

CATALOG

TruONE™

The world's first true all-in-one ATS



- Easy to Install
- Safety and Protection
- Data and connectivity

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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.





The one ATS with all these advantages

—
01 Detachable HMI.
Three levels of control
to meet different
customer requirements.
—

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



Easy to Install

Reduces installation time by up to 80%.

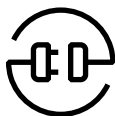
Why waste time piecing together an ATS from multiple components and as many as 20 connection wires, not to mention the time spent testing? TruONE™ is the first automatic transfer switch to put it all together, including the controller with detachable HMI. It can be installed with a single wire using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

01

01



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.



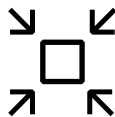
Energy Efficiency

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.

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.

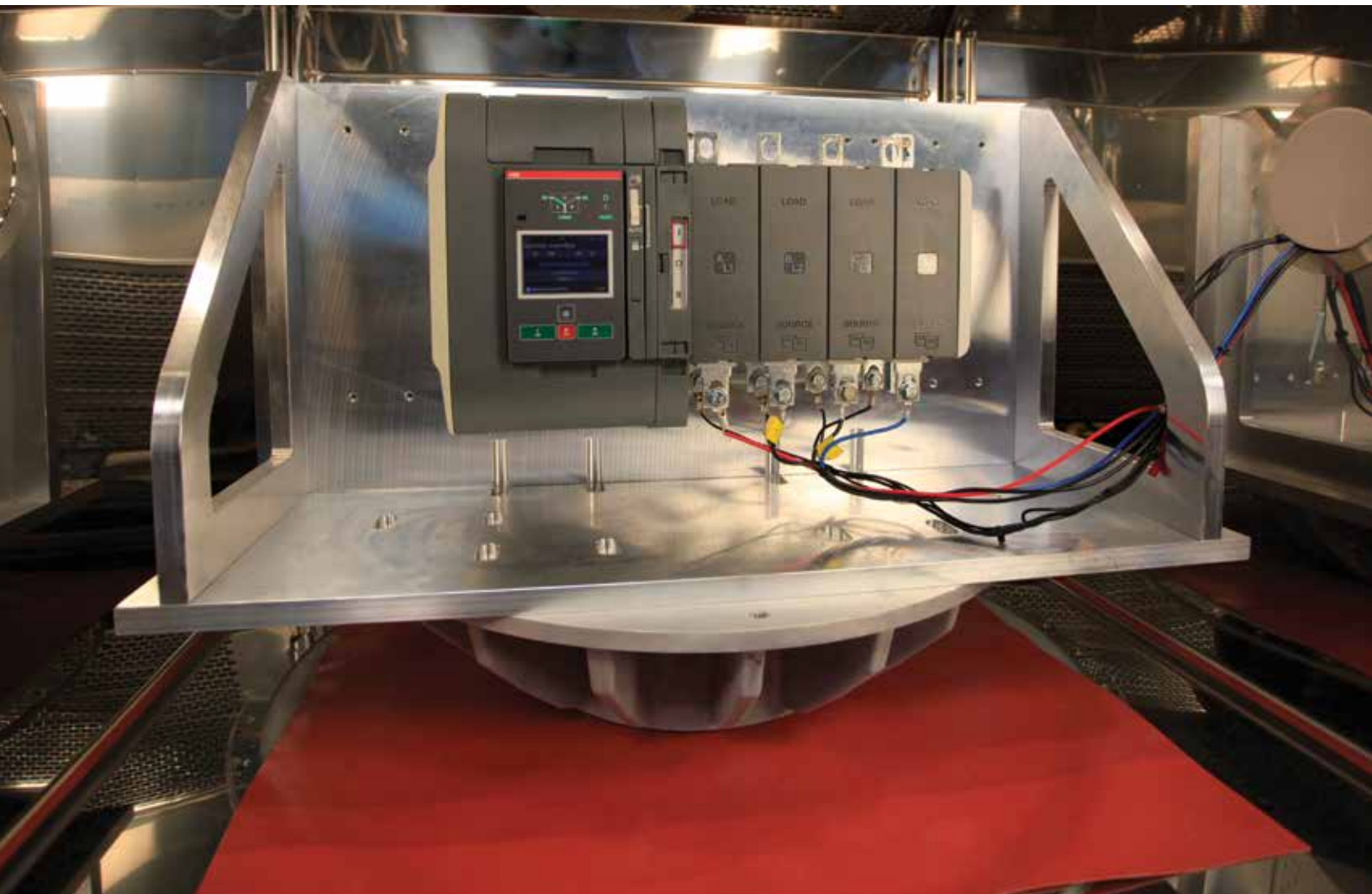


TruONE™ is the only ATS to guarantee safe and reliable operation during dramatic variations in temperature (-25–+70°C) and voltage (200–480 VAC with +/-20% tolerance), and it's tolerant of vibrations (acc. IEC 60068-2-6) and shocks (acc. IEC 60068-2-27). TruONE™ also has true short-circuit resilience,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

—
Testing for vibrations,
shocks and a wide
temperature range.

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The one ATS for all applications

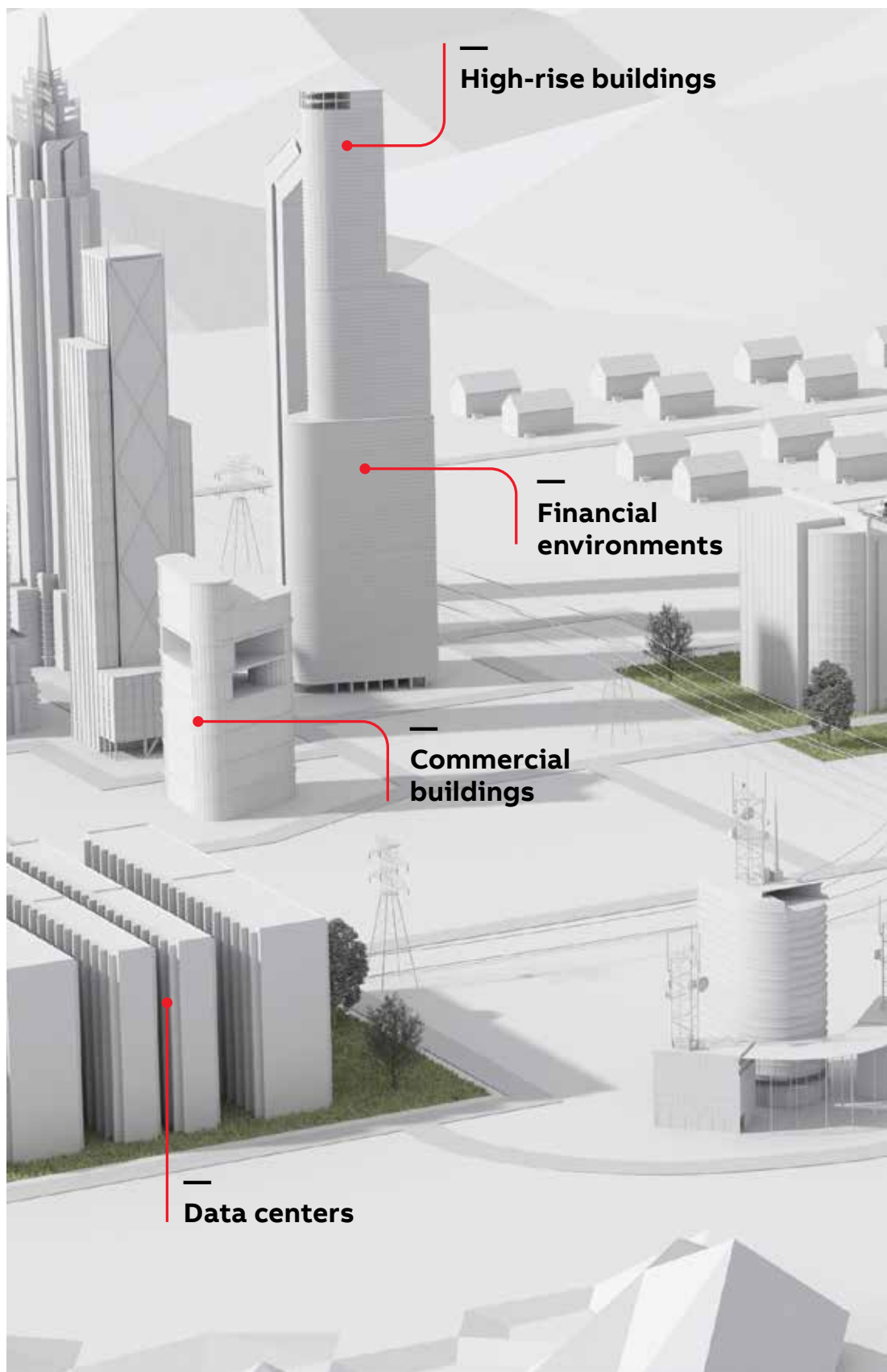
Bring the highest level of convenience, efficiency and critical power security to your product, project or facility.

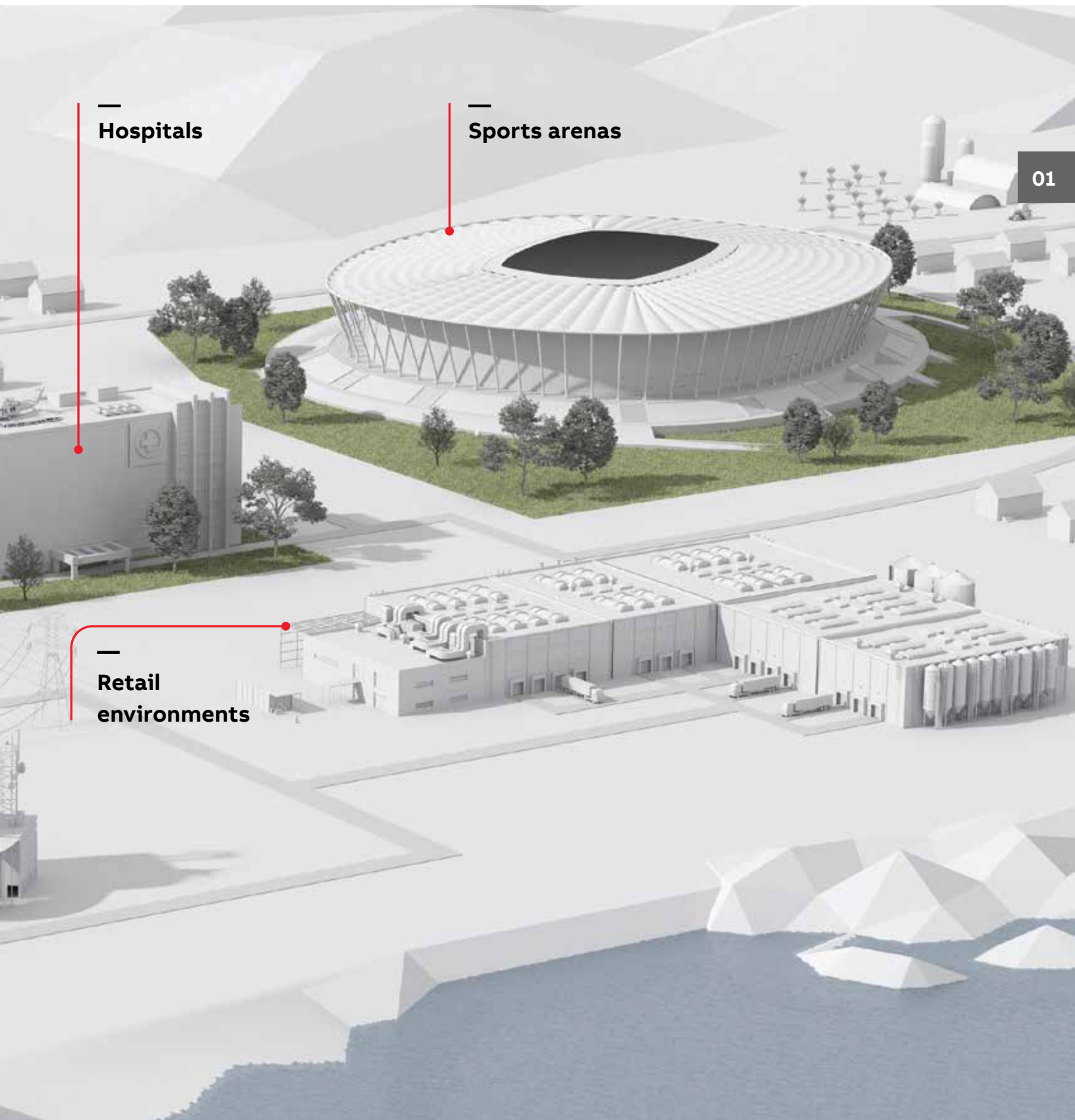
TruONE™ is the superior solution for:

