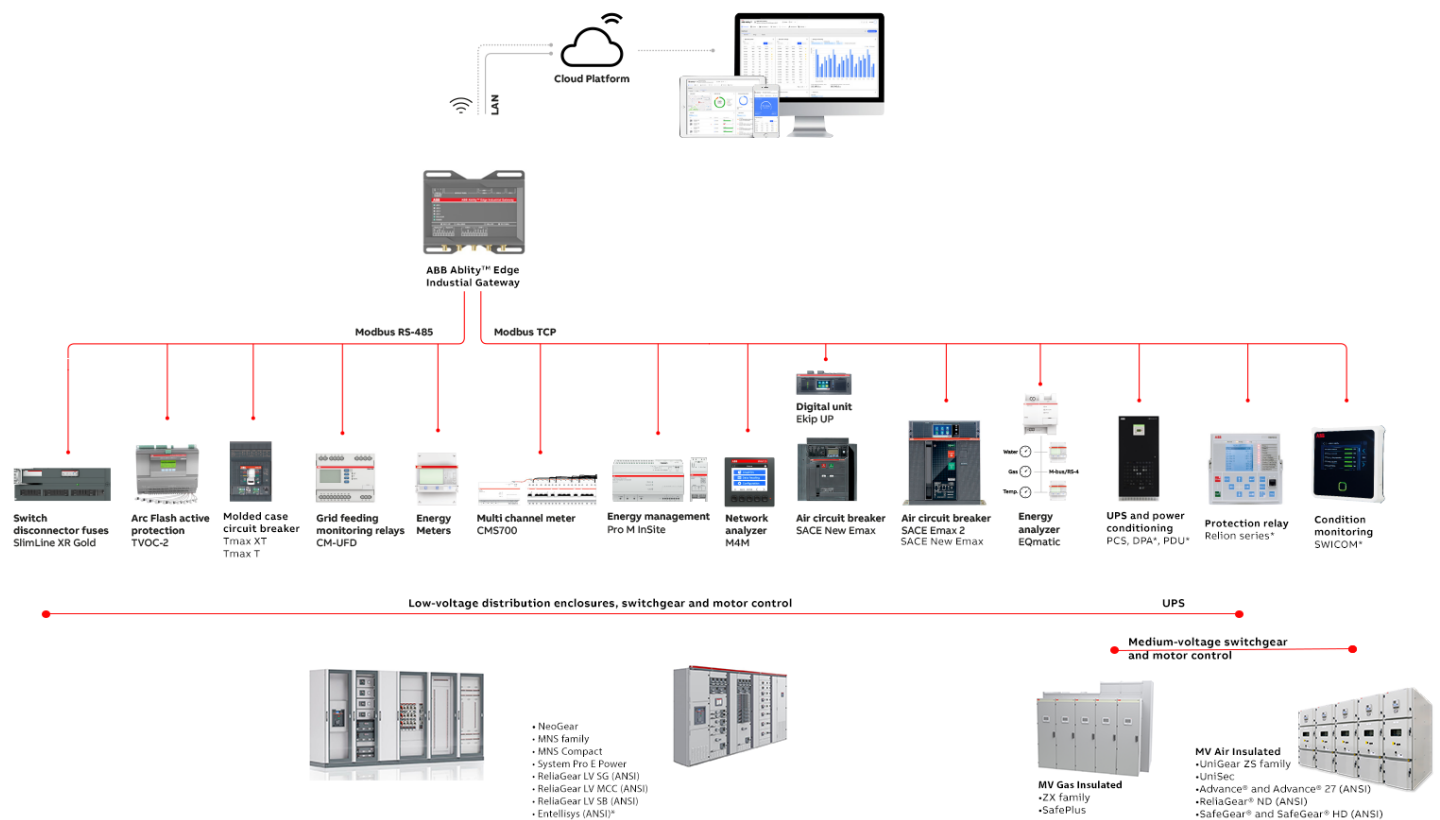# ABB Ability™ Edge Industrial Gateway
Cloud View

Cloud view

ABB Ability™ Edge Industrial Gateway runs ABB Ability™ Energy and Asset Manager solution by connecting to the cloud, unlocking data and insights on the site's energy consumption and assets health.
Cloud View version ensures:
- Access to the data from anywhere, anytime
- Benefit from highest security standards and comprehensive services
- Flexible and scalable user and subscription management

More information about ABB Ability™ Energy and Asset Manager solution are available here.

