



PTC FORUM EUROPE 2018| NOVEMBER 2018

Optimizing engineering with AR: CapDes

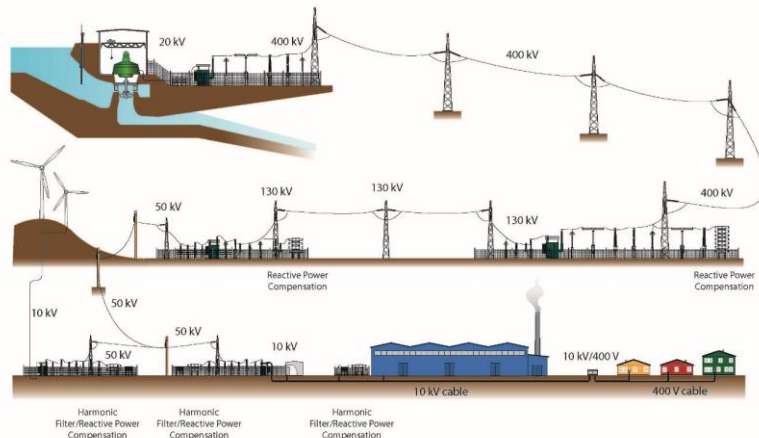
CapDes Configurator / Engineering Platform / Digitalization & Augmented Reality

Rikard Kallberg



ABB High Voltage Products: Capacitors & Filters

For Power Quality

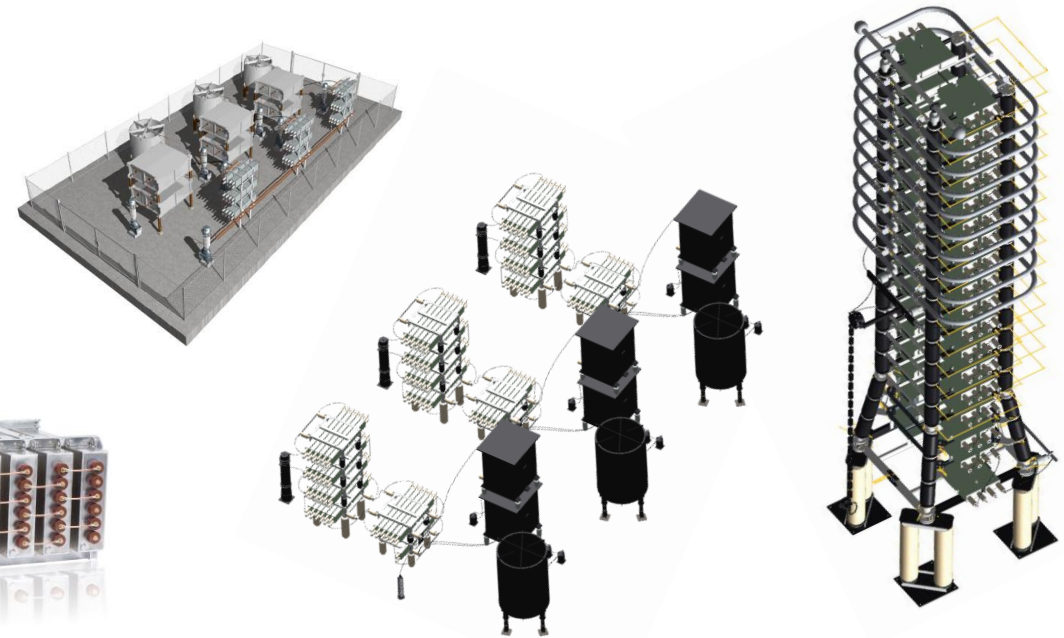


MV & HV, AC & DC range

From Capacitor units...



...to system solutions



Configured or Engineered To Order – to suit every application.

What is CapDes?

