

CATALOG

TruONE™ ATS

The world's first true all-in-one automatic transfer switch



- Easy to install
- Safety and protection
- Advanced connectivity

Table of contents

| | | |
|----------------|----------------------------------|-----------|
| 004–017 | Overview | 01 |
| 018–027 | Ordering Information – UL | 02 |
| 028–035 | Accessories | 03 |
| 036–045 | Technical data | 04 |
| 046–052 | Dimension drawings | 05 |

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.

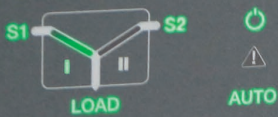
TruONE™ represents a major shift in engineering and a critical breakthrough for critical power.



—
ABB Wins,
Global New Product
Innovation Award



ABB



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

ON ON

AUTO

LOAD

LOAD

LOAD

A/L1

B/L2

C/L3

SOURCE

SOURCE

SOURCE

S1 S2

S1 S2

S1 S2

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™Energy and Asset Manager. 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.



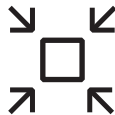
Energy Efficiency

Full compatibility with ABB Ability™ Energy and Asset Manager 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.

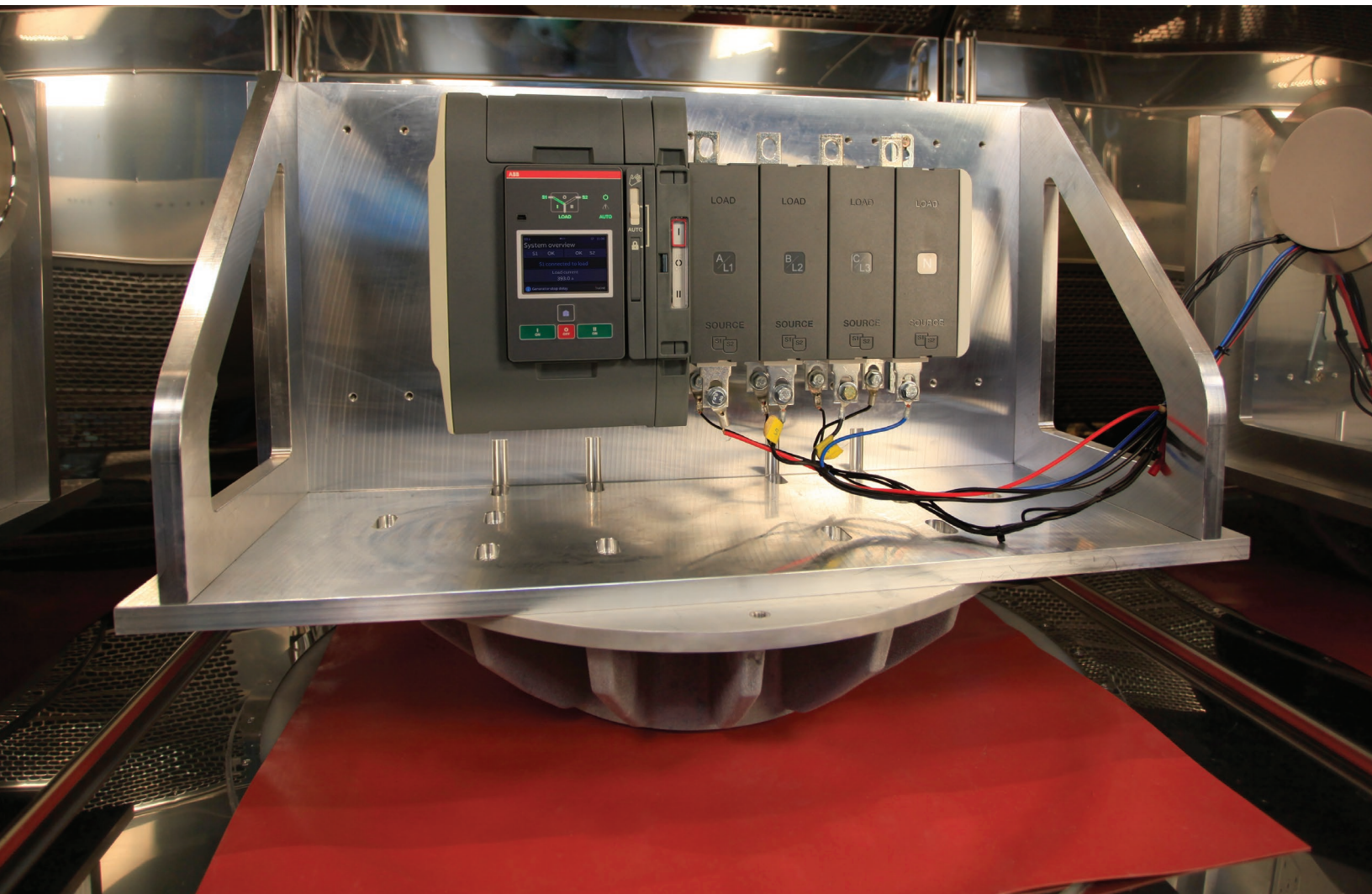


TruONE™ is the only ATS to guarantee safe and reliable operation during dramatic variations in temperature (-25–+70°C) and voltage (200–480 VAC with +/-20% tolerance), and it's tolerant of vibrations (acc. IEC 60068-2-6) and shocks (acc. IEC 60068-2-27). TruONE™ also has true short-circuit resilience,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

01



The one ATS for all applications

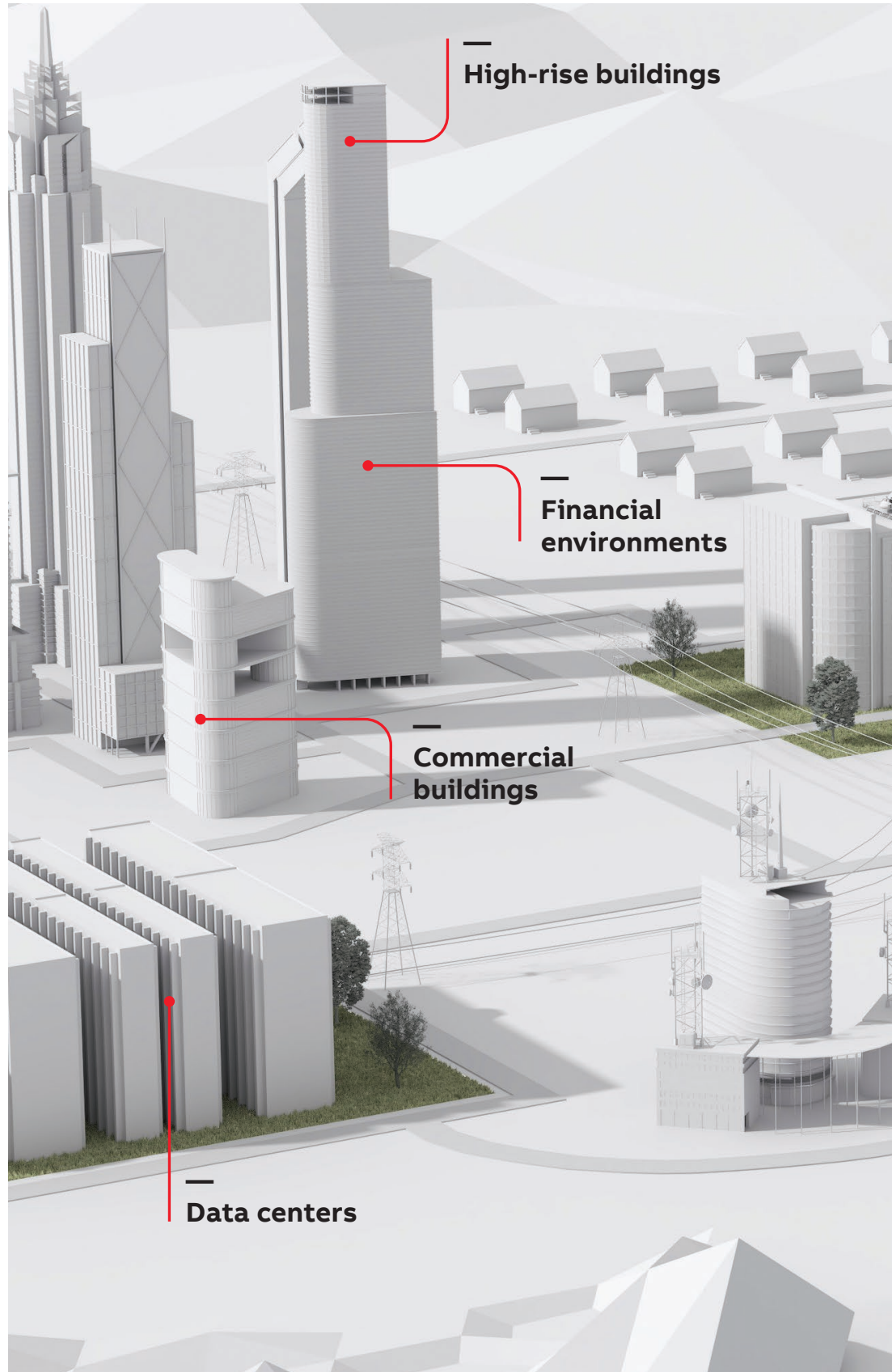
Bring the highest level of convenience, efficiency and critical power security to your product, project or facility.

