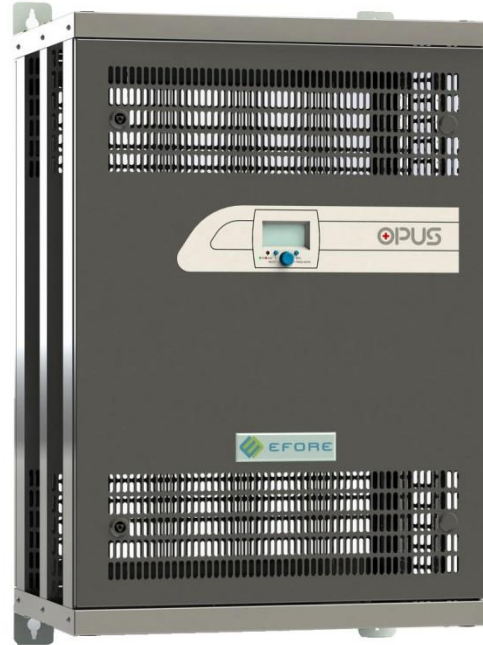
PROCESS
INDUSTRY



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 special communications.

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

OC0864 cabinets can be installed to wall or it can be used as floor standing cabinet. Installation is quick and easy and all installation adapters are included to the delivery.

Features

- Convection cooling
- Models for 24, 48, 60, 110, 125, 220 VDC
- Max 9.6 kW output power
- N+1 redundancy
- Floating output, option plus or Minus Grounded
- Battery connection:
1 string with full current
switch fuse NH00/NH01 protection
- Load Distribution:
Bulk output DC screw terminal
2 x configurable 2-pole MCH
- Options: Battery LVD, Load LVD, extra battery connections, Temperature sensors, IP21, bottom entry cabling
- Multi voltage systems including:
MRC rectifiers 24-220VDC
EIM inverters and bypass
DC/DC converters

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 door	Altitude max	2000 m above sea level
Cabling	From top, Option bottom entry	Safety	IEC/EN 60950-1
Colour	Cabinet RAL 7037 Door 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 800 mm Width 600 mm Depth 400 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	C10A MCB / rectifier module				
Mains terminal	Terminal blocks 10 mm ²				
	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	
Main switch	63 A				
Recommended mains fuse	3 x 25 A				

Output	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
Grounding	floating	floating	floating	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 6	Max 6	Max 6	Max 6	Max 6
Maximum current	275A @ 24V	197A @ 48V	161A @ 60V	87A @ 110V	43A @ 220V
Output current	240A @ 27.5V	177A @ 54.5V	141A @ 68.1V	78A @ 123.6V	39A @ 220V
Power max.	6.6 kW	9.6 kW	9.6 kW	9.6 kW	9.6 kW
Redundant power	5.5 kW	8.0 kW	8.0 kW	8.0 kW	8.0 kW

Battery connection	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
Battery fuse in system	Switch fuse NH01 250A	Switch fuse NH01 200A	Switch fuse NH01 160A	Switch fuse NH00 100A	Switch fuse NH00 50A
Battery Connector	Screw terminal 95 mm ²	Screw terminal 95mm ²	Screw terminal 95mm ²	Screw terminal 50mm ²	Screw terminal 50mm ²

Load Distribution	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
2-pole MCB, 2...63A	2 load outputs	2 load outputs	2 load outputs	2 load outputs	2 load outputs
Bulk DC output	Screw terminal 95mm ²	Screw terminal 95mm ²	Screw terminal 95mm ²	Screw terminal 50mm ²	Screw terminal 50mm ²