More than a Configurator

- Automated design work
 - Quick and complete
- Speed, Quality & Productivity

“Automating typical engineering work”



“Knowledge is moved from heads to systems”



FlexCap Initiative step2: Augmented Reality

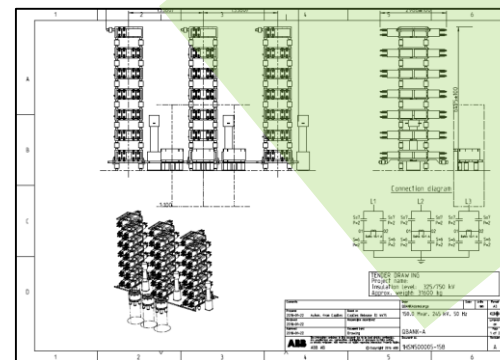
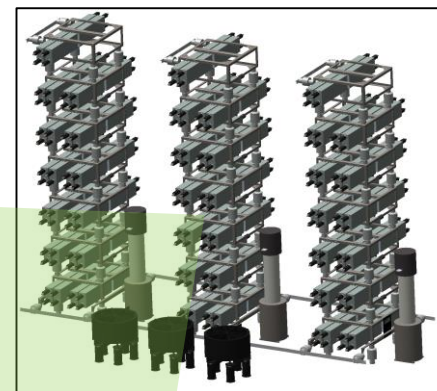
“Automating
typical
engineering
work”



“Knowledge is
moved from
heads to
systems”

Phase 2

“Augmented
Reality”



“Makes work
simple”



CapDes
shift from manual
to automatic

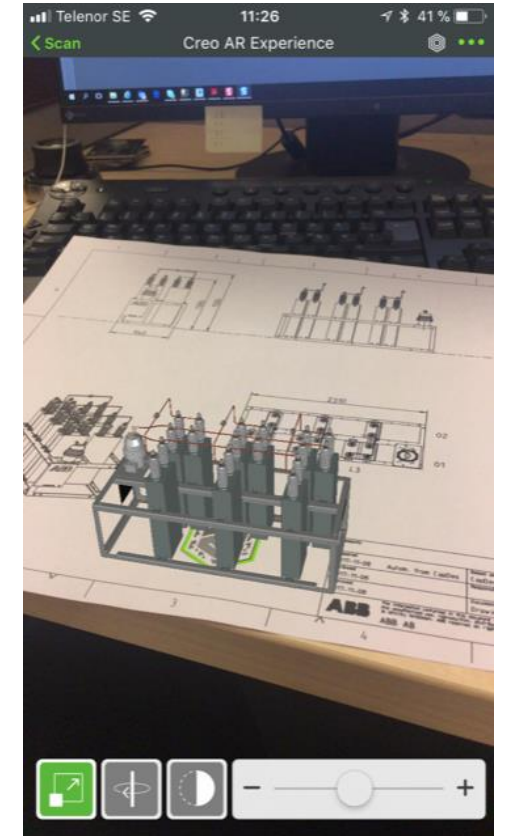
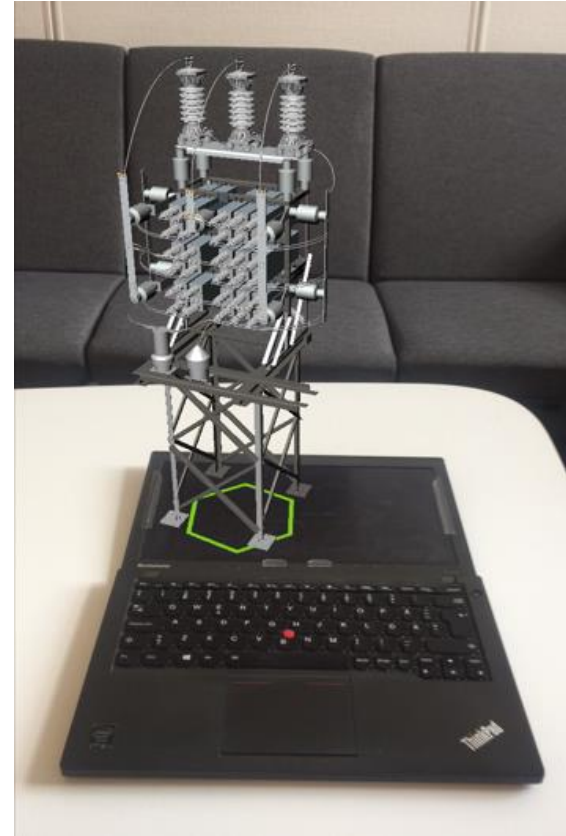
CapDes & Augmented Reality