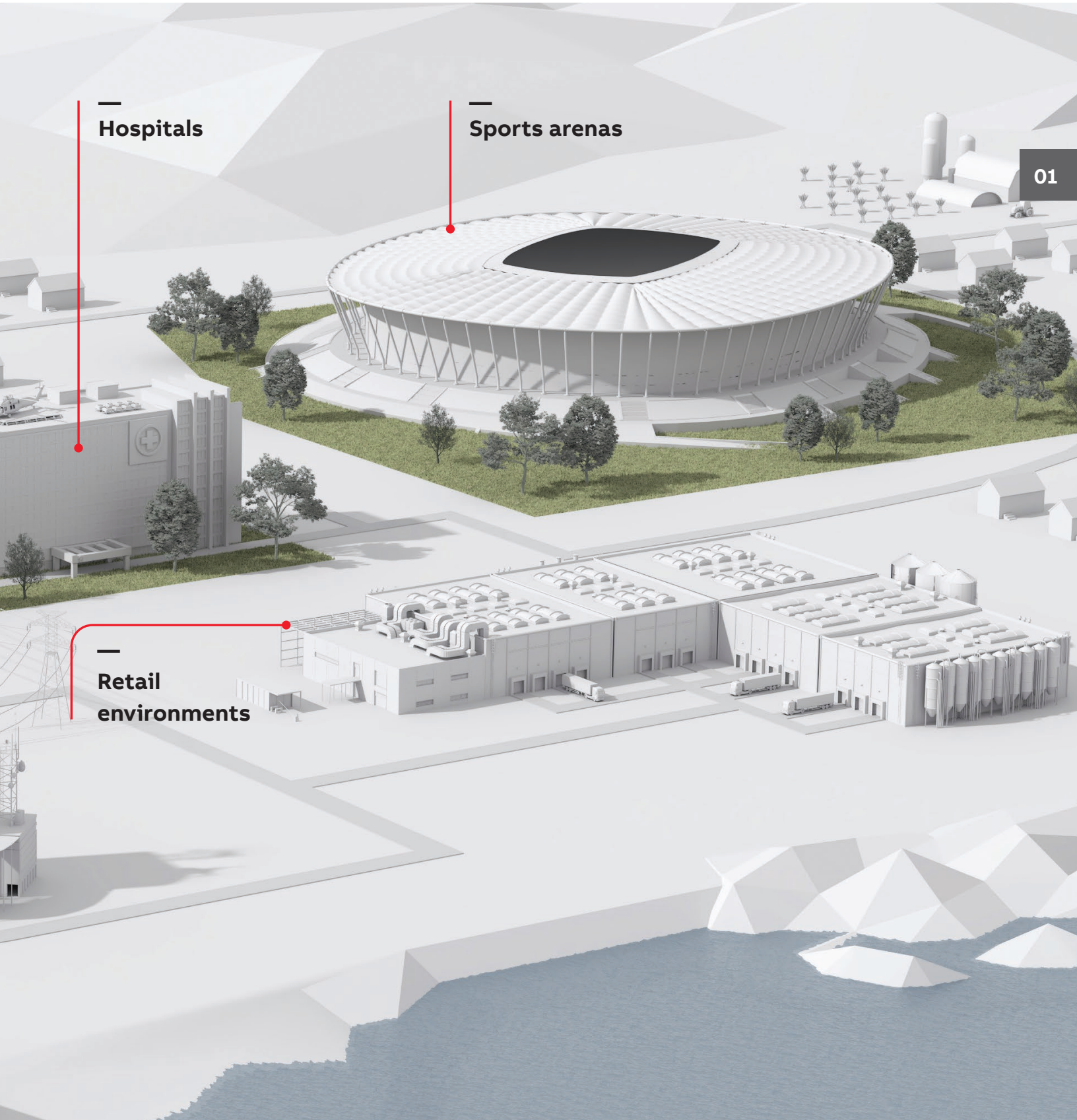
TruONE™ is the superior solution for:

