



Cutler-Hammer

Automatic and Non-Automatic Transfer Switches Free Standing 600 – 4000 Amperes

Technical Data

Supersedes TD.15A.11.T.E
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Introduction

Eaton’s Cutler-Hammer SPB Transfer Switches are designed for a variety of standby power applications for critical loads. They monitor both normal and standby power sources. In the event of a primary power source interruption, these switches will automatically transfer the load circuits to the standby power source. Once primary power has been restored, the process is automatically reversed.

The SPB family of transfer switches covers applications ranging from 600 to 4000 amperes through 600 Vac, in Automatic or Non-Automatic configurations, open or closed transition, standard or service entrance. They are designed for applications where total system coordination must be accomplished while achieving a high level of Withstand, Interrupting and Closing performance.

Drawout construction is available for applications, such as critical life support systems, where preventive maintenance, inspection and testing must be accomplished while maintaining continuity of power to the load.

Cutler-Hammer SPB Transfer Switches meet or exceed all industry standards for endurance, reliability and performance. They are listed under Underwriters Laboratories UL® 1008 Standard for Transfer Switch Equipment. With certain options, they also comply with emergency and standby system requirements as defined in NFPA 99 for health care facilities.

SPB Transfer Switch Family

- Mini-SPB fixed mount
600 – 1200 amperes.
- SPB fixed mount
800 – 4000 amperes.
- SPB drawout
800-4000 amperes.

Cutler-Hammer SPB Transfer Switches offer the utmost in flexibility, reliability and value. These switches must exceed many national and international standards. They are designed and built in accordance with the following:

UL 1008	Standard for Safety for Automatic Transfer Switches
UL 489	Standard for Circuit Breakers and Molded Case Switches
NEC® Articles 517, 700, 701, 702	Code Sections Applicable Switch Equipment
NFPA 110	Emergency and Standby Power Systems
NFPA 99	Health Care Facilities
EGSA 100S	Standard for Transfer Switches
NEMA® ICS10	Standard for Transfer Switch Equipment
UBC®	Uniform Building Code for Seismic Zone 4
ISO® 9000	International Organization for Standardization
CBC	California Building Code
IBC	International Building Code
BOCA®	Building Officials Code Administrators.

Design Highlights

- UL 1008 listed.
- Freestanding.
- SPB insulated case devices.
- Fastest switching times available (<5 cycles).
- High withstand ratings.
- Full 60-cycle short time withstand capability.
- Safe manual transfer under load.
- Multi-tap voltage selection plug.
- Integral service entrance capability.
- Integral overcurrent protection capability.
- Drawout capability.
- Programmable microprocessor controller with keypad entry and display.
- Communications capable.
- Durable powder-coated steel enclosures.
 - All NEMA 1 and NEMA 12
 - NEMA 3R 600 – 2000 A
- Seismic Zone 4 Qualified (BOCA, CBC, IBC, UBC).
- American Bureau of Shipping qualified.
- ISO 9001 designed.
- ISO 9002 manufactured.
- ISO 14001 manufacturing facility.

Typical Applications

Utility — Generator

Transfer switches are traditionally applied between a utility and a generator set for emergency and standby power systems.

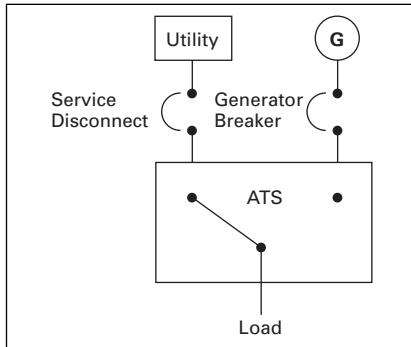


Figure 1. Standard Application Utility — Generator

Generator — Generator

Transfer switches are sometimes applied between two generator sets for prime power use, often in remote installations. In such applications, source power is periodically alternated between the generator sets to equally share run time between the two.

