

OPUS C DC Power Systems

19" 7U Rack or Wall mounting

OPUS C 24-3.3 R7U
OPUS C 48-4.8 R7U
OPUS C 60-4.8 R7U
OPUS C 110-4.8 R7U
OPUS C 220-4.8 R7U



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, VID1+ controllers, Connections for mains, battery and load.

Features

- Convection cooling
- Models for 24, 48, 60, 110, 220 VDC
- Max 4.8 kW output power
- N+1 redundancy
- Battery connection:
- 1 string with full current, MCB protection
- Options: Battery LVD, Temperature sensor, Wall mounting+ IP21 kit



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Technical Specifications

| General construction | |
|----------------------------------|--|
| Cooling | Natural convection |
| Protection | IP 20 Option IP21 |
| Controller user interface | Display and local control in front panel |
| Distribution and Connections | Behind front panel |
| Colour | Frame RAL 7024 |
| Dimensions, rack mounting | Height 7U (311 mm) Width 19" (482 mm) Depth 451 mm |
| Dimensions, Wall mounting + IP21 | Height 350 mm Width 482 mm Depth 503 mm |

| Environment and standards | |
|---------------------------|--|
| Operating temperature | -20°C ... +45°C |
| Humidity max | 95% relative humidity, non-condensing |
| Altitude max | 2000 m above sea level |
| Safety | IEC/EN 60950-1 |
| 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 |

| 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 ² | | | | |
| | OPUS C 24- 3.3 | OPUS C 48- 4.8 | OPUS C 60- 4.8 | OPUS C 110- 4.8 | OPUS C 220- 4.8 |
| Nominal current | 5.3 A | | | 7.7 A | |
| Maximum current | 6.9 A | | | 9.7 A | |
| Inrush current per rectifier | < 20 A | | | | |
| Main switch | 40 A | | | | |
| Recommended mains fuse | 3 x 25 A | | | | |

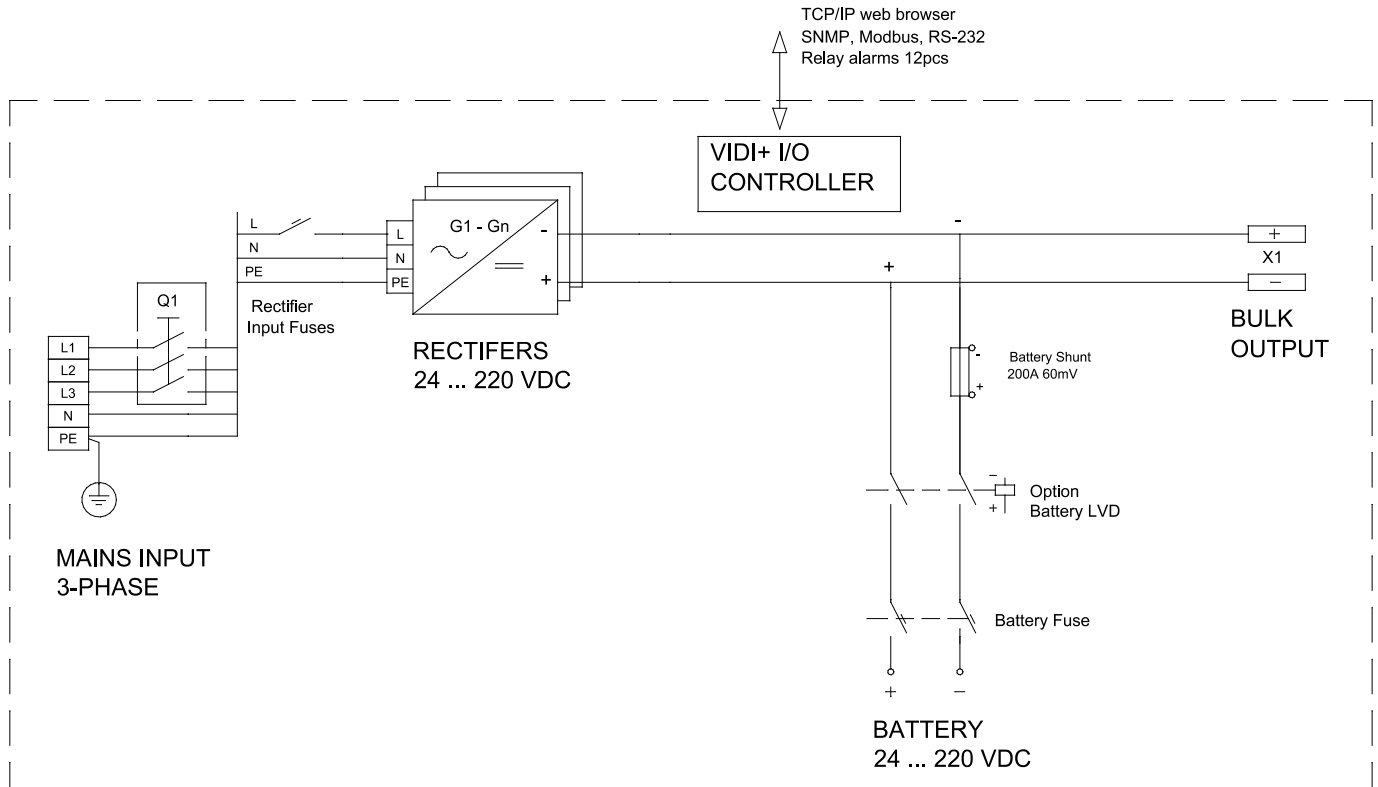
| Output | OPUS C 24- 3.3 | OPUS C 48- 4.8 | OPUS C 60- 4.8 | OPUS C 110- 4.8 | OPUS C 220- 4.8 |
|------------------|---|-------------------|-------------------|--------------------|--------------------|
| Grounding | floating | floating | floating | floating | floating |
| Nominal voltage | 24 VDC | 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 3 | Max 3 | Max 3 | Max 3 | Max 3 |
| Maximum current | 137A @ 24V | 100A @ 48V | 80A @ 60V | 44A @ 110V | 22A @ 220V |
| Power max. | 3.3 kW | 4.8 kW | 4.8 kW | 4.8 kW | 4.8 kW |
| Redundant power | 2.2 kW | 3.2 kW | 3.2 kW | 3.2 kW | 3.2 kW |
| Output terminals | Bulk output, screw terminal X1 35 mm ² | | | | |

