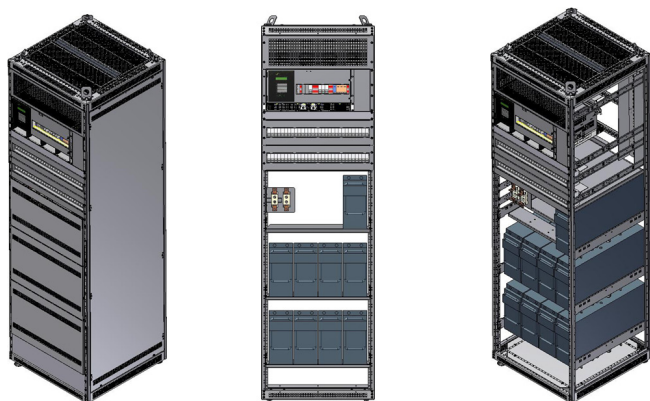
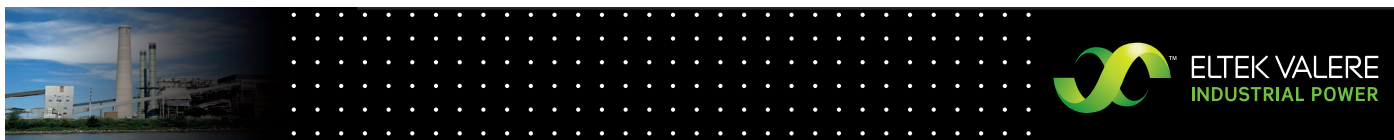




INDUSTRIAL DC SYSTEM IBB

Power Supply System 24-220V/5-300A
24V, 48, 60, 110, 125, 220VDC max 16kW/300A

Compact high efficiency power supply system

The IBB Power systems and building blocks are built around our Flatpack2 rectifier and designed for applications as switchgear, telecom, emergency lightning, alarm systems etc. With its compact design and simple installation, makes it a powerful DC power supply packagesignificant environmental impact.

APPLICATIONS

Industry

The IBB systems are a combination of state of the art switching technology with high efficiency rectifiers and flexible 19"/23" pre-engineered building blocks. The systems consist of building blocks that also are supplied separately as components suitable for System integrators as pre-engineered, documented and tested units.

IBB Systems includes the FP2 High efficiency rectifier for DC power supply facilities and can be used with or without battery. All in all this gives the Industrial Building Blocks (IBB) superior flexibility and can be used in a various kind of application such as;

- >> Low & High Voltage switchgear
- >> Transformer & SUB Stations
- >> Power Generation & Distribution
- >> Emergency lighting systems
- >> Rail applications; Telecom, signaling and power conversion
- >> Industrial control systems
- >> Process and Heavy industry

Product Description

The basic power core has 4-8 rectifier positions, a controller and a bulk DC output feed, that can be used in the FPC cabinet with possibility for optional DC distribution, battery breaker and connection unit.

The power core is prepared for any Flatpack2 rectifier module and depending on the rectifier choice the system output can be either of the following:

- 24V/40 - 300A, 48V/15 - 300A, 60V/15 - 266A
- 110V/10 - 134A, 125V/10 - 128A, 220V/5 - 73A

PRODUCT FEATURES AND ADVANTAGES

Flexibility and reliability

The modular concept has a lot of benefits compared to traditional solutions in the industry:

- >> Pre-engineered systems and building blocks
- >> Easy installation & commissioning
- >> High efficiency; less power consumption and heat dissipation
- >> Overall Size and footprint of cabinet: 50% of Thyristor Controlled Size
- >> Modular Hot Plug-in Construction allows
 - >> Redundancy; n+1, n+2... configurations
 - >> Very low MTTR; < 5 minutes
- >> Very high MTBF > 350000 hours
- >> Extensive control & alarm functions with remote control capabilities
- >> Optional built in VRLA batteries (up to 125VDC)

Global compliance

Eltek Valere is among the market leaders in all regions in the world, and designs the core products to be compliant to all relevant standards and customer requirements. All Flatpack2 rectifiers are CE marked and UL recognized.

See Reverse side for specifications

BUILDING BLOCKS FOR IBB SYSTEMS

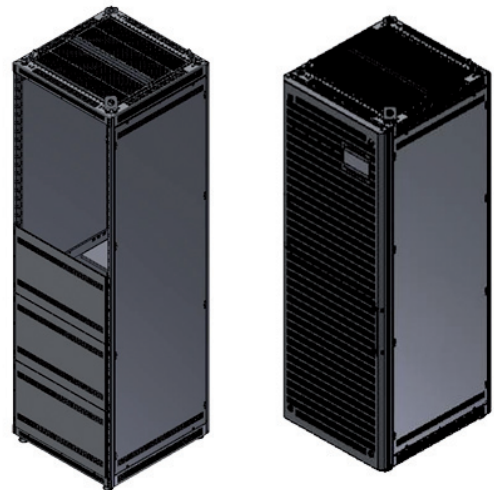
ADDITIONAL TECHNICAL SPECIFICATIONS

FPC Cabinets

Frame-based Power Cabinets and optional kits

FPC is a family of high-end indoor cabinets, designed for flexibility. With their rigid design, removable side panels and multiple choices of options, the cabinets can be used for a wide range of applications.

