

CATALOG

TruONE™ ATS

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





- Easy to install
- Safety and protectiont
- · Advanced 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.



ABB Wins, Global New Product Innovation Award



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 $^{\text{TM}}$ 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. Marketleading 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 $TruONE^{TM}$ automatic commissioning capabilities. Pre-made configuration files can be uploaded from your PC to $TruONE^{TM}$, 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

TruONETM 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

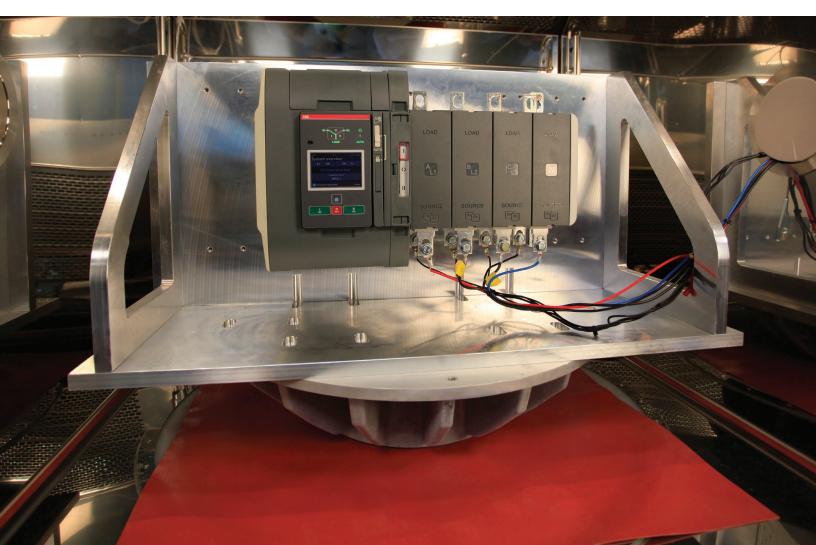
You can be sure TruONE[™] exceeds standard requirements for performance and reliability to bring you dependable operation in even the most challenging electrical, mechanical and environmental conditions.



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 $TruONE^{TM}$ does not.

Testing for vibrations, shocks and a wide temperature range.



The one ATS for all applications

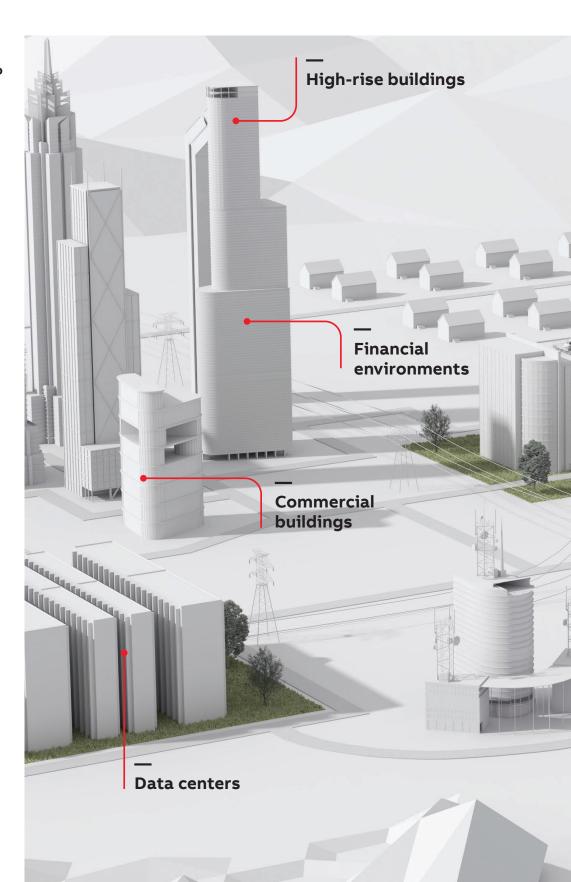
Bring the highest level of convenience, efficiency and critical power security to your product, project or facility.

TruONE™ is the superior solution for:

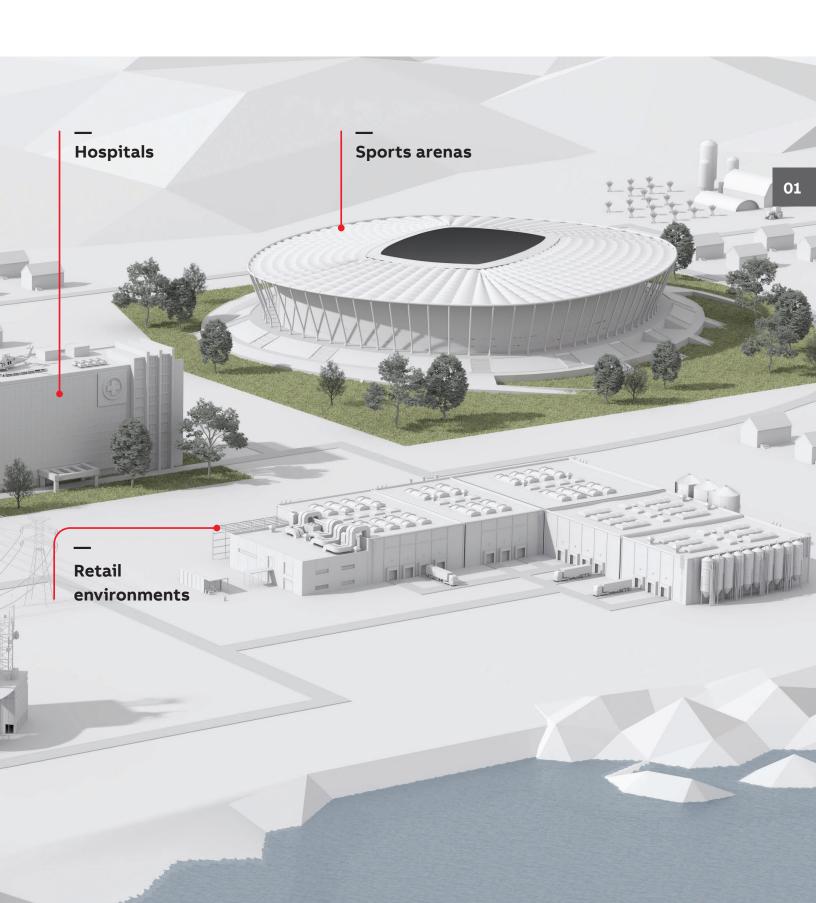
- Genset OEMs
- Panel builders
- Consultants and engineers
- Contractors
- Facilities managers