- 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





—
Hospitals

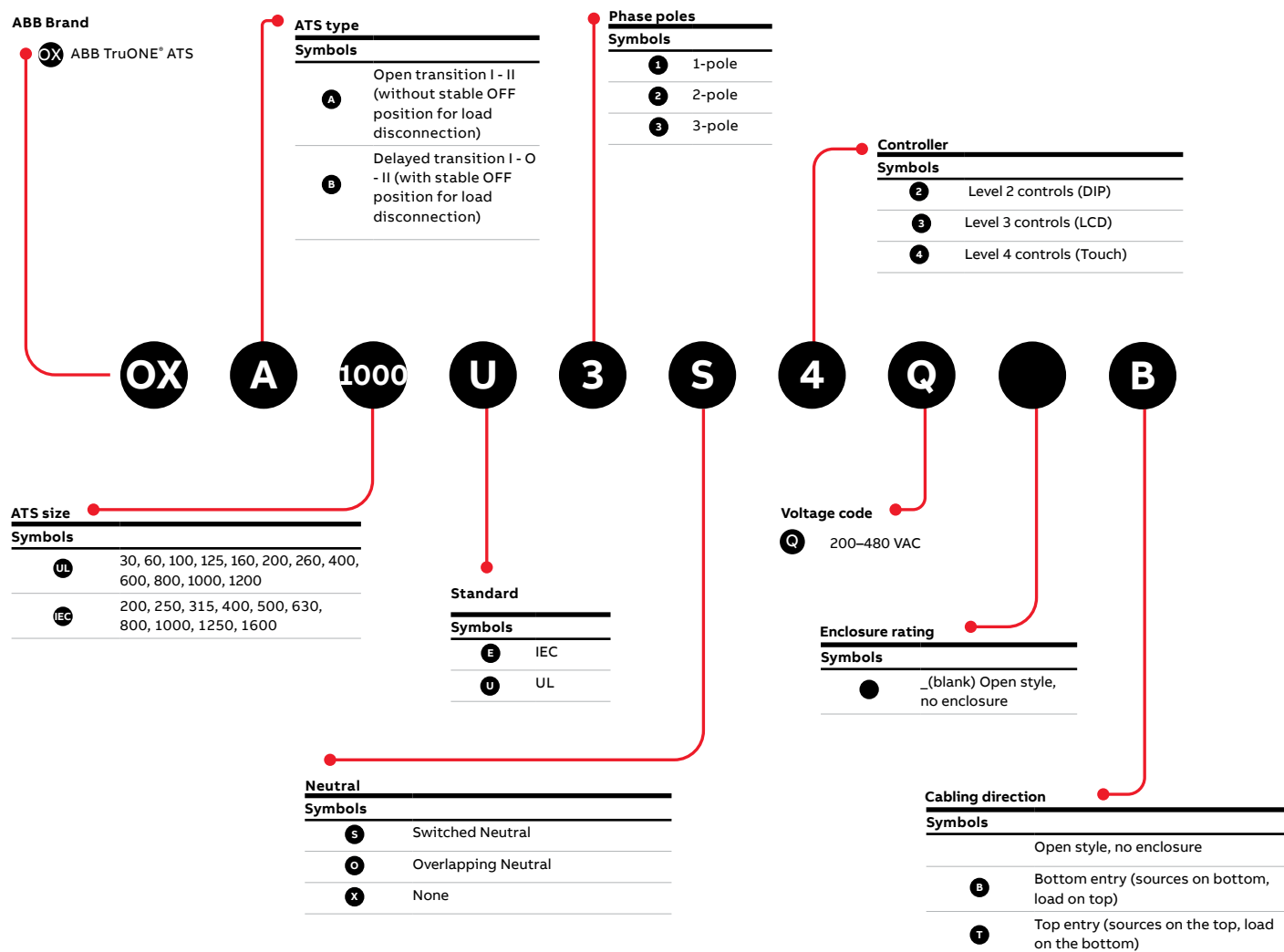
—
Sports arenas

—
**Retail
environments**

01

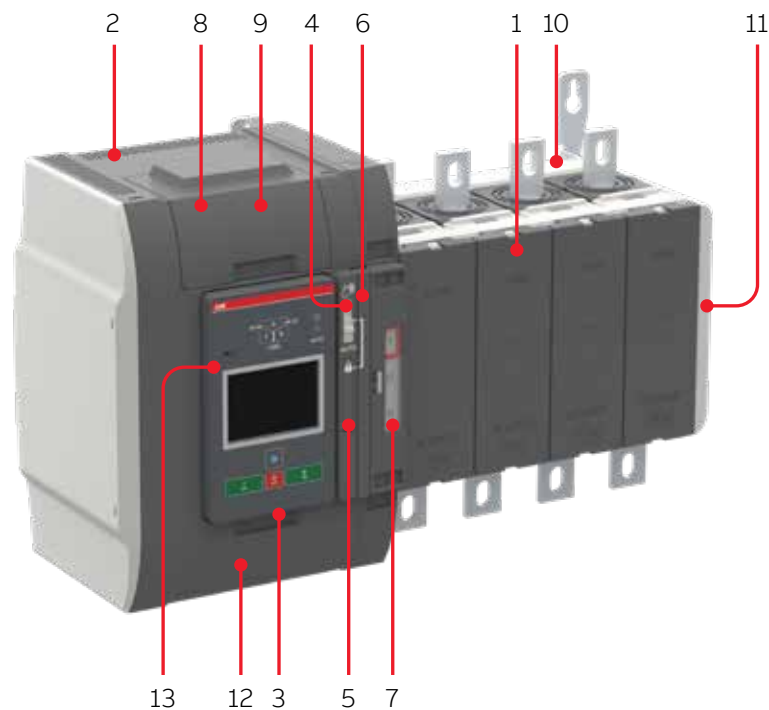
TruONE™ part number key

ABB TruONE® automatic transfer switch, open transition, 1000 amperes, UL, 3 phase + Neutral (3ph, 4 wire), Level 4 controls, 200–480 VAC voltage area, bottom entry (sources on bottom, load on top).



Note: For available configurations, see the ordering information pages.

TruONE™ part number key



01

1. Automatic transfer switch
2. Embedded ATS control unit and mechanism
3. Detachable HMI unit, three types (Level 2 DIP, Level 3 LCD and Level 4 Touch)
4. Slide switch (Hand - Locking - AUTO) for selection of the operation mode
5. Padlocking the automatic transfer switch to prevent automatic and manual operation
6. Handle for manual operation
7. Position indication
8. Terminals for control circuit connections (behind the cover)
9. Place for connectivity modules (aux power supply, com and signaling)
10. Place for sensor module (with Level 4 controls)
11. Place for auxiliary contact block
12. Location of product identification label
13. Programming port, only for Ekip Programming module and Ekip Connect software

TruONE™ feature comparison

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



	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
Neutral configuration			
Switched	Yes	Yes	Yes
Overlapping	No	Yes	Yes
Product type			
Open transition (I-II)	Yes	Yes	Yes
Delayed transition (I-O-II)	Yes	Yes	Yes
Voltage and frequency settings			
Pick up Voltage Source 1	Fixed 2% above drop out	71-99%, 101-119%	71-99%, 101-119%
Drop out Voltage Source 1	+/-5, 10, 15, 20%	70-98%, 102-120%	70-98%, 102-120%
Pick up Voltage Source 2	Fixed 2% above drop out	71-99%, 101-119%	71-99%, 101-119%
Drop out Voltage Source 2	+/-5, 10, 15, 20%	70-98%, 102-120%	70-98%, 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%
Time delay settings			
Override momentary Source 1 Outage, sec	0, 1, 2, 3, 4, 5, 10, 15, 20, 30	0-60	0-60
Transfer from Source 1 to Source 2, sec	2 (0-3600 via Ekip Connect)	0-3600	0-3600
Override momentary Source 2 Outage, sec	2 (0-60 via Ekip Connect)	0-60	0-60
Transfer from Source 2 to Source 1, min	0, 1, 2, 3, 4, 5, 10, 15, 20, 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	0-300	0-300
Post-transfer delay S1 to S2, sec	No	0-300	0-300
Pre-transfer delay S2 to S1, sec	No	0-300	0-300
Post-transfer delay S2 to S1, sec	No	0-300	0-300
Elevator Pre-signal delay S1 to S2, sec	No	0-60	0-60
Elevator Post-signal delay S1 to S2, sec	No	0-60	0-60
Elevator Pre-signal delay S2 to S1, sec	No	0-60	0-60
Elevator Post-signal delay S2 to S1, sec	No	0-60	0-60
Load shed delay, sec	No	0-60	0-60

TruONE™ feature comparison



	Level 2 controls	Level 3 controls	Level 4 controls
Source failure detections			
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
Features			
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 retransfer	Yes	Yes	Yes
In-phase monitor (synchro check)	Yes	Yes	Yes
Local genset exercising: on-load, off-load	via HMI	via HMI, digital inputs	via HMI, digital inputs
Scheduled genset exercising: on-load, off-load	via Ekip Connect	via HMI, Ekip Connect	via HMI, Ekip Connect
In-built power meter module	No	No	Yes
Load shedding	No	Yes	Yes
Real time clock (48h back-up after power outage)	via Ekip Connect	via HMI, Ekip Connect	via HMI, Ekip Connect
Event log	via Ekip Connect	via HMI, Ekip Connect	via HMI, Ekip Connect
Predictive maintenance	No	No	Yes
Harmonics measuring	No	Voltage	Voltage, current
Field-mount accessories			
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
Connectivity			
Modbus RTU (RS-485)	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
Ekip Com Hub (monitoring via ABB Ability™: EDCS)	No	Yes	Yes
For applications			
Mains - Mains	Yes	Yes	Yes
Mains - Generator ¹⁾	Yes	Yes	Yes

