

BRUMIL 350 Remote Power Supply AC (for AC in and AC out)

The BRUMIL 350 is transporting power and data through the BRUpowermil cable, a hybrid cable with copper conductors and fibers, to remote equipment over medium to long distances.

The Hybrid Mains and Optical Transmission Unit RPS (Remote Power Supply) feeds remote equipment with signal and power through a single hybrid cable. Application scope includes remote operation and mains supply of transmitter stations and other communication equipment. The RPS minimizes the effort for installations and simplifies the outdoor cabling.

Functionality

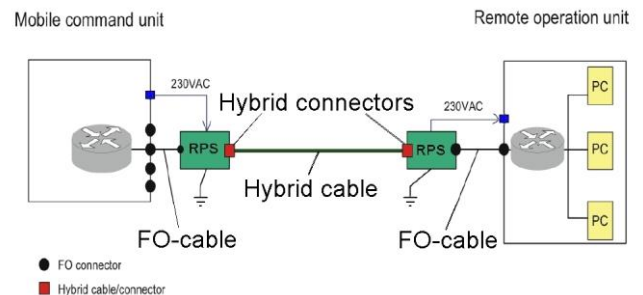
The RPS offers high data rate transmission and mains supply through a single hybrid cable. The hybrid cable comprises a high voltage power transmission cable and four single-mode optical fibers in a compact and lightweight construction. It terminates with a highly integrated, hybrid connector for simple mounting. This significantly reduces cabling complexity and installation time compared to traditional solutions where independent cables have to be installed for mains and data transmission. Furthermore, the RPS allows for replacement of remote power generators leading to improved reliability, reduced maintenance effort, reduced emissions and thus improved target protection. Sophisticated provisions such as electronic transmission monitoring protect the equipment in cases of damage and guarantee safe and reliable operation. Four single-mode fiber connections provide high capacity data transmission channels, suited for setting up general purpose remote data networks, for feeding remote transmitter stations with signal and for remote operation of equipment.

Crucial advantages in the deployment

- High economy owing to smaller initial and operation costs
- Rapid availability of the current supply owing to simplest installation by personnel
- High mobility owing to small dimensions and limited weight (installation of the cable with e.g. back-pack frame or vehicle winding frame)
- Maintenance- and pollution free operation (no fuel supply and noise generation as with generators)
- High security against electrical accidents (all-insulated, CE certified)
- High reliability owing to durable, harsh-environment-suited execution (high mechanical firmness, weather-proof, simple maintenance)
- High working reliability (constantly regulated supply voltage, permanent system monitoring device)



RPS: Identical units at supply side and remote side



Typical RPS configuration: Ad-hoc connection between a mobile command unit ('supply side') and a remote operation unit ('remote side').

Operational Principle:

The one-phase supply voltage (230 VAC) is transformed to the 1'000 VAC level and transmitted with low loss of voltage, via the specially designed hybrid cable **BRUpowermil of Brugg Cables**, installed between isolated primary and secondary transformers. Two coaxial copper conductors are for power transmission and the implemented four optical fibers enable simultaneous end-to-end signal transmissions, e.g. fast Ethernet used for telephony, data transfer, video/audio, etc. via different standard interfaces.

Technical Specifications

Mechanical data		User Interface	
Size (LxHxD)/mm	290x290x290	Mains switch	On/Off
Weight approx.	25kg	EOW call	Hook on/off button and indicator
Power supply		Status indication	LEDs for: <ul style="list-style-type: none"> • mains local • mains remote • connection status • error at local device • error at remote device
Input voltage	230VAC/50Hz ± 10%	Protection	
Output voltage	230VAC/50Hz ± 10% (regulated)	Isolation to ground	3kV
Max. output power	1kVA	Digital signal lines	Optical coupling of digital signal lines
Max. transmission length	4km		
Environment		Power Transmission	Mains power transmission galvanically isolated and monitored with protective signal
Operation temperature	-20..+55°C MIL-STD-810F, 502.4, procedure II, 501.4, procedure II	Overload protection	Electronic protection circuit
Storage temperature	-30+60° C MIL-STD-810F, 502.4, procedure I, 501.4, procedure I	Approvals	
Relative humidity (closed interfaces)	95% MIL-STD-810E, 507.3, procedure I, cycle 3	EMC emissions	MIL-STD 461E
Waterproof	IP67	EMC immunity	MIL-STD 461E, IEC 61000-4-2, IEC 61000-4-4, IEC 61000-6-2
Shock (device in transport case)	MIL-STD-810F, method 516.5, procedure I, impulse (20g, 11ms, saw tooth)	Transport	
Vibration (device in transport case)	MIL-STD-810F, method 514.5 (1.04g RMS according to 514.5C-1, 5 - 500 Hz)	Case	Shock absorbing carrying case
External I/O		Options	
Optical connectors	FO-4 (4 x single-mode FO, 1310nm); RPS to external device	<ul style="list-style-type: none"> • Microtel Headset • Adaptor cable FO-4 to 4 x FO-1; RPS to terminal equipment • Connector cable FO-4 to FO-4; RPS to terminal equipment • Hybrid cable; RPS to RPS • Customer specific variants are available 	
Hybrid connector	1 x pair copper, 4 x single-mode FO (1310nm; RPS to RPS)		
EOW	Microtel connection		
I/O	8ST7-10G35 series, according to VG96912		
230VAC In	Binder plug, series 693, 7pol pin		
230VAC Out	Binder plug, series 693, 7pol socket		

For detailed ordering information please contact our sales team.