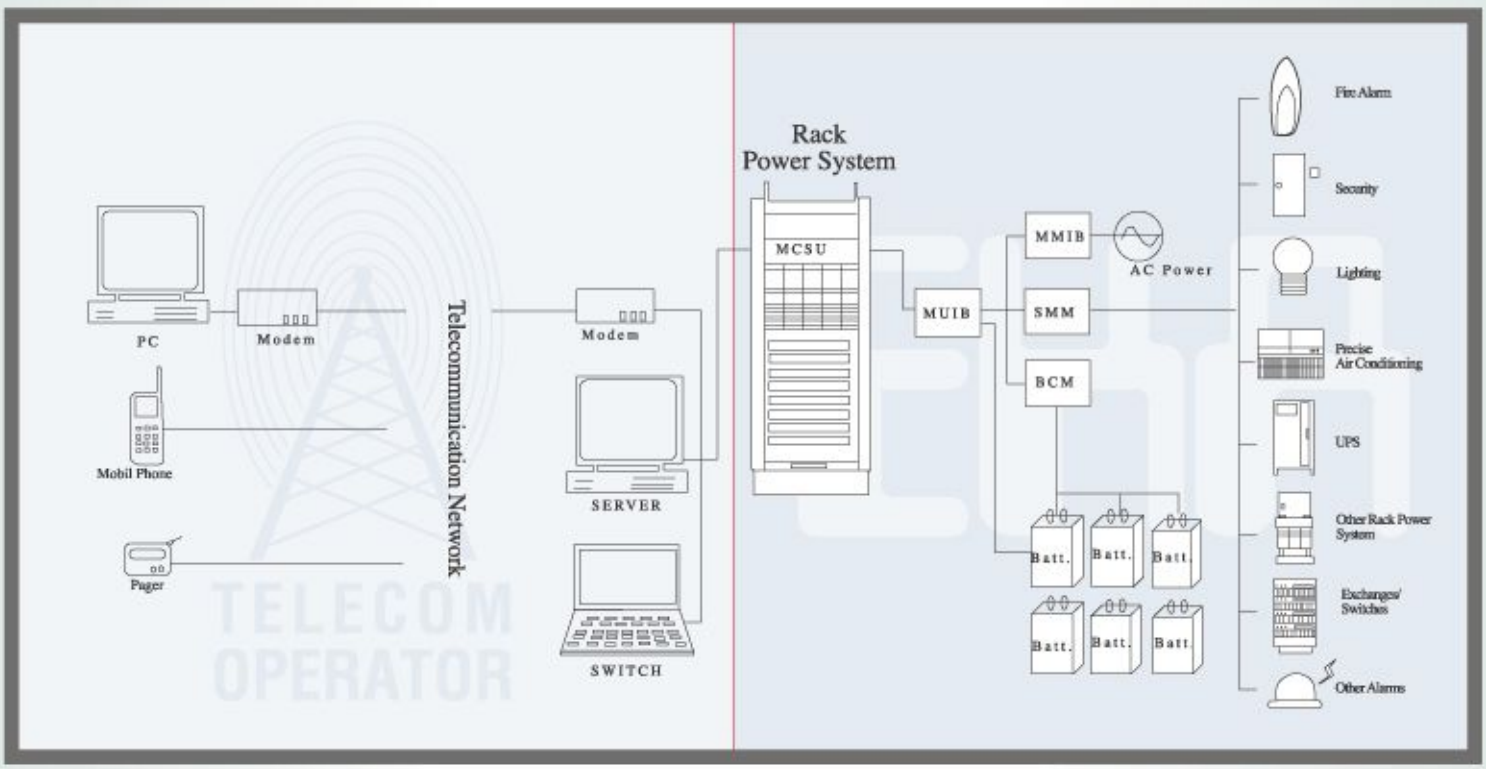
Power Management For Telecom

Electrical energy conversion, storage, filtering, back-up; control and adjustment of its amplitude, frequency, efficiency, transmission, distribution, and most importantly assuring its everlasting continuity... These are the main concepts that altogether make up Power Management®, which is necessary to ensure the reliability of any electrical network.

EKA was established more than a quarter century ago, during a time when cellular phones existed only in science fiction movies. After a lifetime spent on research and development, tens of thousands of power electronics applications, millions of gray matter and millions of kilowatt-hours, our mastery of electrical engineering was registered under this trademark: Power Management®. We are proud to offer our expertise in this field to create value for telecommunication operators.

Let Us Handle The Right Side Of The Red Line Below;

So That You Can Handle Your Clients On The Left !