¹⁾ Contact ABB for applications with smaller than 20 kVA gensets

Basic functionality

Operation of time delays and corresponding relay output signals

Example for SOURCE 1 Priority

SOURCE 2 = Generator

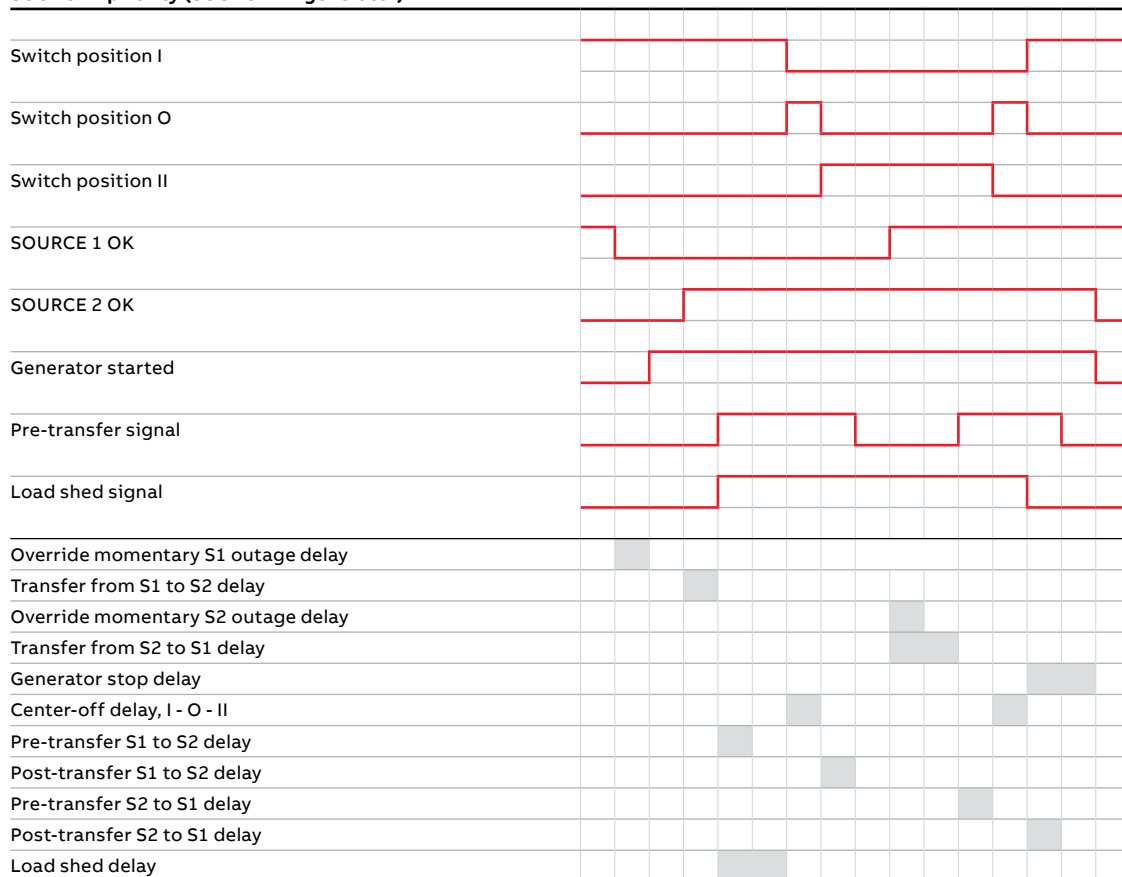
The automatic switching sequence can be summarized in following steps:

- An anomaly occurs on the SOURCE 1
- Override momentary S1 outage delay
- Generator start
- SOURCE 2 OK
- Transfer from S1 to S2 delay
- Pre-transfer signal on
- Load shed signal on
- Pre-transfer S1 to S2 delay
- Load shed delay
- Transfer switch (SOURCE 1) to the position O
- Center-off delay (only with Delayed transition I - O - II type)
- Transfer switch (SOURCE 2) to the position II
- Post-transfer S1 to S2 delay
- Pre-transfer signal off

And the re-transfer sequence can be summarized in the following steps:

- The SOURCE 1 is restored
- Transfer from S2 to S1 delay
- Pre-transfer signal on
- Pre-transfer S2 to S1 delay
- Transfer switch (SOURCE 2) to the position O
- Center-off delay (only with Delayed transition I - O - II type)
- Transfer switch (SOURCE 1) to the position I
- Load shed signal off
- Generator stop delay
- Post-transfer S2 to S1 delay
- Pre-transfer signal off
- Generator stop
- SOURCE 2 off

SOURCE 1 priority (SOURCE 2 = generator)





Automatic transfer switches – UL

Open style

Level 2 – Open transition

20 Cabling - bottom entry

Level 2 – Delayed transition

21 Cabling - bottom entry

Level 3 – Open transition

22 Cabling - bottom entry

Level 3 – Open transition with overlapping neutral

23 Cabling - bottom entry

Level 3 – Delayed transition

24 Cabling - bottom entry

Level 4 – Open transition

25 Cabling - bottom entry

Level 4 – Open transition with overlapping neutral

26 Cabling - bottom entry

Level 4 – Delayed transition

27 Cabling - bottom entry

Ordering Information

Automatic transfer switches - UL

Open transition – Open style, Level 2 DIP controls

I-II –operation without stable OFF position between positions I and II.

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.



OXA30...200U2X2QB



OXA400...600U2X2QB



OXA260U3X2QB



OXA800...1200U3X2QB



OXA30...200U3S2



OXA260U3S2QB



OXA400...600U3S2QB



OXA800...1200U3S2QB

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
2	30		OXA30U2X2QB	12.76	28.13
2	60		OXA60U2X2QB	12.76	28.13
2	100		OXA100U2X2QB	12.76	28.13
2	125		OXA125U2X2QB	12.76	28.13
2	160		OXA160U2X2QB	12.76	28.13
2	200	250	OXA200U2X2QB	12.76	28.13
2	260	400	OXA260U2X2QB	13.74	30.29
2	400	400	OXA400U2X2QB	17.01	37.50
2	600	800	OXA600U2X2QB	17.12	37.74
3	30		OXA30U3X2QB	14.35	31.64
3	60		OXA60U3X2QB	14.35	31.64
3	100		OXA100U3X2QB	14.35	31.64
3	125		OXA125U3X2QB	14.35	31.64
3	160		OXA160U3X2QB	14.35	31.64
3	200	250	OXA200U3X2QB	14.35	31.64
3	260	400	OXA260U3X2QB	15.82	34.88
3	400	400	OXA400U3X2QB	19.65	43.32
3	600	800	OXA600U3X2QB	19.46	42.90
3	800	1600	OXA800U3X2QB	43.64	96.21
3	1000		OXA1000U3X2QB	43.64	96.21
3	1200		OXA1200U3X2QB	43.64	96.21
4	30		OXA30U3S2QB	15.94	35.14
4	60		OXA60U3S2QB	15.94	35.14
4	100		OXA100U3S2QB	15.94	35.14
4	125		OXA125U3S2QB	15.94	35.14
4	160		OXA160U3S2QB	15.94	35.14
4	200	250	OXA200U3S2QB	15.94	35.14
4	260	400	OXA260U3S2QB	18.02	39.73
4	400	400	OXA400U3S2QB	21.28	46.91
4	600	800	OXA600U3S2QB	21.28	46.91
4	800	1600	OXA800U3S2QB	56.58	124.74
4	1000		OXA1000U3S2QB	56.58	124.74
4	1200		OXA1200U3S2QB	56.58	124.74

Notes:

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".

Ordering Information

Automatic transfer switches - UL



OXB30...200U2X2QB



OXB30...200U3X2QB



OXB400...600U3X2QB



OXB800...1200U3X2QB



OXB30...200U3S2QB



OXB400...600U3S2QB



OXB800...1200U3S2QB

Delayed transition – Open style, Level 2 DIP controls

I-O-II –operation with stable OFF position between positions I and II.

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
2	30		OXB30U2X2QB	13.06	28.79
2	60		OXB60U2X2QB	13.06	28.79
2	100		OXB100U2X2QB	13.06	28.79
2	125		OXB125U2X2QB	13.06	28.79
2	160		OXB160U2X2QB	13.06	28.79
2	200	250	OXB200U2X2QB	13.06	28.79
2	260	400	OXB260U2X2QB	14.04	30.95
2	400	400	OXB400U2X2QB	17.51	38.60
2	600	800	OXB600U2X2QB	17.58	38.76
3	30		OXB30U3X2QB	14.65	32.30
3	60		OXB60U3X2QB	14.65	32.30
3	100		OXB100U3X2QB	14.65	32.30
3	125		OXB125U3X2QB	14.65	32.30
3	160		OXB160U3X2QB	14.65	32.30
3	200	250	OXB200U3X2QB	14.65	32.30
3	260	400	OXB260U3X2QB	16.12	35.54
3	400	400	OXB400U3X2QB	19.70	43.43
3	600	800	OXB600U3X2QB	19.92	43.92
3	800	1600	OXB800U3X2QB	44.14	97.31
3	1000		OXB1000U3X2QB	44.14	97.31
3	1200		OXB1200U3X2QB	44.14	97.31
4	30		OXB30U3S2QB	16.24	35.80
4	60		OXB60U3S2QB	16.24	35.80
4	100		OXB100U3S2QB	16.24	35.80
4	125		OXB125U3S2QB	16.24	35.80
4	160		OXB160U3S2QB	16.24	35.80
4	200	250	OXB200U3S2QB	16.24	35.80
4	260	400	OXB260U3S2QB	18.32	40.39
4	400	400	OXB400U3S2QB	21.78	48.02
4	600	800	OXB600U3S2QB	22.20	48.94
4	800	1600	OXB800U3S2QB	57.08	125.84
4	1000		OXB1000U3S2QB	57.08	125.84
4	1200		OXB1200U3S2QB	57.08	125.84

Notes:

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".

Ordering Information

Automatic transfer switches - UL

Open transition – Open style, Level 3 controls

I-II –operation without stable OFF position between positions I and II.

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.



OXA30...200U2X3QB



OXA260U2X3QB



OXA30...200U3X3QB



OXA400...600U3X3QB



OXA800...1200U3X3QB



OXA30...200U3S3QB



OXA400...600U3S3QB



OXA800...1200U3S3QB

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
2	30		OXA30U2X3QB	12.76	28.13
2	60		OXA60U2X3QB	12.76	28.13
2	100		OXA100U2X3QB	12.76	28.13
2	125		OXA125U2X3QB	12.76	28.13
2	160		OXA160U2X3QB	12.76	28.13
2	200	250	OXA200U2X3QB	12.76	28.13
2	260	400	OXA260U2X3QB	13.74	30.29
2	400	400	OXA400U2X3QB	17.01	37.50
2	600	800	OXA600U2X3QB	17.12	37.74
3	30		OXA30U3X3QB	14.35	31.64
3	60		OXA60U3X3QB	14.35	31.64
3	100		OXA100U3X3QB	14.35	31.64
3	125		OXA125U3X3QB	14.35	31.64
3	160		OXA160U3X3QB	14.35	31.64
3	200	250	OXA200U3X3QB	14.35	31.64
3	260	400	OXA260U3X3QB	15.82	34.88
3	400	400	OXA400U3X3QB	19.65	43.32
3	600	800	OXA600U3X3QB	19.46	42.90
3	800	1600	OXA800U3X3QB	43.64	96.21
3	1000		OXA1000U3X3QB	43.64	96.21
3	1200		OXA1200U3X3QB	43.64	96.21
4	30		OXA30U3S3QB	15.94	35.14
4	60		OXA60U3S3QB	15.94	35.14
4	100		OXA100U3S3QB	15.94	35.14
4	125		OXA125U3S3QB	15.94	35.14
4	160		OXA160U3S3QB	15.94	35.14
4	200	250	OXA200U3S3QB	15.94	35.14
4	260	400	OXA260U3S3QB	18.02	39.73
4	400	400	OXA400U3S3QB	21.28	46.91
4	600	800	OXA600U3S3QB	21.70	47.84
4	800	1600	OXA800U3S3QB	56.58	124.74
4	1000		OXA1000U3S3QB	56.58	124.74
4	1200		OXA1200U3S3QB	56.58	124.74

Notes:

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".