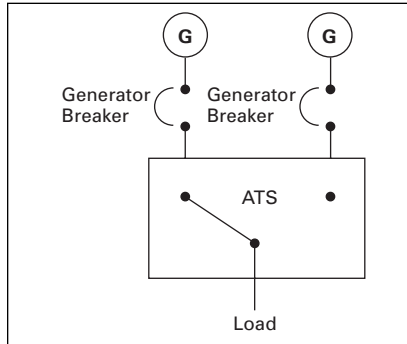


Figure 2. Standard Application Generator — Generator

Service Entrance Equipment

Often, it is desirable to apply the transfer switch as a service equipment device thereby eliminating the need for separate service disconnects and over-current protective devices. This switch is particularly adaptable to wastewater and water treatment plants, pumping stations, industrial plants, telecommunications facilities and other installations where all the loads are critical in nature and need to be backed up by an alternate power source.

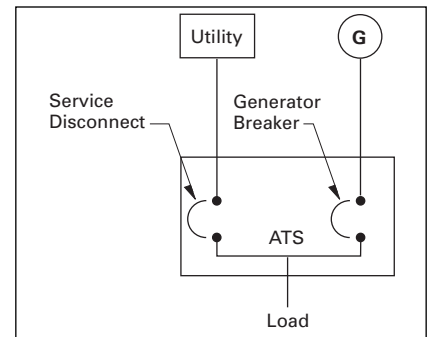


Figure 3. Service Entrance Application

Basic Switch Components



Indicating Lights

ATC-600 Logic Shown
 ■ Monitors Source Condition
 ■ Initiates Power Transfers

Transformer Panel
 ■ Steps line power down to 120 Vac for logic and electrical operator control power
 ■ Multi-Tap Voltage Selector for application on a variety of system voltages
 ■ Engine Start Contacts

Deadfront Cover

Power Panel
 ■ Performs power transfer between Normal and Emergency Sources utilizing SPB Insulated Case Switches or Circuit Breakers

Manual Charging Handle

Electrical Operator Pushbutton

Figure 4. Basic Switch Components of SPB Automatic Transfer Switches

Mini-SPB and SPB Fixed Mount Transfer Switches

SPB Drawout Transfer Switch



1200 Ampere, 3-Pole NEMA 1 Enclosed



3000 Amperes, 4-Pole, NEMA 1 Enclosed



2000 Amperes, 3-Pole NEMA 1 Enclosed Drawout

Mini-SPB Fixed Mount

- 600 – 1200 amperes.
- 2-, 3-, 4-pole.
- 120 – 600 Vac.
- 65,000 amperes withstand/closing/interrupting at 480 Vac.
- Fixed mount construction.
- Available in NEMA Type 1, 3R, 4, 4X and 12 enclosures.
- Front cable access.

Catalog Number
ATVISPA31200XSU

SPB Fixed Mount

- 800 – 4000 amperes.
- 2-, 3-, 4-pole (except 4000 amperes: 2- and 3-pole only).
- 120 – 600 Vac.
- 100,000 amperes withstand/closing/interrupting at 480 Vac.
- Fixed mount construction.
- Available in NEMA Type 1 and 3R enclosures.
- Rear, side and top cable access.

Catalog Number
ATVISPA43000XSU

SPB Drawout

- 800 – 4000 amperes.
- 2-, 3-, 4-pole (except 4000 amperes: 2- and 3-pole only).
- 120 – 600 Vac.
- 100,000 amperes withstand/closing/interrupting at 480 Vac.
- Drawout construction with switch position indicator.
- Completely interchangeable power switching devices.
- Available in NEMA Type 1 and 3R enclosures.
- Rear, sides and top cable access.

The Cutler-Hammer Drawout SPB Switch should be considered for any systems requiring either greater redundancy, easier maintainability or where true selective coordination is desired.

The Cutler-Hammer Drawout SPB Switch provides the capability to isolate either of the two power sources (Normal or Emergency) and its associated logic, while maintaining power to the load.

Each switching section is independent and can be replaced either with a spare switch, or for less critical replacement needs, a replacement unit is available from the factory within 24 hours.