TruONE™ provides superior critical power security for:

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

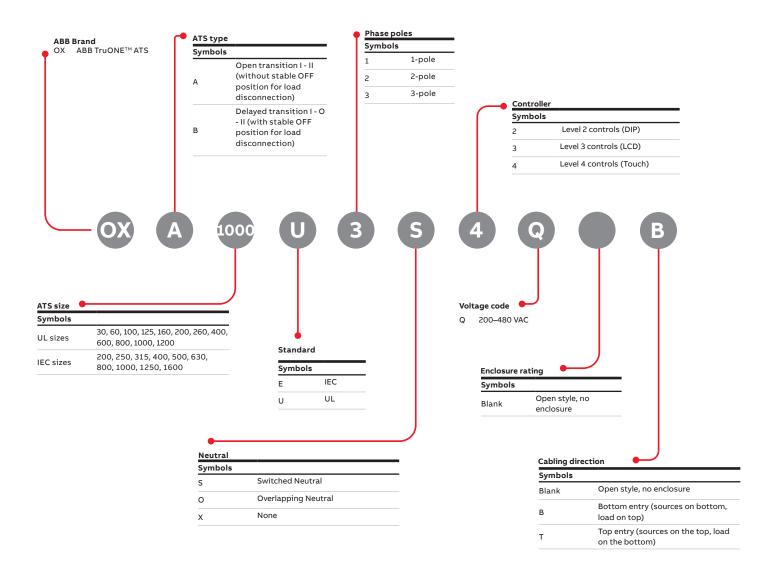


OVERVIEW 11

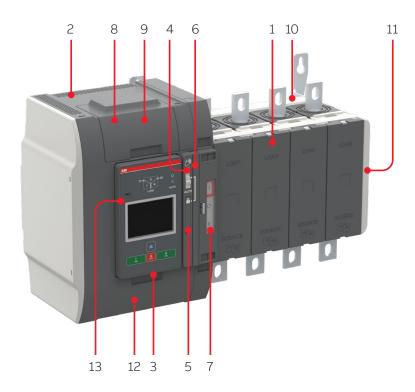


TruONE™ part number key

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).



TruONE™ general overview



- 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

$TruONE^{TM}$ 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	IEC: 200-1600 A	IEC: 200-1600 A
	UL: 30-1200 A	UL: 30-1200 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

$\mathbf{TruONE^{\mathsf{TM}}\,feature\,comparison}$

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
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⁾	Vas	Yes	Yes

 $^{^{\}mbox{\tiny 1)}}$ 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:

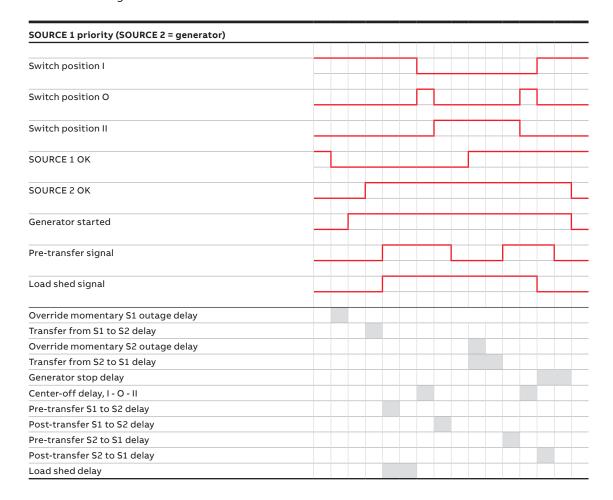
- The SOURCE 1 is restored
- Transfer from S2 to S1 delay
- · Pre-transfer signal on
- · Pre-transfer S2 to S1 delay
- Transfer switch (SOURCE 2) to the position O
- Center-off delay (only with Delayed transition I - O - II type)
- Transfer switch (SOURCE 1) to the position I
- · Load shed signal off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



from primary to backup power



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





02

Automatic Transfer Switches

Open style

Level 2 - Open transition

Cabling - bottom entry

Level 2 - Delayed transition

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

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.



OXA400...600U2X2QB



OXA260U3X2QB



OXA800...1200U3X2QB



OXA30...200U3S2



OXA260U3S2QB



OXA400...600U3S2QB



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

No.	Rated cu	rrent [A]	Order number	Weight/u	Weight/unit	
of poles	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).

No.

Weight/unit

57.08

57.08

125.84

125.84

Ordering Information

Automatic transfer switches - UL

Delayed transition - Open style, Level 2 DIP controls

Rated current [A]

OXB30...200U2X2QB

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

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

Order number

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.





OXB400...600U3X2QB



OXB800...1200U3X2QB



OXB30...200U3S2QB



OXB400...600U3S2QB



OXB800...1200U3S2QB

of poles	UL	IEC		kg	lb
2	30		OXB30U2X2QB	13.06	28.79
2	60		OXB60U2X2QB	13.06	28.79
2 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

Notes:

1000

1200

1250

1600

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".

