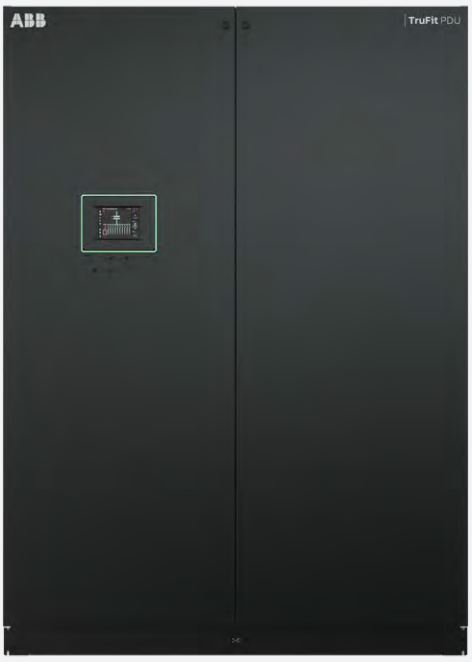
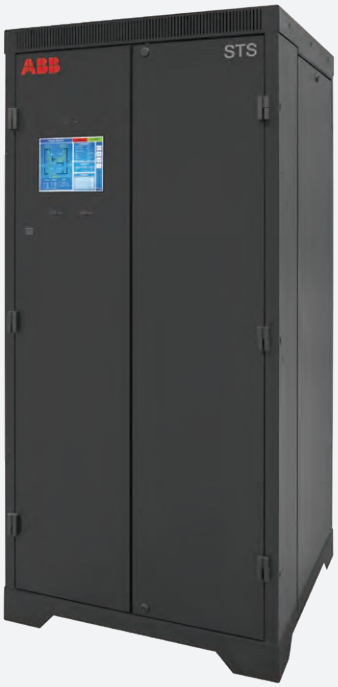
BUYLOG SECTION 19

Power distribution unit (PDU) and static transfer switch (STS)





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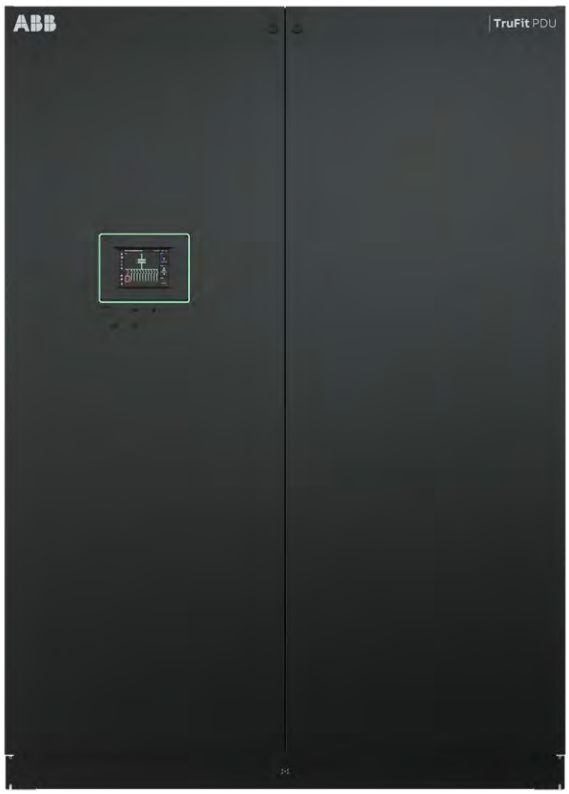
TruFit PDU
50 – 800kVA



As a market leader in critical power protection, ABB developed the TruFit power distribution unit for the UL market with power ranges from 50 to 800kVA.

The TruFit PDU is equipped with a high efficiency transformer and integrated comprehensive monitoring system to better monitor the true health of your power distribution equipment. Its compartmentalized system architecture requires only front access for complete system operation and maintenance, ensuring an easier fit into the white space. A holistic view of overall system health is supported by the PowerView™ advanced monitoring and integrated thermal monitoring package.

Features

Optimal fit
- Front access only design for better fit into your floor plan
- Installation, operation, and maintenance of any serviceable components from front
- Eliminates need for additional side or rear clearances

True and proven reliability
- Equipped with ABB's SACE Tmax XT breakers
- True reliability through extreme breaking capacity in compact frames
- Safe and reliable interruption of faults

Centralized health/fitness monitoring
- Combines the usual metering/ monitoring with optional integrated thermal monitoring solution
- Eliminates need for expensive 3rd party metering solutions
- Simplified communications through centralized native PDU monitoring system

Prioritizing safety
- Compartmentalized design to minimize exposure to potential arc flash events
- Isolation of consumable/serviceable components from hazardous voltages

TruFit PDU

Power Distribution Unit (PDU) Overview

42"

60"

