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ELECTRIFICATION PRODUCTS

# The world's first true ATS is here.



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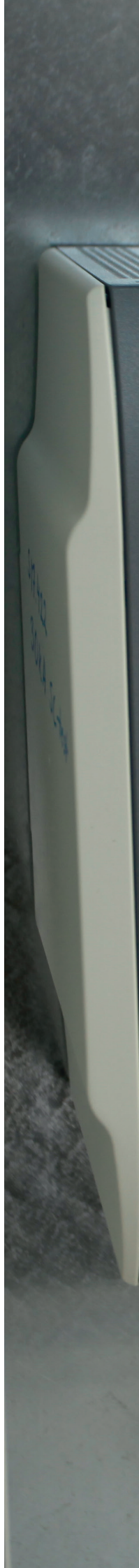
## Introducing TruONE™ ATS from ABB.

A critical breakthrough for critical power.

The all-new TruONE™ is the world's first true purpose-built automatic transfer switch, engineered to incorporate switch and controller in one seamless unit.

Performance tested beyond standard requirements, TruONE™ stands ready to ensure the steady delivery of critical power at all times. Its self-contained design reduces the number of wires and connections, which speeds installation and minimizes the potential for connection failures to ensure best-in-class reliability. Its predictive maintenance and modular components reduce downtime and service costs. And its advanced connectivity is ready for the future. In addition, unlike typical ATS solutions, TruONE™ allows emergency manual operation under load for immediate power restoration in the event of an equipment malfunction.

TruONE™ represents a major shift in engineering and a critical breakthrough for critical power.







ABB



AUTO

59 s 11:06  
System overview  
S1 OK OK S2  
S1 connected to load  
Load current  
393.0 A  
Generator stop delay TruONE

ON

OFF

AUTO

LOAD

LOAD

A/L1

B/L2

SOURCE

SOURCE

S1 S2

S1 S2

# The one ATS with all these advantages

—  
01 Detachable HMI.  
Three levels of control  
to meet different cus-  
tomer requirements.

—  
02 All-in-one concept  
that brings easy and  
fast installation.



## Easy to Install

Reduces installation time by up to 80%.

Why waste time piecing together an ATS from multiple components and as many as 20 connection wires, not to mention the time spent testing? TruONE™ is the first automatic transfer switch to put it all together, including the controller with detachable HMI. It can be installed with a single wire using standard enclosures.



## Safety and Protection

Reduces risk of operator injury.

TruONE™ enables emergency manual operation—even under load—without opening the panel door when the HMI is mounted to the ATS frame. The HMI can be detached from the frame for door mounting, offering more flexibility for the panel designer. Best of all, regardless of the HMI installation method, there's no need for connecting dangerous line voltages to the door, so the risk of operator injury due to equipment malfunction is reduced.



## Optimum Interface

Simplifies connectivity.

TruONE™ features cloud-based connectivity through the ABB Ability™ Electrical Distribution Control System (EDCS). ABB Ability simplifies implementation and use of TruONE™ in coordination with other ABB devices, ensuring one common user interface and one common software environment. Market-leading modular connectivity with seven communication protocols ensures easy installation and connectivity now and far into the future.





# Even more advantages.



## Speed Up Your Project

Now you can speed up your project even more, thanks to TruONE™ automatic commissioning capabilities. Pre-made configuration files can be uploaded from your PC to TruONE™, minimizing the risk of human error and reducing programming time by 80%.



## Continuous Operation

TruONE™ features predictive maintenance, self-diagnostics and customer-replaceable critical modules to simplify service and significantly reduce downtime and service costs. Say goodbye to blinking lights and stopping motors. TruONE™ provides a fast in-phase open transition of power, ensuring unnoticed generator use during business hours.



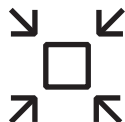
## Energy Efficiency

Full compatibility with ABB Ability™ EDCS allows data processing from the site's electrical equipment to deliver analysis and make recommendations for optimizing the electrical system's performance. This allows remote monitoring of plants, energy consumption and costs at a glance, making implementation of energy management strategies easier and faster.



## Optimized Logistics

TruONE™ features a wide voltage range from 200 to 480 VAC (with +/-20% tolerance), reducing the need to stock multiple SKUs, reducing inventory and saving space in the warehouse.



## Space Saving

TruONE™ features plug-in factory and field-mount accessorizing, so you don't need extra space inside the panel. Even in the case of specialized customer needs, you can use standard cabinets.