OXB1000U3S2QB

OXB1200U3S2QB

Automatic transfer switches - UL

Open transition - Open style, Level 3 controls

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

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

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...200U3X3QB





OXA800...1200U3X3QB





OXA400...600U3S3QB



OXA800...1200U3S3QB

No. Weight/unit Rated current [A] Order number of poles kg

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

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

Automatic transfer switches - UL



OXA30...200U3O3QB



OXA400...600U3O3QB



OXA800...1200U3O3QB





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, $2\,\mathrm{m}$ 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.	Rated cui	rrent [A]	Order number	Weight/u	nit
of poles	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).

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, $2\,\mathrm{m}$ 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.	Rated cu	rrent [A]	Order number	Weight/u	nit
of poles	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



OXB400...600U2X3QB



OXB260U3X3QB



OXB400...600U3X3QB



OXB800...1200U3X3QB



OXB30...200U3S3QB



OXB400...600U3S3QB



OXB800...1200U3S3QB

Notes:

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

Weight/unit

32.01

kg

14.52

Ordering Information

Automatic transfer switches - UL

Open transition - Open style, Level 4 controls

Rated current [A]

HMI and ATS frame.

30

No.

3

of poles

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

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

Order number

OXA30U3X4QB

OXA260U3S4QB



OXA260U3X4QB



OXA400...600U3X4QB



OXA800...1200U3X4QB



OXA30...200U3S4QB



OXA400...600U3S4QB

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

Delivery includes handle for manual operation, 2 m RJ45 connection cable between detachable

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

Notes:

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



OXA800...1200U3S4QB

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, $2\,\mathrm{m}$ connection cable between detachable HMI and ATS frame.

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



No.	Rated cu	rrent [A]	Order number	Weight/u	nit
of poles	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



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



OXA30...200U3O4QB



OXA260U3O4QB



OXA400...600U3O4QB



OXA800...1200U3O4QB

Weight/unit

14.82

14.82

14.82

14.82

14.82

14.82

16.30

19.90

20.12

44.50

44.50

44.50

16.47

16.47

16.47

16.47

16.47

16.47

18.55

21.98

22.40

57.55

57.55

57.55

lb

32.67

32.67

32.67

32.67

32.67

32.67

35.94

43.87

44.36

98.11

98.11

98.11

36.31

36.31

36.31

36.31

36.31

36.31

40.90

48.46

49.38

126.88

126.88

126.88

Ordering Information

Automatic transfer switches - UL

Delayed transition - Open style, Level 4 controls

Rated current [A]

IEC

160

250

400

400

800

1000

1250

1600

160

250

400

400

800

1000

1250

1600

UL

30

60

100

125

160

200

260

400

600

800

1000

1200

30

60

100

125

160

200

260

400

600

800

1000

1200

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

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

Order number

OXB30U3X4QB

OXB60U3X4QB

OXB100U3X4QB

OXB125U3X4QB

OXB160U3X4QB

OXB200U3X4QB

OXB260U3X4QB

OXB400U3X4QB

OXB600U3X4QB

OXB800U3X4QB

OXB1000U3X4QB

OXB1200U3X4QB

OXB30U3S4QB

OXB60U3S4QB

OXB100U3S4QB

OXB125U3S4QB

OXB160U3S4QB

OXB200U3S4QB

OXB260U3S4QB

OXB400U3S4QB

OXB600U3S4QB

OXB800U3S4QB

OXB1000U3S4QB

OXB1200U3S4QB

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...200U3S4QB



OXB260U3S4QB



4

4

4

4

4

4

4

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".





OXB400...600U3S4QB







No.

3

of poles







03

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

Automatic transfer switches



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	Aux voltage	Order number	Weight /unit
switches			kg lb
OX301600	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.

Suitable for switches	Protocol	Туре	Order number	Weight /unit kg	lb
OX301600	Modbus RTU	Ekip Com Modbus RTU-OX	ZEAMOD485	0.2	0.44
OX301600	Modbus TCP	Ekip Com Modbus TCP-OX	ZEAMODTCP	0.2	0.44
OX301600	Profibus DP	Ekip Com Profibus	ZEAPRFIBUS	0.2	0.44
OX301600	Profinet	Ekip Com Profinet	ZEAPRFINET	0.2	0.44
OX301600	EtherNet/IP	Ekip Com EtherNet / IP	ZEAETHRNT	0.2	0.44
OX301600	DeviceNet	Ekip Com DeviceNet	ZEADEVICNET	0.2	0.44



EKIP COM

Automatic transfer switches

Signalling modules for Level 3 and Level 4 controllers

THE THE THE

EKIP 2K SIGNALLING

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	No. of DI/DO	DI/DO numbering	Туре	Order number	Weight /unit	
switches					kg	lb
OX301600	2/2	11,12/11,12	Ekip Signalling 2K-1-OX	2K-1-OX	0.2	0.44
OX301600	2/2	21,22/21,22	Ekip Signalling 2K-2-OX	2K-2-OX	0.2	0.44
OX301600	2/2	31,32/31,32	Ekip Signalling 2K-3-OX	2K-3-OX	0.2	0.44

Ekip Programming module



EKIP PROGRAMMING

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	Туре	Order number	Weight /unit	
switches			kg	lb
OX301600	Ekip Programming	ZEAEKPPGM	0.2	0.44

Automatic transfer switches

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-andasset-manager.

Available for TruONE Level 3 and Level 4 controllers.

Suitable Type for		Order number	Weight /unit		
switches			kg	lb	
OX301600	Ekip Com Hub	ZEAEKIPHUB	0.2	0.44	



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

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

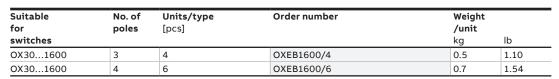




OXES_L

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.



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



03

Accessories

Automatic transfer switches



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	No. of poles	Units/type [pcs]	Order number	Weight /unit	
switches				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

HMI protective cover, IP54

IP54 padlockable transparent cover, providing protection against accidental contact.