Catalog Number
ATVISPG32000XSU

Transfer Switch Withstand Ratings

Table 1. Systems Coordination Information — Withstand, Closing and Interrupting Ratings

Standard UL 1008 3-Cycle				60-Cycle, Extended Rating					
ATS Ampere Rating	Ratings when used with Upstream Breaker (kA)			Ratings when used with Upstream Fuse (kA)		Ratings used for Coordination with Upstream Breakers with Short Time Ratings			
	Volts			Maximum Fuse Rating	Fuse Type	Volts			
	240	480	600			600	240	480	600
Mini-SPB									
600	85	65	65	800	L	200	35	35	35
800	85	65	65	1000	L	200	51	51	51
1000	85	65	65	1600	L	200	51	51	51
1200	85	65	65	1600	L	200	51	51	51
SPB Fixed and Drawout									
800	100	100	85	2000	L	200	51	51	51
1000	100	100	85	2000	L	200	51	51	51
1200	100	100	85	2000	L	200	51	51	51
1600	100	100	85	3000	L	200	51	51	51
2000	100	100	85	3000	L	200	51	51	51
2500	100	100	85	4000	L	200	51	51	51
3000	100	100	85	4000	L	200	51	51	51
4000	100	100	85	—	—	—	85	85	85

Power and Transformer Panels

Unmatched Performance and Versatility

The Cutler-Hammer family of SPB transfer switches offers unmatched performance, versatility and value for standby power applications. At the heart of these designs is the SPB insulated case switch with the following features:

Superior Main Contact Structure

All Cutler-Hammer SPB Transfer Switches meet or exceed the standards set forth in UL 1008 and UL 489 with high withstand, totally enclosed SPB switches. No other transfer switch manufacturer has met the rigid testing requirements of this combination of standards. Completely enclosed contacts add a measure of safety and reliability. It also ensures the integrity of the contact assemblies and minimizes the need for periodic maintenance of the contacts, reducing downtime and maintenance time.

Fast, Powerful and Safe Switching Mechanism

The mechanism utilizes a high speed five-cycle stored energy switching mechanism. This mechanism can be operated manually under a FULL LOAD.

Ease of Coordination and Application — Short Time Withstand

The use of electronic trips has allowed performance curve shaping to facilitate proper system coordination. The most significant is the "short time" rated trip unit.

These trip settings may be set for what are considered extremely high currents for much longer durations than the three-cycle withstand test required under UL 1008. To facilitate improved coordination, Cutler-Hammer SPB transfer switches have been tested and are provided with 60-cycle, extended withstand ratings.

SPB Switch Features



SPB Insulated Case Switch

- UL 489 and UL 1008 listed.
- 65 – 100 kA standard withstand ratings.
- 60-cycle, extended withstand ratings.
- Five-cycle closing speed.
- Electrically operated.
- True 4-pole switched neutral availability.
- Totally enclosed contact assembly.
- 3A/3B auxiliary contacts for customer connection (each SPB switch).

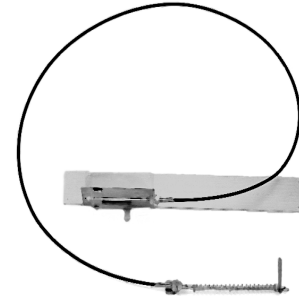
Optional Integral Overcurrent Protection Capability



Optional Digitrip™ SPB Trip Unit

For service entrance and other applications, Digitrip solid-state trip units can be integrated into the power switching section. This eliminates the need for separate upstream protective devices, saving cost and space. Available with various combinations of Long, Short Time, Instantaneous, Ground Fault Protection and Communications.

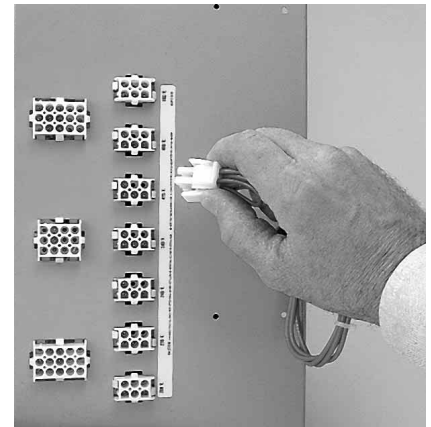
Interlocking for Open Transition Applications



Mechanical Cable Interlock

The open transition type SPB Transfer Switches feature both mechanical (cable) and electrical interlocking to prevent paralleling of sources.

Multi-Tap Voltage Selector



Multi-Tap Voltage Selector

Allows transfer switch to be readily applied on most system voltages worldwide by proper insertion of selector plug. Available system voltages include 208, 220, 240, 380, 415, 480 or 600 Vac, 50 or 60 Hz.