Ordering Information

Automatic transfer switches - UL



OXA30...200U3O3QB



OXA400...600U3O3QB



OXA800...1200U3O3QB



OXA400...600U3O3QT



OXA800...1200U3O3QT

Open transition with overlapping neutral – Open style, Level 3 controls

I-II –operation without stable OFF position between positions I and II.

Overlapping neutral means the neutral will not be disconnected from the load when transferring from source to another.

Delivery includes handle for manual operation, 2 m connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
4	30		OXA30U3O3QB	15.74	34.70
4	60		OXA60U3O3QB	15.74	34.70
4	100		OXA100U3O3QB	15.74	34.70
4	125		OXA125U3O3QB	15.74	34.70
4	160		OXA160U3O3QB	15.74	34.70
4	200	250	OXA200U3O3QB	15.74	34.70
4	260	400	OXA260U3O3QB	18.00	39.68
4	400	400	OXA400U3O3QB	21.16	46.65
4	600	800	OXA600U3O3QB	21.58	47.58
4	800	1600	OXA800U3O3QB	56.58	124.74
4	1000		OXA1000U3O3QB	56.58	124.74
Notes:	1200		OXA1200U3O3QB	56.58	124.74

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".

Ordering Information

Automatic transfer switches - UL



OXB30...200U2X3QB



OXB400...600U2X3QB



OXB260U3X3QB



OXB400...600U3X3QB



OXB800...1200U3X3QB



OXB30...200U3S3QB



OXB400...600U3S3QB



OXB800...1200U3S3QB

Delayed transition – Open style, Level 3 controls

I-O-II –operation with stable OFF position between positions I and II.

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
2	30		OXB30U2X3QB	13.06	28.79
2	60		OXB60U2X3QB	13.06	28.79
2	100		OXB100U2X3QB	13.06	28.79
2	125		OXB125U2X3QB	13.06	28.79
2	160		OXB160U2X3QB	13.06	28.79
2	200	250	OXB200U2X3QB	13.06	28.79
2	260	400	OXB260U2X3QB	14.04	30.95
2	400	400	OXB400U2X3QB	17.51	38.60
2	600	800	OXB600U2X3QB	17.58	38.76
3	30		OXB30U3X3QB	14.65	32.30
3	60		OXB60U3X3QB	14.65	32.30
3	100		OXB100U3X3QB	14.65	32.30
3	125		OXB125U3X3QB	14.65	32.30
3	160		OXB160U3X3QB	14.65	32.30
3	200	250	OXB200U3X3QB	14.65	32.30
3	260	400	OXB260U3X3QB	16.12	35.54
3	400	400	OXB400U3X3QB	19.70	43.43
3	600	800	OXB600U3X3QB	19.92	43.92
3	800	1600	OXB800U3X3QB	44.14	97.31
3	1000		OXB1000U3X3QB	44.14	97.31
3	1200		OXB1200U3X3QB	44.14	97.31
4	30		OXB30U3S3QB	16.24	35.80
4	60		OXB60U3S3QB	16.24	35.80
4	100		OXB100U3S3QB	16.24	35.80
4	125		OXB125U3S3QB	16.24	35.80
4	160		OXB160U3S3QB	16.24	35.80
4	200	250	OXB200U3S3QB	16.24	35.80
4	260	400	OXB260U3S3QB	18.32	40.39
4	400	400	OXB400U3S3QB	21.78	48.02
4	600	800	OXB600U3S3QB	22.20	48.94
4	800	1600	OXB800U3S3QB	57.08	125.84
4	1000		OXB1000U3S3QB	57.08	125.84
4	1200		OXB1200U3S3QB	57.08	125.84

Notes:

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".

Ordering Information

Automatic transfer switches - UL

Open transition – Open style, Level 4 controls

I-II –operation without stable OFF position between positions I and II.

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.



OXA260U3S4QB



OXA260U3X4QB



OXA400...600U3X4QB



OXA800...1200U3X4QB



OXA30...200U3S4QB



OXA400...600U3S4QB



OXA800...1200U3S4QB

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
3	30		OXA30U3X4QB	14.52	32.01
3	60		OXA60U3X4QB	14.52	32.01
3	100		OXA100U3X4QB	14.52	32.01
3	125		OXA125U3X4QB	14.52	32.01
3	160		OXA160U3X4QB	14.52	32.01
3	200	250	OXA200U3X4QB	14.52	32.01
3	260	400	OXA260U3X4QB	16.00	35.27
3	400	400	OXA400U3X4QB	19.85	43.76
3	600	800	OXA600U3X4QB	19.66	43.34
3	800	1600	OXA800U3X4QB	44.00	97.00
3	1000		OXA1000U3X4QB	44.00	97.00
3	1200		OXA1200U3X4QB	44.00	97.00
4	30		OXA30U3S4QB	16.17	35.65
4	60		OXA60U3S4QB	16.17	35.65
4	100		OXA100U3S4QB	16.17	35.65
4	125		OXA125U3S4QB	16.17	35.65
4	160		OXA160U3S4QB	16.17	35.65
4	200	250	OXA200U3S4QB	16.17	35.65
4	260	400	OXA260U3S4QB	18.35	40.45
4	400	400	OXA400U3S4QB	21.48	47.36
4	600	800	OXA600U3S4QB	21.90	48.28
4	800	1600	OXA800U3S4QB	57.05	125.77
4	1000		OXA1000U3S4QB	57.05	125.77
4	1200		OXA1200U3S4QB	57.05	125.77

Notes:

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".

Ordering Information

Automatic transfer switches - UL

Open transition with overlapping neutral – Open style, Level 4 controls

I-II –operation without stable OFF position between positions I and II.
Overlapping neutral means the neutral will not be disconnected from the load when transferring from source to another.
Delivery includes handle for manual operation, 2 m connection cable between detachable HMI and ATS frame.
Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
4	30		OXA30U3O4QB	15.94	35.14
4	60		OXA60U3O4QB	15.94	35.14
4	100		OXA100U3O4QB	15.94	35.14
4	125		OXA125U3O4QB	15.94	35.14
4	160		OXA160U3O4QB	15.94	35.14
4	200	250	OXA200U3O4QB	15.97	35.21
4	260	400	OXA260U3O4QB	18.13	39.97
4	400	400	OXA400U3O4QB	21.06	46.43
4	600	800	OXA600U3O4QB	21.78	48.02
4	800	1600	OXA800U3O4QB	57.05	125.77
4	1000		OXA1000U3O4QB	57.05	125.77
4	1200		OXA1200U3O4QB	57.05	125.77

Notes:
Phase barriers on the LOAD side required with 400-1200A (included in the delivery).
Top entry is also available and requires replacing the 11th character “B” in the part number scheme to a “T”.



OXA30...200U3O4QB



OXA260U3O4QB



OXA400...600U3O4QB



OXA800...1200U3O4QB

Ordering Information

Automatic transfer switches - UL

Delayed transition – Open style, Level 4 controls

I-O-II –operation with stable OFF position between positions I and II.

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable HMI and ATS frame.

Terminal connection kits (bolts, nuts and washers) and mechanical lugs available as accessory.



OXB260U3X4QB



OXB30...200U3X4QB



OXB400...600U3X4QB



OXB800...1200U3X4QB



OXB30...200U3S4QB



OXB260U3S4QB



OXB400...600U3S4QB

Bottom entry - Source 1 and Source 2 connections on bottom, load connections on top

No. of poles	Rated current [A]		Order number	Weight/unit	
	UL	IEC		kg	lb
3	30		OXB30U3X4QB	14.82	32.67
3	60		OXB60U3X4QB	14.82	32.67
3	100		OXB100U3X4QB	14.82	32.67
3	125		OXB125U3X4QB	14.82	32.67
3	160		OXB160U3X4QB	14.82	32.67
3	200	250	OXB200U3X4QB	14.82	32.67
3	260	400	OXB260U3X4QB	16.30	35.94
3	400	400	OXB400U3X4QB	19.90	43.87
3	600	800	OXB600U3X4QB	20.12	44.36
3	800	1600	OXB800U3X4QB	44.50	98.11
3	1000		OXB1000U3X4QB	44.50	98.11
3	1200		OXB1200U3X4QB	44.50	98.11
4	30		OXB30U3S4QB	16.47	36.31
4	60		OXB60U3S4QB	16.47	36.31
4	100		OXB100U3S4QB	16.47	36.31
4	125		OXB125U3S4QB	16.47	36.31
4	160		OXB160U3S4QB	16.47	36.31
4	200	250	OXB200U3S4QB	16.47	36.31
4	260	400	OXB260U3S4QB	18.55	40.90
4	400	400	OXB400U3S4QB	21.98	48.46
4	600	800	OXB600U3S4QB	22.40	49.38
4	800	1600	OXB800U3S4QB	57.55	126.88
4	1000		OXB1000U3S4QB	57.55	126.88
Notes:	1200		OXB1200U3S4QB	57.55	126.88

Phase barriers on the LOAD side required with 400-1200A (included in the delivery).

Top entry is also available and requires replacing the 11th character "B" in the part number scheme to a "T".



Accessories

30	Auxiliary power supply module Connectivity modules Communication modules for Level 3 and Level 4 controllers
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31	Signalling modules for Level 3 and Level 4 controllers Ekip Programming module Ekip Bluetooth wireless communication unit
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32	Ekip Com Hub Terminal shrouds Phase barriers
-----------	--

33	Wide blade kit HMI protective cover, IP54 Terminal connection kits
-----------	--

34	UL terminal lugs, mechanical
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35	Auxiliary contacts
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Accessories

Automatic transfer switches



OXEA1

Auxiliary power supply module

The OXEA1 auxiliary power supply module is used for: a) connecting connectivity modules (signalling and communication) to the switch b) powering the ATS controller and connectivity modules from auxiliary 12-24 Vdc power supply, to keep them operational during power failures. A 12-24Vdc power supply is not required when line power is available but it is necessary to keep the modules operational during power failures.

Suitable for switches	Aux voltage	Order number	Weight /unit	
			kg	lb
OX30...1600	12-24Vdc	OXEA1	0.04	0.09



Connectivity modules

The connectivity modules are used in combination with OXEA1 auxiliary power supply module to enable communication capabilities (Ekip Com modules) and increase the number of digital inputs and outputs (Ekip Signalling modules). The maximum number of additional modules depends on the TruONE switch size: IEC 200-400 Amps and UL 30-260 Amps can fit three additional modules and IEC 500-1600 Amps and UL 400-1200 Amps can fit four additional modules. These modules are available with TruONE Level 3 and Level 4 controllers.