Customer & Sales

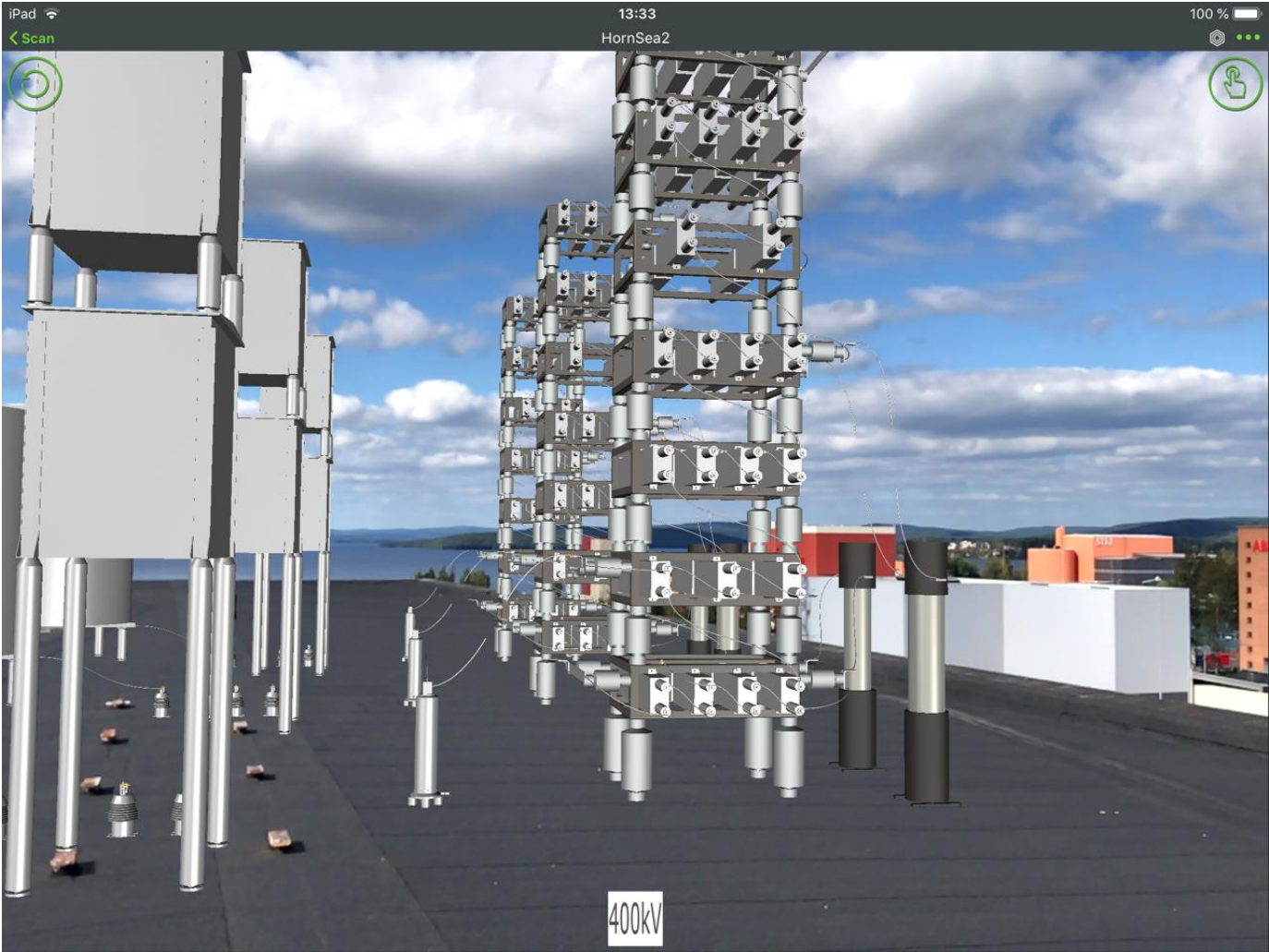
- Clear visualization
- Efficient Design review