- 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

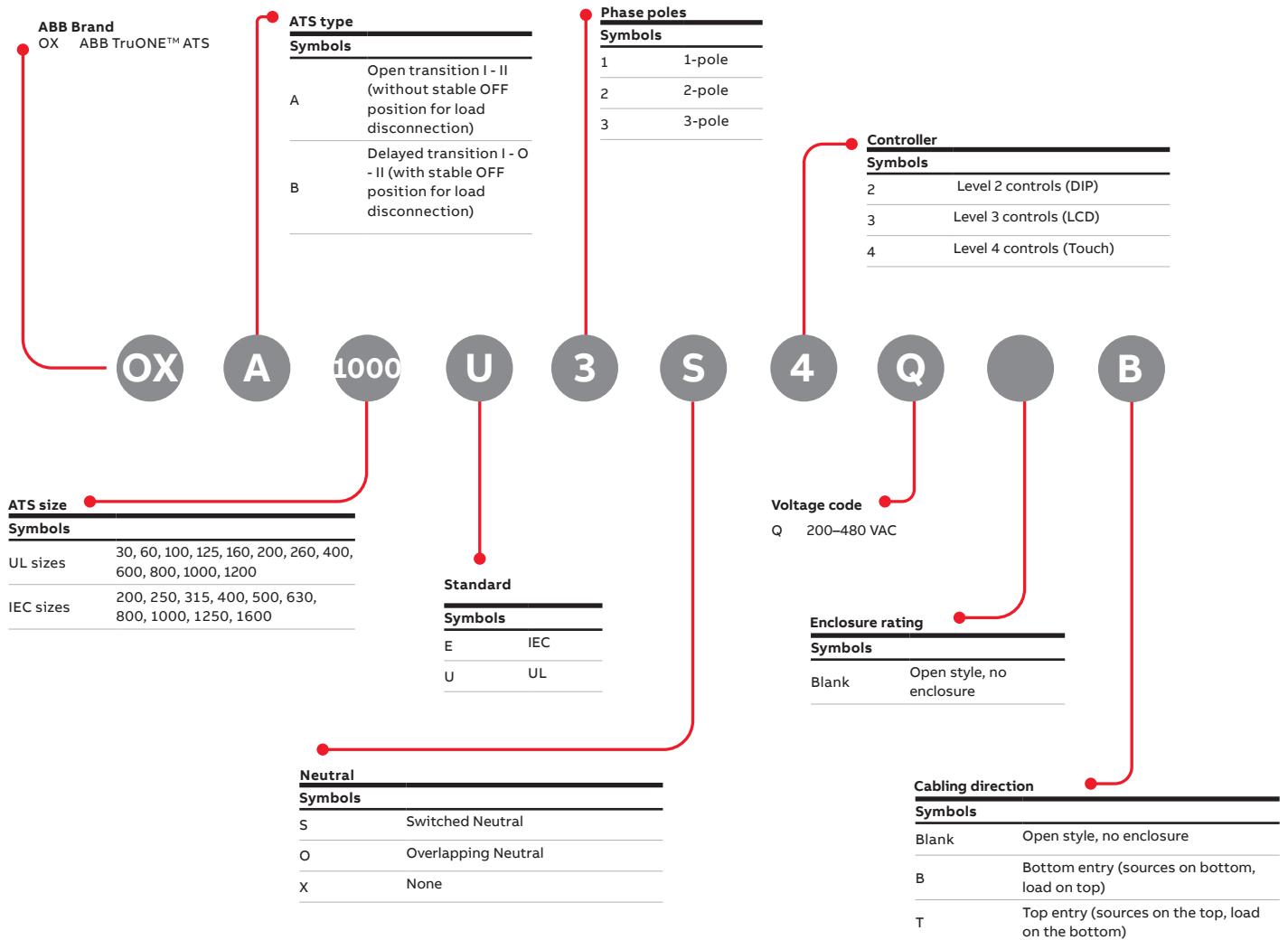
—
Sports arenas

—
Retail environments

01

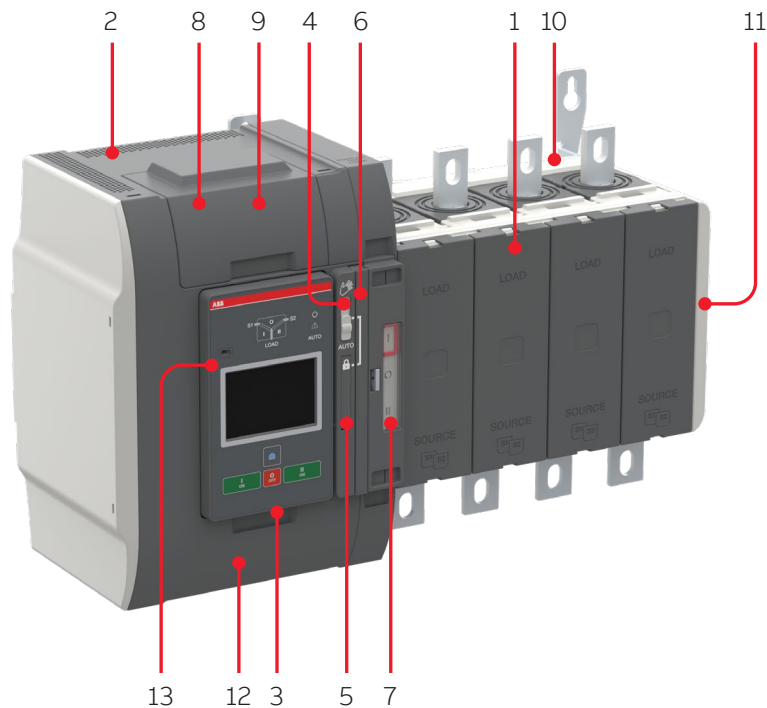
TruONE™ part number key

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™ general overview



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



Virtual HMI - Level 2 controls



Virtual HMI - Level 4 controls



| | 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, three phase | 200-480Vac | 200-480Vac | 200-480Vac |
| Rated voltage, single phase | 200-240Vac | 200-240Vac | 200-240Vac |
| 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

Consult ABB for more information



| | 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™: Energy and Asset Manager) | 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:

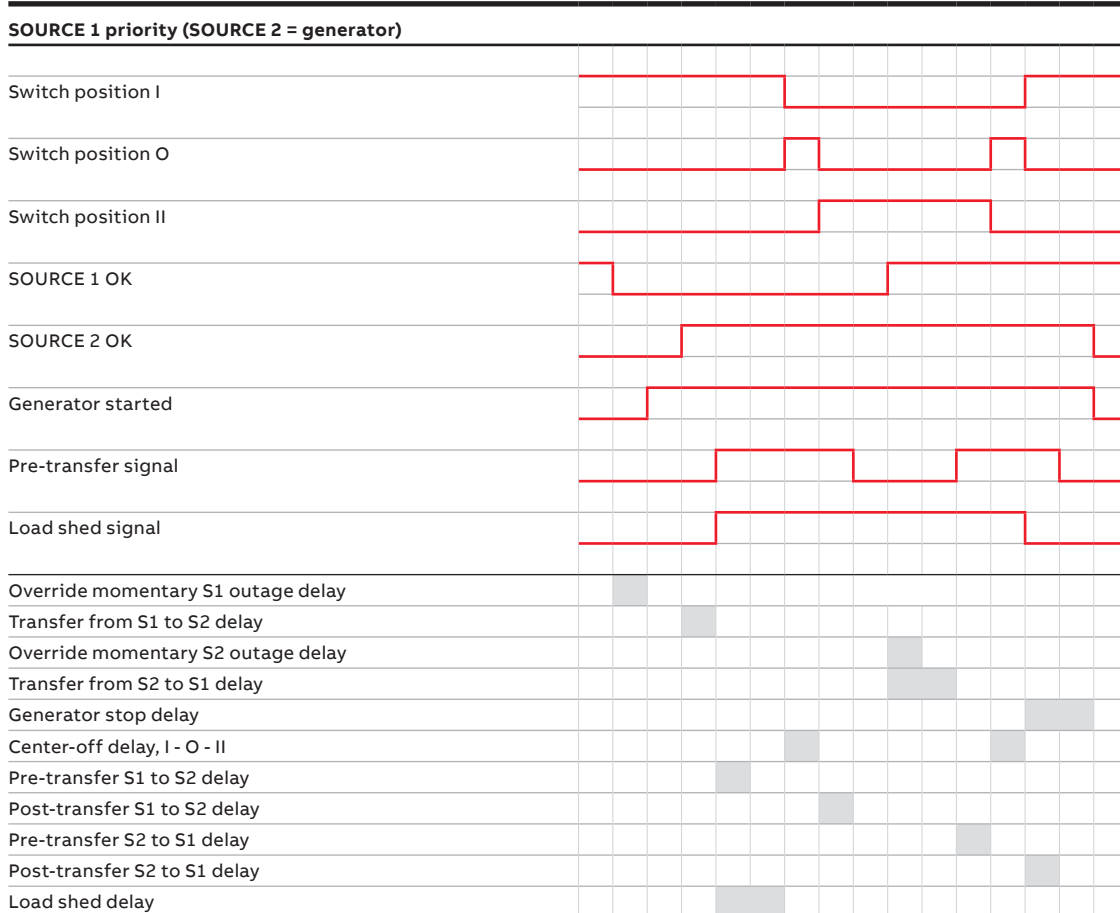
- The SOURCE 1 is restored
- Transfer from S2 to S1 delay
- Pre-transfer signal on
- Pre-transfer S2 to S1 delay
- Transfer switch (SOURCE 2) to the position O
- Center-off delay (only with Delayed transition I - O - II type)
- Transfer switch (SOURCE 1) to the position I
- Load shed signal off
- Generator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



Video: Transfer from primary to backup power



Video: Transfer from backup to primary source after power is restored





Automatic Transfer Switches

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



OXA30...200U2X2QB



OXA400...600U2X2QB



OXA260U3X2QB



OXA800...1200U3X2QB



OXA30...200U3S2



OXA260U3S2QB



OXA400...600U3S2QB



OXA800...1200U3S2QB

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.

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 | 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 | 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 | 1000 | OXA800U3X2QB | 43.64 | 96.21 |
| 3 | 1000 | 1250 | OXA1000U3X2QB | 43.64 | 96.21 |
| 3 | 1200 | 1600 | 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 | 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 | 1000 | OXA800U3S2QB | 56.58 | 124.74 |
| 4 | 1000 | 1250 | OXA1000U3S2QB | 56.58 | 124.74 |
| 4 | 1200 | 1600 | 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

Delayed transition – Open style, Level 2 DIP controls



OXB30...200U2X2QB

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.



