

## BRUMIL 351 Remote Power Supply DC (for AC in and AC or DC out)

The BRUMIL 351 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 BRUMIL 350 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 operation and offers a very low volume and low weight solution.

### Applications:

Typical RPS configuration: Ad-hoc connection between a mobile command unit ('supply side') and a remote operation unit ('remote side'), as sensors or actors (e.g. remote radar stations, UAV-base stations, remote microwave, or weapon systems)

### 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 and no on site man power during operation, 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 economically solution, due to smaller initial and operation costs
- Rapid availability of the current supply owing to simplest installation by personnel
- High mobility since its 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 no noise and heat emissions as with generators)
- High security against electrical accidents (all-insulated, CE certified)
- High reliability due to very durable and harsh-environment-suited design (high mechanical firmness, weather-proof, simple maintenance)
- High working reliability (constantly regulated supply voltage, permanent system monitoring device)



RPS-Master-Unit for near end and RPS-Slave-Unit for remote end are of the same size and type of case. Available as field case in protection bag or as 19" rack-mounting version.

### Operational Principle:

The one-phase supply voltage (230 VAC) is transformed to the 1'500 VDC 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.

### Variants:

Power input	Power output		
230 VAC	230 VAC	24 VDC	48VDC
3x400 VAC	230 VAC	24 VDC	48VDC

### Type Identification:

BRUMIL 350 input power/output power  
Example: 400V input, 48V output = BRUMIL 350 400/48