Other options

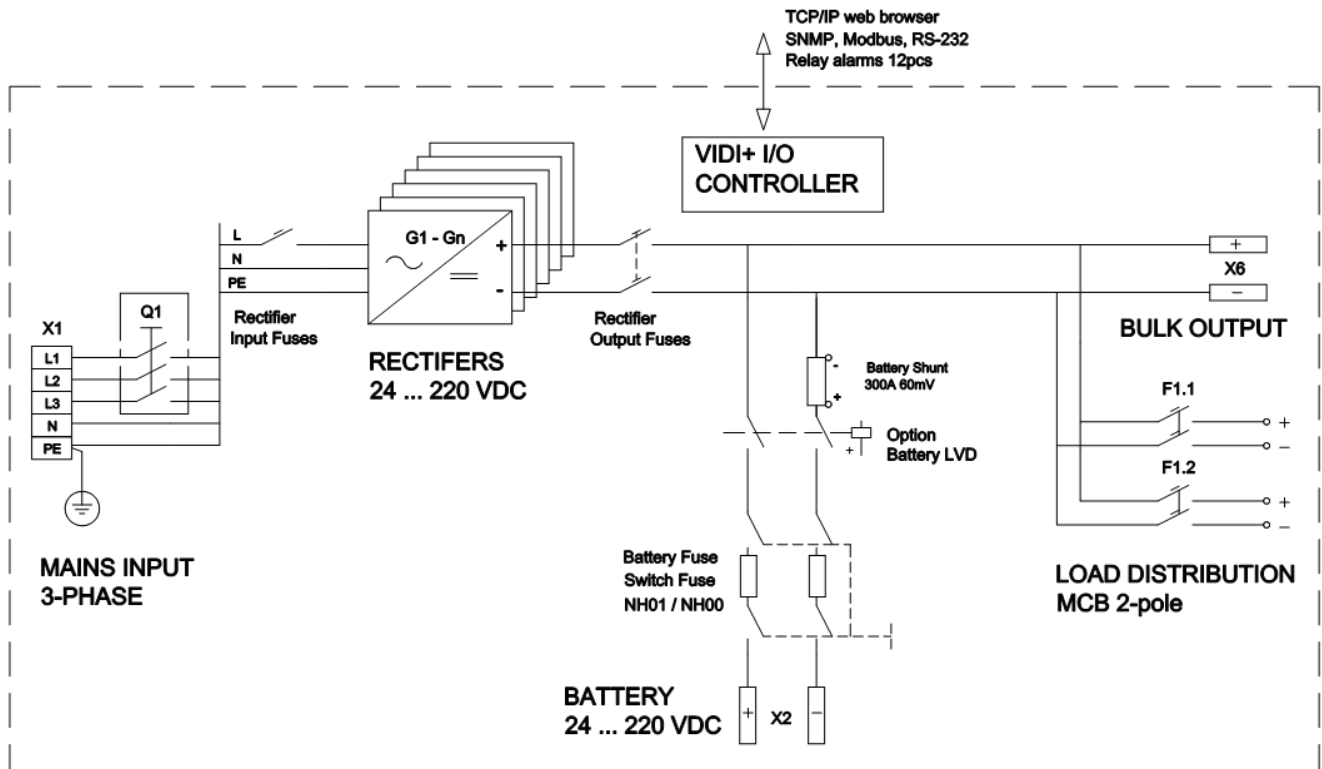
IP21 drip water cover

NTC Temperature sensor

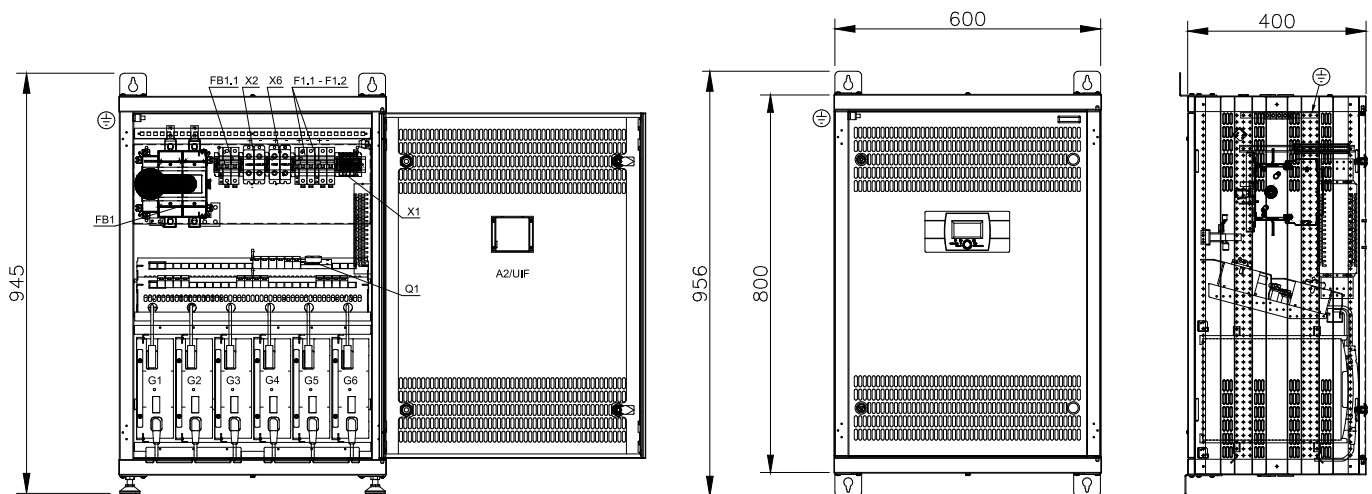
Load LVD contactors, Battery LVD contactors

Controllers: VID1+ or VID1+ I/O, Aux controllers: VID1-BM battery monitoring, VID1-LVD Low Voltage Disconnect driver