OXB30...200U3X2QB



OXB400...600U3X2QB



OXB800...1200U3X2QB



OXB30...200U3S2QB



OXB400...600U3S2QB



OXB800...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 | | 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 | 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 | 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 | 1000 | OXB800U3X2QB | 44.14 | 97.31 |
| 3 | 1000 | 1250 | OXB1000U3X2QB | 44.14 | 97.31 |
| 3 | 1200 | 1600 | 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 | 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 | 1000 | OXB800U3S2QB | 57.08 | 125.84 |
| 4 | 1000 | 1250 | OXB1000U3S2QB | 57.08 | 125.84 |
| 4 | 1200 | 1600 | 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



OXA30...200U2X3QB



OXA260U2X3QB



OXA30...200U3X3QB



OXA400...600U3X3QB



OXA800...1200U3X3QB



OXA30...200U3S3QB



OXA400...600U3S3QB



OXA800...1200U3S3QB

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.

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 | 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 | 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 | 1000 | OXA800U3X3QB | 43.64 | 96.21 |
| 3 | 1000 | 1250 | OXA1000U3X3QB | 43.64 | 96.21 |
| 3 | 1200 | 1600 | 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 | 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 | 1000 | OXA800U3S3QB | 56.58 | 124.74 |
| 4 | 1000 | 1250 | OXA1000U3S3QB | 56.58 | 124.74 |
| 4 | 1200 | 1600 | 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 | 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 | 1000 | OXA800U3O3QB | 56.58 | 124.74 |
| 4 | 1000 | 1250 | OXA1000U3O3QB | 56.58 | 124.74 |
| 4 | 1200 | 1600 | OXA1200U3O3QB | 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

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.



OXB30...200U2X3QB



OXB400...600U2X3QB



OXB260U3X3QB



OXB400...600U3X3QB



OXB800...1200U3X3QB



OXB30...200U3S3QB



OXB400...600U3S3QB



OXB800...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 | | 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 | 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 | 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 | 1000 | OXB800U3X3QB | 44.14 | 97.31 |
| 3 | 1000 | 1250 | OXB1000U3X3QB | 44.14 | 97.31 |
| 3 | 1200 | 1600 | 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 | 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 | 1000 | OXB800U3S3QB | 57.08 | 125.84 |
| 4 | 1000 | 1250 | OXB1000U3S3QB | 57.08 | 125.84 |
| 4 | 1200 | 1600 | 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 | 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 | 1000 | OXA800U3X4QB | 44.00 | 97.00 |
| 3 | 1000 | 1250 | OXA1000U3X4QB | 44.00 | 97.00 |
| 3 | 1200 | 1600 | 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 | 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 | 1000 | OXA800U3S4QB | 57.05 | 125.77 |
| 4 | 1000 | 1250 | OXA1000U3S4QB | 57.05 | 125.77 |
| 4 | 1200 | 1600 | 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



OXA30...200U3O4QB



OXA260U3O4QB



OXA400...600U3O4QB



OXA800...1200U3O4QB

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 | 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 | 1000 | OXA800U3O4QB | 57.05 | 125.77 |
| 4 | 1000 | 1250 | OXA1000U3O4QB | 57.05 | 125.77 |
| 4 | 1200 | 1600 | 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".

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 | 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 | 1000 | OXB800U3X4QB | 44.50 | 98.11 |
| 3 | 1000 | 1250 | OXB1000U3X4QB | 44.50 | 98.11 |
| 3 | 1200 | 1600 | 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 | 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 | 1000 | OXB800U3S4QB | 57.55 | 126.88 |
| 4 | 1000 | 1250 | OXB1000U3S4QB | 57.55 | 126.88 |
| 4 | 1200 | 1600 | OXB1200U3S4QB | 57.55 | 126.88 |

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".



Accessories

| | |
|-----------|--|
| 30 | Auxiliary power supply module Connectivity modules Communication modules for Level 3 and Level 4 controllers |
| 31 | Signalling modules for Level 3 and Level 4 controllers Ekip Programming module |
| 32 | Ekip Com Hub Terminal shrouds Phase barriers |
| 33 | Wide blade kit HMI protective cover, IP54 Terminal connection kits |
| 34 | UL terminal lugs, mechanical |
| 35 | Auxiliary contacts |

Accessories

Automatic transfer switches

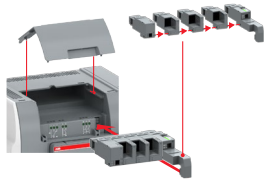


OXEA1

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 | ZEAEHRNT | 0.2 | 0.44 |
| OX30...1600 | DeviceNet | Ekip Com DeviceNet | ZEADEVICNET | 0.2 | 0.44 |

Accessories

Automatic transfer switches

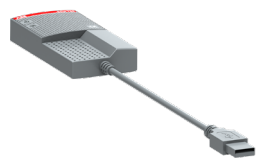


EKIP 2K SIGNALLING

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 | ZEAKEPPGM | 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™ Energy and Asset Manager.

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

For further information related to ABB Ability and Energy and Asset Manager, please visit the website <https://new.abb.com/about/our-businesses/electrification/abb-ability/energy-and-asset-manager>.

Available for TruONE Level 3 and Level 4 controllers.

| Suitable for switches | Type | Order number | Weight /unit | |
|-----------------------|--------------|--------------|--------------|------|
| | | | kg | lb |
| OX30...1600 | Ekip Com Hub | ZEAEKIPHUB | 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

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.



OXEB_

| 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-412 | 1x 4 AWG - 600 MCM or 2x 1/0 AWG - 250 MCM | 1 or 2 | | | OZXA-412/4P | OZXA-412 |
| OZXA-412L | 1x 4 AWG - 600 MCM or 2x 1/0 AWG - 250 MCM | 1 or 2 | OZXA-412L/2P | OZXA-412L/3P | OZXA-412L/4P | |
| 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 |
| OX260...400 | 2 | | OZXA-412/4P ¹⁾ | OZXA-412L/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 |
| OX260...400 | 3 | | OZXA-412 ¹⁾ | OZXA-412L/3P |
| OX600 | 3 | | OZXA-800E ¹⁾ | OZXA-800L/3 |
| OX800 | 3 | | OZXA-800S 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 |
| OX260...400 | 4 | OZXA-412/4P | OZXA-412/4P | OZXA-412L/4P |
| OX600 | 4 | OZXA-800E/4P | OZXA-800E/4P | OZXA-800L/4 |
| OX800 | 4 | OZXA-800S/4P | OZXA-800S/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

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.



OA1G10

| 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 |



OA3G01

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 | | |



OA3G01AU

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**

40–41 **Technical data IEC**

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 | 610 x 813 x 305 | | | | | |
| Short-circuit withstand/closing and short-time current ratings | | See table A | | | | | |
| Contact transfer time I-II, II-I | Load interrupting time | ms | | | | | |
| Operating transfer time I-II, II-I | | ms | | | | | |
| 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 | 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 | 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 | 600 x 800 x 300 | | | | | |
| Short-circuit withstand/closing and short-time current ratings | | See table B | | | | | |
| Contact transfer time I-II, II-I | Load interrupting time | ms | | | | | |
| Operating transfer time I-II, II-I | | ms | | | | | |
| 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 | 14 | 14 | 14 | 14 | 14 | 14 |
| | 4-pole switch | 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 Iq (r.m.s.) and corresponding protective devices (fuse or circuit breaker) | Iq (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 |
| | Iq (r.m.s.) 50 kA, 500 V | | | | | | |
| | ABB circuit breaker type | | | | | T5L630 | T5L630 |
| Rated short-time withstand current | Icw (r.m.s.) | 415 V 0.1s | kA | | | 18 | 18 |
| | Icw (r.m.s.) | 415 V 0.3s | kA | | | 18 | 18 |
| | Icw (r.m.s.) | 415 V 0.5s | kA | | | | |
| Rated short-time making capacity ³⁾ | Icm 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 i_c (peak) value. The cut-off current 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 | 610 x 1168 x 356 | | 711 x 1372 x 495 | |
| Short-circuit withstand/closing and short-time current ratings | | 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 | 4050 | 3050 | |
| Weight without accessories | 2-pole switch | kg 13.3 | 16.9 | 16.9 | |
| Suitable for applications | | Transformer - Transformer, Transformer - Generator ³⁾ | | | |
| 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 |
| | I _q (r.m.s.) 50 kA, 240 V | | | | |
| Rated short-time withstand current | ABB circuit breaker type | | T5L630 | T6L630 | T6L1000 |
| | 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 |
| Rated short-time making capacity ³⁾ | I _{cm} (r.m.s.) | 240 V 0.5s | kA | | 18 |
| | 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 | 4050 | 3050 | 3050 | 3050 | 3050 | |
| | 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 ⁵⁾ | 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 | îc (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 | | | | | T4H, T4L, T4V | | |
| 125 | | | | | | | |
| 160 | | | | 250 | XT4H, XT4L, XT4V | 100,000 Class J | 200 |
| 200 | 240 | 30,000 | ABB | 250 | | | |
| 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 | | | | | | 125 | XT2H125 | | |
| 160 | 18 | 18 | | | | 250 | T4H250 | 200,000 Class J | 200 |
| 200 | 0.300 sec | 0.100 sec | 480 | 50,000 | ABB | 250 | XT4H250 | | |
| 260 | 25 | 25 | | | | | | 200,000 Class J | 400 |
| | 0.300 sec | 0.100 sec | 480 | 50,000 | ABB | 600 | T5H600 | | |
| 400 | 30 | 30 | | | | | | 200,000 Class J | 600 |
| | 0.250 sec | 0.100 sec | 480 | 50,000 | ABB | 600 | T5H600 | | |
| 600 | 42 | 42 | | | | | | 200,000 Class L | 800 |
| | 0.100 sec | 0.100 sec | 480 | 50,000 | ABB | 800 | T6S800 | | |
| | 30 | | | | | | | | |
| | 0.500 sec | | | | | | | | |
| 800 | 65 | | | | | | | | |
| | 0.100 sec | | | | | | | | |
| 1000 | 50 | 65 | | | | | | 200,000 Class L | 1200 |
| 1200 | 0.500 sec | 0.100 sec | 480 | 85,000 | ABB | 1200 | T7L1200 | | |