Communication modules for Level 3 and Level 4 controllers

The Ekip Com modules enable TruONE to be integrated in an industrial communication network for remote supervision and control of the switch. Several Ekip Com modules can be installed at the same time, thereby enabling connection to communication systems that use different protocols. The Ekip Com modules for Modbus RTU, Profibus-DP and DeviceNet contain a terminating resistor and dip switch for optional activation to terminate the serial network or bus. The Profibus-DP module also contains a polarization resistor and dip switch for its activation.



EKIP COM

Suitable for switches	Protocol	Type	Order number	Weight /unit	
				kg	lb
OX30...1600	Modbus RTU	Ekip Com Modbus RTU-OX	ZEAMOD485	0.2	0.44
OX30...1600	Modbus TCP	Ekip Com Modbus TCP-OX	ZEAMODTCP	0.2	0.44
OX30...1600	Profibus DP	Ekip Com Profibus	ZEAPRFIBUS	0.2	0.44
OX30...1600	Profinet	Ekip Com Profinet	ZEAPRFINET	0.2	0.44
OX30...1600	EtherNet/IP	Ekip Com EtherNet / IP	ZEAETHRNT	0.2	0.44
OX30...1600	DeviceNet	Ekip Com DeviceNet	ZEADEVICNET	0.2	0.44

Accessories

Automatic transfer switches

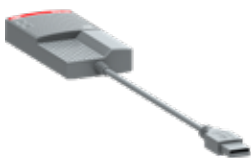


EKIP 2K SIGNALLING

Signalling modules for Level 3 and Level 4 controllers

The Ekip 2K Signalling modules add two input and two output contacts for controlling and remote signalling. They can be programmed with the HMI unit's display or with the Ekip Connect software. Three versions of the Ekip 2K Signalling modules are available: Ekip 2K-1, Ekip 2K-2, Ekip 2K-3. Simultaneous usage of same types is not possible.

Suitable for switches	No. of DI/DO	DI/DO numbering	Type	Order number	Weight /unit	
					kg	lb
OX30...1600	2/2	11,12/11,12	Ekip Signalling 2K-1-OX	2K-1-OX	0.2	0.44
OX30...1600	2/2	21,22/21,22	Ekip Signalling 2K-2-OX	2K-2-OX	0.2	0.44
OX30...1600	2/2	31,32/31,32	Ekip Signalling 2K-3-OX	2K-3-OX	0.2	0.44



EKIP PROGRAMMING

Ekip Programming module

The Ekip Programming module is used for programming TruONE via USB to a PC using the Ekip Connect software that can be downloaded online. It enables both online (line power available) and offline (no line power available) programming. Available for TruONE Level 3 and Level 4 controllers.

Suitable for switches	Type	Order number	Weight /unit	
			kg	lb
OX30...1600	Ekip Programming	ZEAEKPPGM	0.2	0.44



EKIP COM BLUETOOTH

Ekip Bluetooth wireless communication unit

Ekip Bluetooth is used for programming TruONE and it permits remote connection with the switch by laptop, tablet or smart phone on which Ekip Connect software has been installed. The device is connected to the programming port on the TruONE and it supplies the controller by means of a rechargeable Li-ion battery.

Available for TruONE Level 3 and Level 4 controllers.

Suitable for switches	Type	Order number	Weight /unit	
			kg	lb
OX30...1600	Ekip Com Bluetooth	ZEABT	0.2	0.44

Accessories

Automatic transfer switches



EKIP COM HUB

Ekip Com Hub

Ekip Com Hub is a communication module for cloud-based connectivity through the ABB Ability™ Electrical Distribution Control System (EDCS).

TruONE equipped with Ekip Com Hub can establish the connection to ABB Ability for the whole low-voltage power distribution panel. This dedicated cartridge-type communication module just needs to be inserted into the TruONE and connected to the Internet.

For further information related to ABB Ability and Electrical Distribution Control System, please visit the dedicated website <https://new.abb.com/low-voltage/launches/abb-ability-edcs>.

Available for TruONE Level 3 and Level 4 controllers.

Suitable for switches	Type	Order number	Weight /unit	
			kg	lb
OX30...1600	Ekip Com Hub	ZEA EKIP HUB	0.2	0.44



OXES_S



OXES_L

Terminal shrouds

Snap-on mounting, IP 20. A kit includes three or four shrouds that can be used on both top and bottom of the switch. Order two sets to cover both top and bottom terminals.

Suitable for switches	No. of poles	Description	Units/type [pcs]	Order number	Weight /unit	
					kg	lb
IEC 200-250 Amps UL 30-200 Amps	3	Short type	3	OXES250G1S/3	0.2	0.44
	4	Short type	4	OXES250G1S/4	0.3	0.66
	3	Long type	3	OXES250G1L/3	0.3	0.66
	4	Long type	4	OXES250G1L/4	0.4	0.88
IEC 315-800 Amps UL 260-600 Amps	3	Short type	3	OXES800G1S/3	0.3	0.66
	4	Short type	4	OXES800G1S/4	0.4	0.88
	3	Long type	3	OXES800G1L/3	0.4	0.88
	4	Long type	4	OXES800G1L/4	0.5	1.10
IEC 1000-1600 Amps UL 800-1200 Amps	3	Long type	3	OXES1600G1L/3	0.5	1.10
	4	Long type	4	OXES1600G1L/4	0.7	1.54

Note: Terminal shrouds cannot be used together with UL mechanical lugs



OXEB_

Phase barriers

Grey plastic barriers for maintaining 1" clearance between the phases without terminal shrouds.

Snap-on mounting. Included as standard for the LOAD side terminals with IEC 500-1600 Amps and UL 400-1200 Amps.

Suitable for switches	No. of poles	Units/type [pcs]	Order number	Weight /unit	
				kg	lb
OX30...1600	3	4	OXEB1600/4	0.5	1.10
OX30...1600	4	6	OXEB1600/6	0.7	1.54

Note: Phase barriers cannot be used together with terminal shrouds.

Accessories

Automatic transfer switches



OXEW1600_

Wide blade kit

This is required for IEC 1000-1600 A and UL 800-1200 A switches on the LOAD side terminals, when wiring is done with four cables and using mechanical compression lugs.

Suitable for switches	No. of poles	Units/type [pcs]	Order number	Weight /unit	
				kg	lb
IEC 1000-1600 Amps	3	6	OXEW1600/3	1.38	3.04
UL 800-1200 Amps	4	8	OXEW1600/4	1.83	4.03



OXEC21

HMI protective cover, IP54

IP54 padlockable transparent cover, providing protection against accidental contact.

Suitable for switches	Order number	Weight /unit	
		kg	lb
OX30...1600	OXEC21	0.18	0.40

03

Terminal connection kits

Factory recommended: terminal connection kits with bolts, washers and nuts used for connecting the cables/bus bars to the switch terminals.

For IEC 200-800 Amps, UL 30-600 Amps, order 1 x kit with 2-pole switches and 2 x kits with 3- and 4-pole switches.

For IEC 1000-1600 Amps, UL 800-1200 Amps, order 3 x kits with 3-pole switches and 4 x kits with 4-pole switches

Suitable for switches	Screws /type [pcs]	Order number	Weight /unit	
			kg	lb
IEC 200-250 Amps UL 30-200 Amps	6	OZXE51/3E	0.17	0.37
IEC 315-800 Amps UL 260-600 Amps	6	OZXE54/3E	0.32	0.71
IEC 1000-1600 Amps UL 800-1200 Amps	6	OZXE3/3E	0.62	1.37

Accessories

Automatic transfer switches

UL terminal lugs, mechanical



Type	Cable range	No. cables per lug	Kit part numbers			
			2 pieces	3 pieces	4 pieces	6 pieces
OZXA-100	14 - 2/0 AWG	1		OZXA-100/3P	OZXA-100/4P	OZXA-100
OZXA-24	14 - 2/0 AWG	1	OZXA-24/2P	OZXA-24/3P	OZXA-24/4P	OZXA-24
OZXA-200	4 AWG - 300 kcmil	1		OZXA-200/3	OZXA-200/4	OZXA-200
OZXA-25	6 AWG - 300 kcmil	1	OZXA-25/2P	OZXA-25/3P	OZXA-25/4P	OZXA-25
OZXA-400	2 AWG - 600 kcmil	1		OZXA-400/3	OZXA-400/4	OZXA-400
OZXA-26	2 AWG - 600 kcmil	1	OZXA-26/2P	OZXA-26/3P	OZXA-26/4P	OZXA-26
OZXA-800E	2 AWG - 600 kcmil	2		OZXA-800E/3P	OZXA-800E/4P	OZXA-800E
OZXA-800S	2 AWG - 600 kcmil	2		OZXA-800S/3P	OZXA-800S/4P	OZXA-800S
OZXA-800L	2 AWG - 600 kcmil	2	OZXA-800L/2	OZXA-800L/3	OZXA-800L/4	OZXA-800L
OZXA-30	2 AWG - 600 kcmil	2		OZXA-30/3P	OZXA-30/4P	OZXA-30
OZXA-1200	2 AWG - 600 kcmil	4		OZXA-1200/3	OZXA-1200/4	OZXA-1200

Notes:

OZXA-26 copper cable only

UL lugs are available from ABB USA

How to select mechanical terminal lugs

Suitable for UL switches	No. of poles	Lug kit application		
		Source S2	Load	Source S1
OX30...60	2		OZXA-100/4P	OZXA-24/2P
OX100...200	2		OZXA-200/4 ¹⁾	OZXA-25/2P
OX260...400	2		OZXA-400/4 ¹⁾	OZXA-26/2P
OX600	2		OZXA-800E/4P ¹⁾	OZXA-800L/2
OX30...60	3		OZXA-100	OZXA-24/3P
OX100...200	3		OZXA-200 ¹⁾	OZXA-25/3P
OX260...400	3		OZXA-400 ¹⁾	OZXA-26/3P
OX600	3		OZXA-800E ¹⁾	OZXA-800L/3
OX800	3		OZXA-800E ¹⁾	OZXA-30/3P
OX1000...1200	3	OZXA-800S ²⁾		OZXA-1200 ³⁾
OX30...60	4	OZXA-100/4P	OZXA-100/4P	OZXA-24/4P
OX100...200	4	OZXA-200/4	OZXA-200/4	OZXA-25/4P
OX260...400	4	OZXA-400/4	OZXA-400/4	OZXA-26/4P
OX600	4	OZXA-800E/4P	OZXA-800E/4P	OZXA-800L/4
OX800	4	OZXA-800E/4P	OZXA-800E/4P	OZXA-30/4P
OX1000...1200	4	2 x OZXA-800S/4P ²⁾	OZXA-1200/4	OZXA-1200/4

¹⁾ One complete kit contains enough pieces for both Source S2 and Load terminals

²⁾ Apply 2 pieces to Source S2 terminal of each pole

³⁾ One complete kit contains enough pieces for both Load and Source S1 terminals

Accessories

Automatic transfer switches



OA1G01AU



OA1G10



OA3G01



OA3G01AU

Auxiliary contacts

Mounting on the right side of the switch: Max. 4 auxiliary contact blocks / Source 1 and Source 2 position indication (totally 8 blocks). Types _AU have gold plated contacts for harsh environments and low operating voltages. Simultaneous action with the main contacts, IP20. The type and ordering numbers are for one piece.