For additional information about the FPC cabinets, please see separate data sheet



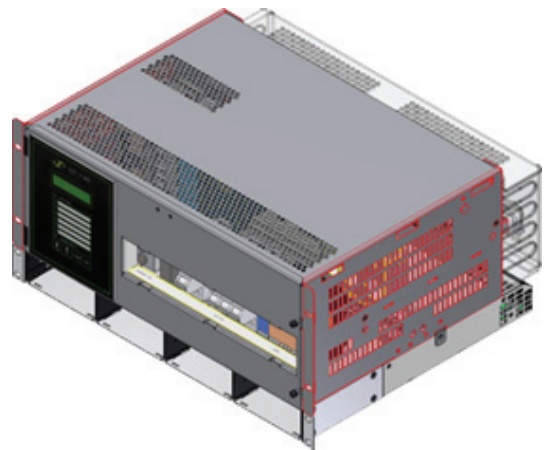
IBF-UPC4

Industrial Bulk Feed

A complete 19" Power core pre-engineered and tested for; 24, 30, 48, 60, 110, 125 and 220VDC, with following features;

- >> Power rack for 4-8pcs, FP2 rectifiers AC-input, fusing & SPD (Surge protection)
- >> UPC4 DC System controller with multi module (Rectifier, DC/DC Converters, Inverters and STS) control functionality and display
- >> 300A DC bus bars
- >> 6 Digital inputs for external alarming
- >> 6 Relay outputs NO, COM, NC for remote alarming
- >> MMT Configuration software
- >> Battery shunt

For additional information about the IBF Bulk feed, please see separate data sheet.



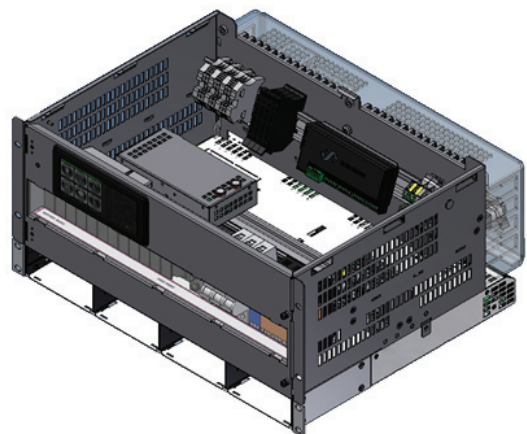
IBF-SP2

Industrial Bulk Feed

A complete 19" Power core pre-engineered and tested for; 24, 30, 48, 60, 110, and 125VDC, with following features;

- >> Power rack for 4-8pcs, FP2 rectifiers AC-input, fusing & SPD (Surge protection)
- >> Smartpack2 DC System controller with 3,2" TFT color display, included Ethernet and Web interface for remote monitoring.
- >> 300A DC bus bars
- >> 6 Digital inputs for external alarming
- >> 6 Relay outputs NO, COM, NC for remote alarming
- >> Power Suite Configuration software
- >> Battery shunt

For additional information about the IBF Bulk feed, please see separate data sheet.



www.eltektvalere.com

Eltek Valere Deutschland GmbH - Industrial Division
Schillerstr. 16 - 32052 Herford
Tel.: +49 52 21 17 08 - 200 Fax: +49 52 21 17 08 - 222
Info.industrial@eltektvalere.com

Headquarters:
Eltek Valere

Graterudv. 8, Stromso, 3003 Drammen, Norway
Phone: +47 32 20 32 00 Fax: +47 32 20 32 10

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RECTIFIERS FOR IBB SYSTEMS

ADDITIONAL TECHNICAL SPECIFICATIONS

Flatpack 2 Rectifier range

The combination of innovative design, efficiency and reliability makes the Flatpack2 HE stand out. With efficiency up to 96.2%, the losses have been reduced by 50% compared to the current industry standard. Compared to older technologies with even poorer efficiency an investment in a Flatpack2 HE system is repaid in a few years by the reduced operating cost.

In a global perspective, considering the high energy consumption in the industry, this technology breakthrough can also have a significant environmental impact.

For additional information about the Flatpack2 Rectifiers, please see separate data sheet.