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...1600E, open style

General performance

| | | Switch size | | | | |
|---|---------------------------------------|--|---------|----------|----------|------|
| Data according to IEC 60947-6-1 (Class PC equipment) | | OX200 | OX250 | OX315 | OX400 | |
| Rated insulation voltage, U_i (power circuit) | V | 1 000 | | | | |
| Rated insulation voltage, U_i (electronics) | V | 500 | | | | |
| Rated frequency, f | Hz | 50 - 60 | | | | |
| Rated impulse withstand voltage, U_{imp} (power circuit) | kV | 8 | | 12 | | |
| Rated impulse withstand voltage, U_{imp} (electronics) | kV | 6 | | | | |
| Conventional free air thermal current, I_{th} / ambient 40°C | A | 200 | 250 | 315 | 400 | |
| Conventional enclosed thermal current, I_{the} / ambient 40°C | A | 200 | 250 | 315 | 400 | |
| Minimum enclosure size or equivalent volume | W x H x D mm | 600 x 800 x 300 | | | | |
| 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 ³⁾ | 6012 | 6012 | 4012 | 4012 | |
| Power loss / pole | W | 5.8 | 9.7 | 12.1 | 20.3 | |
| Overvoltage category | | III | | | | |
| Pollution degree (control circuit) | | PD 3 up to 415 V / PD 2 up to 500 V | | | | |
| Environment category | | E | | | | |
| 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 | 2-pole switch | kg | 12.4 | 12.4 | 13.3 | 13.3 |
| | 3-pole switch | kg | 14 | 14 | 15.4 | 15.4 |
| | 4-pole switch | kg | 15.6 | 15.6 | 17.5 | 17.5 |
| Suitable for applications | | Transformer - Transformer, Transformer - Generator ⁴⁾ | | | | |

2 pole construction - Operating performance and short-circuit capability

| | | Switch size | | | | |
|---|------------------------------|-------------------------------------|--------|--------|--------|--------|
| Data according to IEC 60947-6-1 (Class PC equipment) | | OX200 | OX250 | OX315 | OX400 | |
| Rated operational voltage, U | Vac | 200 - 240 | | | | |
| Operating voltage range, U | Vac | 160 - 288 | | | | |
| Rated operational current, AC-31B | up to 240 V A | 200 | 250 | 315 | 400 | |
| Rated operational current, AC-32B | up to 240 V A | 200 | 250 | 315 | 400 | |
| Rated operational current, AC-33B | up to 240 V A | 200 | 250 | 315 | 400 | |
| Rated breaking capacity in category AC-33 | up to 240 V A | 2000 | 2500 | 3150 | 4000 | |
| 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) ⁵⁾ kA | 39 | 39 | 56 | 56 |
| | Max. OFA_fuse size | gG/aM A/A | 315 | 315 | 500 | 500 |
| | I_q (r.m.s.) 50 kA, 240 V | | | | | |
| Rated short-time withstand current | ABB circuit breaker type | | T5L630 | T5L630 | T5L630 | T5L630 |
| | I_{cw} (r.m.s.) | 240 V 0.1s kA | 12 | 12 | 18 | 18 |
| | I_{cw} (r.m.s.) | 240 V 0.3s kA | 12 | 12 | 18 | 18 |
| Rated short-time making capacity ²⁾ | I_{cm} peak | 240 V kA | 24 | 24 | 36 | 36 |
| | | | | | | |

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

| | | 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 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 operational current, AC-33iA ⁶⁾ | up to 415 V A | 125 | 125 | 250 | 250 | |
| 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) ⁵⁾ kA | 49 | 49 | 69 | 69 |
| | Max. OFA_fuse size | gG/aM A/A | 400 / 400 | 400 / 400 | 630 / 630 | 630 / 630 |
| | I_q (r.m.s.) 50 kA, 500 V | | | | | |
| Rated short-time withstand current | ABB circuit breaker type | | T5L630 | T5L630 | T6L630 | T6L630 |
| | I_{cw} (r.m.s.) | 415 V 0.1s kA | 18 | 18 | 25 | 25 |
| | I_{cw} (r.m.s.) | 415 V 0.3s kA | 18 | 18 | 25 | 25 |
| Rated short-time making capacity ²⁾ | I_{cm} peak | 415 V kA | 36 | 36 | 52.5 | 52.5 |
| | | | | | | |

¹⁾ OX_B bottom entry versions only

²⁾ Short circuit duration > 50ms, without fuse protection

³⁾ Operating cycle: O - I - O - II - O

⁴⁾ Contact ABB for applications with smaller than 20kVA gensets

⁵⁾ Cut-off current i_c (peak) value. The cut-off current i_c refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).

⁶⁾ AC-33iA according to GB/T 14048.11

Technical data - IEC

TruONE ATS OX200...1600E, open style

General performance

| | | | Switch size | | | | |
|--|---------------------------------------|-----------------|--|----------|------------------|----------|----------|
| Data according to IEC 60947-6-1 (Class PC equipment) | | | OX630 | OX800 | OX1000 | OX1250 | OX1600 |
| 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 | 1600 |
| Conventional enclosed thermal current, Ithe / ambient 40°C | A | | 630 | 800 | 1000 | 1250 | 1250 |
| Minimum enclosure size or equivalent volume | W x H x D | mm | 600 x 800 x 300 | | 800 x 1000 x 300 | | |
| 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 | 40 / <130 | | | | |
| Mechanical endurance | No. of operating cycles ³⁾ | | 3012 | 3012 | 3012 | 3012 | 3012 |
| Power loss / pole | W | | 28 | 47 | 14 | 26 | 49 |
| Overvoltage category | | | III | | | | |
| Pollution degree (control circuit) | | | PD 3 up to 415 V / PD 2 up to 500 V | | | | |
| Environment category | | | E | | | | |
| Minimum conductor cross section | Cu | mm ² | 2 x 185 | 2 x 240 | 3x185 | 3x240 | 3x240 |
| Terminal bolt size | Metric thread diameter x length | mm | M12 x 40 | M12 x 40 | M12 x 40 | M12 x 40 | M12 x 40 |
| Terminal tightening torque | Counter torque required | Nm | 50...75 | 50...75 | 50...75 | 50...75 | 50...75 |
| Weight without accessories | 2-pole switch | kg | 16.9 | 16.9 | | | |
| | 3-pole switch | kg | 19.1 | 19.1 | 31.1 | 31.1 | 31.1 |
| | 4-pole switch | kg | 21.4 | 21.4 | 37.1 | 37.1 | 37.1 |
| Suitable for applications | | | Transformer - Transformer, Transformer - Generator ⁴⁾ | | | | |