Suitable for switches	Contact functions	Installation side	Delivery batch [pcs]	Order number	Weight /unit	
					kg	lb
OX30...1600	1NO	Right	10	OA1G10	0.03	0.07
OX30...1600	1NC	Right	10	OA3G01	0.03	0.07
OX30...1600	1NO	Right	10	OA1G10AU	0.03	0.07
OX30...1600	1NC	Right	10	OA3G01AU	0.03	0.07

Technical data for auxiliary contacts according to IEC 60947-5-1, for OA1G_, OA3G_

AC15		DC12			DC13	
Ue/[V]	Ie/[A]	Ue/[V]	Ie/[A]	P/[W]	Ie/[A]	P/[W]
230	6	24	10	240	2	50
400	4	72	4	290	0.8	60
415	4	125	2	250	0.55	70
690	2	250	0.55	140	0.27	70
		440	0.1	44		

Function table for auxiliary contacts / Source 1 position (max. 2+2)

Switch position	Main contacts	OA1G10 NO	OA3G01 NC
I	closed	closed	open
0	open	open	closed
II	closed	open	closed

Function table for auxiliary contacts / Source 2 position (max. 2+2)

Switch position	Main contacts	OA1G10 NO	OA3G01 NC
I	closed	open	closed
0	open	open	closed
II	closed	closed	open



Technical data

38–39	Technical data UL
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40–41	Technical data IEC
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Technical data - UL

TruONE ATS OX30...1200U

2 pole construction - Operating performance and short-circuit capability

				Switch size						
Data according to UL1008				OX30	OX60	OX100	OX125	OX160	OX200	
Rated operational voltage		Vac		200 - 240						
Operating voltage range		Vac		160 - 288						
Rated frequency		Hz		50-60						
Emergency systems - Motor loads or total system		A		30	60	100	125	160	200	
Optional standby systems - Motor loads or total system		A		30	60	100	125	160	200	
Minimum enclosure size or equivalent volume		W x H x D	mm	610 x 813 x 305						
Short-circuit withstand/closing and short-time current ratings		kA		See table A						
Contact transfer time I-II, II-I		Load interrupting time	ms	<50						
Operating transfer time I-II, II-I			ms	<500						
ATS current draw during transfer / time duration		A / ms		37 / <110						
Mechanical endurance		No. of operating cycles		6050	6050	6050	6050	6050	6050	
Weight without accessories		2-pole switch	kg	12.4	12.4	12.4	12.4	12.4	12.4	
Suitable for applications				Transformer - Transformer, Transformer - Generator ¹⁾						
Data according to IEC60947-6-1										
Rated operational current, AC-31B		up to 240 V	A					160	250	
Rated operational current, AC-32B		up to 240 V	A					160	250	
Rated operational current, AC-33B		up to 240 V	A					160	250	
Rated breaking capacity in category AC-33		up to 240 V	A					1600	2500	
Minimum enclosure size or equivalent volume		W x H x D	mm	600 x 800 x 300						
Rated conditional short-circuit current Iq (r.m.s.) and corresponding protective devices (fuse or circuit breaker)		Iq (r.m.s.) 100 kA, 240 V	$\hat{i}_c$ (peak) ⁴⁾	kA				39	39	
		Max. OFA_fuse size	gG/aM	A/A					315	315
		Iq (r.m.s.) 50 kA, 240 V								
		ABB circuit breaker type						T5L630	T5L630	
Rated short-time withstand current		Icw (r.m.s.)	240 V 0.1s	kA				12	12	
		Icw (r.m.s.)	240 V 0.3s	kA				12	12	
		Icw (r.m.s.)	240 V 0.5s	kA						
Rated short-time making capacity ³⁾		Icm peak	240 V	kA				24	24	

3 and 4 pole construction - Operating performance and short-circuit capability

				Switch size						
Data according to UL1008				OX30	OX60	OX100	OX125	OX160	OX200	
Rated operational voltage		Vac		200 - 480						
Operating voltage range		Vac		160 - 576						
Rated frequency		Hz		50-60						
Emergency systems - Motor loads or total system		A	30	60	100	125	160	200		
Optional standby systems - Motor loads or total system		A	30	60	100	125	160	200		
Minimum enclosure size or equivalent volume		W x H x D	mm	600 x 800 x 300						
Short-circuit withstand/closing and short-time current ratings		kA	See table B							
Contact transfer time I-II, II-I		Load interrupting time	ms	<50						
Operating transfer time I-II, II-I			ms	<500						
ATS current draw during transfer / time duration		A / ms	37 / <110							
Mechanical endurance		No. of operating cycles		6050	6050	6050	6050	6050	6050	
Weight without accessories		3-pole switch	kg	14	14	14	14	14	14	
		4-pole switch	kg	15.6	15.6	15.6	15.6	15.6	15.6	
Suitable for applications			Transformer - Transformer, Transformer - Generator ¹⁾							
Data according to IEC60947-6-1										
Rated operational current, AC-31B		up to 240 V	A					160	250	
Rated operational current, AC-32B		up to 240 V	A					160	250	
Rated operational current, AC-33B		up to 240 V	A					160	250	
Rated breaking capacity in category AC-33		up to 240 V	A					1600	2500	
Rated operational current, AC-31A		up to 415 V	A					160 ²⁾	200 ²⁾	
Rated operational current, AC-33iA ⁵⁾		up to 415 V	A					125	125	
Rated operational current, AC-33A		up to 415 V	A					125 ²⁾	125 ²⁾	
Rated conditional short-circuit current I _q (r.m.s.) and corresponding protective devices (fuse or circuit breaker)		I _q (r.m.s.) 100 kA, 500 V	$\hat{i}_c$ (peak) ⁴⁾	kA				49	49	
		Max. OFA fuse size	gG/aM	A/A					400 / 400	400 / 400
		I _q (r.m.s.) 50 kA, 500 V								
		ABB circuit breaker type							T5L630	T5L630
Rated short-time withstand current		I _{cw} (r.m.s.)	415 V 0.1s	kA				18	18	
		I _{cw} (r.m.s.)	415 V 0.3s	kA					18	18
		I _{cw} (r.m.s.)	415 V 0.5s	kA						
Rated short-time making capacity ³⁾		I _{cm} peak	415 V	kA				36	36	

¹⁾ Contact ABB for applications with smaller than 20kVA gensets

²⁾ OX_B bottom entry versions only

³⁾ Short circuit duration > 50ms, without fuse protection

⁴⁾ Cut-off current $\hat{i}_c$ (peak) value. The cut-off current $\hat{i}_c$ refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).

⁵⁾ AC-33iA according to GB/T 14048.11

Technical data - UL

TruONE ATS OX30...1200U

2 pole construction - Operating performance and short-circuit capability

					Switch size		
Data according to UL1008					OX260	OX400	OX600
Rated operational voltage		Vac			200 - 240		
Operating voltage range		Vac			160 - 288		
Rated frequency		Hz			50-60		
Emergency systems - Motor loads or total system		A			260	400	600
Optional standby systems - Motor loads or total system		A			260	400	600
Minimum enclosure size or equivalent volume	W x H x D	mm			610 x 1168 x 356		711 x 1372 x 495
Short-circuit withstand/closing and short-time current ratings		kA			See table A		
Contact transfer time I-II, II-I	Load interrupting time	ms			<50		
Operating transfer time I-II, II-I		ms			<500		
ATS current draw during transfer / time duration		A / ms			37 / <110	40 / <130	
Mechanical endurance	No. of operating cycles				6050	6050	6050
Weight without accessories	2-pole switch	kg			13.3	16.9	16.9
Suitable for applications					Transformer - Transformer, Transformer - Generator ¹⁾		
Data according to IEC60947-6-1							
Rated operational current, AC-31B		up to 240 V	A		400	400	800
Rated operational current, AC-32B		up to 240 V	A		400	400	800 ²⁾
Rated operational current, AC-33B		up to 240 V	A		400	400	800 ²⁾
Rated breaking capacity in category AC-33		up to 240 V	A		4000	4000	8000 ²⁾
Rated conditional short-circuit current I _q (r.m.s.) and corresponding protective devices (fuse or circuit breaker)	I _q (r.m.s.) 100 kA, 240 V	$\hat{i}_c$ (peak) ⁴⁾	kA		56	65	90
	Max. OFA fuse size	gG type	A/A		500	630	1000
	I _q (r.m.s.) 50 kA, 240 V						
	ABB circuit breaker type				T5L630	T6L630	T6L1000
Rated short-time withstand current	I _{cw} (r.m.s.)	240 V 0.1s	kA		18	18	18
	I _{cw} (r.m.s.)	240 V 0.3s	kA		18	18	18
	I _{cw} (r.m.s.)	240 V 0.5s	kA				18
Rated short-time making capacity ³⁾	I _{cm} peak	240 V	kA		36	36	36

Technical data - UL

TruONE ATS OX30...1200U

3 and 4 pole construction - Operating performance and short-circuit capability

					Switch size						
Data according to UL1008					OX260	OX400	OX600	OX800	OX1000	OX1200	
Rated operational voltage		Vac	200 - 480								
Operating voltage range		Vac	160 - 576								
Rated frequency		Hz	50-60								
Emergency systems - Motor loads or total system		A	260	400	600	800	1000	1200			
Optional standby systems - Motor loads or total system		A	260	400	600	800	1000	1200			
Minimum enclosure size or equivalent volume		W x H x D	mm	600 x 800 x 300				800 x 1000 x 300			
Short-circuit withstand/closing and short-time current ratings			kA	See table B							
Contact transfer time I-II, II-I		Load interrupting time	ms	<50							
Operating transfer time I-II, II-I			ms	<500							
ATS current draw during transfer / time duration			A / ms	37 / <110	40 / <130						
Mechanical endurance		No. of operating cycles		6050	6050	6050					
		3-pole switch	kg	15.4	19.1	19.1	31.1	31.1	31.1		
		4-pole switch	kg	17.5	21.4	21.4	37.1	37.1	37.1		
Suitable for applications				Transformer - Transformer, Transformer - Generator ¹⁾							
Data according to IEC60947-6-1											
Rated operational current, AC-31B		up to 415 V A		400	400	800	1000	1250	1600		
Rated operational current, AC-32B		up to 415 V A		400	400	800 ²⁾	1000 ²⁾	1250 ²⁾	1600 ²⁾		
Rated operational current, AC-33B		up to 415 V A		400	400	800 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾		
Rated breaking capacity in category AC-33		up to 415 V A		4000	4000	8000 ²⁾	10000 ²⁾	12500 ²⁾	12500 ²⁾		
Rated operational current, AC-31A		up to 415 V A		315 ²⁾	315 ²⁾	630 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾		
Rated operational current, AC-33iA ³⁾		up to 415 V A		250	250 ²⁾	630 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾		
Rated operational current, AC-33A		up to 415 V A		160 ²⁾	160 ²⁾	315 ²⁾	630 ²⁾	800 ²⁾	800 ²⁾		
Rated conditional short-circuit current I _q (r.m.s.) and corresponding protective devices (fuse or circuit breaker)	I _q (r.m.s.) 100 kA, 500 V	î _c (peak) ⁴⁾ kA		69	76	90	95	95	95		
	Max. OFA_ fuse size	gG/aM A/A		630 / 630	800/800	1000 / 1000	1600 / 1250	1600 / 1250	1600 / 1250		
	I _q (r.m.s.) 50 kA, 500 V										
	ABB circuit breaker type			T6L630	T6L630	T6L1000					
	I _q (r.m.s.) 85 kA, 500 V										
	ABB circuit breaker type						T7L1600	T7L1600	T7L1600		
Rated short-time withstand current	I _{cw} (r.m.s.)	415 V 0.1s kA		25	30	42	65	65	65		
	I _{cw} (r.m.s.)	415 V 0.3s kA		25	30	30	50	50	50		
	I _{cw} (r.m.s.)	415 V 0.5s kA				30	50	50	50		
Rated short-time making capacity ³⁾		I _{cm} peak	415 V kA	52.5	89	89	105	105	105		

