Self-powered UniGear
Auxiliary power supply panel for UniGear family

An integrated auxiliary supply which exactly fits your switchgear needs to keep main devices powered up in case of standard supply failure. All-in-one panel with batteries, rectifier, battery charger and power transformer. Saves space in your substation, engineering efforts and is available right at the time when switchgear arrives to your site.

Specification
• Based on standard UniGear ZS1 panel, 650 mm wide, 1,340 mm deep, 2,675 mm high (with gas exhaust duct)
• Available up to 17.5 kV / 4,000 A / 31.5 kA
• Can be used with UniGear ZS1, 550, 500R or MCC
• Auxiliary voltage 230 V AC and 110 V DC (+20% / -15%)
• Auxiliary power for up to 10 UniGear panels
  - Each of those panels equipped with: 1x Relion® protection relay, standard set of tripping and blocking coils and up to 11 auxiliary relays
  - 2x Ethernet switches
• Battery Back-up DC power supply from 8 to 37 hours (max. / min. load)

Main components
• Rectifier and battery charger in a standardized low voltage compartment
• KGUG instrument voltage transformer used as a power transformer
• 9 batteries on 3 trucks for easy access
• All integrated in a standard UniGear ZS1 panel for easy installation

Marathon M FT batteries
• Easy handling of batteries – mounted on removable trolleys in cable compartment
• Easy battery connectivity to the panel – one hand operation
• High safety level – Integrated fuse protection on battery trolley
• Battery voltage check available in low voltage compartment
• Durable polypropylene casing (available as flame retardant) – maintains structural integrity in higher operating temperatures
• Short recharging time – high availability
• Completely recyclable batteries

AEG’s battery charger and rectifier
• Everything engineered / tested / verified before shipment of the switchgear
• Main indications about system status easily visible on LV doors
• Remote operation enabled

Auxiliary power transformer
• Compact and powerful power transformer installed on a withdrawable breaker truck in circuit breaker compartment
Customer values

Space saving solution
• Compact auxiliary power panel optimized for the delivered switchgear

Fast delivery
• There is no need to engineer and design auxiliary power for the switchgear. Customer receives switchgear ready to be used.

Tested solution
• All components designed, tested and delivered by ABB

Green solution
• Optimized solution suited for auxiliary power of delivered switchgear

Auxiliary power panel

Auxiliary power panel single line diagram

Rectifier, battery charger and diode bridge
230 V AC / 110 V DC

Drawer with cooling fan

KGUG Power transformer
6 - 17.5 / 0.23 kV AC
2.5 kVA

Batteries
110 V DC