TruFit Series	50-300 kVA	400-800 kVA
General data		
Standards	ETL listed to UL 891	
Access requirements	Front only for installation, operation, and maintenance	
Cable entry/exit	Top and/or bottom	
Mechanical characteristics		
Main cabinet Dimensions	42"W x 36"D x 78"H	60"W x 48"D x 84"H
Weight	</= 2650 lbs	</= 5500 lbs
Front-facing sidecar(s) Dimensions	24"W x 36"D x 78"H	30"W x 48"D x 84"H
Weight	</= 340 lbs	</= 550 lbs
Transformer		
kVA rating	50, 75, 125, 150, 225, 300	400, 500, 600, 750, 800
Input/primary voltage	480 VAC, 3-phase, 3-wire + ground	480 VAC, 3-phase, 3-wire + ground
Output/secondary voltage	208/120 VAC, 3-phase, 4-wire + ground	Re-tappable dual output 415/240 VAC & 208/120 VAC Single output 415/240 VAC Single output 208/120 VAC
Winding material	Aluminum (std.), Copper (opt.)	Aluminum (std.), Copper (opt.)
Output/distribution specifications		
Panelboard distribution		
Panelboard types/brand	ABB XT3, ABB XT4, ABB XT5	ABB XT4, ABB XT5, ABB XT6
Panelboard amp rating	225A, 250A, 400A	250A, 400A, 600A, 800A
Sub-feed circuit breakers		
Sub-feed types/brand	ABB XT3, ABB XT4, ABB XT5	ABB XT4, ABB XT5, ABB XT6
Sub-feed amp rating	225A, 250A, 400A	250A, 400A, 600A, 800A

TruFit PDU

50 – 300kVA

Technical specifications

General data		
Standards	ETL listed to UL 891	
Access requirements	Front only for installation, operation, and maintenance	
Cable entry/exit	Top and/or bottom	
Mechanical characteristics		
	Dimensions	Weights
Main cabinet	42"W x 36"D x 78"H	</= 2650 lbs
24"W front facing sidecar(s)	24"W x 36"D x 78"H	</= 340 lbs
Electrical characteristics		
Transformer		
kVA rating	kVA	50, 75, 125, 150, 225, 300
Input/primary voltage		480 VAC, 3-phase, 3-wire + ground
Output/secondary voltage		208/120 VAC, 3-phase, 4-wire + ground
Winding material		Aluminum (std.), Copper (opt.)
Input/output frequency	Hz	60 +/-5% (57–63Hz)
Efficiency		DOE 2016 compliant
Temperature rise	°C	150
Inrush		11x
K-rating		K4 (std.), K13 & K20 (opt.)
Compensation taps		(2) 5% full load compensation taps, (1) above & (1) below nominal
Output/distribution specifications		
Panelboard distribution		
Panelboard types/brand		GE by ABB 42-pole, ABB ProLine 42-pole
Panelboard amp rating	A	225A, 400A
Sub-feed circuit breakers		
Sub-feed types/brand		ABB XT3, ABB XT4, ABB XT5
Sub-feed amp rating	A	225A, 250A, 400A
PowerView metering and monitoring		
Basic metering and monitoring	PowerView Core	PowerView Pro
Primary & secondary of transformer (PSB)	Standard	Standard
Branch circuit management (BCM)	Optional	Optional
Sub-feed circuit management (SFCM)	Optional	Optional
Accuracy	+/-2%	+/- 1%
Harmonics measurements	Up to 9th order	Up to 35th order
Waveform capture	Not Available	Standard
Custom circuit naming/numbering	Not Available	Standard
Custom grouping of circuits	Not Available	Standard
Global time synch via NTP	Not Available	Standard
Breaker status monitoring Open, closed, tripped) via Discrete Input Board (DIB)	Not Available	Standard
Integrated thermal monitoring via Thermocouple Interface Board (TIB)	Not Available	Standard
Communication interfaces		
Modbus RTU (via RS485) & Modbus TCP (via Ethernet)	Standard	
Local EPO & remote EPO	Standard	
Optional – add ons		
40 kA primary Surge Protective Device (SPD)	Optional	
40 kA secondary Surge Protective Device (SPD)	Optional	
Isolated grounds for panelboards	Optional	

Download Technical Data Sheet for more information.

