ELTEK
A Delta Group Company

Flatpack 2 and Powerpack cabinetized

The Large Power System proves that Flatpack2 and Powerpack is the ultimate building block in any telecom application. The combination of a flexible design, power density and reliability makes the Flatpack2 and Powerpack a product family that truly stands outs and provides unparalleled network availability. The versatility of the Flatpack2 and Powerpack rectifier means that it can be used in a wide variety of DC applications across the globe.

LARGE POWER SYSTEMS, 36 - 288KW

FLEXIBLE DC DISTRIBUTION CONFIGURATIONS

Doc 271431.DS3 – rev4

APPLICATIONS

With a broad variety of options, the cabinetized power systems are ideal for applications such as:

- Central office sites
- Base station control sites
- Data centers
- Other large power demanding sites

Due to the high power density, cost competitive design and a highly flexible system communication interface, Flatpack2 and Powerpack rectifiers are used in system solutions from 2kW to 288kW.

PRODUCT DESCRIPTION

The system includes a complete power system with rectifier capacity of up to 2340A pr. cabinet, controller and flexible distribution options, all in one single cabinet.

KEY FEATURES

The Large Power System can be equipped with either Flatpack2 2kW, Flatpack2 3kW or Powerpack 5800 rectifiers.

MODEL	BASIC QTY OF POWER SHELVES	EXPANDABLE TO
FP2 2Kw	6	9 or 12
FP2 3Kw	3	6 or 9
Powerpack	3	4 or 5

(*Table 1: Rectifiers power shelves list*)

Standard distribution modules are available with the variety of knife fuses and MCBs. A high degree of flexibility makes it easy to meet most customer requirements fast and cost efficient.

OPTIONS

- SYSTEM MONITORING
- FLATPACK 2 MODULES
- POWERPACK MODULES
- FULL HEIGHT LOCKABLE DOOR
- DUMMY PANELS AND UNIT DOORS
- CONFIGURABLE MAINS INPUT
- SURGE PROTECTION DEVICE
- LVBD (LOW VOLTAGE BATTERY DISCONNECTION)
- LVLD (LOW VOLTAGE LOAD DISCONNECTION)
- PARALLELING CABINETS FOR EXPANDED POWER
- PARALLELING CABINETS FOR ADDITIONAL DISTRIBUTIONS
- LIFTING LUGS
- PLINTHS FOR SUFFICIENT CABLING

LARGE POWER SYSTEMS, 36-288KW

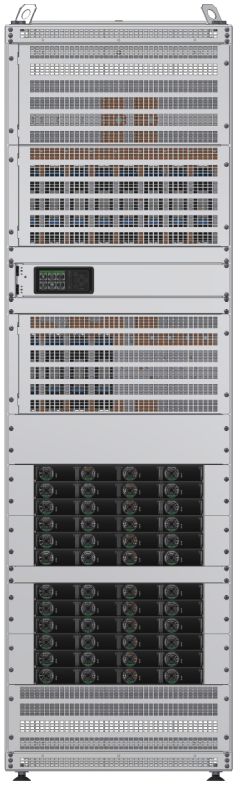
FLEXIBLE DC DISTRIBUTION CONFIGURATIONS

TOP ENTRY FP2, 2KW

Basic system capacity: 48kW
Expandability: 72kW – 96kW
Cabinet dimensions: W600xD600xH2m
Optionally paralleling distribution cabinets on left and right side
Operating temperature: 40°C

Specifications are subject to change without notice

TOP ENTRY FP2, 2KW



BOTTOM ENTRY FP2, 2KW

BOTTOM ENTRY FP2, 2KW

Basic system capacity: 48kW
Expandability: 72kW – 96kW
Cabinet dimensions: W600xD600xH2m
Optionally paralleling distribution cabinets on left and right side
Operating temperature w/o door: 40°C

Specifications are subject to change without notice

LARGE POWER SYSTEMS, 36-288KW

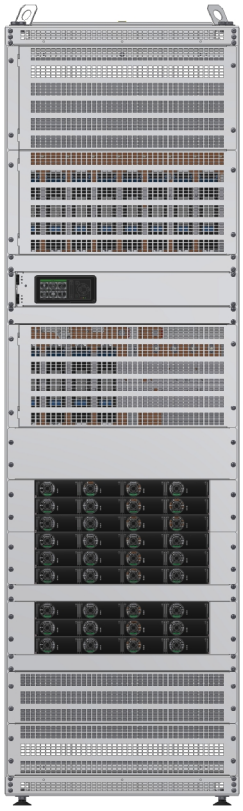
FLEXIBLE DC DISTRIBUTION CONFIGURATIONS

TOP ENTRY FP2, 3KW

Basic system capacity: 36kW
Expandability: 72kW – 108kW
Cabinet dimensions: W600xD600xH2m
Optionally paralleling distribution cabinets on left and right side
Operating temperature: 30°C

