

ABB Ability[™] Digital Upgrades with EkipUP

Aim of this document:

Guide to implement digital upgrades with Enclosed <u>EkipUP</u> device and ABB Ability™ Energy and Asset Manager (EAM) cloud platform.

What do you need to begin with?

- 1. One or more Enclosed EkipUP units depending on the section(s) to be monitored (tool attached)
- 2. Internet connectivity using existing Ethernet LAN or GSM 4G modem with SIM card. This can be purchased from your local telecom provider
- 3. Subscription to Ability[™] EAM, available directly online at ABB Ability Marketplace[™]

Device to cloud architecture:



What is included in Enclosed EkipUP package as a minimum?

- 1. EkipUP Monitor is the standard version for measurement and monitoring
- 2. Wall-mountable enclosure (Nema1) with internal power supply, wiring, terminations, etc., as needed for self-powered, plug & play operation
- 3. Open type current sensors (Rogowski coil) for 3-wire or 4-wire networks, as needed/selected
- 4. Ekip Com Hub module for communication with EAM cloud
- 5. Ekip Connect programming software, please click here for free download

What other variants or options can be ordered?

- 1. Ekip programming cable is required to startup the device and also allows direct access to the device at any point. This is a one-time purchase and can be reused thereafter
- 2. EkipUP Protect, Protect+, Control or Control+ can be ordered instead of EkipUP Monitor, if local functions like Power Controller, Load Shedding, etc., are required
- 3. Communication modules like Ethernet/IP, Profibus, DeviceNet, Modbus, etc., if needed
- 4. Signalling modules for digital i/o, PTC1000 temp. measurement, etc., if needed
- 5. EkipUP selection tool (embedded in this document) is useful to select the package based on application requirements



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6. While EAM cloud solution is always recommended for best performance, ROI and cybersecurity, if "on-premise" visualization is preferred for any reason, our <u>Edge Industrial Gateway</u> (local version) offers a viable alternative. Brochure attached, please email <u>ability@ca.abb.com</u> for more info.

Solution value:

- Tangible value comes from increased energy efficiency, extended asset health and availability, operating cost savings, etc., at end-use. If the plant has existing ABB Emax breakers and if EkipUP Protect or Protect+ version is used, **predictive** maintenance can be employed
- Platform value comes from being able to integrate multiple equipment MV/LV into the same EAM dashboard and the additional option to transmit that data via Application Programming Interface (API) function to other 3rd party systems/platforms, if needed
- 3. All-round simplicity ensures much faster implementation with minimum disruption
- 4. Cybersecurity is an integral to the solution with multiple safeguards built into the concept design, ground up. Cloud platforms by design, lend themselves to better security, with regular updates at the backend. Also, device-level data encryption combined with one-way dataflow prevents control/write access from the cloud. Please read our whitepapers on the topic → WP1 and WP2

Supporting docs, tools and resources embedded or online:

- 1. Enclosed EkipUP flyer
- 2. EkipUP selection tool (.xls format)
- 3. EAM brochure and webpage
- 4. <u>ROI calculator</u> (with option for auto generated .pdf report)
- 5. EkipUP technical catalog (English, French)
- 6. EkipUP user manual (English, French)
- 7. Actual use-case examples/references from around the world

Please click here to view/hide embedded doc panel on the left

Important additional weblinks:

- 1. ABB Ability Electrification
- 2. <u>ABB Ability Marketplace™ EU | ABB Switzerland Ltd.</u>
- 3. Specific solution pages \rightarrow <u>Microgrids</u>, <u>Smart Monitoring</u>, <u>Smart Upgrades</u>

Video links:

- 1. <u>Ability™ EAM quick intro</u> (1m:30s), <u>AM short demo</u> (6m:20s) and <u>EAM long demo</u> (51m:32s)
- 2. <u>EkipUP video manuals</u> (includes installation procedure for EkipUP)

Note:

- 1. All documents are in English and .pdf (Acrobat) format unless otherwise indicated. Any information contained herein is subject to change without prior notice.
- 2. Internet connectivity required to open hyperlinks above, but **not** needed for embedded docs
- 3. Embedded documents are saved in a panel on the left of this document window
- 4. For more information, please email ability@ca.abb.com