¹⁾ Contact ABB for applications with smaller than 20 kVA gensets

²⁾ OX_B bottom entry versions only

³⁾ Short circuit duration > 50ms, without fuse protection

⁴⁾ Cut-off current îc (peak) value. The cut-off current îc refers to values listed by fuse manufacturers (single phase test acc. to IEC60269)

⁵⁾ According to GB/T 14048.11

Technical data - UL

TruONE ATS OX30...1200U

Table A: UL1008 Short-circuit withstand/closing and short-time current ratings

2 pole construction							
Switch rating (A)	Maximum voltage (V)	Maximum coordinated breaker rating (A)	Breaker mfg	Max breaker size (A)	Breaker type	Current limiting fuse rating (A)	Max fuse size (A)
30 60 100 125 160 200	240	30,000	ABB	250 250	T4H, T4L, T4V XT4H, XT4L, XT4V	100,000 Class J	200
260	240	50,000	ABB	600	T5H, T5L, T5V	100,000 Class J	400
400	240	50,000	ABB	600	T5H, T5L, T5V	100,000 Class J	400
600	240	50,000	ABB	600	T6S800	100,000 Class L	600

Table B: UL1008 Short-circuit withstand/closing and short-time current ratings

3 and 4 pole construction									
Switch rating (A)	UL short-time rating (STR) & time ¹⁾ (s)	Time based WCR rating (A) & Time ^{1) 2)} (s)	Maximum voltage (V)	Maximum coordinated breaker rating (A)	Breaker mfg	Max breaker size (A)	Breaker type	Current limiting fuse rating (A)	Max fuse size (A)
30 60 100 125 160 200	18 0.300 sec	18 0.100 sec	480	50,000	ABB	125 250 250	XT2H125 T4H250 XT4H250	200,000 Class J	200
260	25 0.300 sec	25 0.100 sec	480	50,000	ABB	600	T5H600	200,000 Class J	400
400	30 0.250 sec	30 0.100 sec	480	50,000	ABB	600	T5H600	200,000 Class J	600
600	42 0.100 sec 30 0.500 sec	42 0.100 sec	480	50,000	ABB	800	T6S800	200,000 Class L	800
800 1000 1200	65 0.100 sec 50 0.500 sec	65 0.100 sec	480	85,000	ABB	1200	T7L1200	200,000 Class L	1200

¹⁾ This rating is available only with the TruONE UL Level 4 versions

²⁾ Time-based ratings are also known as any-breaker ratings

Technical data - IEC

TruONE ATS OX200...1250E, enclosed style

Enclosed automatic transfer switches

				Switch size			
Data according to IEC 60947-6-1 (Class PC equipment)				OX200	OX250	OX315	OX400
Rated operational voltage, U		Vac		200 - 415			
Operating voltage range, U		Vac		160 - 576			
Rated insulation voltage, Ui (power circuit)		V		1 000			
Rated insulation voltage, Ui (electronics)		V		500			
Rated frequency, f		Hz		50 - 60			
Rated impulse withstand voltage, Uimp (power circuit)		kV		8		12	
Rated impulse withstand voltage, Uimp (electronics)		kV		6			
Conventional free air thermal current, Ith / ambient 40°C		A		200	250	315	400
Conventional enclosed thermal current, Ithe / ambient 40°C		A		200	250	315	400
Enclosure size	W x H x D	mm		610 x 810 x 300			
Rated operational current, AC-31B	up to 415 V	A		200	250	315	400
Rated operational current, AC-32B	up to 415 V	A		200	250	315	400
Rated operational current, AC-33B	up to 415 V	A		200	250	315	400
Rated breaking capacity in category AC-33	up to 415 V	A		2000	2500	3150	4000
Rated conditional short-circuit	Iq (r.m.s.) 100 kA, 500 V	îc (peak) ⁴⁾	kA	49	49	69	69
current Iq (r.m.s.) and corresponding	Max. OFA_ fuse size	gG/aM	A/A	400 / 400	400 / 400	630 / 315	630 / 630
protective devices (fuse or circuit breaker)	Iq (r.m.s.) 50 kA, 500 V						
	ABB circuit breaker type			T5L630	T5L630	T6L630	T6L630
Rated short-time withstand current	Icw (r.m.s.)	415 V 0.1s	kA	18	18	25	25
	Icw (r.m.s.)	415 V 0.3s	kA	18	18	25	25
	Icw (r.m.s.)	415 V 0.5s	kA				
Rated short-time making capacity ¹⁾	Icm peak	415 V	kA	36	36	52,5	52,5
Contact transfer time I-II, II-I	OFF time / load interrupting time	ms		<50			
Operating transfer time I-II, II-I		ms		<500			
ATS current draw during transfer / time duration		A / ms		37 / <110			
Mechanical endurance	No. of operating cycles ²⁾			6012	6012	4012	4012
Overvoltage category				III			
Pollution degree				PD 3 up to 415 V / PD 2 up to 500 V			
Minimum conductor cross section	Cu	mm ²		95	120	185	240
Terminal bolt size	Metric thread diameter x length	mm		M8 x 25	M8 x 25	M10 x 30	M10 x 30
Terminal tightening torque	Counter torque required	Nm		15...22	15...22	30...44	30...44
Weight without accessories	3-pole switch	kg		52	52	59	59
	4-pole switch	kg		52	52	59	59
Suitable for applications	Transformer - Transformer, Transformer - Generator ³⁾						

¹⁾ Short circuit duration > 50ms, without fuse protection

²⁾ Operating cycle: O - I - O - II - O

³⁾ Please contact ABB for applications with smaller than 20 kVA gensets

⁴⁾ Cut-off current ïc (peak) value. The cut-off current ïc refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).

Technical data - IEC

TruONE ATS OX200...1250E, enclosed style

Enclosed automatic transfer switches

					Switch size			
Data according to IEC 60947-6-1 (Class PC equipment)					OX630	OX800	OX1000	OX1250
Rated operational voltage, U	Vac						200 - 415	
Operating voltage range, U	Vac						160 - 576	
Rated insulation voltage, Ui (power circuit)	V						1 000	
Rated insulation voltage, Ui (electronics)	V						500	
Rated frequency, f	Hz						50 - 60	
Rated impulse withstand voltage, Uimp (power circuit)	kV						12	
Rated impulse withstand voltage, Uimp (electronics)	kV						6	
Conventional free air thermal current, Ith / ambient 40°C	A				630	800	1000	1250
Conventional enclosed thermal current, Ithe / ambient 40°C	A				630	700	1000	1150
Enclosure size	W x H x D	mm			610 x 810 x 300		810 x 1010 x 300	
Rated operational current, AC-31B	up to 415 V	A			630	700	1000	1150
Rated operational current, AC-32B	up to 415 V	A			630	700	1000	1150
Rated operational current, AC-33B	up to 415 V	A			630	700	1000	1150
Rated breaking capacity in category AC-33	up to 415 V	A			6300	7000	10000	11500
Rated conditional short-circuit	Iq (r.m.s.) 100 kA, 500 V	ic (peak) ⁴⁾	kA		90	90	95	95
current Iq (r.m.s.) and corresponding protective devices (fuse or circuit breaker)	Max. OFA_ fuse size	gG/aM	A/A		1000 / 1000	1000 / 1000	1600 / 1 250	1600 / 1 250
	Iq (r.m.s.) 50 kA, 500 V							
	ABB circuit breaker type				T6L1000	T6L1000	T7L1600	T7L1600
Rated short-time withstand current	Icw (r.m.s.)	415 V 0.1s	kA		30	30	50	50
	Icw (r.m.s.)	415 V 0.3s	kA		30	30	50	50
	Icw (r.m.s.)	415 V 0.5s	kA		30	30	50	50
Rated short-time making capacity ¹⁾	Icm peak	415 V	kA		63	63	105	105
Contact transfer time I-II, II-I	OFF time / load interrupting time		ms				<50	
Operating transfer time I-II, II-I			ms				<500	
ATS current draw during transfer / time duration			A / ms				40 / <130	
Mechanical endurance	No. of operating cycles ²⁾				3012	3012	3012	3012
Overvoltage category							III	
Pollution degree							PD 3 up to 415 V / PD 2 up to 500 V	
Minimum conductor cross section	Cu	mm ²			2 × 185	2 × 240	3 × 185	3 × 240
Terminal bolt size	Metric thread diameter x length	mm			M12 × 40	M12 × 40	M12 × 40	M12 × 40
Terminal tightening torque	Counter torque required	Nm			50...75	50...75	50...75	50...75
Weight without accessories	3-pole switch	kg			80	80	109	109
	4-pole switch	kg			80	80	115	115
Suitable for applications					Transformer - Transformer, Transformer - Generator ³⁾			