Specifications are subject to change without notice

TOP ENTRY FP2, 3KW



BOTTOM ENTRY FP2, 3KW

BOTTOM ENTRY FP2, 3KW

Basic system capacity: 36kW
Expandability: 72kW – 108kW
Cabinet dimensions: W600xD600xH2m
Optionally paralleling distribution cabinets on left and right side
Operating temperature: 30°C

Specifications are subject to change without notice

LARGE POWER SYSTEMS, 36-288KW

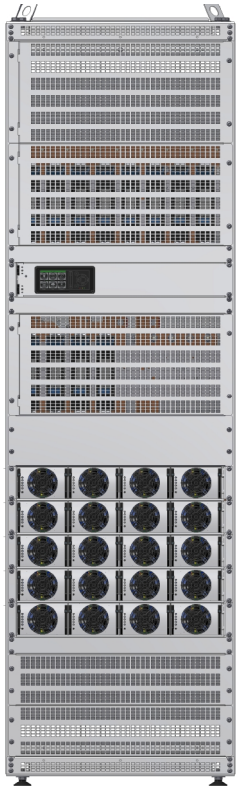
FLEXIBLE DC DISTRIBUTION CONFIGURATIONS

TOP ENTRY POWERPACK 5800

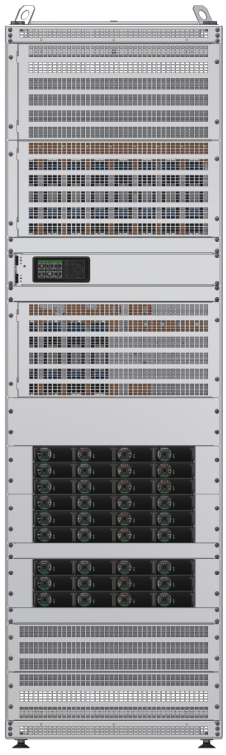
Basic system capacity: 69.6kW
Expandability: 92,8kW – 116kW
Cabinet dimensions: W600xD600xH2m
Optionally paralleling distribution cabinets on left and right side
Operating temperature: 30°C