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	Screws /type	Order number	Weight /unit	_
switches	[pcs]		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

Automatic transfer switches

UL terminal lugs, mechanical



















OZXA-400



OZXA-24







OZXA-800E



OZXA-800L







Type Cable range		No.		Kit part	art numbers		
		cables per lug	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-800I	
OZXA-800S	2 AWG - 600 kcmil	2		OZXA-800S/3P	OZXA-800S/4P	OZXA-800	
OZXA-800L	2 AWG - 600 kcmil	2	OZXA-800L/2	OZXA-800L/3	OZXA-800L/4	OZXA-800	
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	No. of		Lug kit application			
for UL switches	poles	Source S2	Load	Source S1		
OX3060	2	OZX	A-100/4P	OZXA-24/2P		
OX100200	2	OZX	A-200/4 ¹⁾	OZXA-25/2P		
OX260400	2	OZXA	A-400/4 ¹⁾	OZXA-26/2P		
OX260400	2	OZXA	A-412/4P1	OZXA-412L/2P		
OX600	2	OZXA-	-800E/4P ¹⁾	OZXA-800L/2		
OX3060	3	OZ	XA-100	OZXA-24/3P		
OX100200	3	OZX	OZXA-200¹)			
OX260400	3	OZX	OZXA-400¹)			
OX260400	3	OZ	XA-4121	OZXA-412L/3P		
OX600	3	OZX	A-800E ¹⁾	OZXA-800L/3		
OX800	3	OZX	A-800S ¹⁾	OZXA-30/3P		
OX10001200	3	OZXA-800S ²⁾	OZ	(XA-1200 ³⁾		
OX3060	4	OZXA-100/4P	OZXA-100/4P	OZXA-24/4P		
OX100200	4	OZXA-200/4	OZXA-200/4	OZXA-25/4P		
OX260400	4	OZXA-400/4	OZXA-400/4	OZXA-26/4P		
OX260400	4	OZXA-412/4P	OZXA-412/4P OZXA-412/4P			
OX600	4	OZXA-800E/4P	OZXA-800E/4P			
OX800	4	OZXA-800S/4P	OZXA-800S/4P			
OX10001200	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

Automatic transfer switches



OA1G01AU





OA3G01



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	Contact functions	Installation side	Delivery batch	Order number	Weight /unit	
switches			[pcs]		kg	lb
OX301600	1NO	Right	10	OA1G10	0.03	0.07
OX301600	1NC	Right	10	OA3G01	0.03	0.07
OX301600	1NO	Right	10	OA1G10AU	0.03	0.07
OX301600	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]	le/[A]	Ue/[V]	le/[A]	P/[W]	le/[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	Main	OA1G10	OA3G01
position	contacts	NO	NC
I	closed	open	closed
0	open	open	closed
II	closed	closed	open



04

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

						Sw	itch size		
Data according to UL1008	'			OX30	OX60	OX100	OX125	OX160	OX200
Rated operational voltage			Vac		·	2	00 - 240		
Operating voltage range			Vac			1	60 - 288		
Rated frequency			Hz				50-60		
Emergency systems - Motor loads or total system	'		Α	30	60	100	125	160	200
Optional standby systems - Motor loads or total system	m		Α	30	60	100	125	160	200
Minimum enclosure size or equivalent volume	WxHxD		mm		,	610	x 813 x 30	5	· ·
Short-circuit withstand/closing and short-time curren	t ratings		kA			Se	e 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			3	7 / <110		
Mechanical endurance	No. of operating cycles			6050	6050	6050	6050	6050	6050
Veight without accessories	2-pole switch		kg	12.4	12.4	12.4	12.4	12.4	12.4
Suitable for applications				Transfo	rmer - Tra	nsformer, 1	Transform	er - Generat	tor¹)
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	Α					160	250
Rated operational current, AC-33B		up to 240 V	Α					160	250
Rated breaking capacity in category AC-33		up to 240 V	Α					1600	2500
finimum enclosure size or equivalent volume	WxHxD		mm			600:	x 800 x 30	0	
Note that a supplier of the first of the fir	Iq (r.m.s.) 100 kA, 240 V	î, (peak) 4)	kA					39	39
Rated conditional short-circuit current Iq r.m.s.) and corresponding protective devices	Max. OFA_ fuse size	gG/aM	A/A					315	315
r.m.s.) and corresponding protective devices fuse or circuit breaker)	Iq (r.m.s.) 50 kA, 240 V								
use of circuit breaker)	ABB circuit breaker type							T5L630	T5L630
_	Icw (r.m.s.)	240 V 0.1s	kA					12	12
ated short-time withstand current	Icw (r.m.s.)	240 V 0.3s	kA					12	12
	Icw (r.m.s.)	240 V 0.5s	kA						