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## Reliable in extreme conditions.

You can be sure TruONE™ exceeds standard requirements for performance and reliability to bring you dependable operation in even the most challenging electrical, mechanical and environmental conditions.

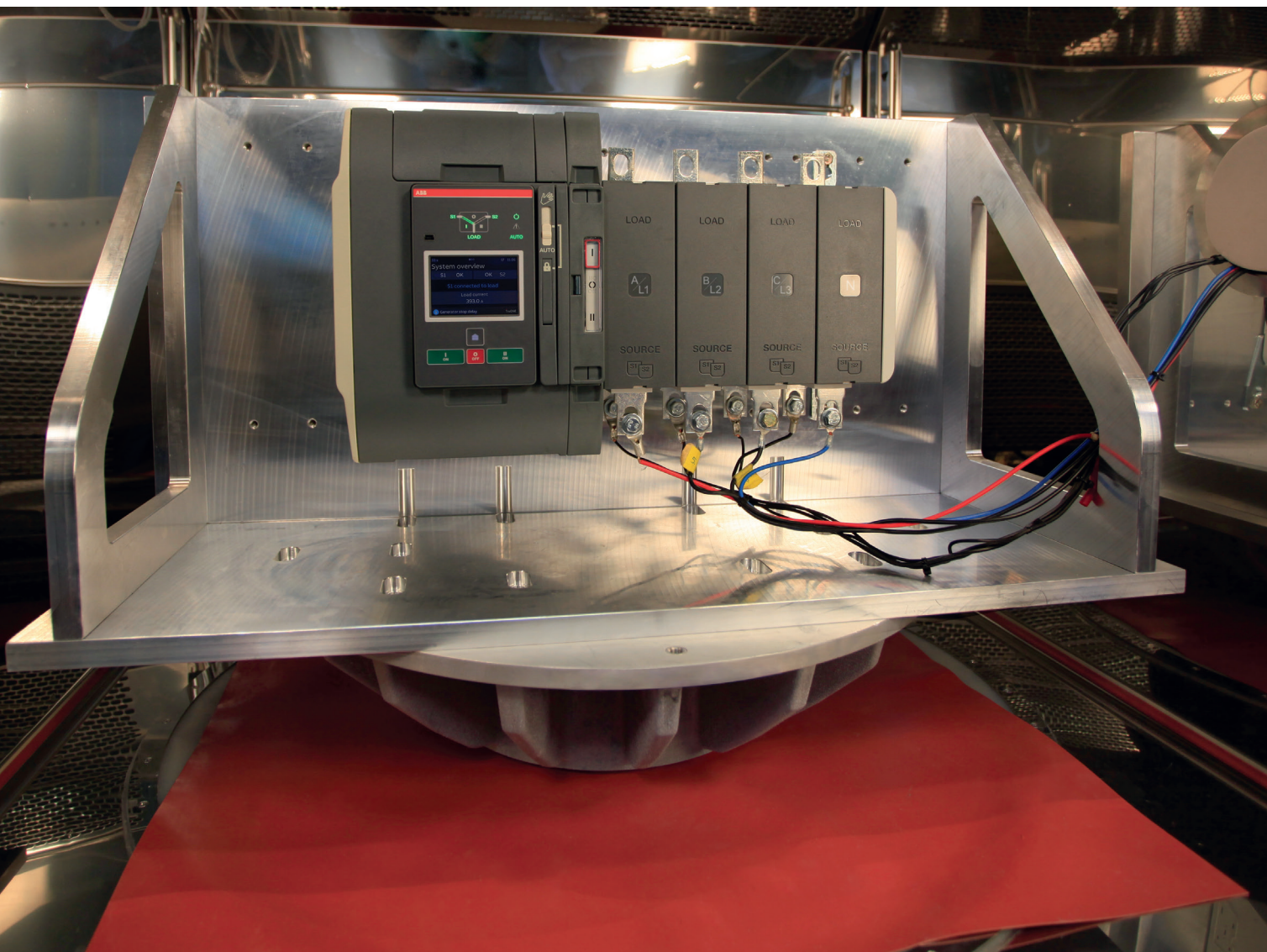


TruONE™ is the only ATS to guarantee safe and reliable operation during dramatic variations in temperature (-25–+70°C) and voltage (200–480 VAC with +/-20% tolerance), and it's tolerant of vibrations (acc. IEC 60068-2-6) and shocks (acc. IEC 60068-2-27). TruONE™ also has true short-circuit resilience, able to take the hit and remain fully operational after exposure to even the most dangerous phenomena.