TruFit PDU
400-800kVA
Technical specifications

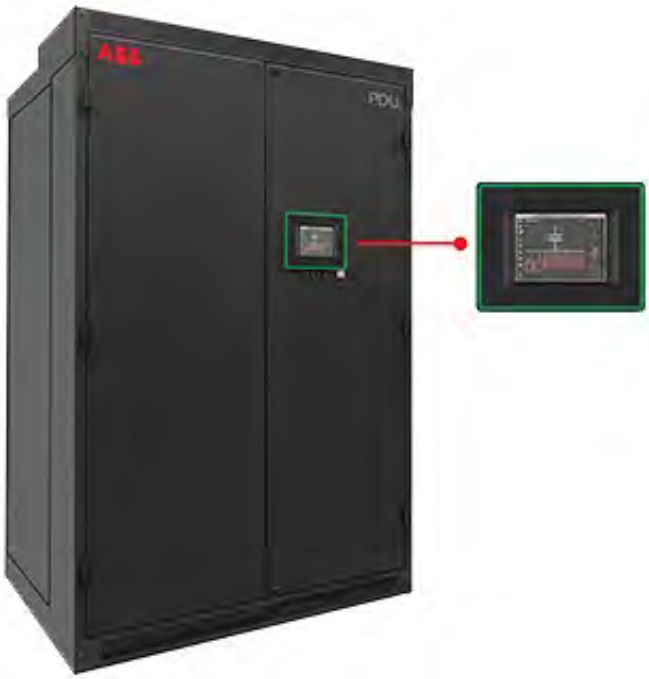
General data		
Standards	ETL listed to UL 891	
Access requirements	Front only for installation, operation, and maintenance	
Cable entry/exit	Top and/or bottom	
Mechanical characteristics		
	Dimensions	Weights
Main cabinet	60"W x 48"D x 84"H	</= 5500 lbs
30"W front facing sidecar(s)	30"W x 48"D x 84"H	</= 550 lbs
Electrical characteristics		
Transformer		
kVA rating	kVA	400, 500, 600, 750, 800
Input/primary voltage		480 VAC, 3-phase, 3-wire + ground
Output/secondary voltage		Re-tappable dual output 415/240 VAC & 208/120 VAC Single output 415/240 VAC Single output 208/120 VAC
Winding material		Aluminum (std.), Copper (opt.)
Input/output frequency	Hz	60 +/-5% (57–63Hz)
Efficiency		DOE 2016 compliant
Temperature rise	°C	150 (std.), 115 (opt.)
Inrush		11x (std.), K13 & K20 (opt.)
K-rating		K4 (std.), K13 & K20 (opt.)
Compensation taps		(4) 2.5% full load compensation taps, (2) above & (2) below nominal
Output/distribution specifications		
Sub-feed circuit breakers		
Sub-feed types/brand		ABB XT4, ABB XT5, ABB XT6
Sub-feed amp rating	A	250A, 400A, 600A, 800A
PowerView metering and monitoring		
Basic metering and monitoring	PowerView Core	PowerView Pro
Primary & secondary of transformer (PSB)	Standard	Standard
Branch circuit management (BCM)	Optional	Optional
Sub-feed circuit management (SFCM)	Optional	Optional
Accuracy	+/-2%	+/- 1%
Harmonics measurements	Up to 9th order	Up to 35th order
Waveform capture	Not Available	Standard
Custom circuit naming/numbering	Not Available	Standard
Custom grouping of circuits	Not Available	Standard
Global time synch via NTP	Not Available	Standard
Breaker status monitoring Open, closed, tripped via Discrete Input Board (DIB)	Not Available	Standard
Integrated thermal monitoring via Thermocouple Interface Board (TIB)	Not Available	Standard
Communication interfaces		
Modbus RTU (via RS485) & Modbus TCP (via Ethernet)	Standard	
Local EPO & remote EPO	Standard	
Optional – add ons		
100kA or 200kA primary SPD	Optional	
100kA or 200kA secondary SPD	Optional	
Solid kick-plates for raised floor installations	Optional	
Seismic rated under-floor floorstands (12"–60"H)	Optional	

Download Technical Data Sheet for more information.

TruFit PDU

PowerView monitoring system

The PowerView monitoring system offers factory-integrated branch circuit and subfeed management for your RPP and PDU which can communicate valuable information to your central management system or to a local or remote display.



Features

- Revenue grade metering accuracy, compliant with ANSI/NEMA C12.1 - 2015
- Supports additional functional cards for advanced monitoring features such as breaker status or thermal monitoring
- PDU ground fault interrupt
- Waveform capture
- Global time sync via NTP

Improving safety through automated thermal monitoring

- The Thermocouple Input Board (TIB) for PowerView Pro provides the ability to thermally monitor points of interest within your equipment
- Eliminate the recurring expenses (labor and time) and risks (required PPE or removal of deadfronts) associated with traditional thermal scanning
- Proactively identify potential loosening of bolted connections

Ease of configuration

- User-friendly and intuitive graphical user interface
- Flexible configuration – by individual circuit or entire panelboard
- Customizable naming or numbering of main breaker(s), sub-feed breakers, panelboards, or branch circuit breakers
- Ability to create custom groups of circuits as well as monitor and alarm at the custom group level