Architecture notes

Commissioning is performed from Ethernet port ETH1 which is connected to the same network where devices are present. The other Ethernet port ETH0 is used for the connectivity to the cloud.
As an alternative to Ethernet connection, 3G/4G cellular or Wi-Fi connectivity are supported for Cloud View. Commissioning is done by ABB Provisioning Tool and, during that phase, it requires internet connectivity.
Firmware update can be done by ABB Provisioning Tool cabled to ETH0 and laptop.
ABB Provisioning Tool is available here.

Edge GW Cloud View

ABB Provisioning Tool

ABB Ability™
Energy and Asset
Manager

Main details in a nutshell

Supported Devices	**45 by Modbus TCP + 15 by Modbus RTU** Molded case circuit breakers Tmax T and XT series; Air circuit breakers New Emax and Emax 2 series; Ekip UP external trip unit; TruONE ATS and ITS2.1; Ekip Signalling MODBUS TCP; EQ Meters, M2M / M4M, CMS700, InSite Pro M and EQMatic; REF 542 PLUS; CM-UFD grid feed monitoring relays; TVOC-2 Arc Guard System; SWICOM, MDC4 and MDC4-M MV switchgears; SMIS MT585
Available Widgets	Analog Data Monitoring, Arc Guard, Arc Guard - CSU2, Asset Current Trend/Frequency Trend/List/Power Trend/Power Factor Trend/Voltage Trend, ATS Diagnostics/Source Status/Transfer Time, Connectivity Overview, Digital Data Monitoring, Energy Audit Summary/Cost/Cost Comparison/Data/Data Comparison/Mix Group/Monitoring, EnPI Monitoring, Environmental Data, Frequency, Group Peak Monitoring, Group Real Time Currents/Metering/Power/Voltage, Historic Data Metering, Input Data Calculation, Latest Events, Local Time, Metering data monitoring, Multi-Asset Peak Power Monitoring, Multi-Group Peak Monitoring, Multi-Site Locator, PCS Logs/Peak Monitoring/Real Time Currents/Real Time Power/Real Time Voltage, PDU Peak Monitoring/Real Time Currents/Real Time Voltage, Peak Monitoring, Performance Indicator, Power Demand/Factor/Forecast/Generation/Quality - THD/Quality - Voltage, PUE Monitor/Trend, Real Time Currents/Metering/Power/Voltage, Site Locator, States and Counters, Total Historic Data, UPS Battery Status/Events/Peak Monitoring, UPS Real Time Currents/Power/Voltage, Weather real time/Forecast 48 hours/Week forecast.

Available Functions	**Explore** tab:	**Analysis** tab:	**Events** tab:	**Settings** tab:

	• Hierarchical view
	• 2D/3D view
	• Connectivity
	• All equipment
		• Reports
		  - Generate report
		  - Scheduled task
		  - History
		• Data Groups
			• All events
			• Alert condition
				• Site
				• Documentation
				• Users
				• Utility
				• Service and environment
				• Notification
				• Subscriptions

Shopping list

The relative commercial codes are the following:

Code	Description
1SDA116751R1	ABB Ability Edge Industrial gateway
1SDA116752R1	ABB Ability Edge Industrial gateway 3G EU
1SDA116753R1	ABB Ability Edge Industrial gateway 3G US

Additional accessories are the same of legacy gateway E-Hub 2.0.

Code	Description
1SDA114038R1	I/O module
1SDA114039R1	Wi-fi/Bluetooth antenna
1SDA114040R1	Cellular antenna
1SDA114041R1	Wall Mounting brackets
1SDA114043R1	Supply

ABB switchgears can also be equipped with Edge Industrial Gateway. Please refer to your ABB contact person for further information.
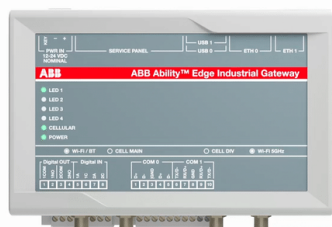
Related documents

Cloud provisioning guideline - LINK

Manual - LINK

Supported devices - LINK

How ABB Ability™ Energy and Asset Manager looks like in Cloud View

Dashboard

ABB Ability™

ABB SACE Building
ABB S.p.A. Via Pescaria 5 24123 Bergamo (BG) IT

Manager 11:37 John Smith

Dashboard | Explore ∨ | Data analytics ∨ | Events ∨ | Automation | Maintenance | Settings ∨