Assembly

- Clear visualization
- How-to
- Step by Step



CapDes Augmented Reality for Sales



Classic Site Assembly



Crates

Assembly Drawing

CS200718418H000024

Order : C41000303- 10 Bunnagah

Item No	Qty	Unit	Item Number	Material	Dimension	Item Description
55	101	wt	PADA316-6	34	13x24x2,5	13x24x2,5 WALTER A4
57	51	st	PADA711-6			13x24x2,5 HONDERICPA A4
59	70	st	DS101321-001			M12 HEXAGON HUT A4-80
65	32	st	PADA121-411			M12 M12 A4 cfr
73	68	st	PADA121-414			
75	68	st	PADA121-50			
76	34	st	PADA121-65			
82	32	st	PADA133-4			
84	202	st	PADA133-5			
88	34	st	PADA240-5			
90	1	st	18H0000032			
902	0	st	18H0000024			

MARKING OF RACKS

Side A

Side B

Marking side (front of rack)

X-Bank number, current no. on banks in one order.

Y-Stack number, current no. on stacks in one bank.

Z-Rack number, current no. on level in one stack.

Position no. for units is counted from the bottom and up.

Position chart no.: 94310164-2426

Connection diagram

L1 L2 L3

Sw2 Pw5

Sw2 Pw6

Assembly Drawing

CS200718418H000024

Order : C41000303- 10 Bunnagah

Bill of Material

Item No	Qty	Unit	Item Number	Material	Dimension	Item Description
55	101	wt	PADA316-6	34	13x24x2,5	13x24x2,5 WALTER A4
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Manual

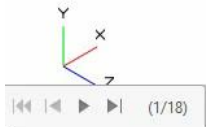
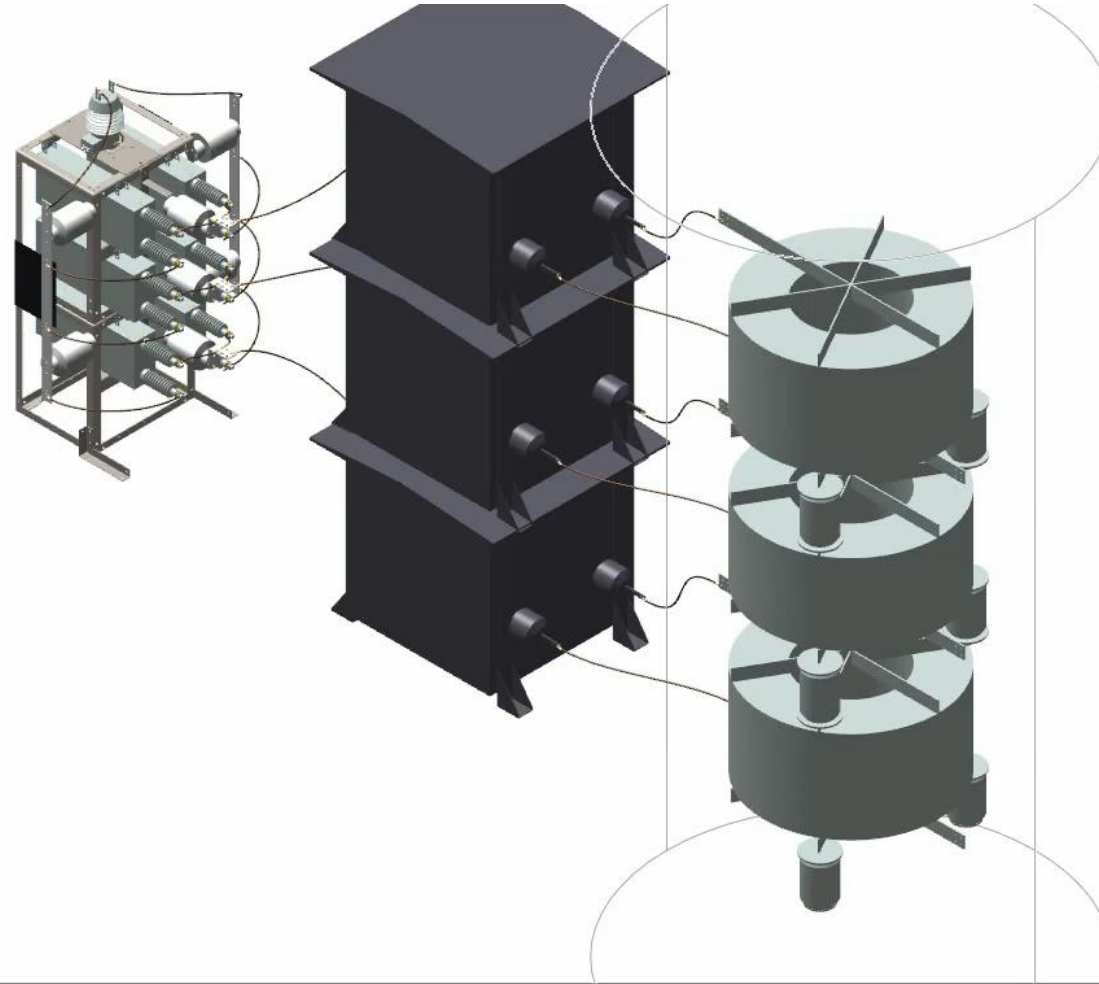
Installation and Maintenance