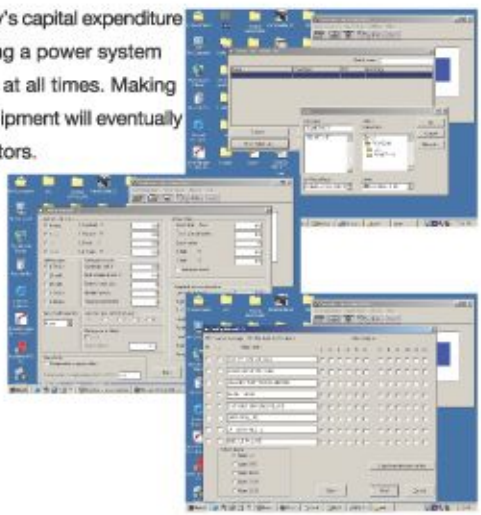


DC Power Systems

EKA offers a comprehensive range of rectifier systems, from stand-alone units with SCR technology, to wallmount and rackmount units with switch mode converters. The rackmount product line is specially designed and optimized for telecommunication applications. These DC power systems consist of plug-in, N+1, parallel redundant, power factor corrected rectifier modules, user-friendly control modules, and distribution panels; all assembled on a single ETSI rack with or without batteries depending on customer requirements. The power modules use the resonance switch mode technology to achieve high power density and performance accuracy. The control module has a wide range of status monitoring options, alarms, and intelligent control functions. The distribution panel is configured according to the customer's load requirements. The assembled system on racks is fully tested prior to shipment. All standard systems are CE marked.

Key Features	Advantages	Customer Values
Hot swappable, Modular, N+1 Construction	Lower MTTR & less down time Load sharing redundancy	Improved system reliability and scalability
Power Factor Correction	Minimal reactive power drawn	Lower cost of ownership
High Efficiency	Less power loss in system	Lower cost of ownership
Proven Design	MTBF > 1 million hours	Improved system reliability Enhanced ROI
Comprehensive Local & Remote Status Monitoring	Spot problems before they occur Take corrective & preventive action	Improved system reliability Lower cost of ownership Less maintenance
Enhanced Operating Environmental Conditions	Same system suitable for different applications	Improved system reliability under extreme conditions

A significant portion of a telecommunication company's capital expenditure will inevitably be spent on installing and maintaining a power system that will keep the critical hardware up and running at all times. Making the right decision on the purchase of this type of equipment will eventually enable a telecom operator to overtake its competitors.



Another convenience offered by EKA's DC Power Systems is the remote monitoring option via windows-based software. This helps minimize repair and maintenance costs. Site managers are able to troubleshoot easily with this software thanks to the wide range of parameters available on it. They can even determine problems before they occur; and therefore take preventive action to avoid service interruption.

Applications

- GSM and Radio Base Stations (BTS)
- Broadband Service Providers
- Switching and Repeater Stations
- Transmission Hubs
- Satellite Ground Stations

TECHNICAL SPECIFICATIONS

Input	
Voltage	220 Vac ±20%
Frequency	45-65 Hz
Power Factor	>0.99 at full load
Output	
Voltage	45-57 Vdc adjustable
Voltage Regulation	< ± 1%
Current	minimum 20 A@ 48 Vdc
Ripple	< 150 mV p-p
Psophometric Noise	< 2mVrms, according to CCITT
General	
Efficiency	>91%
Transient Response	±5% in 10 msec. (10-90% load)
Load Sharing	±5% of nominal current
Electrical Protection	Short circuit, overvoltage, and automatic current limiting
MTBF	In excess of 1 million hours
Cooling	Natural Convection
Insulation Voltages	
Input/Ground	1.5 kVAC (or 4.25 kVDC)
Input/Output	3 kVAC (or 2.12 kVDC)
Output/Ground	750 kVDC
Mechanical	
Construction	Plug-in modules
Protection Class	IP20
Standards	
Safety	EN 60950
EMC	EN 50081-1, EN 50082-2
Environmental	
Ambient Temperature	-5 to +45 °C
Storage Temperature	-40 to +85 °C
Relative Humidity	0 to 95% (Non-condensing)
Status Monitoring & Control	
Local	LCD and Keypad
Remote	1. RS-232 2. Modem or SNMP with windows-based software
Control Module Functions	Automatic / manual boost charging, Automatic / manual battery testing, Temperature-compensated battery charging, Event history log with time and date, Low voltage disconnect, Load or battery automatic disconnection to prevent deep discharge of batteries.
Alarms	
LEDs & Voltage-free Contacts	High / Low Battery Voltage, Low Voltage Disconnect, Mains Failure, Rectifier Module Failure, Load / Battery Disconnect, Battery Test Failure, High Temperature Alarm.

All specifications are subject to change without prior notice and will vary depending on module. A few modules are fan cooled and have less than 1 million hour MTBF. Wider input voltage ranges are also available, up to 90 - 290 Vac. Please contact us for more details.

AVAILABILITY MATRIX

Rectifier Modules	10 A	25 A	30 A	40 A	50 A	100 A	125 A	230 A
24 VDC	√	x	√	√	x	√	x	x
48 VDC	√	√	√	√	√	√	√	√

DISTRIBUTOR

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