2 pole construction - Operating performance and short-circuit capability

| | | | Switch size | | |
|--|---------------------------|----------------------------------|--------------------|--------------------|------|
| Data according to IEC 60947-6-1 (Class PC equipment) | | | OX630 | OX800 | |
| Rated operational voltage, U | Vac | | 200 - 240 | | |
| Operating voltage range, U | Vac | | 160 - 288 | | |
| Rated operational current, AC-31B | up to 240 V | A | 630 | 800 | |
| Rated operational current, AC-32B | up to 240 V | A | 630 ¹⁾ | 800 ¹⁾ | |
| Rated operational current, AC-33B | up to 240 V | A | 630 ¹⁾ | 800 ¹⁾ | |
| Rated breaking capacity in category AC-33 | up to 240 V | A | 6300 ¹⁾ | 8000 ¹⁾ | |
| 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) ⁵⁾ | kA | 90 | 90 |
| | Max. OFA fuse size | gG/aM | A/A | 1000 | 1000 |
| | Iq (r.m.s.) 50 kA, 240 V | | | | |
| Rated short-time withstand current | ICW (r.m.s.) | 240 V 0.1s | kA | 18 | 18 |
| | ICW (r.m.s.) | 240 V 0.3s | kA | 18 | 18 |
| | ICW (r.m.s.) | 240 V 0.5s | kA | 18 | 18 |
| Rated short-time making capacity ²⁾ | Icm peak | 240 V | kA | 36 | 36 |

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

| | | | Switch size | | | | |
|--|---------------------------|----------------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| Data according to IEC 60947-6-1 (Class PC equipment) | | | OX630 | OX800 | OX1000 | OX1250 | OX1600 |
| Rated operational voltage, U | Vac | | 200 - 415 | | | | |
| Operating voltage range, U | Vac | | 160 - 576 | | | | |
| Rated operational current, AC-31B | up to 415 V | A | 630 | 800 | 1000 | 1250 | 1600 |
| Rated operational current, AC-32B | up to 415 V | A | 630 ¹⁾ | 800 ¹⁾ | 1000 ¹⁾ | 1250 ¹⁾ | 1500 ¹⁾ |
| Rated operational current, AC-33B | up to 415 V | A | 630 ¹⁾ | 800 ¹⁾ | 1000 ¹⁾ | 1250 ¹⁾ | 1250 ¹⁾ |
| Rated breaking capacity in category AC-33 | up to 415 V | A | 6300 ¹⁾ | 8000 ¹⁾ | 10000 ¹⁾ | 12500 ¹⁾ | 12500 ¹⁾ |
| Rated operational current, AC-33iA ⁶⁾ | up to 415 V | A | 630 ¹⁾ | 630 ¹⁾ | 1000 ¹⁾ | 1250 ¹⁾ | 1250 ¹⁾ |
| Rated conditional short-circuit current Iq (r.m.s.) and corresponding protective devices (fuse or circuit breaker) | Iq (r.m.s.) 100 kA, 500 V | \hat{i}_c (peak) ⁵⁾ | kA | 90 | 90 | 95 | 95 |
| | Max. OFA fuse size | gG/aM | A/A | 1000 / 1000 | 1000 / 1000 | 1600 / 1250 | 1600 / 1250 |
| | Iq (r.m.s.) 50 kA, 500 V | | | | | | |
| | ABB circuit breaker type | | | T6L1000 | T6L1000 | | |
| Rated short-time withstand current | ICW (r.m.s.) | 415 V 0.1s | kA | 42 | 42 | 65 | 65 |
| | 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 ²⁾ | Icm peak | 415 V | kA | 89 | 89 | 105 | 105 |

¹⁾ OX_B bottom entry versions only

²⁾ Short circuit duration > 50ms, without fuse protection

³⁾ Operating cycle: O - I - O - II - O

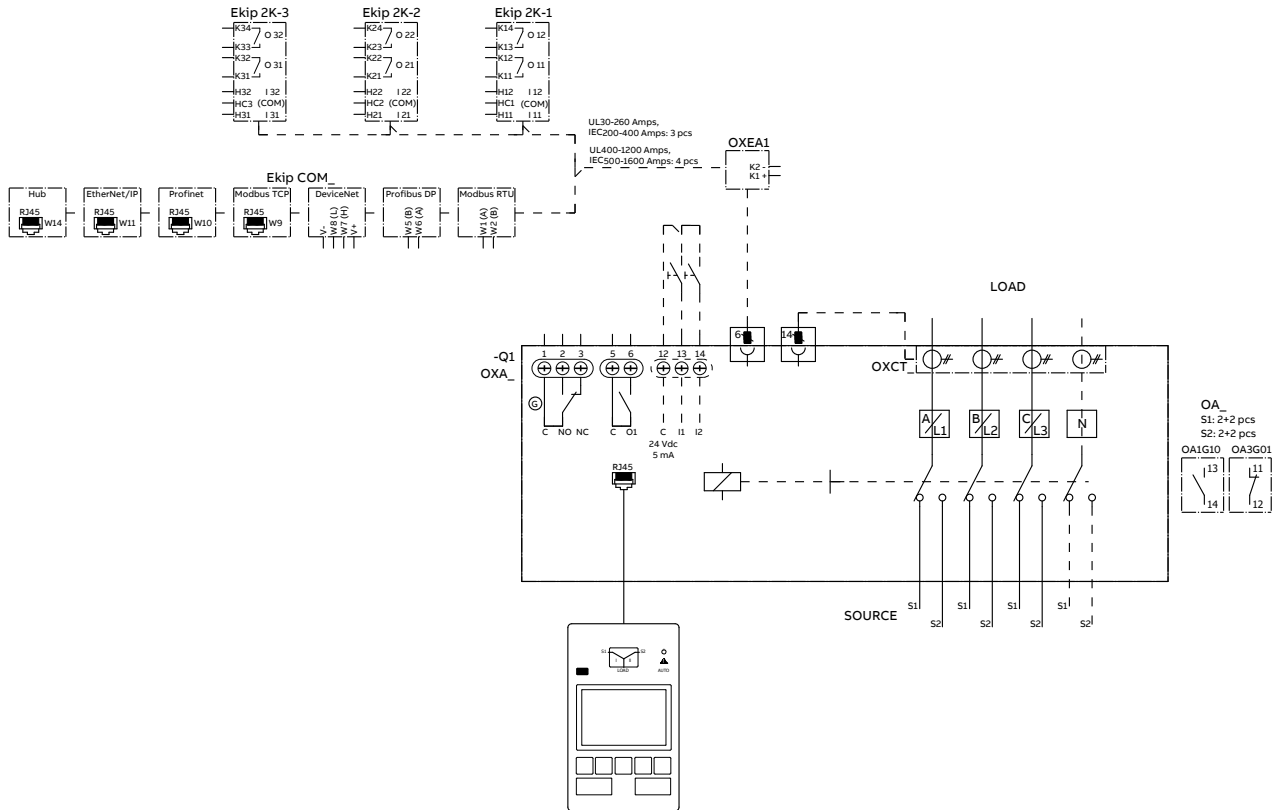
⁴⁾ Contact ABB for applications with smaller than 20kVA gensets

⁵⁾ 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).