Part number	Description	Voltage range	Max Current / Module	Max modules in IBF	Remarks
24V DC					
241115.205B	Flatpack 2 24V/40A HE	21,7-28,8V	40A	4	Constant current rectifier
241115.205	Flatpack 2 24V/1800W HE	21,7-28,8V	75A	4	Constant power rectifier
241115.200	Flatpack 2 24V/2000W	21-29V	84A	4	Constant power rectifier
241115.250	Flatpack 2 24V/2000W WOR	21,5-36V	70A	4	Constant power rectifier
30V DC					
241115.250	Flatpack 2 24V/2000W WOR	21,5-36V	70A	4	Constant power rectifier
48V DC					
241115.705B	Flatpack 2 48-60V/15A HE	39,9-72V	15A	8	Constant current rectifier
241115.705	Flatpack 2 48-60V/2000W HE	39,9-72V	41,6A	8	Constant power rectifier
241115.100	Flatpack 2 48V/2000W	43,2-57,6	41,6A	8	Constant power rectifier
241115.105	Flatpack 2 48V/2000W HE	43,2-57,6	41,6A	8	Constant power rectifier
60V DC					
241115.705B	Flatpack 2 48-60V/15A HE	39,9-72V	15A	8	Constant current rectifier
241115.705	Flatpack 2 48-60V/2000W HE	39,9-72V	41,6A	8	Constant power rectifier
110V DC					
241115.805B	Flatpack 2 110-125V/15A HE	89,2-171,6V	10A	8	Constant current rectifier
241115.805	Flatpack 2 110-125V/2000W HE	89,2-171,6V	16,8A	8	Constant power rectifier
125V DC					
241115.805B	Flatpack 2 110-125V/15A HE	89,2-171,6V	10A	8	Constant current rectifier
241115.805	Flatpack 2 110-125V/2000W HE	89,2-171,6V	16,8A	8	Constant power rectifier
220V DC (Only for IBB-UPC4)					
241115.815B	Flatpack 2 220V/5A HE	178,5-297V	5A	8	Constant current rectifier
241115.815	Flatpack 2 220V/2000 HE	178,5-297V	9,16A	8	Constant power rectifier

Flexibility and reliability

The FP2 modular concept has a lot of benefits compared to traditional solutions in the industry:

- >> High efficiency; less power consumption and heat dissipation
- >> Overall Size and footprint of cabinet: 50% of Thyristor controlled Size
- >> Modular Hot Plug-in Construction allows
 - >> Redundancy, n+1, n+2... configurations
 - >> easy to do repairing: MTTR < 5 minutes
- >> Very high MTBF > 350000 hours
- >> Wide input AC Voltage and Frequency range
- >> Possibility to build combined systems with rectifiers, DC/DC converters and inverters controlled by one controller



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Headquarters:
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Graterudv. 8, Stromso, 3003 Drammen, Norway
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KITS FOR IBB SYSTEMS

ADDITIONAL TECHNICAL SPECIFICATIONS

DU-Kit

Distribution unit

>> 23" Distribution unit for mounting in the system with 2-Pole MCB Circuit breakers;

>> 1-12pcs 2-Pole DC Rated MCB:s in each unit with or without fuse trip alarm 6-40A, B or C Characteristic

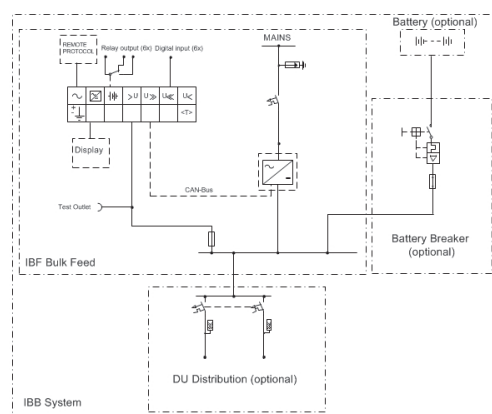
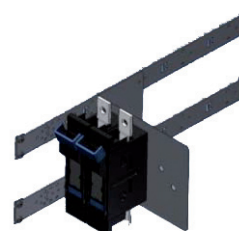
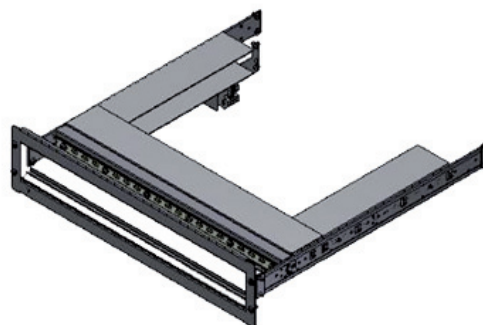
BBU-Kit

Battery breaker unit

Battery breaker for mounting in the system;

>> NH00 and NH01 63 – 250A Fuses with fuse trip alarm

>> MCCB 63-250A Circuit breaker with fuse trip alarm



General single line diagram

General Technical Data

AC Input	115-400VAC (Δ) or (Y) Derating <185VAC
AC Connections	Terminals 10mm ²
Input fuse	MCB:s
Input protection	SPD, Class 2
Relay outputs	6xNO/COM/NC
Digital inputs	6
Max output current	300A
Max output power	16kW
Ambient temperature	-40°C...+70°C (Derating >+45°C)
Cooling rectifiers	Fan cooled, temperature regulated and monitored
Cooling system	Convection cooling

Standards

Protection class	IP21
Environment	EN300 119, EN300 132-2
EMC	EN61000-6-1 (Immunity light Industry)
	EN61000-6-2 (Immunity Industry)
	EN61000-6-3 (Emission light Industry)
	EN61000-6-4 (Emission Industry)
	EN61000-6-5 (Immunity power stations and substations)
Mains Harmonics	EN61000-3-2
Safety	IEC60950-1, UL60950-1

For specific technical data, see separate data sheets for each module and building block.

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