						S۱	witch size		
Data according to UL1008				OX30	OX60	OX100	OX125	OX160	OX200
Rated operational voltage			Vac			2	200 - 480		
Operating voltage range			Vac			1	60 - 576		
Rated frequency			Hz				50-60		
Emergency systems - Motor loads or total system			Α	30	60	100	125	160	200
Optional standby systems - Motor loads or total system			Α	30	60	100	125	160	200
Minimum enclosure size or equivalent volume	WxHxD		mm			600	x 800 x 30	0	
Short-circuit withstand/closing and short-time current ra	atings		kA			Se	ee 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			3	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
weight without accessories	4-pole switch		kg	15.6	15.6	15.6	15.6	15.6	15.6
Suitable for applications				Transfo	rmer - Tra	nsformer,	Transform	er - Generato	r ¹⁾
Data according to IEC60947-6-1									
Rated operational current, AC-31B		up to 240 V	Α					160	250
Rated operational current, AC-32B		up to 240 V	Α					160	250
Rated operational current, AC-33B		up to 240 V	Α					160	250
Rated breaking capacity in category AC-33		up to 240 V	Α					1600	2500
Rated operational current, AC-31A		up to 415 V	Α					160 ²⁾	2002)
Rated operational current, AC-33iA ⁵⁾		up to 415 V	Α					125	125
Rated operational current, AC-33A		up to 415 V	Α					125 ²⁾	125 ²⁾
Rated conditional short-circuit current Ig	Iq (r.m.s.) 100 kA, 500 V	î _c (peak) 4)	kA					49	49
(r.m.s.) and corresponding protective devices	Max. OFA_fuse size	gG/aM	A/A					400 / 400	400 / 400
(fuse or circuit breaker)	Iq (r.m.s.) 50 kA, 500 V								
(ruse or encore streamer)	ABB circuit breaker type							T5L630	T5L630
	Icw (r.m.s.)	415 V 0.1s	kA					18	18
Rated short-time withstand current	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 îc (peak) value. The cut-off current îc refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).

⁵⁾ AC-33iA according to GB/T 14048.11

04

Technical data - UL

TruONE ATS OX30...1200U

${\color{red}2~pole~construction} \, {\color{gray}\bullet} \, {\color{gray}0} \,$

					Switch	size
Data according to UL1008				OX260	OX400	OX600
Rated operational voltage			Vac		200 - 2	40
Operating voltage range			Vac		160 - 2	88
Rated frequency			Hz		50-6	0
Emergency systems - Motor loads or total system			Α	260	400	600
Optional standby systems - Motor loads or total system			Α	260	400	600
Minimum enclosure size or equivalent volume	WxHxD		mm	610 x 1	.168 x 356	711 x 1372 x 495
Short-circuit withstand/closing and short-time current ratings			kA		See tab	le 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, 1	ransformer - Generator ¹
Data according to IEC60947-6-1						
Rated operational current, AC-31B		up to 240 V	А	400	400	800
Rated operational current, AC-32B		up to 240 V	Α	400	400	800 ²⁾
Rated operational current, AC-33B		up to 240 V	Α	400	400	800 ²⁾
Rated breaking capacity in category AC-33		up to 240 V	Α	4000	4000	8000 ²⁾
	Iq (r.m.s.) 100 kA, 240 V	î _. (peak) 4)	kA	56	65	90
Rated conditional short-circuit current Iq (r.m.s.) and	Max. OFA_fuse size	gG type	A/A	500	630	1000
corresponding protective devices (fuse or circuit breaker)	Iq (r.m.s.) 50 kA, 240 V					
	ABB circuit breaker type			T5L630	T6L630	T6L1000
	Icw (r.m.s.)	240 V 0.1s	kA	18	18	18
Rated short-time withstand current	Icw (r.m.s.)	240 V 0.3s	kA	18	18	18
	Icw (r.m.s.)	240 V 0.5s	kA			18
Rated short-time making capacity ³⁾	Icm peak	240 V	kA	36	36	36

Technical data - UL

TruONE ATS OX30...1200U

						Swite	ch size		
Data according to UL1008				OX260	OX400	OX600	0X800	OX1000	OX1200
Rated operational voltage		1	Vac			200	- 480		
Operating voltage range			Vac			160	- 576		
Rated frequency			Hz			50	0-60		
Emergency systems - Motor loads or total system			Α	260	400	600	800	1000	1200
Optional standby systems - Motor loads or total syste	m		Α	260	400	600	800	1000	1200
Minimum enclosure size or equivalent volume	WxHxD		mm	6	00 x 800 x 3	800	8	00 x 1000 x	300
Short-circuit withstand/closing and short-time curre	nt 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	·			Tr	ansformer -	Transforme	er, Transforn	ner - Genera	tor ¹⁾
Data according to IEC60947-6-1									
Rated operational current, AC-31B		up to 415 V	Α	400	400	800	1000	1250	1600
Rated operational current, AC-32B		up to 415 V	Α	400	400	8002)	10002)	1250 ²⁾	1600 ²⁾
Rated operational current, AC-33B		up to 415 V	Α	400	400	800 ²⁾	10002)	1250 ²⁾	1250 ²⁾
Rated breaking capacity in category AC-33		up to 415 V	Α	4000	4000	80002)	10000 ²⁾	12500 ²⁾	12500 ²⁾
Rated operational current, AC-31A		up to 415 V	Α	315 ²⁾	315 ²⁾	630 ²⁾	10002)	1250 ²⁾	1250 ²⁾
Rated operational current, AC-33iA ⁵⁾		up to 415 V	Α	250	250 ²⁾	630 ²⁾	1000 ²⁾	1250 ²⁾	1250 ²⁾
Rated operational current, AC-33A		up to 415 V	Α	160 ²⁾	160 ²⁾	315 ²⁾	630 ²⁾	8002)	800 ²⁾
	Iq (r.m.s.) 100 kA, 500 V	îc (peak) 4)	kA	69	76	90	95	95	95
Rated conditional short-circuit current Iq (r.m.s.) and	Max. OFA_fuse size	gG/aM	A/A	630 / 630	800/800	1000 / 1000	1600 / 1250	1600 / 1250	1600 / 1250
corresponding protective devices (fuse or circuit	Iq (r.m.s.) 50 kA, 500 V								
breaker)	ABB circuit breaker type			T6L630	T6L630	T6L1000			
	Iq (r.m.s.) 85 kA, 500 V								
	ABB circuit breaker type						T7L1600	T7L1600	T7L1600
	Icw (r.m.s.)	415 V 0.1s	kA	25	30	42	65	65	65
Rated short-time withstand current	Icw (r.m.s.)	415 V 0.3s	kA	25	30	30	50	50	50
	Icw (r.m.s.)	415 V 0.5s	kA			30	50	50	50
Rated short-time making capacity ³⁾	Icm peak	415 V	kA	52.5	89	89	105	105	105