Power Capacitors, banks and filters

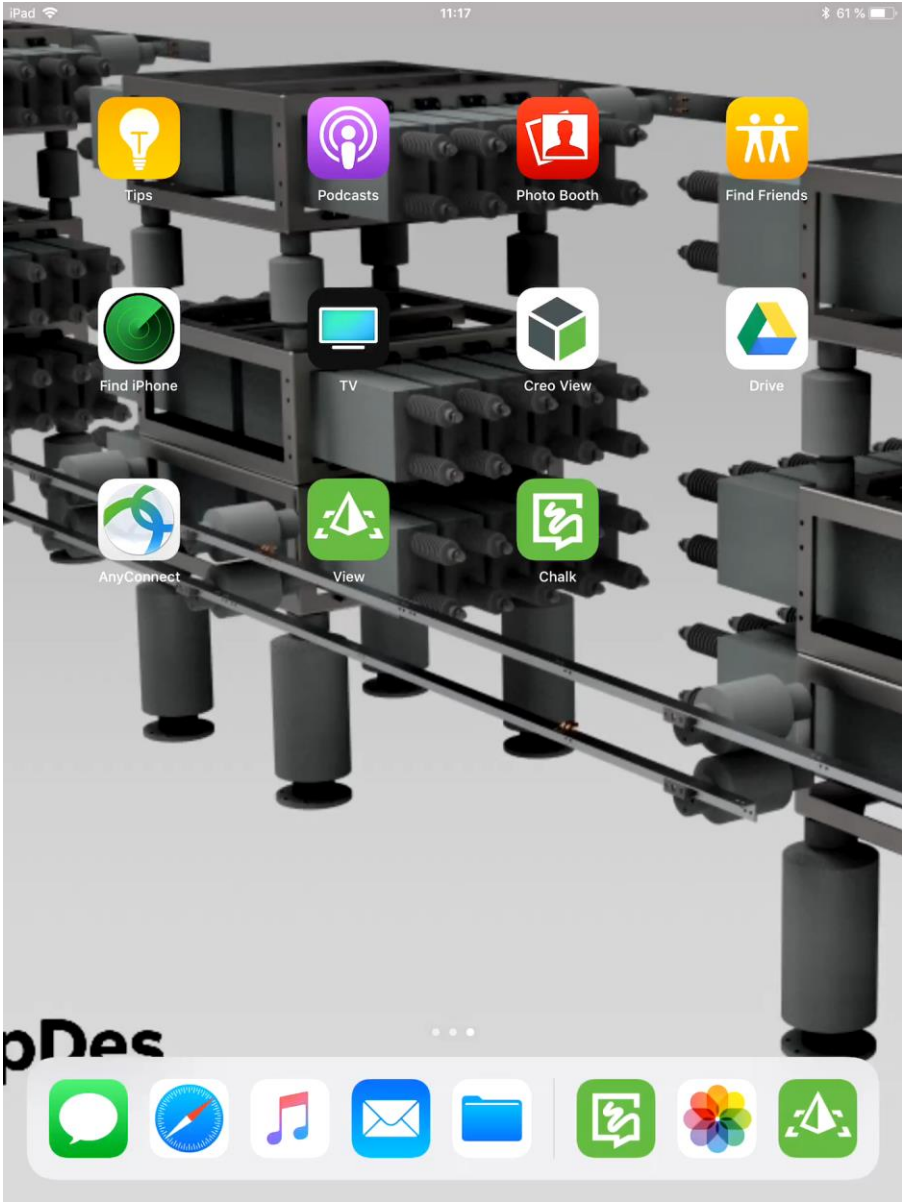