TruFit PDU

PowerView monitoring system

Overview

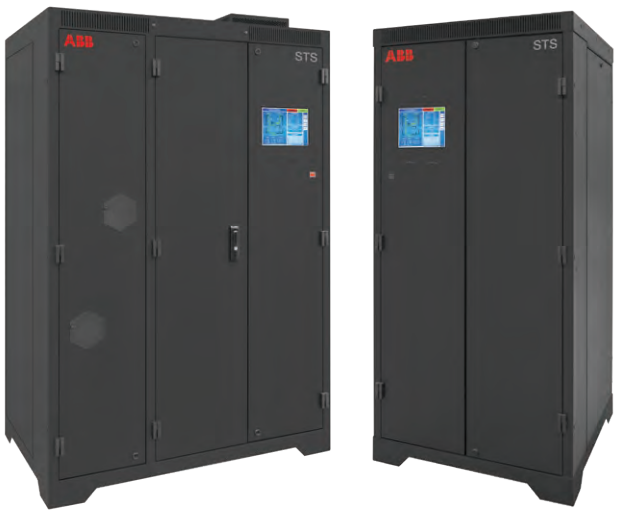
Understanding load profiles is the key to proactively managing your data center distribution system and avoiding unnecessary downtime. Enhance your distribution equipment with a comprehensive, centralized monitoring system for critical power distribution equipment, the PowerView monitoring system. The innovative design of the PowerView module provides the flexibility to support both basic metering and monitoring requirements, as well as, more comprehensive system monitoring requirements through two offering tiers, PowerView Core and PowerView Pro.

Features	PowerView Core	PowerView Pro
Basic metering/monitoring • Primary and secondary of transformer • Branch circuit management – Up to six (6) 42 circuit panelboards (252 circuits) • Sub-feed circuit management – Up to (65), 3-wire or (60), 4-wire sub-feed breakers • Main-feed circuit management – Up to four (4) sources in multi-fed RPPs can be monitored: phases, neutral and ground	S	S
Monitoring system standard parameters • Voltage-current (RMS) • MIN current • MAX current • kW (power) • kWh • kVAr • kVA-load • kVAh • Max energy demand • Power factor (PF) • Crest factor • Total harmonic distribution (THD) up to 9th order	S	S
Advanced communication • Communicate valuable system data to building management systems (BMS) or local display • Protocols available: Modbus RTU, Modbus TCP	S	S
Serviceability • Modular chassis design; easy to upgrade • Plug connectors for circuit sensors simplify maintenance; no power off required • Only power down one individual branch; not the entire panel	S	S S
Panelboard compatibility • Fits most panels: ABB, GE and Square-D	S	
Accuracy	+/-2%	+/-1%
Harmonics measurement	Up to 9th order	Up to 35th order
Waveform capture	Not available	S
Custom circuit naming/numbering	Not available	S
Custom circuit groups	Not available	S
Global time sync via NTP	Not available	S
Breaker status monitoring	Not available	O
Thermal monitoring	Not available	O

S - Standard feature
O - Optional feature

Static transfer switch (STS)

Cyberex SuperSwitch®4



The SuperSwitch®4 is available in select cabinet sizes that cater to your serviceability requirements. Its standard ultra-dense design maximizes physical floor space. Front access is required for operation and removal of serviceable components, while one side or rear access is required for installation and tightening of customer connections. A full front access cabinet design is also available for complete operation, maintenance, installation and IR scanning accessibility.

Fully rated hockey puck SCRs are employed to prevent system damage after load faults. The superior cooling design of the assembly enables higher current applications. Infrared scans are easily accomplished without removal of assembly. Connections and maintenance are made easier by staggered phase connections and ample gutter space. 100% of connections are torqued ensuring maximum reliability.

Features

Peak performance and reliability

- ≤1/4 cycle in-phase transfers
- ≤16ms out of phase transfers regardless of phase difference between sources
- ≤1.2x inrush for out of phase transfers

Minimize risk of human error

- On-screen software guided bypass operation
- Dedicated LED indicators coordinate with bypass instructions on HMI to ensure proper bypass sequence

Improved safety and serviceability

- Sectionalized design for safety and ease of serviceability enables quicker troubleshooting and time to repair
- Isolation of consumable components allows for easier replacement without need to de-energize equipment

Comprehensive offering

- Covering wide power range from 100A up to 4000A in 208V through 480V
- Ultra-dense optimized designs for low power applications
- Optimized front access only designs for higher power ratings

Static transfer switch (STS)