Block Diagram

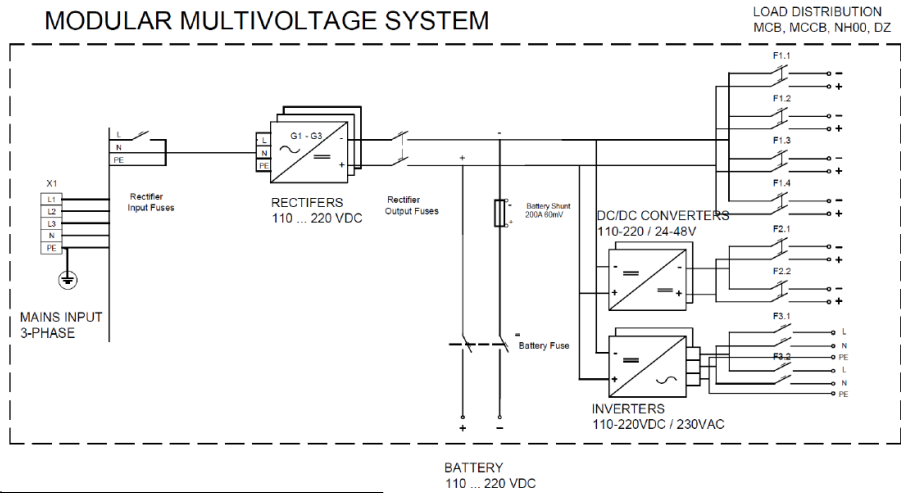
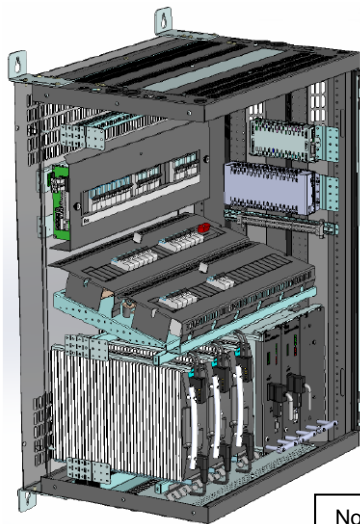


Mechanical Dimensions



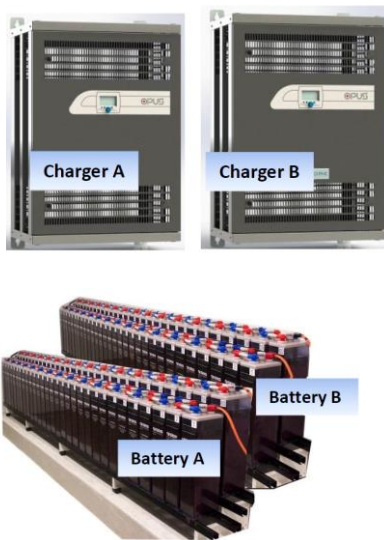
Enedo Finland Oy
 Martinkyläntie 43, 01720 Vantaa, Finland
 Tel +358 9 478 466
 www.enedopower.com

Optional configuration: Multi Voltage Systems including inverters and DC/DC converters

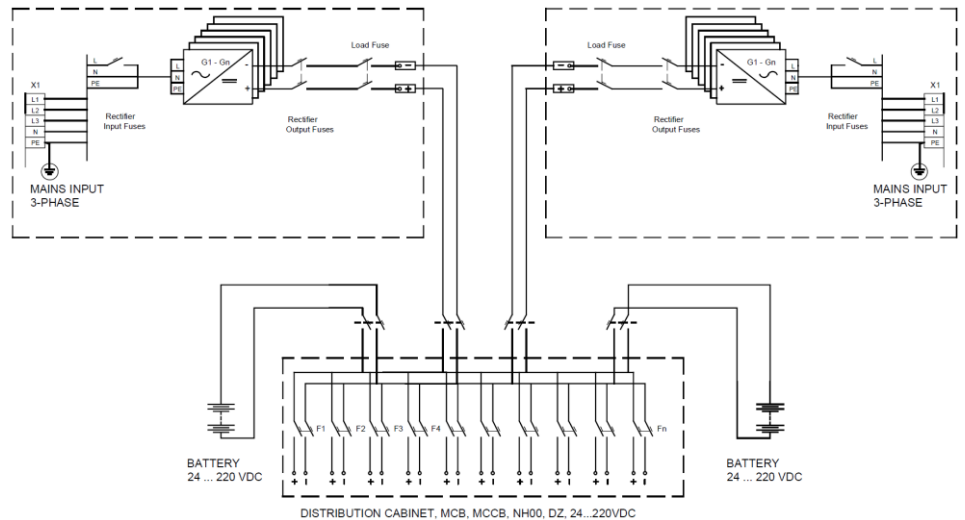


Note: Depth of inverter wall cabinet 445 mm

Application Note: Modernization of switching center panels, A + B double systems



OPUS OC0864 Wall mountable modular charger, double system



Order Information

Name	Order number	Description
OPUS C 24-6.6 CS0864 F	9220X0013096	24VDC, 6.6 kW, Floating
OPUS C 48-9.6 CS0864 F	9220X0013838	48V DC, 9.6 kW, Floating
OPUS C 60-9.6 CS0864 F	9220X0013766	60V DC, 9.6 kW, Floating
OPUS C 110-9.6 CS0864 F	9220X0013769	110V DC, 9.6 kW, Floating
OPUS C 220-9.6 CS0864 F	9220X0013833	220 VDC, 9.6 kW, Floating
OPUS C 110-4.8 CS0864 F INV/CONV	9220X0009478	110 VDC, 4.8 kW, Floating 110VDC/230VAC inverters, max 2 x 1.2kVA 110VDC/48VDC or 110VDC/24VDC converters, max 2 x 500W <i>Other configurations on request</i>

*) Configuration on request