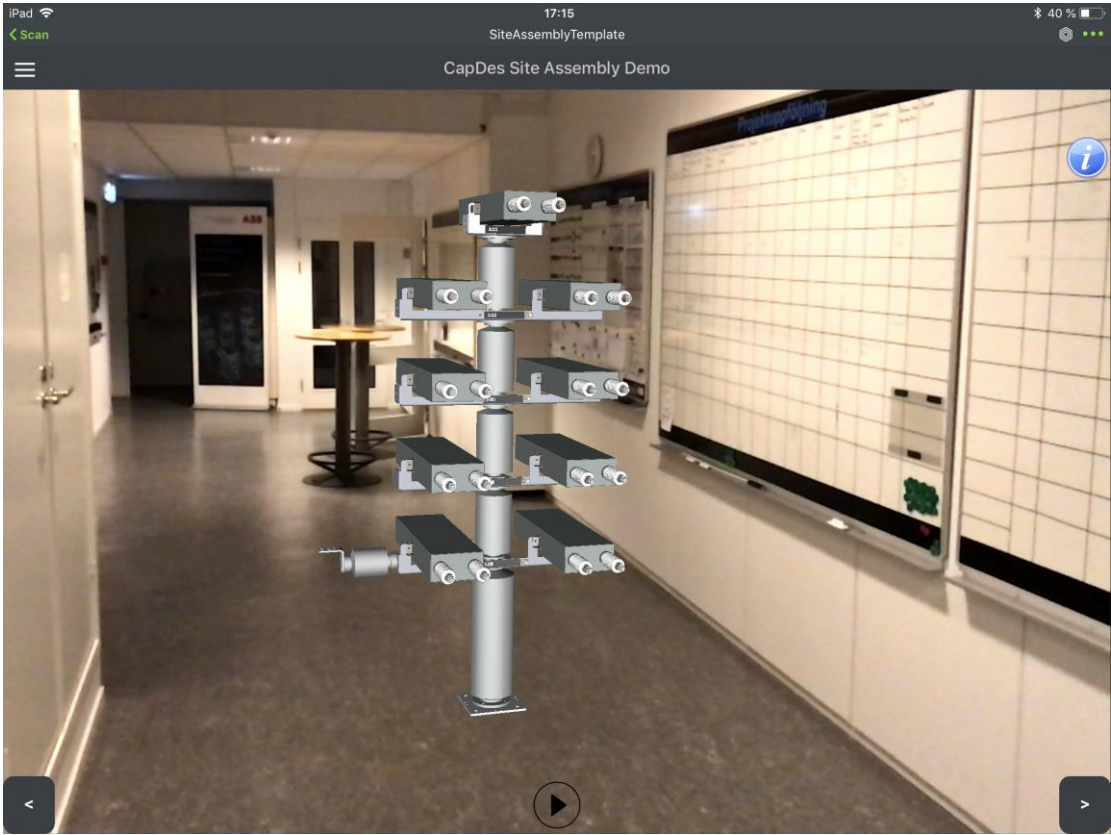
Ludvika, Sweden