Site conditions can change due to unexpected situations, but the performance of TruONE™ does not.

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Testing for vibrations, shocks and a wide temperature range.





# The one ATS for all applications.

**Bring the highest level of convenience, efficiency and critical power security to your product, project or facility.**

**TruONE™ is the superior solution for:**

- Genset OEMs
- Panel builders
- Consultants and engineers
- Contractors
- Facilities managers

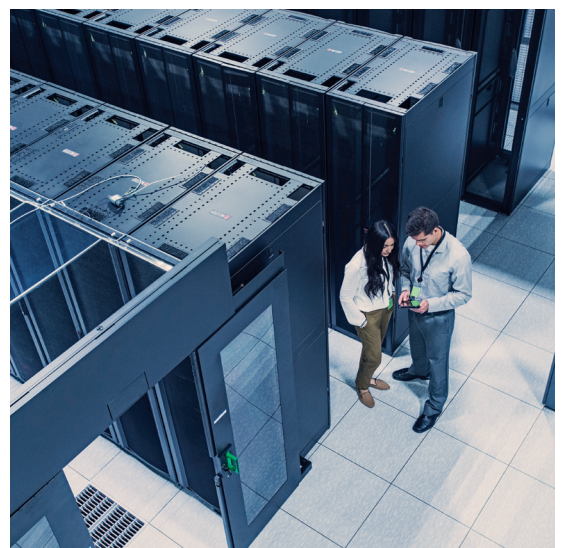
**TruONE™ provides superior critical power security for:**

- Hospitals
- Sports arenas
- Retail environments
- High-rise buildings
- Commercial buildings
- Financial environments
- Data centers
- And more

**There's only one TruONE™ ATS.**

Get the unique ease and reliability of the world's first true all-in-one ATS. TruONE™. Contact your ABB representative or visit [abb.com](http://abb.com) for more information.





## TruONE™ part number key

Example key and product description:

### **OXB1000E3S4Q54B**

ABB TruONE™ automatic transfer switch, delayed transition, 1000 amperes, IEC, 3 phase + Neutral (3ph, 4 wire), Level 4 controls, 200–480 VAC voltage area, enclosed style IP54 – bottom in/bottom out

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#### **ABB TruONE™ ATS**

**OX**

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#### **ATS type**

**A** Open transition I - II (without stable OFF position for load disconnection)

**B** Delayed transition I - O - II (with stable OFF position for load disconnection)

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#### **ATS size**

30, 60, 100, 125, 160, 200, 250, 260, 315, 400, 500, 600, 630, 800, 1000, 1200, 1250, 1600

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#### **Standard**

**E** IEC

**U** UL

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#### **Phase poles**

**1** 1-pole

**2** 2-pole

**3** 3-pole

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#### **Neutral**

**S** Switched Neutral

**O** Overlapping Neutral

**X** None

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#### **Controller**

**2** Level 2 controls (DIP)

**3** Level 3 controls (LCD)

**4** Level 4 controls (Touch)

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#### **Voltage code**

**Q** 200–480 VAC

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#### **Enclosure rating**

**54** IP54 (IEC)

\_ (blank) Open style, no enclosure

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#### **Cabling direction**

Open style, no enclosure

**B** Bottom entry (sources on bottom, load on top)

**T** Top entry (sources on the top, load on the bottom)

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#### **Enclosed style**

**B** Bottom in / Bottom out

**D** Bottom in / Top out

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**Note:** Contact ABB for more details on the available versions.

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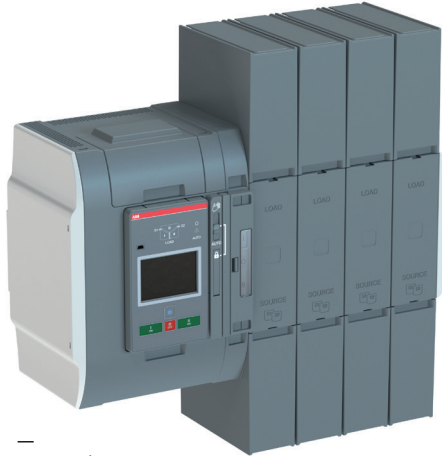