 $^{^{\}mbox{\tiny 1)}}$ Contact ABB for applications with smaller than 20 kVA gensets

OX_B bottom entry versions only
 Short circuit duration > 50ms, without fuse protection
 Cut-off current ic (peak) value. The cut-off current ic refers to values listed by fuse manufacturers (single phase test acc. to IEC60269)
 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

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

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

Switch	UL short-time rating	Time based WCR	Maximum	Maximum coordinated		Max		Current limiting	Max fuse
rating	(STR) & time 1)	rating (A) & Time 1) 2)	voltage	breaker rating	Breaker	breaker size	Breaker	fuse rating	size
(A)	(s)	(s)	(V)	(A)	mfg	(A)	type	(A)	(A)
30									
50									
100									
125						125	XT2H125		
160	18	18				250	T4H250	200,000	
200	0.300 sec	0.100 sec	480	50,000	ABB	250	XT4H250	Class J	200
	25	25						200,000	
260	0.300 sec	0.100 sec	480	50,000	ABB	600	T5H600	Class J	400
	30	30						200,000	
400	0.250 sec	0.100 sec	480	50,000	ABB	600	T5H600	Class J	600
	42								
	0.100 sec								
	30	42						200,000	
600	0.500 sec	0.100 sec	480	50,000	ABB	800	T6S800	Class L	800
	65								
300	0.100 sec								
1000	50	65						200,000	
1200	0.500 sec	0.100 sec	480	85,000	ABB	1200	T7L1200	Class L	1200

 $^{^{\}scriptscriptstyle 1)}$ 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

					Sw	tch size		
Data according to IEC 60947-6-1 (Class PC equ	uipment)			OX200	OX250	OX315	OX400	
Rated insulation voltage, Ui (power circuit)			V			1 000		
Rated insulation voltage, Ui (electronics)			V			500		
Rated frequency, f			Hz		5	0 - 60		
Rated impulse withstand voltage, Uimp (power	circuit)		kV		8		12	
Rated impulse withstand voltage, Uimp (electr	onics)		kV			6		
Conventional free air thermal current, Ith	/ ambient 40°C		Α	200	250	315	400	
Conventional enclosed thermal current, Ithe	/ ambient 40°C		Α	200	250	315	400	
Minimum enclosure size or equivalent volume	1	WxHxD	mm		600>	800 x 300		
Contact transfer time I-II, II-I	Load interrupting time		ms			<50		
Operating transfer time I-II, II-I			ms			<500 /<110		
ATS current draw during transfer / time duration	on		A/ms		3	/<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 4	15 V / PD 2 up	to 500 V			
Environment category				Е				
Minimum conductor cross section	Cu		mm²	95	120	185	240	
Terminal bolt size	Metric thread diameter x leng	ith	mm	M8 × 25	M8 × 25	M10 × 30	M10 × 30	
Terminal tightening torque	Counter torque required		Nm	1522	1522	3044	3044	
	2-pole switch	· ·	kg	12.4	12.4	13.3	13.3	
Weight without accessories	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	Tran	sformer - T	ransform	er, Transforn	ner - Generator4			

2 pole construction - Operating performance and short-circuit capability

_	_				Sw	tch size	
Data according to IEC 60947-6-1 (Class PC equ	ipment)			OX200	OX250	OX315	OX400
Rated operational voltage, U		'	Vac		20	0 - 240	
Operating voltage range, U			Vac		16	0 - 288	
Rated operational current, AC-31B	·	up to 240 V	Α	200	250	315	400
Rated operational current, AC-32B		up to 240 V	Α	200	250	315	400
Rated operational current, AC-33B		up to 240 V	Α	200	250	315	400
Rated breaking capacity in category AC-33	king capacity in category AC-33 up to 240 V A 2000 2500 3150				3150	4000	
Bernald and all the college of the first of	Iq (r.m.s.) 100 kA, 240 V	î (peak)5)	kA	39	39	56	56
Rated conditional short-circuit current Iq	Max. OFA_fuse size	gG/aM	A/A	315	315	500	500
(r.m.s.) and corresponding protective devices (fuse or circuit breaker)	Iq (r.m.s.) 50 kA, 240 V						
(ruse of circuit breaker)	ABB circuit breaker type			T5L630	T5L630	T5L630	T5L630
	Icw (r.m.s.)	240 V 0.1s	kA	12	12	18	18
Rated short-time withstand current	Icw (r.m.s.)	240 V 0.3s	kA	12	12	18	18
	Icw (r.m.s.)	240 V 0.5s	kA				
Rated short-time making capacity ²)	Icm peak	240 V	kA	24	24	36	36