Cyberex SuperSwitch®4
3-pole and 4-pole offerings

3-pole offerings

							
Amp ratings	200A, 250A, 400A	600A	800A, 1000A, 1200A	1600A	2000A	3000A	4000A
Voltage ratings	208V, 380V, 400V, 415V, 480V, 600V	208V, 380V, 400V, 415V, 480V, 600V	208V, 380V, 400V, 415V, 480V, 600V	480V	480V	480V	480V
Frequency ratings	60Hz, 50Hz	60Hz, 50Hz	60Hz, 50Hz	60Hz	60Hz	60Hz	60Hz
SCCR ratings[1]	100kAIC	100kAIC	65kAIC	65kAIC, 100kAIC	100kAIC	65kAIC, 100kAIC	100kAIC
Cable entry[2]	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom
Cable exit[2]	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom	Top/Bottom
Installation and service access	Front only	Front and one side or rear	Front and one side or rear	Front only	Front and rear	Front only	Front only
Dimensions (WxDxH)	48" x 34" x 78"	34" x 34" x 78"	46" x 34" x 78"	90" x 36" x 90"	120" x 60" x 77"	180" x 36" x 90"	180" x 36" x 90"

[1] Contact factory for 600V SCCRs.
[2] If cable entry and exit are from opposite sides (e.g. Bottom Entry and Top Exit), please consult with factory.

SCR-based neutral switching
The Cyberex SuperSwitch®4 offering has expanded to include models for 4-pole applications requiring switching of the neutral. For installations with separately derived systems, the SuperSwitch®4 minimizes the potential for circulating neutral currents through the use of solid state switching technology.

4-pole offerings

		
Amp ratings	200A, 400A	600A, 800A
Voltage	208V, 380V, 400V, 415V	208V, 380V, 400V, 415V
Frequency	60Hz	60Hz
SCCR	100kAIC	65kAIC
Cable entry[3]	Top/Bottom	Top/Bottom
Cable exit[3]	Top/Bottom	Top/Bottom
Installation and service access	Front and right side or rear	Front and right side or rear
Dimensions (WxDxH)	46" x 34" x 78"	60" x 34" x 78"

[3] If cable entry and exit are from opposite sides (e.g. Bottom Entry and Top Exit), please consult with factory.

Static transfer switch (STS)

Cyberex SuperSwitch®4
3-pole technical specifications 200A – 4000A

Components	
Power semiconductors[1]	Hockey puck type, type II fuseless design
User interface	10.4" color TFT industrial use VGA LED touchscreen GUI
Cooling	200A/250A – Convection cooled >=400A – Redundant fans
Power supplies	Redundant
Surge protection	SPD on each source
Control logic	No single point of failure
Output load switches	Redundant
Power wire and bus bar	Copper
Protection	UL 489 Molded Case Switches </= 1200A UL 1066 Non-Automatic Switches = 1600A, 3000A, 4000A UL 489 Insulated Case Switches = 2000A
Communications and software	
Alarm relays	16 form “C” relays
Building alarm inputs	10 dry contact inputs
EPO	Local or remote
Modbus	RTU over RS485, TCP over Ethernet
Service port	Accessible without opening doors or panels
Event alarm log	5000 events
Power quality and metering	
Loss of source detection	2ms, PLL detection per phase
Voltage	Each source and output. True RMS, up to 13th harmonic
Current	Each source and output. True RMS, up to 13th harmonic
Peak current detection	Each source, resettable
Source reacquisition	3 cycles

Electrical characteristics	
Amp ratings[2]	200A, 250A, 400A, 600A, 800A, 1000A, 1200A, 1600A, 2000A, 3000A, 4000A
Voltage ratings	208V, 380V, 400V, 415V, 480V, 600V
SCCR ratings[3]	65kAIC, 100kAIC
Frequency ratings[4]	60Hz, 50Hz
Overload capability	125% for 30 min, 150% for 1 min, 200% for 10 sec, 1000% for 3 cycles, 1500% for 1 cycle
Operational characteristics	
Full load efficiency	Up to 99.4% (480V), 98.7% (208V)
Bypass	System guided
Sense + transfer time (In phase)	< 4ms patented A9 transfer method
Sense + transfer time (out of phase)	< 15ms patented Real Time Flux Control™ method
Downstream transformer inrush[5]	< 1.2x nominal transformer rating
Operating temperature	0 to 40°C
Storage temperature	0 to 80°C
MTBDE	1.5 million hours
Standards	
Safety	ETL listed to UL 1008S cETL listed to CAN/CSA-22.2 No. 178
EMC	FCC compliant (part 15)
Enclosure	NEMA 1

[1] 3000A and 4000A models are hybrid Type I and Type III.
[2] Units rated 1600A or higher available in 480V only.
[3] Contact factory for 600V SCCRs.
[4] 600A in 50Hz is not available.
[5] Based on DIR transfer.