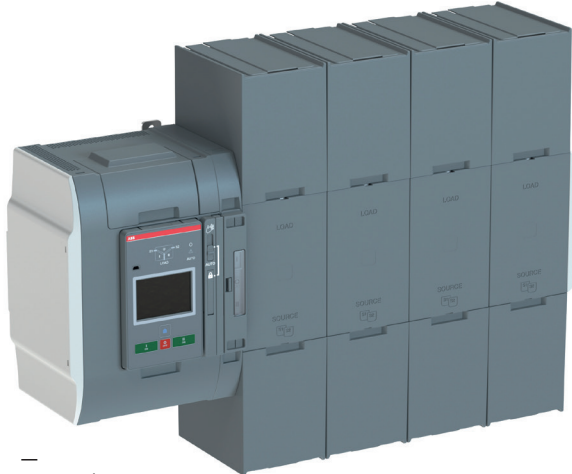
—  
Open style ATS  
UL 30-200 A  
IEC 200-250 A



—  
Open style ATS  
UL 260 A  
IEC 315-400 A



—  
Open style ATS  
UL 400-600 A  
IEC 500-800 A



—  
Open style ATS  
UL 800-1200 A  
IEC 1000-1600 A



—  
Enclosed style ATS  
IEC 200-1600 A

### Targeted Product Performance

ATS Frame Size		30-400 A	260-800 A	800-1600 A
Rated operational current	IEC 60947-6-1, GB 14048-11: AC-33B	200-400 A	630-800 A	1000-1600 A
	GB 14048-11: AC-33iA	30-200 A	260-600 A	800-1200 A
	UL1008: Emergency systems—total system load	30-200 A	260-600 A	800-1200 A
Short-circuit characteristics	I <sub>cc</sub> (rated conditional short-circuit current)	100 kA	100 kA	100 kA
	I <sub>cw</sub> (rated short-time withstand current)/Short-time current ratings, 100ms	18-30 kA	42 kA	50 kA
	I <sub>cw</sub> (rated short-time withstand current)/Short-time current ratings, 500ms		30 kA	50 kA
	Withstand and Close-on ratings (any breaker) 480V	42 kA	50 kA	85 kA
	Withstand and Close-on ratings, with current limiting fuses	200 kA	200 kA	200 kA

## TruONE™ feature comparison

Main features in the table below. Consult ABB for more information.



### Feature comparison

	Level 2 controls	Level 3 controls	Level 4 controls
Ampere sizes available	IEC: 200-1600 A UL: 30-1200 A	IEC: 200-1600 A UL: 30-1200 A	IEC: 200-1600 A UL: 30-1200 A
Rated voltage	200-480Vac	200-480Vac	200-480Vac
Rated frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Phase system	Single and Three	Single and Three	Single and Three
Number of poles	2, 3 and 4	2, 3 and 4	3 and 4
<b>Neutral configuration</b>			
Switched	Yes	Yes	Yes
Overlapping	No	Yes	Yes
<b>Product type</b>			
Open transition (I-II)	Yes	Yes	Yes
Delayed transition (I-O-II)	Yes	Yes	Yes
<b>Voltage and frequency settings</b>			
Pick up Voltage Source 1	Fixed 2% above drop out	81...99%, 101...119%	81...99%, 101...119%
Drop out Voltage Source 1	+/-5, 10, 15, 20%	80...98%, 102...120%	80...98%, 102...120%
Pick up Voltage Source 2	Fixed 2% above drop out	81...99%, 101...119%	81...99%, 101...119%
Drop out Voltage Source 2	+/-5, 10, 15, 20%	80...98%, 102...120%	80...98%, 102...120%
Pick up Frequency Source 1	Fixed 1% above drop out	80,5...99,5%, 100,5...119,5%	80,5...99,5%, 100,5...119,5%
Drop out Frequency Source 1	+/-5, 10 %	80...99%, 101...120%	80...99%, 101...120%
Pick up Frequency Source 2	Fixed 1% above drop out	80,5...99,5%, 100,5...119,5%	80,5...99,5%, 100,5...119,5%
Drop out Frequency Source 2	+/-5, 10 %	80...99%, 101...120%	80...99%, 101...120%
<b>Time delay settings</b>			
Override momentary Source 1 Outage, sec	0, 1, 2, 3, 4, 5, 10, 15, 20, 25, 30	0...60	0...60
Transfer from Source 1 to Source 2, sec	Fixed 2 seconds	0...3600	0...3600
Override momentary Source 2 Outage, sec	Fixed 1,5 seconds	0...60	0...60
Transfer from Source 2 to Source 1, min	0, 1, 2, 3, 4, 5, 10, 15, 20, 25, 30	0...120	0...120
Generator stop delay, min	30 secs or 4 mins	0...60	0...60
Center-OFF delay, sec	0 or 4	0...300	0...300
Pre-transfer delay S1 to S2, sec	No	0...60	0...60
Post-transfer delay S1 to S2, sec	No	0...60	0...60
Pre-transfer delay S2 to S1, sec	No	0...60	0...60
Post-transfer delay S2 to S1, sec	No	0...60	0...60
Load shed delay, sec	No	0...60	0...60
<b>Source failure detections</b>			
No voltage	Yes	Yes	Yes
Undervoltage	Yes	Yes	Yes
Overvoltage	Yes	Yes	Yes
Phase missing	Yes	Yes	Yes
Voltage unbalance	Yes	Yes	Yes
Invalid frequency	Yes	Yes	Yes
Incorrect phase sequence	Yes	Yes	Yes