					Swi	ch size	
Data according to IEC 60947-6-1 (Class PC equ	ipment)			OX200	OX250	OX315	OX400
Rated operational voltage, U	'		Vac		20	0 - 415	
Operating voltage range, U			Vac		160	0 - 576	
Rated operational current, AC-31B	·	up to 415 V	Α	200	250	315	400
Rated operational current, AC-32B		up to 415 V	Α	200	250	315	400
Rated operational current, AC-33B		up to 415 V	Α	200	250	315	400
Rated breaking capacity in category AC-33		up to 415 V	Α	2000	2500	3150	4000
Rated operational current, AC-33iA ⁶⁾		up to 415 V	Α	125	125	250	250
	Iq (r.m.s.) 100 kA, 500 V	î (peak)5)	kA	49	49	69	69
Bornell and all the state of th	Max. OFA_fuse size	gG/aM	A/A	400 / 400	400 / 400	630 / 630	630 / 63
Rated conditional short-circuit current Iq (r.m.s.) and corresponding protective devices	Iq (r.m.s.) 50 kA, 500 V						
(fuse or circuit breaker)	ABB circuit breaker type			T5L630	T5L630	T6L630	T6L630
(ruse of circuit breaker)	Iq (r.m.s.) 85 kA, 500 V	·					
	ABB circuit breaker type						
	Icw (r.m.s.)	415 V 0.1s	kA	18	18	25	25
Rated short-time withstand current	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 ²⁾	Icm 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 îc (peak) value. The cut-off current îc 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 eq	uipment)		OX630	OX800	OX1000	OX1250	OX1600	
Rated insulation voltage, Ui (power circuit)		٧			1 000		·	
Rated insulation voltage, Ui (electronics)		V			500			
Rated frequency, f		Hz			50-60			
Rated impulse withstand voltage, Uimp (powe	er circuit)	kV			12			
Rated impulse withstand voltage, Uimp (elect	ronics)	kV			6			
Conventional free air thermal current, Ith	/ ambient 40°C	Α	630	800	1000	1250	1600	
Conventional enclosed thermal current, Ithe	/ ambient 40°C	Α	630	800	1000	1250	1250	
Minimum enclosure size or equivalent volume	WxHxD	mm	600>	800 x 300		800 x 1000 x 3	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 durat	ion	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	mm²	2 × 185	2 × 240	3x185	3x240	3x240	
Terminal bolt size	Metric thread diameter x length	mm	M12 × 40	M12 × 40	M12 × 40	M12 × 40	M12 × 40	
Terminal tightening torque	Counter torque required	Nm	5075	5075	5075	5075	5075	
	2-pole switch	kg	16.9	16.9				
Weight without accessories	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	Tra	nsformer - T	ransformer, T	ansformer - Ger	nerator ⁴⁾			

${\bf 2}\ pole\ construction\ {\bf \cdot}\ Operating\ performance\ and\ short\ {\bf \cdot}\ circuit\ capability$

				Swit	ch size
Data according to IEC 60947-6-1 (Class PC equip	ment)			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	Α	630	800
Rated operational current, AC-32B		up to 240 V	Α	6301)	8001)
Rated operational current, AC-33B		up to 240 V	Α	630 ¹⁾	8001)
Rated breaking capacity in category AC-33		up to 240 V	Α	63001)	80001)
Detect or editional about aircrit arrests (core a)	Iq (r.m.s.) 100 kA, 240 V	î, (peak)5)	kA	90	90
Rated conditional short-circuit current Iq (r.m.s.) and corresponding protective devices (fuse or	Max. OFA_fuse size	gG/aM	A/A	1000	1000
circuit breaker)	Iq (r.m.s.) 50 kA, 240 V				
	ABB circuit breaker type			T6L1000	T6L1000
	Icw (r.m.s.)	240 V 0.1s	kA	18	18
Rated short-time withstand current	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

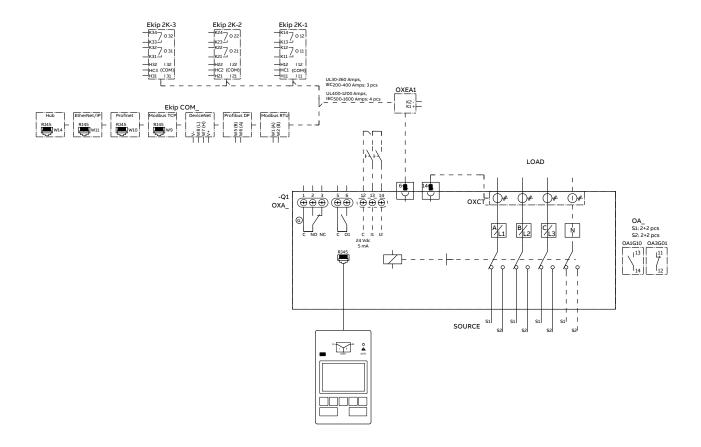
						Switch size		
Data according to IEC 60947-6-1 (Class PC equ	ipment)			OX630	OX800	OX1000	OX1250	OX1600
Rated operational voltage, U		Vac	200 - 415					
Operating voltage range, U		Vac	160 - 576					
Rated operational current, AC-31B		up to 415 V	Α	630	800	1000	1250	1600
Rated operational current, AC-32B		up to 415 V	Α	6301)	8001)	10001)	1250 ¹⁾	1500¹)
Rated operational current, AC-33B		up to 415 V	Α	630 ¹⁾	8001)	1000¹)	1250¹)	1250 ¹⁾
Rated breaking capacity in category AC-33		up to 415 V	Α	6300¹)	80001)	100001)	12500 ¹⁾	12500 ¹⁾
Rated operational current, AC-33iA ⁶⁾		up to 415 V	Α	6301)	6301)	10001)	1250 ¹⁾	12501)
	Iq (r.m.s.) 100 kA, 500 V	î, (peak)5)	kA	90	90	95	95	95
Bornello (1995) and also a set of the second	Max. OFA_fuse size	gG/aM	A/A	1000 / 1000	1000 / 1000	1600 / 1250	1600 / 1250	1600 / 1250
Rated conditional short-circuit current Iq (r.m.s.) and corresponding protective devices (fuse or circuit breaker)	Iq (r.m.s.) 50 kA, 500 V							
	ABB circuit breaker type			T6L1000	T6L1000			
	Iq (r.m.s.) 85 kA, 500 V							
	ABB circuit breaker type					T7L1600	T7L1600	T7L1600
	Icw (r.m.s.)	415 V 0.1s	kA	42	42	65	65	65
Rated short-time withstand current	Icw (r.m.s.)	415 V 0.3s	kA	30	30	50	50	50
	Icw (r.m.s.)	415 V 0.5s	kA	30	30	50	50	50
Rated short-time making capacity ²⁾	Icm peak	415 V	kA	89	89	105	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 îc (peak) value. The cut-off current îc refers to values listed by fuse manufacturers (single phase test acc. to IEC60269).
⁶⁾ AC-33iA according to GB/T 14048.11