Static transfer switch (STS)

Cyberex SuperSwitch®4

3-pole technical specifications 200A – 4000A

Standard cabinet (3-Pole)							Heat Output		
Amps	**Voltage**	**SCCR[1]**	**Cable entry[2]**	**Cable exit[2]**	**Installation and service access[3]**	**Dim. (WxDxH)**	**BTU/Hr Full Load**	**kW**	**Estimated weight**
200	208	100	Top/Bottom	Top/Bottom	Front only	48"W x 34"D x 78"H	3250	0.95	1124
	380	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	3250	0.95	1124
	400	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	3250	0.95	1124
	415	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	3250	0.95	1124
	480	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	3250	0.95	1124
	600	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	3250	0.95	1124
250	208	100	Top/Bottom	Top/Bottom	Front only	48"W x 34"D x 78"H	4650	1.36	1124
	380	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	4650	1.36	1124
	400	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	4650	1.36	1124
	415	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	4650	1.36	1124
	480	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	4650	1.36	1124
	600	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	4650	1.36	1124
400	208	100	Top/Bottom	Top/Bottom	Front only	48"W x 34"D x 78"H	9028	2.65	1179
	380	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	9028	2.65	1179
	400	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	9028	2.65	1179
	415	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	9028	2.65	1179
	480	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	9028	2.65	1179
	600	100	Top/Bottom	Top/Bottom		48"W x 34"D x 78"H	9028	2.65	1179
600[4]	208	100	Top/Bottom	Top/Bottom	Front and one side or rear	34"W x 34"D x 78"H	9200	2.70	1100
	380	100	Top/Bottom	Top/Bottom		34"W x 34"D x 78"H	9200	2.70	1100
	400	100	Top/Bottom	Top/Bottom		34"W x 34"D x 78"H	9200	2.70	1100
	415	100	Top/Bottom	Top/Bottom		34"W x 34"D x 78"H	9200	2.70	1100
	480	100	Top/Bottom	Top/Bottom		34"W x 34"D x 78"H	9200	2.70	1100
	600	100	Top/Bottom	Top/Bottom		34"W x 34"D x 78"H	9200	2.70	1100
800	208	65	Top/Bottom	Top/Bottom	Front and one side or rear	46"W x 34"D x 78"H	12250	3.60	1600
	380	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	12250	3.60	1600
	400	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	12250	3.60	1600
	415	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	12250	3.60	1600
	480	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	12250	3.60	1600
	600	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	12250	3.60	1600
1000	208	65	Top/Bottom	Top/Bottom	Front and one side or rear	46"W x 34"D x 78"H	15300	4.50	1700
	380	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	15300	4.50	1700
	400	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	15300	4.50	1700
	415	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	15300	4.50	1700
	480	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	15300	4.50	1700
	600	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	15300	4.50	1700
1200	208	65	Top/Bottom	Top/Bottom	Front and one side or rear	46"W x 34"D x 78"H	22900	6.70	1750
	380	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	22900	6.70	1750
	400	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	22900	6.70	1750
	415	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	22900	6.70	1750
	480	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	22900	6.70	1750
	600	65	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	22900	6.70	1750
1600	480	65	Top/Bottom	Top/Bottom	Front only	90"W x 36"D x 90"H	15300	11.75	4975
	480	100	Top/Bottom	Top/Bottom		90"W x 36"D x 90"H	15300	11.75	4975
2000	480	100	Top/Bottom	Top/Bottom	Front and rear	120"W x 60"D x 77"H	22900	18.75	6560
3000	480	65	Top/Bottom	Top/Bottom	Front only	180"W x 36"D x 90"H	*** consult factory ***		
	480	100	Top/Bottom	Top/Bottom		180"W x 36"D x 90"H	*** consult factory ***		
4000	480	100	Top/Bottom	Top/Bottom	Front only	180"W x 36"D x 90"H	*** consult factory ***		

[1] Contact factory for 600V SCCRs.
[2] If cable entry and exit are from opposite sides (e.g. Bottom Entry and Top Exit), please consult with factory.
[3] 50Hz, 800A – 1200A models only available with left side or rear access.
[4] 600A in 50Hz is not available.

Static transfer switch (STS)

Cyberex SuperSwitch®4

4-pole technical specifications 200A – 800A

Components	
Power semiconductors	Hockey puck type, type II fuseless design
User interface	10.4" color TFT industrial use VGA LED touchscreen GUI
Cooling	Redundant fans with hall effect failure sensing
Power supplies	Redundant
Surge protection	SPD on each source
Control logic	No single point of failure
Output load switches	Redundant
Power wire and bus bar	Copper
Protection	UL 489 Molded Case Switches
Communications and software	
Alarm relays	16 form “C” relays
Building alarm inputs	10 dry contact inputs
EPO	Local or remote
Modbus	RTU over RS485, TCP over Ethernet
Service port	Accessible without opening doors or panels
Event alarm log	5000 events
Power quality and metering	
Loss of source detection	2ms, PLL detection per phase
Voltage	Each source and output. True RMS, up to 13th harmonic
Current	Each source and output. True RMS, up to 13th harmonic
Peak current detection	Each source, resettable
Source reacquisition	3 cycles