⁶⁾ AC-33iA according to GB/T 14048.11

Wiring diagram

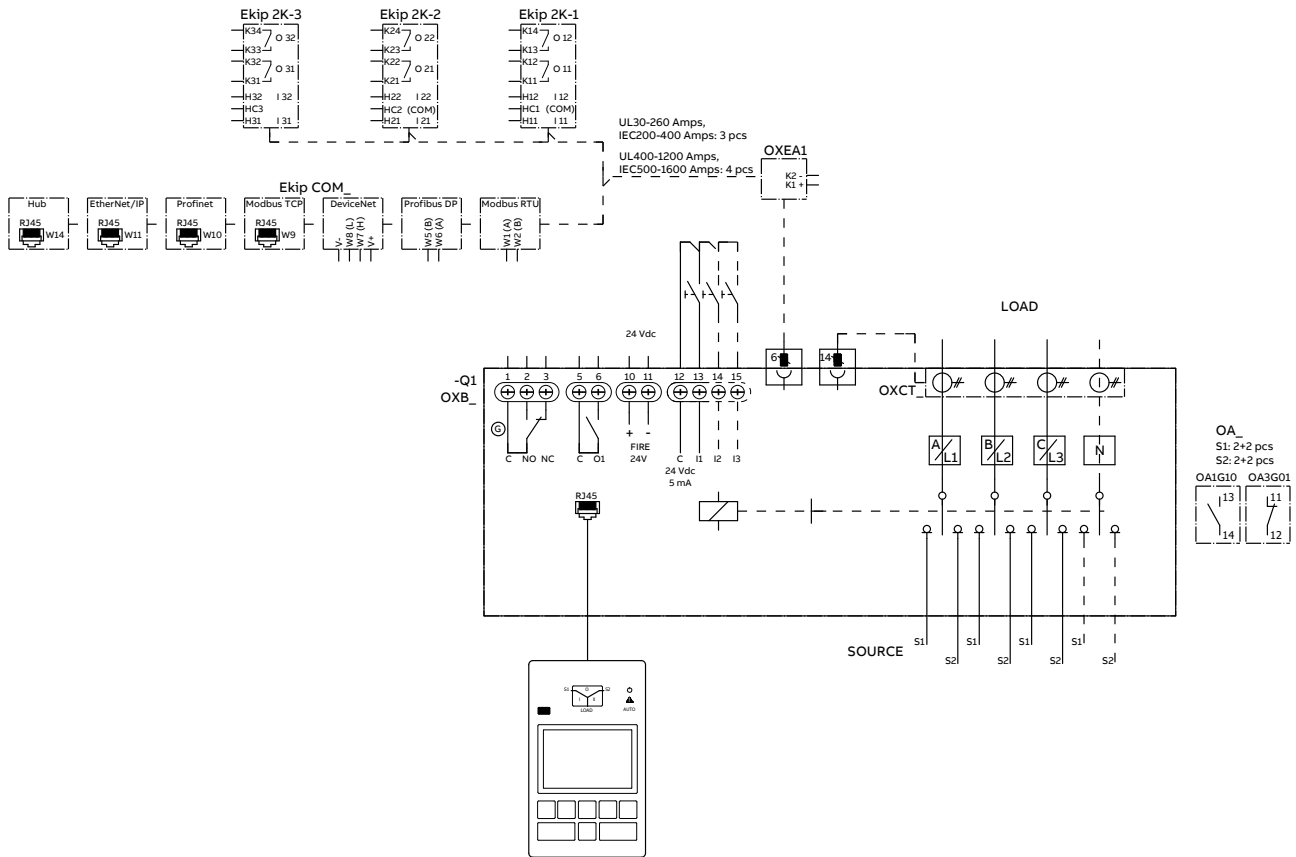
TruONE ATS, open transition (types OXA_)



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.

Wiring diagram

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 |
|-----------|---|

| | |
|-----------|-----------------------------|
| 45 | UL: 260U IEC: 315E, 400E |
|-----------|-----------------------------|

| | |
|-----------|----------|
| 46 | UL: 400U |
|-----------|----------|

| | |
|-----------|-----------------------------------|
| 47 | UL: 600U IEC: 500E, 630E, 800E |
|-----------|-----------------------------------|

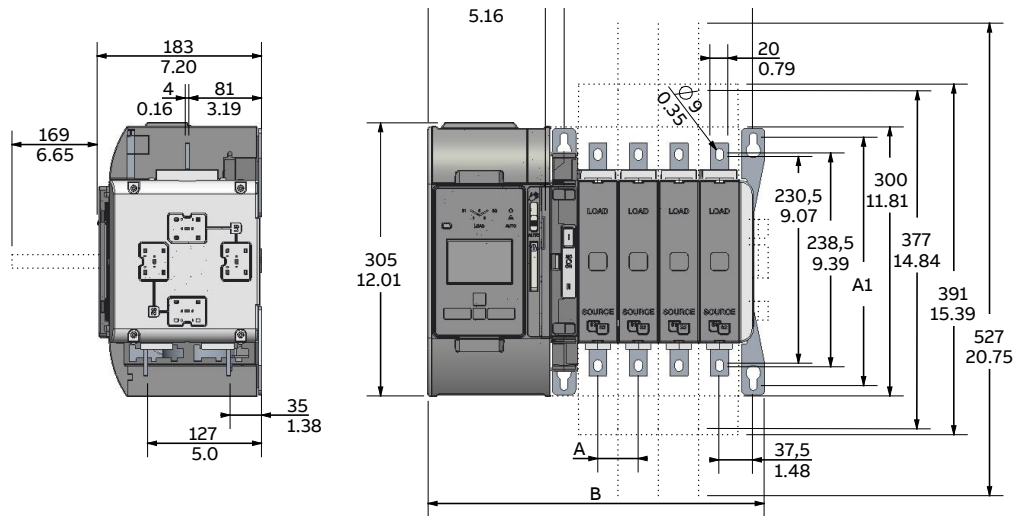
| | |
|-----------|--|
| 48 | UL: 800U, 1000U, 1200U IEC: 1000E, 1250E, 1600E |
|-----------|--|

Dimension drawings

Automatic transfer switches

UL: 30U, 60U, 100U, 125U, 160U, 200U

IEC: 200E, 250E



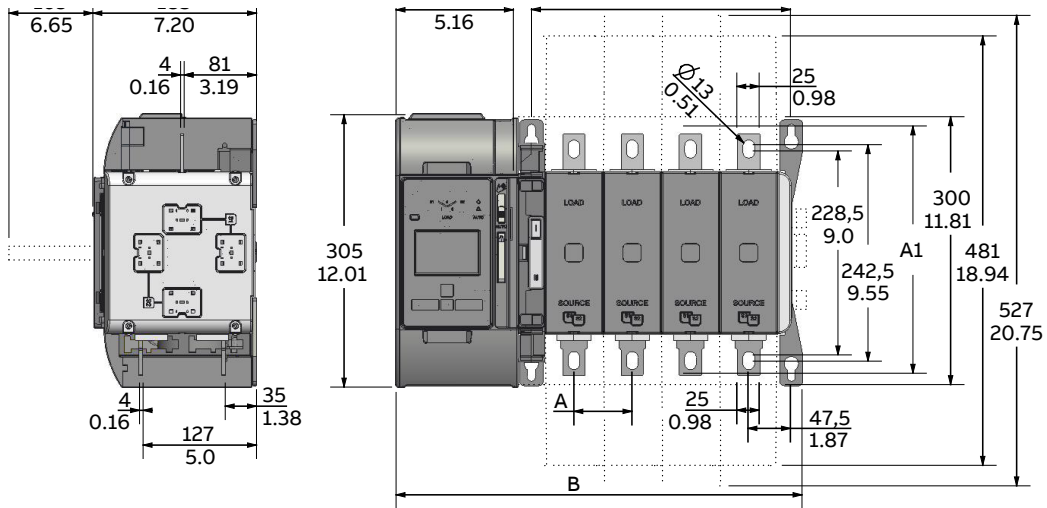
| OX_30-250 | | | |
|--------------|-----------|-----------|-----------|
| No. of poles | 2 | 3 | 4 |
| A | 45/1.77 | 45/1.77 | 45/1.77 |
| A1 | 277/10.91 | 277/10.91 | 277/10.91 |
| A2 | 120/4.72 | 165/6.50 | 210/8.27 |
| B | 285/11.22 | 330/12.99 | 375/14.76 |