## Feature comparison

	Level 2 controls	Level 3 controls	Level 4 controls
<b>Features</b>			
Controls	DIP + keys	LCD + keys	Touch + keys
LED indications for ATS, S1 and S2 status	Yes	Yes	Yes
Open transition - Standard digital inputs/outputs	0 / 1	1 / 1	2 / 1
Delayed transition - Standard digital inputs/outputs	1 / 1	2 / 1	3 / 1
Programmable digital inputs/outputs	No	Yes	Yes
Auto config (voltage, frequency, phase system)	Yes	Yes	Yes
Source priority	Source 1, No priority	Source 1/2, No priority	Source 1/2, No priority
Manual re-transfer	Yes	Yes	Yes
In-phase monitor	Yes	Yes	Yes
Genset exercising: on-load, off-load	Yes	Yes	Yes
In-built power meter module	No	No	Yes
Load shedding	No	Yes	Yes
Real time clock	No	Yes	Yes
Event log	No	Yes	Yes
Predictive maintenance	No	No	Yes
<b>Field-mount accessories</b>			
Auxiliary contacts for position indication	Yes	Yes	Yes
Digital input/output modules	No	Yes	Yes
12-24 Vdc aux supply module for controller	No	Yes	Yes
Communication modules	No	Yes	Yes
<b>Connectivity</b>			
Modbus RS485	No	Yes	Yes
Modbus/TCP	No	Yes	Yes
Profibus DP	No	Yes	Yes
ProfiNet	No	Yes	Yes
DeviceNet	No	Yes	Yes
Ethernet IP	No	Yes	Yes
IEC 61850	No	Yes	Yes
Monitoring via ABB Ability™: EDCS	No	Yes	Yes
<b>Enclosures</b>			
Open style	Yes	Yes	Yes
IP54	No	Yes	Yes
Type 1	No	Yes	Yes
<b>For applications</b>			
Mains - Mains	Yes	Yes	Yes
Mains - Generator	Yes	Yes	Yes

**Additional information**

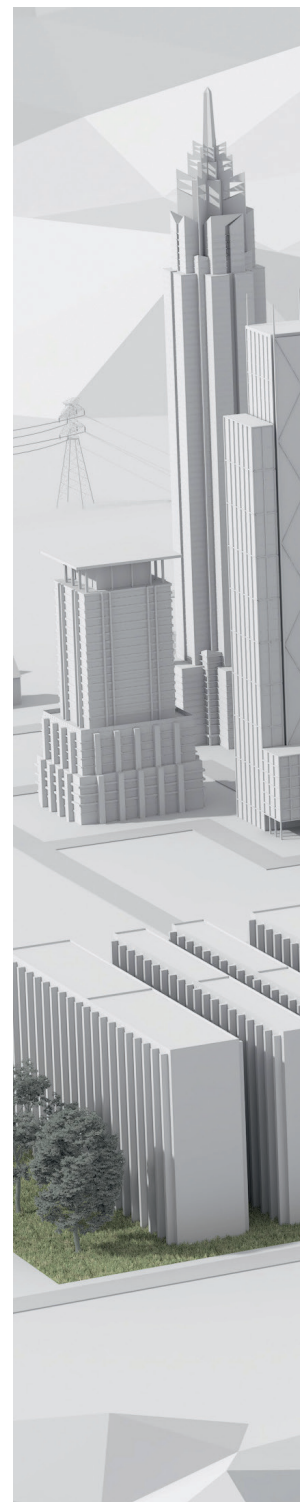
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