Electrical characteristics	
Amp ratings	200A, 400A, 600A, 800A
Voltage ratings	208V, 380V, 400V, 415V
SCCR ratings	65kAIC, 100kAIC
Frequency	60Hz
Overload capability	125% for 30 min, 150% for 1 min, 200% for 10 sec, 1000% for 3 cycles, 1500% for 1 cycle
Operational characteristics	
Full load efficiency	Up to 99.4% (415V), 98.7% (208V)
Bypass	System guided
Sense + transfer time (In phase)	< 4ms patented A9 transfer method
Sense + transfer time (out of phase)	< 15ms patented Real Time Flux Control method
Downstream transformer inrush[1]	< 1.2x nominal transformer rating
Operating temperature	0 to 40°C
Storage temperature	0 to 80°C
MTBDE	1.5 million hours
Standards	
Safety	ETL listed to UL 1008S cETL listed to CAN/CSA-22.2 No. 178
EMC	FCC compliant (part 15)
Enclosure	NEMA 1

[1] Based on DIR transfer.

Static transfer switch (STS)

Cyberex SuperSwitch®4

4-pole technical specifications 200A – 800A

Standard cabinet (4-Pole)							Heat Output		
Amps	**Voltage**	**SCCR**	**Cable entry[1]**	**Cable exit[1]**	**Installation and service access**	**Dim. (WxDxH)**	**BTU/Hr Full Load**	**kW**	**Estimated weight**
200	208	100kAIC	Top/Bottom	Top/Bottom	Front and right side or rear	46"W x 34"D x 78"H	3250	0.95	1124
	380	100kAIC	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	3250	0.95	1124
	400	100kAIC	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	3250	0.95	1124
	415	100kAIC	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	3250	0.95	1124
400	208	100kAIC	Top/Bottom	Top/Bottom	Front and right side or rear	46"W x 34"D x 78"H	9028	2.65	1179
	380	100kAIC	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	9028	2.65	1179
	400	100kAIC	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	9028	2.65	1179
	415	100kAIC	Top/Bottom	Top/Bottom		46"W x 34"D x 78"H	9028	2.65	1179
600	208	65kAIC	Top/Bottom	Top/Bottom	Front and right side or rear	60"W x 34"D x 78"H	9200	2.70	1100
	380	65kAIC	Top/Bottom	Top/Bottom		60"W x 34"D x 78"H	9200	2.70	1100
	400	65kAIC	Top/Bottom	Top/Bottom		60"W x 34"D x 78"H	9200	2.70	1100
	415	65kAIC	Top/Bottom	Top/Bottom		60"W x 34"D x 78"H	9200	2.70	1100
800	208	65kAIC	Top/Bottom	Top/Bottom	Front and right side or rear	60"W x 34"D x 78"H	12250	3.60	1600
	380	65kAIC	Top/Bottom	Top/Bottom		60"W x 34"D x 78"H	12250	3.60	1600
	400	65kAIC	Top/Bottom	Top/Bottom		60"W x 34"D x 78"H	12250	3.60	1600
	415	65kAIC	Top/Bottom	Top/Bottom		60"W x 34"D x 78"H	12250	3.60	1600

[1] If cable entry and exit are from opposite sides (e.g. Bottom Entry and Top Exit), please consult with factory.

Download Product Guide Specification for more information.

Static transfer switch (STS)

Cyberex SuperSwitch®4

Ordering information

Static transfer switches

Amp	Voltage	kAIC	Cable access	Part Number
200	208	100	Front	91-4400-00000047
200	480	100	Front	91-4400-00000066
250	208	100	Front	91-4400-00000051
400	208	100	Front	91-4400-00000050
400	480	100	Front	91-4400-00000052
600	208	100	Front	91-4400-00000070
600	208	100	Front left	91-4400-00000086
600	208	100	Front right	91-4400-00000087
600	480	100	Front left	91-4400-00000072
600	480	100	Front right	91-4400-00000056
800	208	65	Front left	91-4400-00000088
800	208	65	Front right	91-4400-00000089
800	480	65	Front left	91-4400-00000069
800	480	65	Front right	91-4400-00000049
1000	208	65	Front left	91-4400-00000068
1000	208	65	Front right	91-4400-00000090
1000	480	65	Front left	91-4400-00000091
1000	480	65	Front right	91-4400-00000092
1200	480	65	Front left	91-4400-00000093
1200	480	65	Front right	91-4400-00000080
1600	480	65	Front	91-4400-00000002
1600	480	100	Front	91-4400-00000083
2000	480	100	Front & rear	91-4400-00000054
3000	480	65	Bottom	91-4400-00000078
3000	480	65	Top	91-4400-00000079
3000	480	100	Bottom	91-4400-00000077
3000	480	100	Top	91-4400-00000076