Specifications are subject to change without notice

TOP ENTRY POWERPACK 5800



FLEXIBLE BASIC CABINET CONFIGURATIONS



FLEXIBLE EXPANSION CONFIGURATIONS

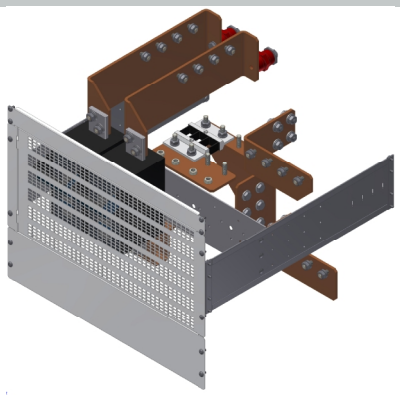
- EXTENDED POWER CABINET
- EXTENDED DISTRIBUTION CABINET

LARGE POWER SYSTEMS, 36-288KW

FLEXIBLE DC DISTRIBUTION CONFIGURATIONS

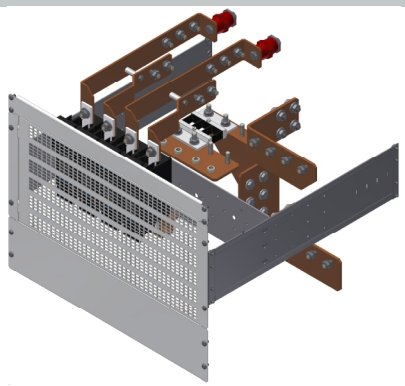
BATTERY DISTRIBUTION

2 X TPS 2-1600A



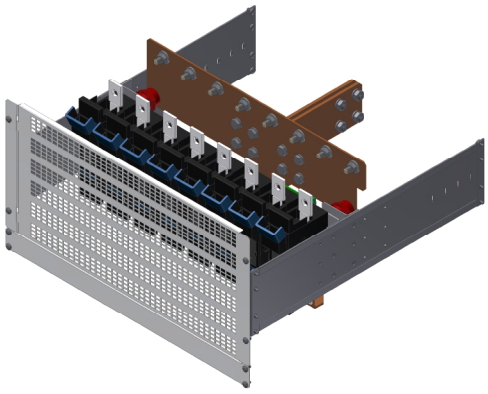
BATTERY DISTRIBUTION

4 X TPS 00-600A



LOAD DISTRIBUTION

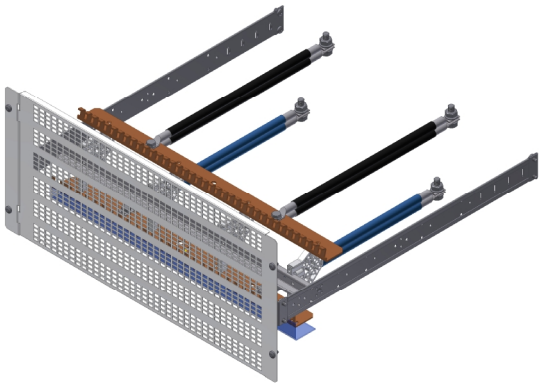
4-8 X TPS 00-600A



LOAD DISTRIBUTION

30 X 2~63A MCB

20 X 80~125A MCB



LARGE POWER SYSTEMS, 36-288KW

DC DISTRIBUTION OPTIONS

BATTERY DISTRIBUTION 2 x TPS 2-1600A	o 2 outputs, max 1600A each o Options: o LVBD contactor (1200A or 1800A) o Connection: M10 bolt
BATTERY DISTRIBUTION 4 x TPS 00-600A	o 4 outputs, max 600A each o Options: - LVBD contactor (1200A or 1800A) o Connection: M10 bolt
LOAD DISTRIBUTION 4-8 x TPS 00-600A	o 4 outputs, max 600A each o Options: - Additional 4 outputs, max.600A - LVLD on additional 4 outputs (1200A) o Connection: M10/M12 bolt
LOAD DISTRIBUTION MCB	o 30 x MCB's (DIN rail mounted, 2-63A) o 20 x MCB's (DIN rail mounted, 80-125A) o Connection: Directly in MCB, max 16mm^2

AC INPUT

Voltage	230 V_{AC}, single phase 230 V_{AC}, 3-phase IT network 230/400 VAC, 3-phase TN network
Additional info	See Flatpack2 – 2kW 48V_{DC} datasheet See Flatpack2 – 3kW 48V_{DC} datasheet See Powerpack 48V_{DC} datasheet

MONITORING

Monitoring Unit	See Smartpack (242100.100.DS3) datasheet See Smartpack2 (242100.50X.DS3) datasheet

DC OUTPUT PR. CABINET

Voltage	48 V_{DC}
Current	Flatpack2 – 2kW: From 3U PR (450A) up to 12U PR (2000A) Flatpack2 – 3kW: From 3U PR (750A) up to 9U PR (2250A) Powerpack: From 3U PR (1404A) up to 5U PR (2340A)

OTHER SPECIFICATIONS

Isolation	o 3.0 KVAC – input and output o 1.5 KVAC – input earth o 0.5 KVDC – output earth
Storage temp.	-40 to +85°C (-40 to +185°F)
Weight /2.0m	Appr. 180kg (396,8 lbs) excl. rectifiers

APPLICABLE STANDARDS

Electrical safety	IEC 60950, UL 60950
EMC	o ETSI EN 300 386 V.1.3.1 (telecommunication network) o EN 61000-6-3 (emission, light industry) o EN 61000-6-2 (immunity, industry)
Environment	o ETS 300 019-2-1 (storage) o ETS 300 019-2-2 (transport) o ETS 300 019-2-3 (operation)

ORDERING INFORMATION

Part No.	Description
241115.100	Flatpack2 48V/2000
241115.105	Flatpack2 48V/2000 HE
241119.903	Flatpack2 48V/3000
241119.105	Flatpack2 48V/3000 HE
241246.500	Powerpack 48/5800 208/400/480V_{AC}
CTO2xx42.xxxx	Flatpack2(2kW) 48V_{DC} / 288kW Power Rack Sales configured system
CTO3xx42.xxxx	Flatpack2(3kW) 48V_{DC} / 288kW Power Rack Sales configured system
CTOYxx42.xxxx	Powerpack 48V / 288kW Power Rack Sales configured system