

TECHNICAL CATALOG

Ekip UP

The low voltage digital unit
for next generation of plants



Product overview

Ekip UP product family is CE marked and conform to the IEC 60255 standard - “Measuring relays and protection equipment standard”.

IEC 60255 certification makes Ekip UP suitable globally as this standard is usually recalled by other local regulatory organization, for example IEEE. Ekip UP Protect+ and Control+ versions are in compliance with CEI 0-16 - “Reference technical rules for the connection of active and passive consumers to the HV and MV electrical networks of distribution company”.

Ekip UP operates in low voltage grids according to the following ranges and characteristics:

Operating voltage, U_e [V]	Up to 1150
Operating current, I_n [A]	From 100 to 4000
Operating frequency [Hz]	50 - 60
Operating temperature [°C]	From -25 to +70
Protection degree	IP40

More technical and standard features are available in the dedicated manual, doc. 1SDH002003A1001.

Ekip UP unit is standard provided in the optimized bag-packaging with:

- ABB current sensors among three type options and cabling kit
- installed rating plug
- power supply cartridge module
- measurement module
- four I/O programmable contacts.

Ekip UP is also able to be equipped with optional:

- communication and gateway modules
- synchrocheck cartridge module
- embedded or external signalling modules
- software functions
- external differential or homopolar toroids.

If required, commercial voltage sensors can be applied into the specific sockets, where plastic-printed indications ensure right installation.

All the details of the accessories are described in cap. 5 and ordering instructions are listed in cap. 8.



Ekip UP units

The innovative Ekip UP digital units are the new benchmark for the protection, measurement and control for low voltage electrical systems.

The result is a single unit suitable for all the different applications including every required functionalities without the need for other external devices.

The ABB plug&play solution improves the plant efficiency, increases awareness of resources and process behaviors, and delivers an easier, more intuitive user experience.

As multifunctional unit, there are five different commercial versions that guarantees flexibility and modularity to match all market opportunities in measurement, protection and control applications.

- Ekip UP Monitor
- Ekip UP Protect
- Ekip UP Protect +
- Ekip UP Control
- Ekip UP Control +

Besides standard accessory supply, all the unit types can be equipped with connectivity and signalling modules. Besides, advanced software functions can be uploaded into Ekip UP Protect, Protect+ and Control+. These same versions are ready for external toroids that enable more earth fault protections.

					
	Ekip UP Monitor	Ekip UP Protect	Ekip UP Protect +	Ekip UP Control	Ekip UP Control +
Control				●	●
Protection		●	●		●
Metering	●	●	●	●	●

● = standard functions
● = advanced functions

Ekip UP units

PROTECT

Ekip UP Protect and Protect+ add the protection functions besides the monitoring and connectivity ones.

Ekip UP Protect enables protection based on current, voltage, frequency and power as a basic protective relay for power feeders. Ekip UP Protect+ has, instead, also generator protections, adaptive and overcurrent directional ones for power distribution grids. Using Ekip Protect+ is possible to get digital selectivity with proprietary bus, plus distinguish restricted/unrestricted earth fault. Ekip UP Protect and Ekip UP Protect+ can be equipped with the software kits from "all-in-one" platform, like ATS (automatic transfer switch),

load shedding innovations, synchro reclosing capability, interface certified protections. Those advanced features can ensure service continuity and energy efficiency in the plants, reducing the complexity of different device installation.

Typical application of Ekip UP Protect and Ekip UP Protect+ are:

- Adding protection functionalities to switch-disconnectors, guaranteeing short-circuit breaking capacity as their short time withstand current.
- Leveraging on more ANSI protections and other innovations for installed circuit breaker with simple trip unit, like thermo-magnetic, with the possibility to maintain current short-circuit values.

Ekip UP can be also the best solution when trip unit spare parts are anymore available or as relay backup.



Example

Shopping list for unit with advanced protection to be installed in existing 4 pole-plant, rating plug 2500A, Modbus TCP/IP connectivity and connec-

tion to cloud platform, cartridge signalling module, synchrocheck module and 3 pieces of DIN-rail signaling modules for load shedding function:

Ekip UP version

Type	Code
Ekip UP Protect +	1SDA083361R1

Mandatory accessories

Type	Code
Open CS 4P type C 120	1SDA083373R1
Rating Plug 2500A	1SDA074268R1
Ekip Supply 24-48Vdc	1SDA074173R1

Optional accessories

Type	Code
Ekip Com Modbus TCP	1SDA074151R1
Ekip Com Hub	1SDA082894R1
Ekip Synchrocheck	1SDA074183R1
Ekip Signalling 2K-1	1SDA074167R1
Load shedding - adaptive	1SDA082921R1
Ekip Signalling 10K*	1SDA074171R1
Ekip Signalling 10K*	1SDA074171R1
Ekip Signalling 10K*	1SDA074171R1

*provided externally from the bag-packaging.

Ekip UP

Ekip UP versions



Type	Code
Ekip UP Monitor	1SDA083359R1
Ekip UP Protect	1SDA083360R1
Ekip UP Protect +	1SDA083361R1
Ekip UP Control	1SDA083362R1
Ekip UP Control +	1SDA083363R1