Assembly Drawings + BOM + Installation Guide

CapDes AR for Site Assembly



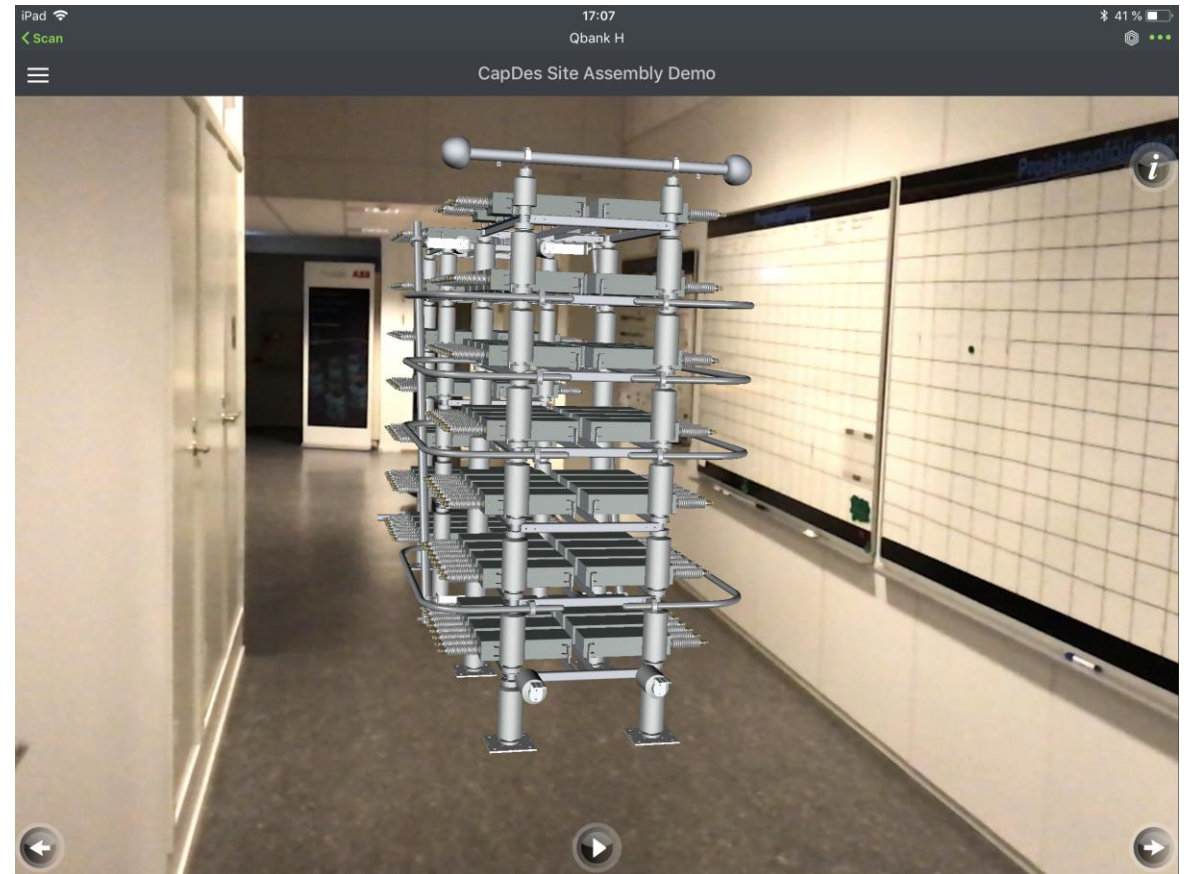
CapDes AR for Assembly



CapDes AR for Assembly



Scan the Thingmark with your smartphone.





ABB