| Connections | |
|-------------|--|
| Mains | Mains switch, 16A MCB and connection terminals |
| Battery | 2-pole MCB |

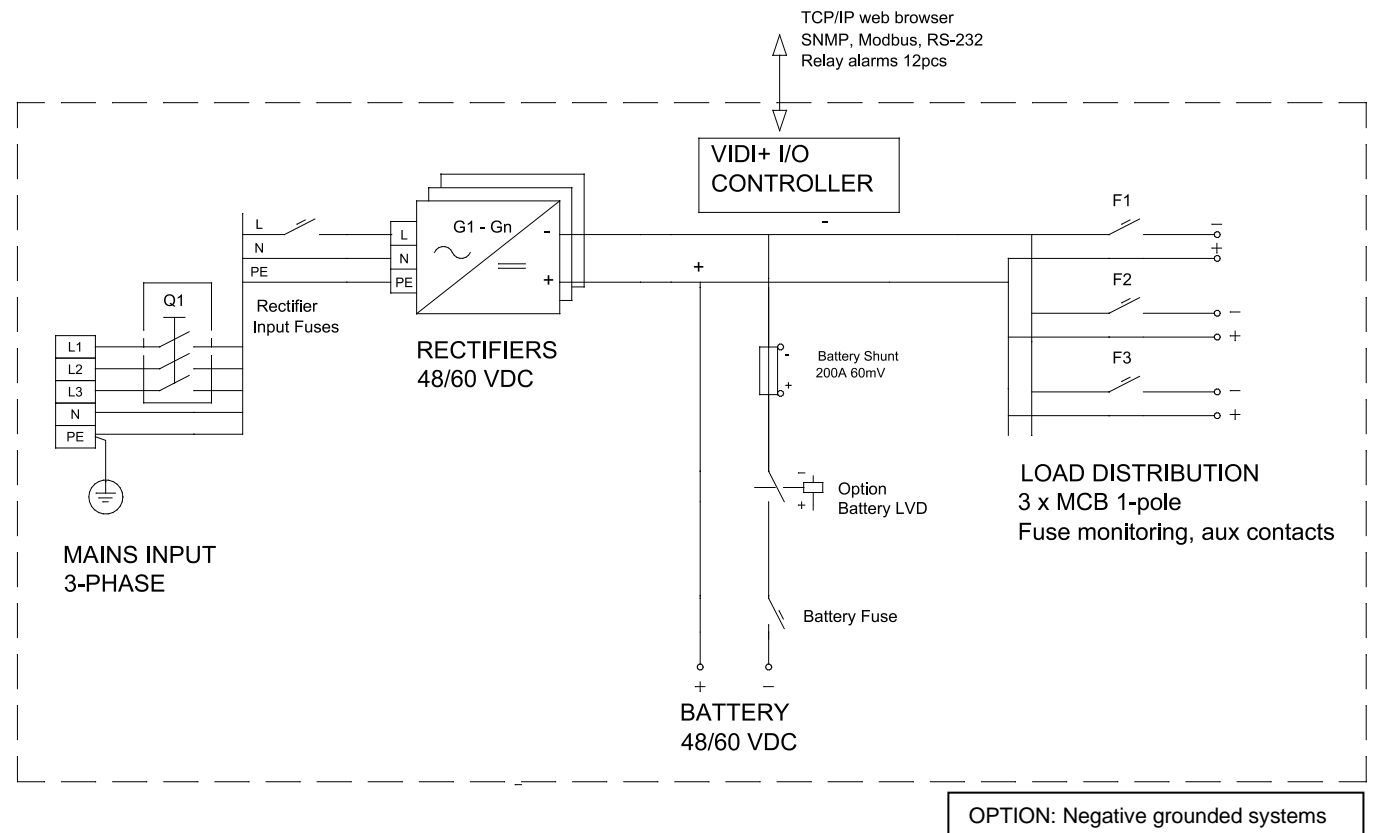


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Block Diagram 2-pole floating systems



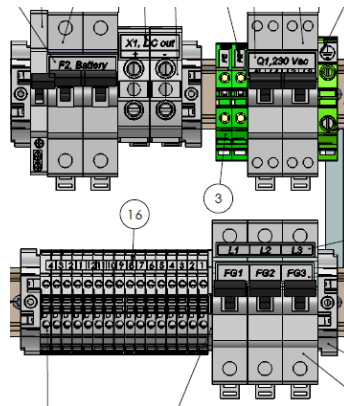
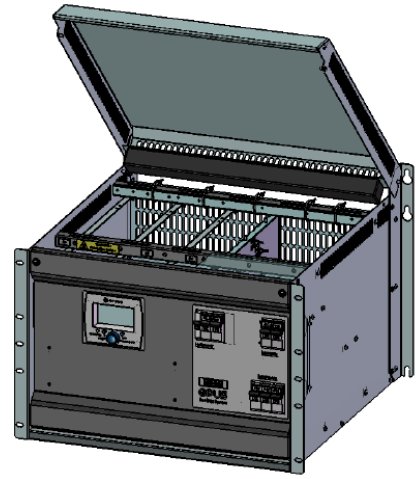
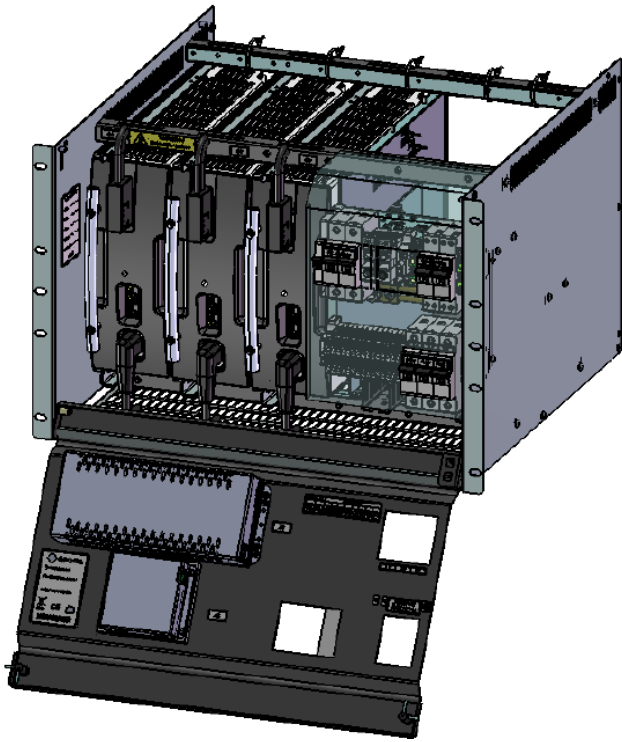
Block Diagram OPUS C 48 4,8 R 7U F MCB 1-pole system positive pole grounded



Layout drawings



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Other options

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

Order Information

| Name | Order number | Description |
|--------------------------|--------------|---------------------------------------|
| OPUS C 24 3.3 R 7U F | 9220X0005001 | 24VDC, 3.3 kW, 7U rack, floating |
| OPUS C 48 4.8 R 7U F | 9220X0005007 | 48VDC, 4.8 kW, 7U rack, floating |
| OPUS C 48 4.8 R 7U F MCB | 9220X0005616 | 48VDC, 4.8 kW, 7U rack, plus grounded |
| OPUS C 60 4.8 R 7U F | 9220X0005009 | 60VDC, 4.8 kW, 7U rack, floating |
| OPUS C 110 4.8 R 7U F | 9220X0004953 | 110VDC, 4.8 kW, 7U rack, floating |
| OPUS C 220 4.8 R 7U F | 9220X0005011 | 220VDC, 4.8 kW, 7U rack, floating |