



FR-1000



CATV Power

EKA's Broadband Network UPS model FR-1000 replaces outside plant standby power supplies in CATV networks, providing true UPS performance in a high efficiency package. The power module will retrofit most standby enclosures enabling any system to upgrade easily. The FR-1000 architecture incorporates an inherent "soft start" feature eliminating any need for high-inrush circuit breakers and nuisance breaker tripping.

FR-1000 is not limited to single-frequency operation, but accepts a wide range of input frequencies and voltages. Consequently, generator compatibility is maximized. Bi-directional Power Sharing (BPS) allows continuous power flow from utility or the battery string to smoothly support load requirements without the need for mechanical transfer, tap switches or line-detection circuits.

FR-1000 has a microprocessor-controlled LCD Front Panel with four push-buttons indicating the following measurements: input & output values, alarms and operation mode. Periodic battery tests may be programmed through the menus displayed on the LCD. Additional LED's placed vertically on the LCD Front Panel are representing four load outputs limited and auto-controlled at 8 A each and 20 A all four together. In-circuit programming is available for software uploads to keep the HMS-compatible communications protocol up-to-date. Custom-made units are available, kindly contact factory for more details.

Features:

- True on-line
- No transfer, no interruption
- High efficiency
- Ferroresonant output
- BPS Technology
- Longer battery run-time
- 48/63 Vac selectable output voltage
- Temperature compensated four stage charger
- Current-limited four output channels
- User friendly LCD Display
- 36/48 Vdc battery operation
- 90 to 275 Vac operating input voltage
- Near unity power factor
- Battery temperature sensor
- 300 mA ground leakage relay
- IEC 60728-7-3 compliant status monitoring (SCTE HMS standards)

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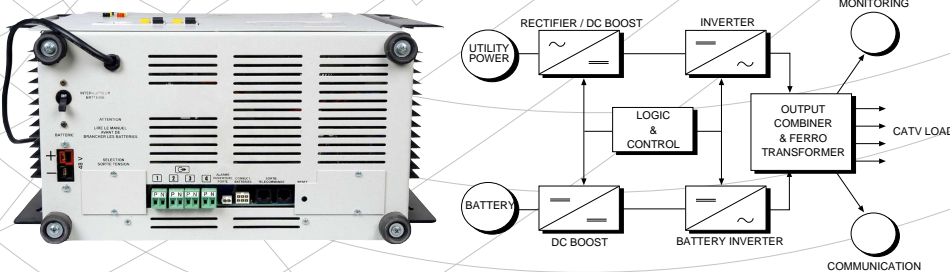
TECHNICAL SPECIFICATIONS



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GENERAL			
Input Voltage	90 - 275 Vac		
Input Current	10 A - 6 A		
Input Frequency	45 - 65 Hz.		
Input Power Factor	0.98 or better		
Output Voltage	48 / 63 Vac \pm 2%		
Output Current	20 A - 16 A		
Output Power	960 VA		
Efficiency	87%		
Battery Voltage	48 Vdc nominal		
Low Battery Cutoff	43,2 Vdc (1,8 V/cell)		
Battery Charger	4-stage; trickle, bulk, balance and float		
Recharge Current	10 A max (at full load)		
Charger Temp. Compensation	-0,09 V/°C; -0,05 V/°F with default to internal sensor upon probe failure		
Dimensions	485 x 450 x 250 mm		
Weight	33 kg		
Operating Temperature Range	-20°C to +65°C		
Cooling	Module compartment-convection cooled.		
INDICATORS			
Tri-State LED's	GREEN	AMBER	RED
Line (AC input)	Normal (OK)	N/A	Alarm (AC input Low or absent)
Batteries	Normal (OK)	Discharging	Alarm (No DC present)
Charger	Normal (OK)	Recharging	Alarm (charger is off)
Battery Temp. Sensor	Normal (OK)	N/A	Alarm (disconnected or faulty)
V Out	Normal (OK)	N/A	Alarm (no output voltage)
Battery Test	Testing Locally	Testing Remotely	Alarm (check battery)
FRONT PANEL TEST			
Pin Tip Jacks for	Output voltage (TRMS)		
	Output Current (100 m V/A TRMS)		
	Battery voltage (DC)		
	Push button for battery test and clearing alarms		
PROTECTION			
Battery Circuit	50 A Circuit breaker; front panel mounted		
Output Circuit	30 A slow-blow built-in internal fuse		
Input	Metal Oxide Varistor (MOV), Line Interface Network (LIN) and 20 A fuse		
STATUS MONITORING			
Front Panel 20 pin Mini Male-N-Lock Connector			
Digital Outputs:	Analog Outputs:	Digital Inputs:	
• AC Line status	• AC Line current	• Battery test run/stop (remote)	
• Battery status	• Output current	• Battery test fail alarm reset (remote)	
• Running on batteries status	• Battery string voltage		
• Temperature probe status			
• Charger status			
• Battery test active status			
• Battery test fail status (alarm)			

EKA reserves the right to make any changes that reflect upcoming improvements.



AC/DC ELEKTRONİK SİSTEMLER DAN. SANAYİ VE TİCARET LTD. ŞTİ.

Perpa Ticaret Merkezi A Blok Kat:5 No: 146 Okmeydanı-Şişli 34384, İstanbul Turkey
Tel: (+90212) 320 20 07 pbx, Fax: (+90212) 320 20 09 e-mail: info@acdc.com.tr www.acdc.com.tr