Wiring diagram

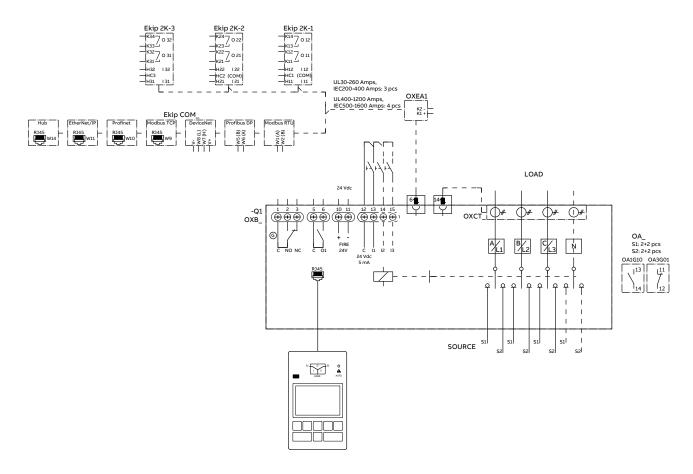
TruONE ATS, open transition (types OXA_)



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.

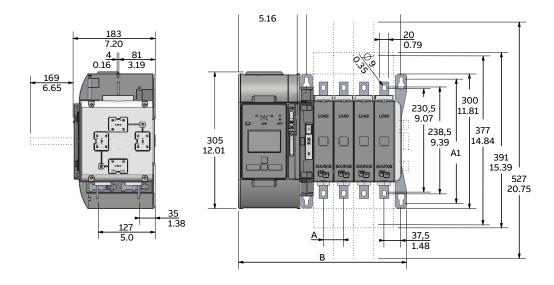


44	UL: 30U, 60U, 100U, 125U, 160U, 200U IEC: 200E, 250E
45	UL: 260U IEC: 315E, 400E
46	UL: 400U
47	UL: 600U IEC: 500E, 630E, 800E
48	UL: 800U, 1000U, 1200U IEC: 1000E, 1250E, 1600E

Automatic transfer switches

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

IEC: 200E, 250E



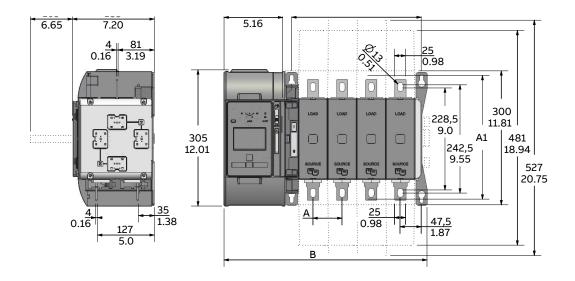
OX_30-250			
No. of poles	2	3	4
A	45/1.77	45/1.77	45/1.77
A1	277/10.91	277/10.91	277/10.91
A2	120/4.72	165/6.50	210/8.27
В	285/11.22	330/12.99	375/14.76

05

Dimension drawings

Automatic transfer switches

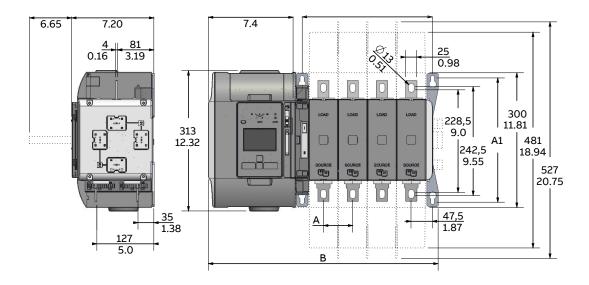
UL: 260U IEC: 315E, 400E



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
В	325/12.80	390/15.35	455/17.91

Automatic transfer switches

UL: 400U

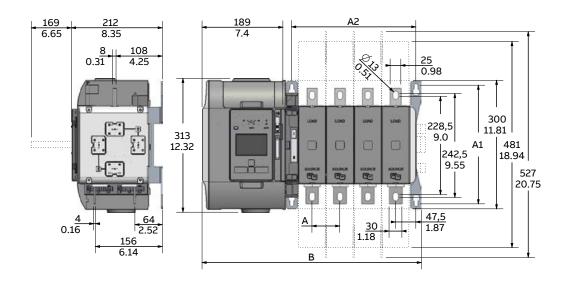


UL: 400U			
No. of poles	2	3	4
A	65/2.56	65/2.56	65/2.56
A1	277/10.91	277/10.91	277/10.91
A2	160/6.30	225/8.86	290/11.42
В	382/15.04	447/17.60	512/20.16

Automatic transfer switches

UL: 600U

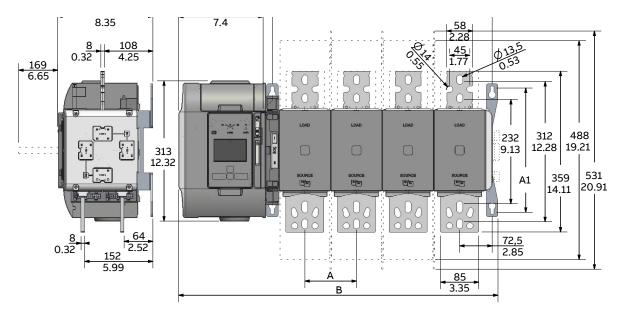
IEC: 500E, 630E, 800E



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
В	382/15.04	447/17.60	512/20.16

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	
В	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.

TruONE, true versatility





With TruONE, you have true versatility

Manual and automatic operation





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

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.

Installation of accessories





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

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.

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.

E-Configure





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

Virtual HMI - Level 2 controller





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

Virtual HMI - Level 4 controller





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



abb.com/truone

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