Dimension drawings

Automatic transfer switches

UL: 260U

IEC: 315E, 400E

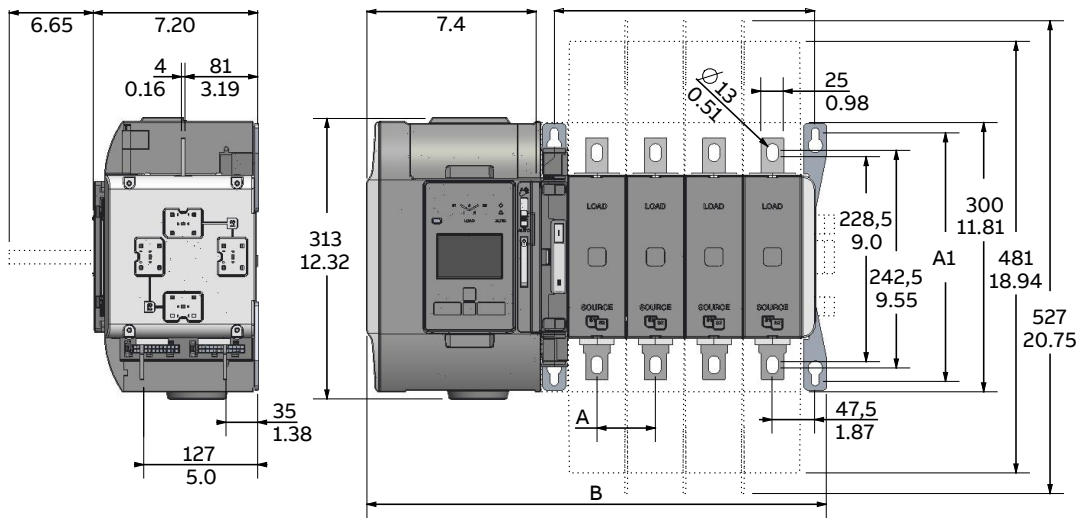


| OX_260_400 | | | |
|--------------|-----------|-----------|-----------|
| No. of poles | 2 | 3 | 4 |
| A | 65/2.56 | 65/2.56 | 65/2.56 |
| A1 | 277/10.91 | 277/10.91 | 277/10.91 |
| A2 | 160/6.30 | 225/8.86 | 290/11.42 |
| B | 325/12.80 | 390/15.35 | 455/17.91 |

Dimension drawings

Automatic transfer switches

UL: 400U



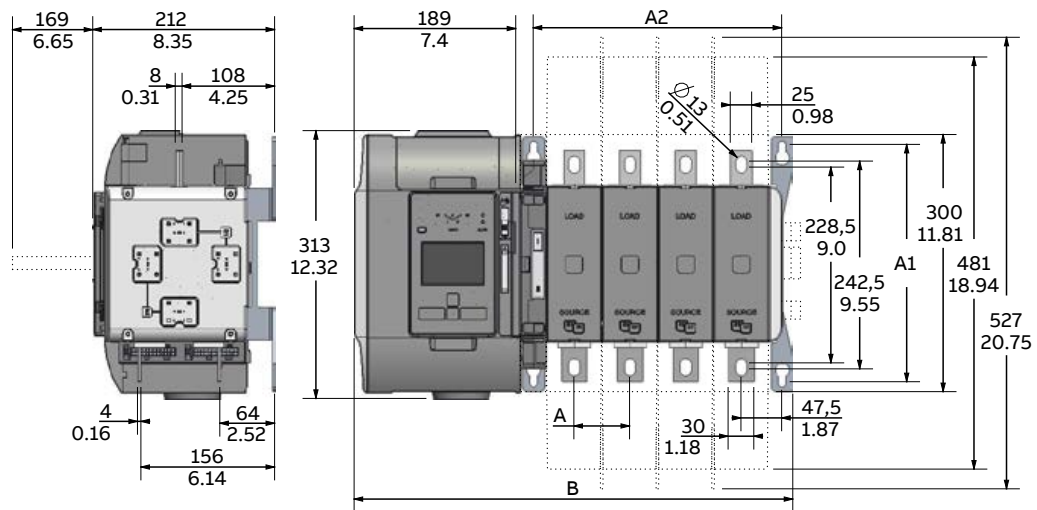
| UL: 400U | | | |
|--------------|-----------|-----------|-----------|
| No. of poles | 2 | 3 | 4 |
| A | 65/2.56 | 65/2.56 | 65/2.56 |
| A1 | 277/10.91 | 277/10.91 | 277/10.91 |
| A2 | 160/6.30 | 225/8.86 | 290/11.42 |
| B | 382/15.04 | 447/17.60 | 512/20.16 |

Dimension drawings

Automatic transfer switches

UL: 600U

IEC: 500E, 630E, 800E



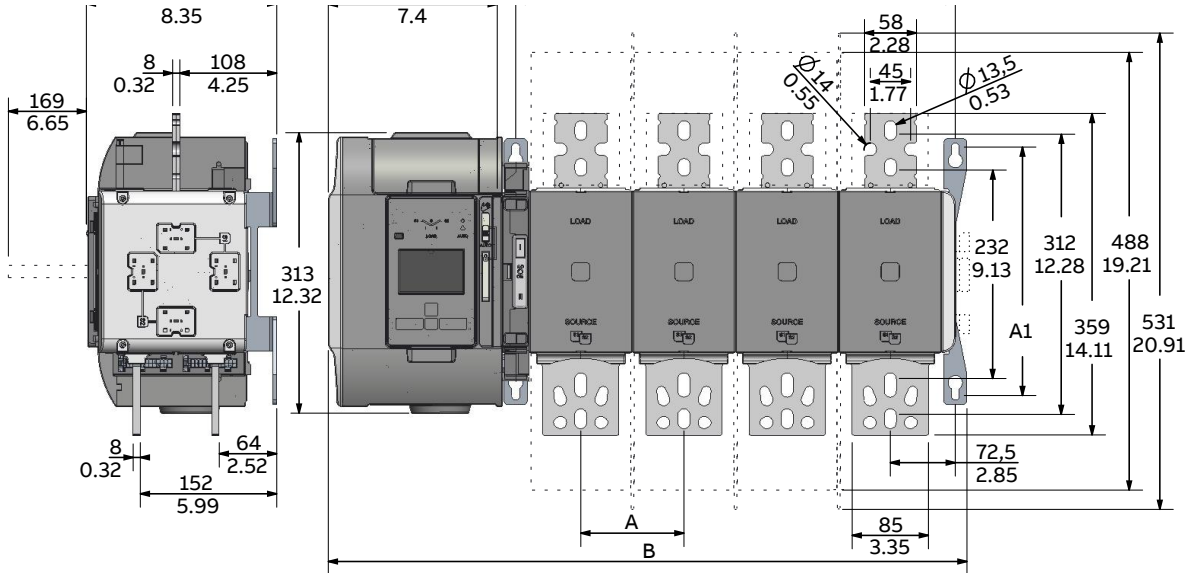
| OX_500-800_ | | | |
|--------------|-----------|-----------|-----------|
| No. of poles | 2 | 3 | 4 |
| A | 65/2.56 | 65/2.56 | 65/2.56 |
| A1 | 277/10.91 | 277/10.91 | 277/10.91 |
| A2 | 160/6.30 | 225/8.86 | 290/11.42 |
| B | 382/15.04 | 447/17.60 | 512/20.16 |

Dimension drawings

Automatic transfer switches

UL: 800U, 1000U, 1200U

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 |

Additional resources

The power of ONE –

A critical breakthrough for critical power



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

Installation of HMI on panel door



One wire, not 20. 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.

TruONE, true versatility



With TruONE, you have true versatility

Sequence of operation and time delays



Part 1

Part 2

Learn how TruONE ATS operate, what time delays can be programmed and how the time delays make the transfer safe and reliable. The part 1 shows transfer from primary to backup power, the part 2 shows backup to a primary power source after power has been restored.

Manual and automatic operation



TruONE allows emergency manual operation under load, if necessary, for immediate power restoration.

E-Configure



The easiest way to find, select, configure and order ABB products, quickly and simply.

Simplicity vs. Complexity



Are you ready to replace complexity with simplicity? Then you are ready for TruONE, the world's first true, purpose-built ATS.

Virtual HMI - Level 2 controller



Look at the available functions with the TruONE ATS Level 2 HMI.

Installation of accessories



TruONE features plug-in factory and field-mount accessorizing, so you don't need extra space inside the panel.

Virtual HMI - Level 4 controller



Browse through the ATS functions and modify settings just like with a real TruONE ATS Level 4 HMI.



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