¹⁾ Short circuit duration > 50ms, without fuse protection

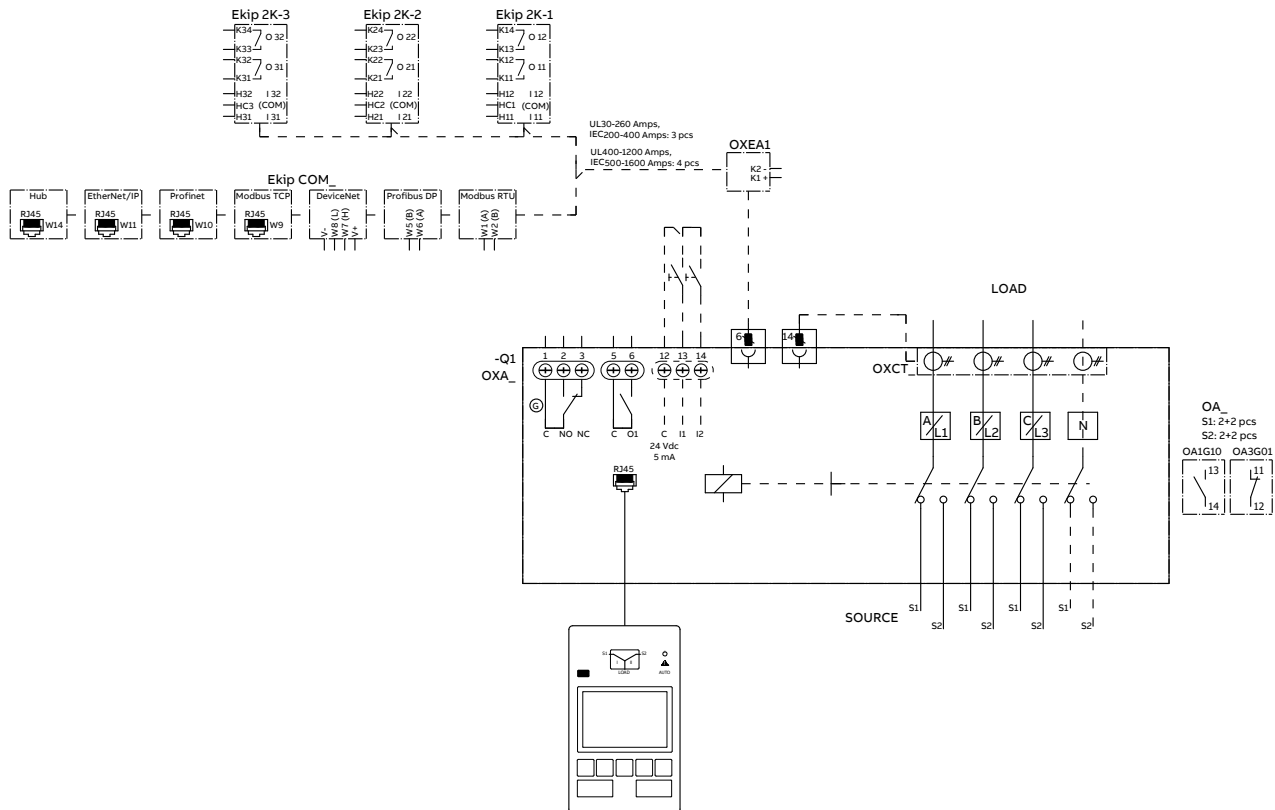
²⁾ Operating cycle: O - I - O - II - O

³⁾ Please contact ABB for applications with smaller than 20kVA gensets

⁴⁾ Cut-off current ic (peak) value. The cut-off current ic refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).

Wiring diagram

TruONE ATS, open transition (types OXA_)



Note: The number of I/O and optional Ekip Com modules vary from one TruONE type to another. Refer to TruONE feature comparison and accessory pages for more details.

TruONE ATS, delayed transition (types OXB_)



Note: The number of I/O and optional Ekip Com modules vary from one TruONE type to another. Refer to TruONE feature comparison and accessory pages for more details.



Dimension drawings

44	UL: 30U, 60U, 100U, 125U, 160U, 200U IEC: 200E, 250E
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45	UL: 260U IEC: 315E, 400E
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46	UL: 400U
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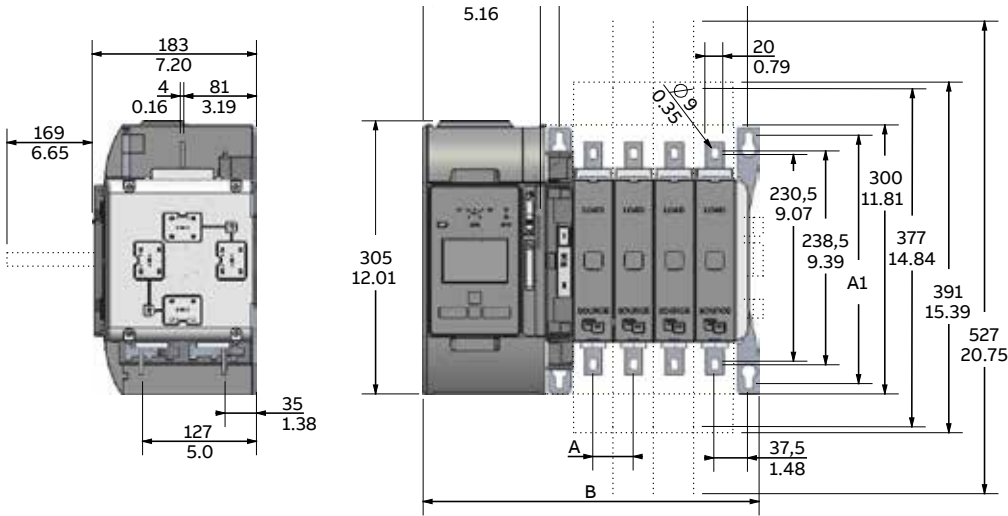
47	UL: 600U IEC: 500E, 630E, 800E
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48	UL: 800U, 1000U, 1200U IEC: 1000E, 1250E, 1600E
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Dimension drawings

Automatic transfer switches

UL: 30U, 60U, 100U, 125U, 160U, 200U
IEC: 200E, 250E



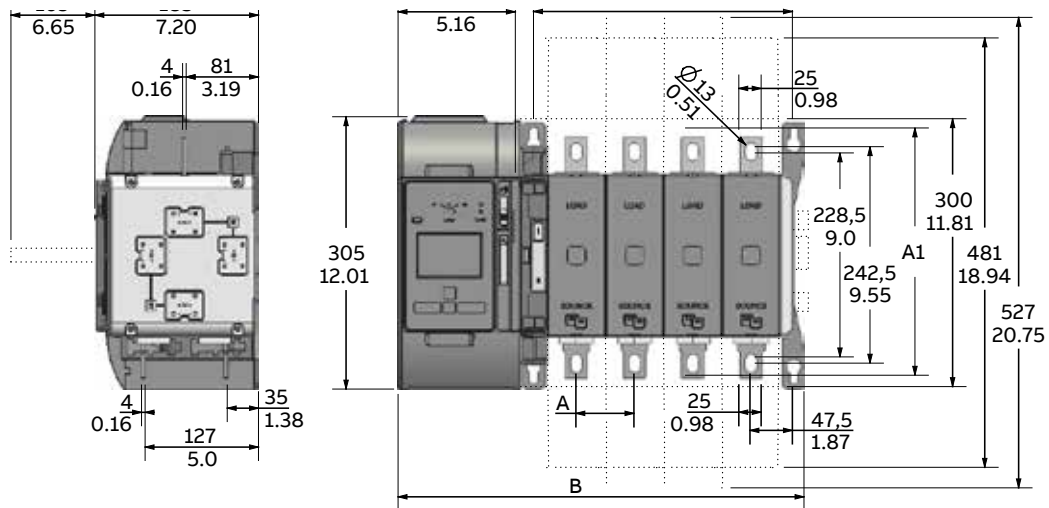
OX_30-250			
No. of poles	2	3	4
A	45/1.77	45/1.77	45/1.77
A1	277/10.91	277/10.91	277/10.91
A2	120/4.72	165/6.50	210/8.27
B	285/11.22	330/12.99	375/14.76

Dimension drawings

Automatic transfer switches

UL: 260U

IEC: 315E, 400E

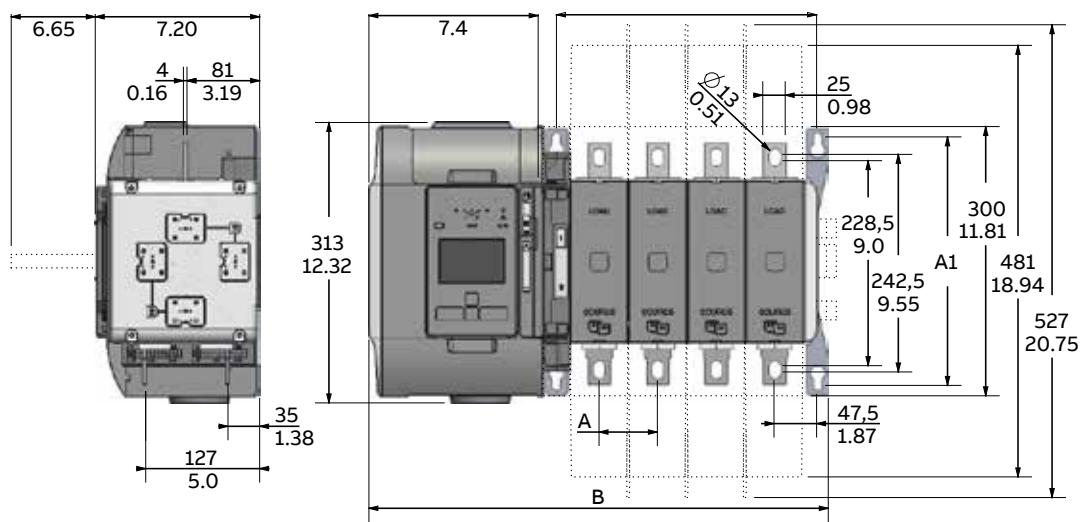


OX_260_400			
No. of poles	2	3	4
A	65/2.56	65/2.56	65/2.56
A1	277/10.91	277/10.91	277/10.91
A2	160/6.30	225/8.86	290/11.42
B	325/12.80	390/15.35	455/17.91

Dimension drawings

Automatic transfer switches

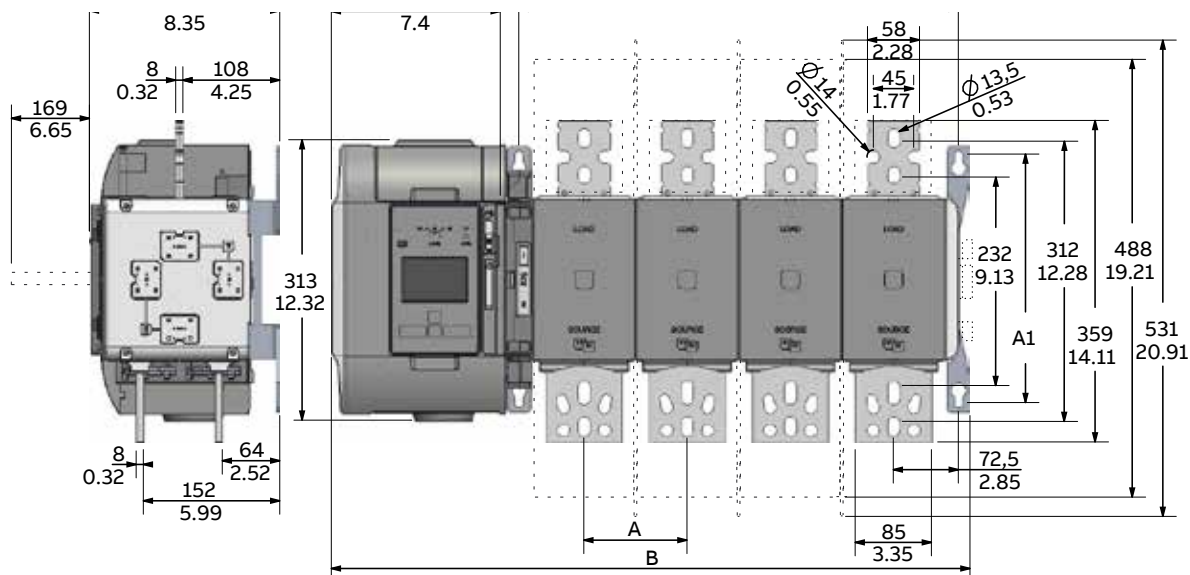
UL: 400U



UL: 400U			
No. of poles	2	3	4
A	65/2.56	65/2.56	65/2.56
A1	277/10.91	277/10.91	277/10.91
A2	160/6.30	225/8.86	290/11.42
B	382/15.04	447/17.60	512/20.16

Automatic transfer switches

IEC: 1000E, 1250E, 1600E



OX_800U-1600		
No. of poles	3	4
A	115/4.53	115/4.53
A1	277/10.91	277/10.91
A2	375/14.77	490/19.30
B	597/23.51	712/28.04