Dashboard

Add panel

Overview | Energy | Assets

Real time currents

Asset: Select asset...   All | Favourites

DEVICE	IL1 (A)	IL2 (A)	IL3 (A)	
C1 52-A1	288,0	279,0	279,0	★
C1 52-A3	290,0	279,0	270,0	★
C1 QF21	160,0	78,0	155,0	★
C1 QF28	295,0	281,0	271,0	★
C1 QF35	54,0	51,0	53,0	★
C1 QF36	0,0	0,0	0,0	★
C1 QF42	80,0	78,0	85,0	★
C1 QF43	66,0	52,0	71,0	★
C1 QF45	0,0	0,0	0,0	★
C1 52-A1	288,0	279,0	279,0	★
C1 52-A3	290,0	279,0	270,0	★
C1 QF21	160,0	78,0	155,0	★
C1 QF28	295,0	281,0	271,0	★
C1 QF35	54,0	51,0	53,0	★

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Site locator

Power generation

11,25%
Power Generation

Site generator capacity
80,0 Kwp

Generated power
9,0 kw

Group peak monitoring

Group: ABB SACE BUILDING   Period: Today   ☑ Show contractual power

Active power | Contractual power

Today (24 Feb 2020)

Energy monitoring

Group: ABB SACE BUILDING   Compare group: ABB SACE BUILDING   Period: Today   ☐ Compare to previous period

Plant | Generator

Today (24 Feb 2020)

Energy (ABB SACE Building - Plant)
212.387,0 kwh

Energy (ABB SACE Building - Test Group 01)
363.780,0 kwh

Power demand

72,25%
Power demand

Contractual power
400,0 kw

Active power
289,0 kw

Power factor

Asset: Lift power supply   Period: Today

Today
0,97
Power Factor

Real time power

Asset: Select asset...   All | Favourites

DEVICE	P (KW)	Q (KVAR)	S (KVA)	
C1 52-A1	-185,0	-40,0	-189,27	★
C1 52-A3	182,0	43,0	187,01	★
C1 QF21	84,0	23,0	87,09	★
C1 QF28	186,0	36,0	189,45	★
C1 QF35	31,0	17,0	35,36	★
C1 QF36	N.A.	N.A.	N.A.	★
C1 QF42	53,0	0,0	53,0	★
C1 QF43	33,0	25,0	41,4	★
C1 QF45	N.A.	N.A.	N.A.	★
C1 52-A1	-185,0	-40,0	-189,27	★
C1 52-A3	182,0	43,0	187,01	★
C1 QF21	84,0	23,0	87,09	★
C1 QF28	186,0	36,0	189,45	★
C1 QF35	31,0	17,0	35,36	★

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Real time voltage

Asset: Select asset...   All | Favourites

DEVICE	U12 (V)	U23 (V)	U31 (V)	
C1 QF35	393,0	393,0	394,0	★
C1 QF36	393,0	393,0	394,0	★
C1 QF42	392,0	391,0	391,0	★
C1 QF43	393,0	391,0	392,0	★
C1 QF45	0,0	0,0	0,0	★
C1 QF49	401,0	339,0	400,0	★
C1 QF51	0,0	0,0	0,0	★
C1 QF52	395,0	394,0	394,0	★
C1 QF53	389,0	389,0	390,0	★
C1 QF35	393,0	393,0	394,0	★
C1 QF36	393,0	393,0	394,0	★
C1 QF42	392,0	391,0	391,0	★
C1 QF43	393,0	391,0	392,0	★
C1 QF45	0,0	0,0	0,0	★

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Peak monitoring

Asset: Select asset...   Period: Today   ☐ Show contractual power

Active power

Today (24 Feb 2020)

Energy cost

Period: Today

GROUP	ENERGY (KWH)	COST (€)
Group of Conditioning	920,0	276,0
EV Charging TOTAL	0,0	0,0
Conditioning general services	441,0	132,3
Ascensori	4,0	1,2
Conditioning Administrative	479,0	143,7
System TEst Lab	51,0	15,3
Totale	4.826,0	1.448,7
Charges B C D E	0,0	0,0
Plant generetors	175,0	52,3
Group of Conditioning	920,0	276,0
EV Charging TOTAL	0,0	0,0
Conditioning general services	441,0	132,3
Ascensori	4,0	1,2
Conditioning Administrative	479,0	143,7

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Analog data monitoring

Asset: B Monitor TR1   Input: 3T-1 Current Sensor   Period: Today

Temperature (°C)

Energy mix group

Total facility group: AuditGroup   Subtract group: Test CMS Energy Mix 2   Subtract group: Test CMS Energy Mix   Subtract group: Select Group...   Period: Today

GROUP	ENERGY (MWH)	ENERGY (%)
Test CMS Energy Mix 2	73	27,05 %
Test CMS Energy Mix	63	23,46 %
Others	134	49,49 %
Total Incomer	**270**	**100 %**

Total Incomer
270 MWh

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