Front seismic floor stands

Amp	Height	Part Number
200-400	12"	FSS-STS-48W-12H
200-400	14"	FSS-STS-48W-14H
200-400	16"	FSS-STS-48W-16H
200-400	18"	FSS-STS-48W-18H
200-400	20"	FSS-STS-48W-20H
200-400	22"	FSS-STS-48W-22H
200-400	24"	FSS-STS-48W-24H
200-400	26"	FSS-STS-48W-26H
200-400	28"	FSS-STS-48W-28H
200-400	30"	FSS-STS-48W-30H
200-400	32"	FSS-STS-48W-32H
200-400	34"	FSS-STS-48W-34H
200-400	36"	FSS-STS-48W-36H
200-400	38"	FSS-STS-48W-38H
200-400	40"	FSS-STS-48W-40H
200-400	42"	FSS-STS-48W-42H
200-400	44"	FSS-STS-48W-44H
200-400	46"	FSS-STS-48W-46H
200-400	48"	FSS-STS-48W-48H

Front seismic floor stands (continued)

Amp	Height	Part Number
600	12"	FSS-STS-34W-12H
600	14"	FSS-STS-34W-14H
600	16"	FSS-STS-34W-16H
600	18"	FSS-STS-34W-18H
600	20"	FSS-STS-34W-20H
600	22"	FSS-STS-34W-22H
600	24"	FSS-STS-34W-24H
600	26"	FSS-STS-34W-26H
600	28"	FSS-STS-34W-28H
600	30"	FSS-STS-34W-30H
600	32"	FSS-STS-34W-32H
600	34"	FSS-STS-34W-34H
600	36"	FSS-STS-34W-36H
600	38"	FSS-STS-34W-38H
600	40"	FSS-STS-34W-40H
600	42"	FSS-STS-34W-42H
600	44"	FSS-STS-34W-44H
600	46"	FSS-STS-34W-46H
600	48"	FSS-STS-34W-48H
1000-1200	12"	FSS-STS-46W-12H
1000-1200	14"	FSS-STS-46W-14H
1000-1200	16"	FSS-STS-46W-16H
1000-1200	18"	FSS-STS-46W-18H
1000-1200	20"	FSS-STS-46W-20H
1000-1200	22"	FSS-STS-46W-22H
1000-1200	24"	FSS-STS-46W-24H
1000-1200	26"	FSS-STS-46W-26H
1000-1200	28"	FSS-STS-46W-28H
1000-1200	30"	FSS-STS-46W-30H
1000-1200	32"	FSS-STS-46W-32H
1000-1200	34"	FSS-STS-46W-34H
1000-1200	36"	FSS-STS-46W-36H
1000-1200	38"	FSS-STS-46W-38H
1000-1200	40"	FSS-STS-46W-40H
1000-1200	42"	FSS-STS-46W-42H
1000-1200	44"	FSS-STS-46W-44H
1000-1200	46"	FSS-STS-46W-46H
1000-1200	48"	FSS-STS-46W-48H

Static transfer switch (STS)

Cyberex SuperSwitch®4
Ordering information

Spare kits

Kit level[1]	Amp	Voltage	Unit access	Part Number
1	200	208	–	SP1-SS4F-200208
2	200-1000	208-480	–	SP2-SS4F-XXXXXX
3	200	208	–	SP3-SS4F-250208
1	200	480	–	SP1-SS4F-200480
3	200	480	–	SP3-SS4F-250480
1	400	208	–	SP1-SS4F-400208
3	400	208	–	SP3-SS4F-400208
1	400	480	–	SP1-SS4F-400480
3	400	480	–	SP3-SS4F-400480
1	600	208	–	SP1-SS4X-600208
3	600	208	Left	SP3-SS4L-600208
3	600	208	Right	SP3-SS4R-600208
1	600	480	–	SP1-SS4X-600480
3	600	480	Left	SP3-SS4L-600480
3	600	480	Right	SP3-SS4R-600480
1	800-1000	208	–	SP1-SS4X-1KA208
3	800-1000	208	Left	SP3-SS4X-800208
3	800-1000	208	Right	SP3-SS4X-1KA208
1	800-1000	480	–	SP1-SS4X-1KA480
3	800-1000	480	Left	SP3-SS4X-800480
3	800-1000	480	Right	SP3-SS4X-1KA480

[1] Kit level 1: Start up spares
Kit level 2: Common failure parts; 5-7 year parts
Kit level 3: Parts specific to unit rating

Training and commissioning

Description	Part Number
ABB Startup service 1-4 units	STARTUP_RIC_EM
ABB Startup service additional units >4 each	STARTUP_RIC_EM_ADD
On-Site training	S-OST_EM
Pre-Installation consultation service	S-PIC_EM
Project management	S-PJM_EM
Site commissioning	S-CM1_EM
Site coordination	S-SCS_EM

Notes