



DC Power supply / Industrial battery charger

Charger & Rectifier

24/48/110/125/220/240/400Vdc

Normal current 16-1500A



BCN model uXcel range charger is based on interchangeable sub-assemblies to allow full customization and full compliance with the technical specifications required by the clients. It is designed to meet the versatile and stringent electrical and mechanical requirements in industrial environments.

Combined with industrial standby battery banks, BCN model uXcel range rectifier-chargers can continuously protect your critical DC power industrial equipments and operations from the damage of power failures and interruptions, with its high reliability and superior performance.



BCN uXcel Series

BCN Model uXcel range industrial battery charger is the flagship charger of BCN model Industrial Power solutions. It integrates proven design topology with the latest advanced digital control technology to control the 6-pulse thyristor bridge rectifier and provide the most reliable and trouble-free performances in any electrical and industrial environments.

Key Features

- **High Reliability and High MTBF** - Robust and unique design allows the charger to continuously operate at full load at a 40°C ambient temperature. Natural ventilation and cooling are available on most of the range. Precise adjustable temperature compensation.
- Versatile constant voltage and constant current charging modes.
- **Enhanced Robustness** - Mechanical design to withstand vertical and horizontal acceleration stress up to 0.5g as standard.
- **Leading Technology** - Phase-controlled Thyristor technology. The embedded micro-computer controller processes °C signals 10 times faster than standard analog methods.
- **Flexible maintenance and Reduced MTTR** - The design make it easy for front-access to all vital modules of the charger.
- **Long design life up to 20+ years** - stem design life up to 20+ appropriate maintenance.
- **Isolation transformer.**
Multilingual digital graphic display with embedded event log.
- Full compatibility with lead-acid and nickel-cadmium batteries, sealed or vented.
- **Large LCD display** User-friendly operation with large LCD display, touch screen optional with the choices of & languages made to order.
- **Smart Communication and Remote Monitoring** - Through isolated RS232, RS485, Ethernet. Full data logging.

Applications

BCN model uXcel Rectifier-Charger range suits all DC applications requiring a large battery back-up:

- Power Transmission and Distribution
- Continuous process industries
- Oil and Gas and Petrochemical industries
- Transportation (rail, metro, tramway)

Benefits

- **Flexible customization** power solutions to perfectly meet the specific requirements of customer's industrial applications.
- **Ruggedized solutions** to withstand harsh environments: extreme temperatures, humidity, dust and vibrations etc. Up to IP65 protection.
- **Complete power protection solutions**, including switch-gear, DC distribution, monitoring suite.





DC Power supply / Industrial battery charger

Charger & Rectifier

24/48/110/125/220/240/400Vdc

Normal current 16-1500A

Ratings - Output current (A) vs voltage (VDC)				
24Vdc	48Vdc	110-125Vdc	220-240Vdc	400Vdc
16	16	16	16	16
25	25	25	25	25
40	40	40	40	40
60	60	60	60	60
80	80	80	80	80
100	100	100	100	100
125	125	125	125	125
150	150	150	150	150
200	200	200	200	200
250	250	250	250	250
300	300	300	300	300
400	400	400	400	400
500	500	500	500	500
600	600	600	600	
800	800	800	800	
1000	1000	1000		
1200	1200	1200		
1500				

Options	
Rectifier	Dropping diodes
	Blocking diode
	Filter capacitor
	Surge and Lightning protections
	Other input voltage
	Extended input voltage tolerance
	DC distribution
	Earth fault monitoring
	Output breaker
	Temperature and humidity controller
	Temperature compensation
	Front-panel analog meters (72×72 class 1.5)
	Internal lighting
Battery	Battery management system
	Battery cabinet
	Battery low voltage disconnect
	Battery temperature sensor
Mechanical	Other frame colour
	Up to IP64 external
	Plate thickness
	Galvanized sheet
communication	RJ45
	Volt-free contacts
	Remote monitoring

Technical Data	
Input	
Nominal AC voltage	3×380V (400,415)
Input voltage tolerance	± 10%
Input frequency	50Hz (60Hz)
Input frequency tolerance	± 5%
Output	
Nominal DC voltage	24/48/110/125/220/240/400
Output voltage range	0-1.5×nominal voltage (adjustable)
Available ratings	see table above
Voltage stability	± 1% in float mode, input within tolerance
Voltage ripple	1% RMS (with battery connected)
Static Voltage Regulation	< 1% (for 0-100% load variation, ±10% AC input voltage variation and 5% AC input frequency variation)
Dynamic Voltage	200µs
Battery	
Type	Lead Acid or Nickel Cadmium vented or recombination
General data	
Operating temperature	0-50°C
Storage temperature	-20 to +70°C
Relative humidity	< 90%
Operating altitude	1000 m max without derating
Cooling	Fan cooling (Small power natural convection)
efficiency	88% (full power)
External protection	IP21
Noise (dB)	55 – 65 dB according to rating
Frame colour	RAL 7035
Dimensions	Varying according to ratings & options