Logic

Application Versatility

Whether the application calls for open or closed transition the Cutler-Hammer business has the right logic controller for the task. IQ Transfer controllers have set a new standard for transfer switch technology featuring:

- Microprocessor-based logic.
- Digital display.
- Field set point programmability.
- Transfer history.
- PowerNet™ Communications capability.
- Voltmeter and frequency meter.
- True rms voltage sensing.
- Mimic BUS/LED display.
- Load voltage decay delayed transition capability.
- In-phase monitor capability.
- Field upgrade capability.

Automatic Transfer Open Transition



ATC-600 IQ Transfer

Open transition Type SPB transfer switches utilize the Cutler-Hammer programmable ATC-600 microprocessor-based logic controller.

Refer to technical data TD.15A.05.T.E — Open Transition IQ Transfer (ATC-600) for Automatic Transfer Switches — for additional information.

**Automatic Transfer
Closed Transition**

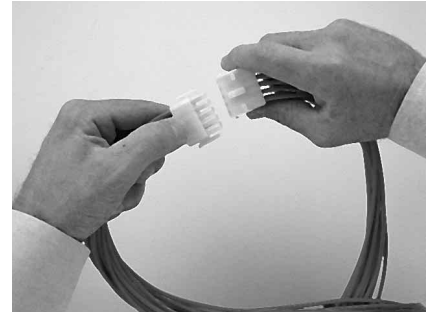


ATC-800 Closed Transition IQ Transfer

Closed transition applications feature the ATC-800 Closed Transition IQ Transfer logic controller.

Refer to technical data TD.15A.09.T.E — Closed Transition IQ Transfer (ATC-800) for Automatic Transfer Switches — for additional information.

Ease of Maintenance



Logic Disconnect Plugs

Keyed quick-disconnect plugs are provided for easy and complete isolation of the control circuitry.

Maintenance can be performed on the logic independent from the power sections and still allow the user to manually transfer power under full load conditions.

Switch and Feature Selection

Cutler-Hammer Transfer Switch Equipment offers flexibility and versatility to the system designer and user. All switches include the basic features necessary for normal operation as standard. The Cutler-Hammer business also offers an extensive array of optional features/accessories that allows the user to customize a new transfer switch to match the application. Select the appropriate catalog number for the application from the table below. Then choose from **Table 3** any optional features/accessories needed to complete the project requirements.

Catalog Number: ATVISP30800XRU with Optional Features 16B, 37B, 32B and 23J.

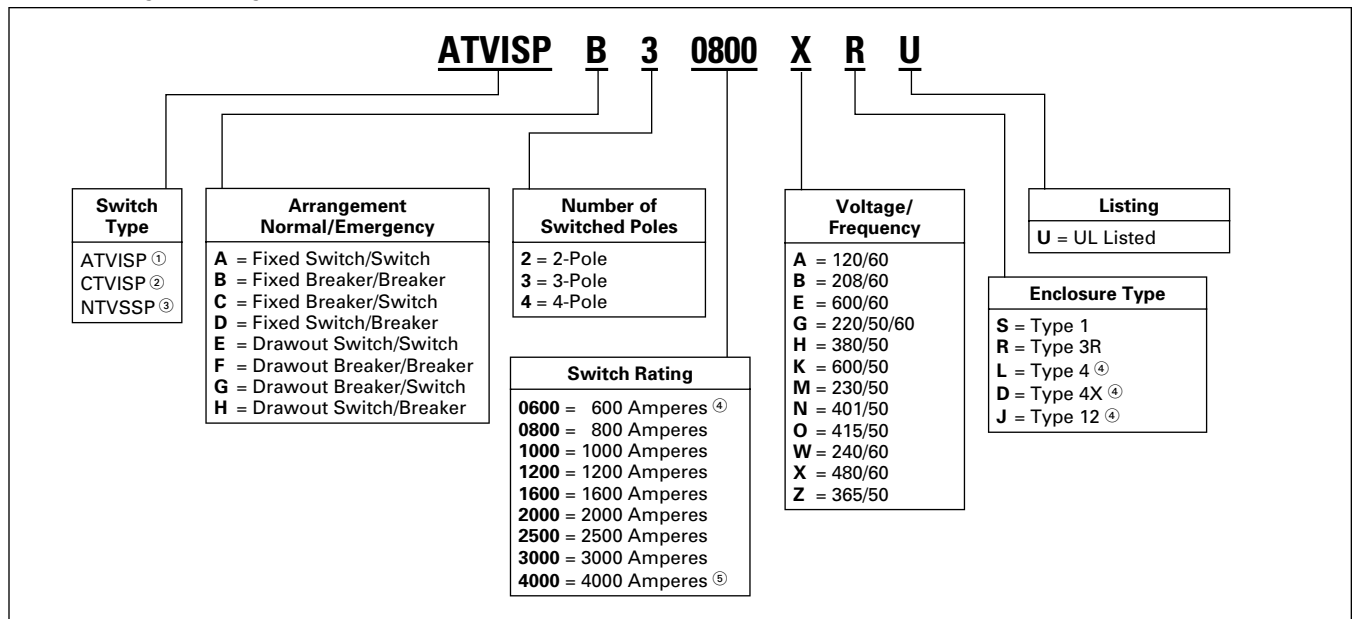
The example above would specify the following:

- Automatic Transfer Switch.
- 480 volts.
- 3-phase.
- 4-wire.
- 3-pole.
- 800 amperes.
- ATC-600 IQ Transfer Logic).

- NEMA 3R enclosure.
- UL listed.
- Integral overcurrent protection both sources.
- Service entrance rated with GF protection.
- Delayed transition-load voltage decay.
- Plant exerciser.
- Seismic Zone 4 qualified.
- Feature Group "FG613" included.

Catalog Numbering System

Table 2. Catalog Numbering Selection Guide



① ATVISP: Automatic, Open Transition IQ Transfer (ATC-600) Logic.
 ② CTVISP: Automatic, Closed Transition IQ Transfer (ATC-800) Logic.
 ③ NTVISP: Non-Automatic, Manually Initiated, Electrically Operated.
 ④ Mini-SPB only.
 ⑤ 4-pole not available.

Switch and Feature Selection (Continued)

Table 3. Standard and Optional Features

Feature Number and Standard Feature Group (FG) Numbers	Description	ATVISP		CTVISP		NTVS	
		Mini-SPB ATC-600 IQ Transfer	SPB Fixed and Drawout Mount ATC-600 IQ Transfer	Mini-SPB ATC-800 Closed Transition IQ Transfer	SPB Fixed and Drawout Mount ATC-800 Closed Transition IQ Transfer	Mini-SPB Non-Automatic	SPB Fixed and Drawout Mount Non-Automatic
FG616	Includes Features: 1, 2, 3, 4, 5, 6B, 7, 12C, 12D, 12G, 12H, 14C, 14D, 26A, 29A, 42	S					
FG617	Includes Features: 1, 2, 3, 4, 5, 6B, 7, 12C, 12D, 12G, 12H, 14C, 14D, 17C, 26A, 29A, 42		S				
FG817	Includes Features: 1, 2, 3, 4, 5, 6B, 7, 12C, 12D, 12G, 12H, 14C, 14D, 26A, 29A, 42, 47			S			
FG818	Includes Features: 1, 2, 3, 4, 5, 6B, 7, 12C, 12D, 12G, 12H, 14C, 14D, 17C, 26A, 29A, 42, 47				S		
1	Time Delay Normal to Emergency (TDNE) Adjustable 0 – 1800 Seconds	S	S	S	S		
2	Time Delay Engine Start (TDES) Adjustable 0 – 120 Seconds	S	S	S	S		
3	Time Delay Emergency to Normal (TDEN) Adjustable 0 – 1800 Seconds	S	S	S	S		
4	Time Delay Engine Cooldown (TDEC) Adjustable 0 – 1800 Seconds	S	S	S	S		
5	Emergency (S2) Source Sensing	S	S	S	S		
5B ①	1-Phase Undervoltage/Under Frequency	O	O	O	O		
5C	1-Phase Overvoltage/Over Frequency	O	O	O	O		
5D	1-Phase Undervoltage	O	O	O	O		
5E	1-Phase Overvoltage	O	O	O	O		
5F	3-Phase Undervoltage	O	O	O	O		
5G	3-Phase Overvoltage	O	O	O	O		
5H	Phase Reversal	O	O	O	O		
5J ①	3-Phase Undervoltage/Under Frequency	S	S	S	S		
5K	3-Phase Overvoltage/OverFrequency	O	O	O	O		
6	System or Engine Test	S	S	S	S		
6B	System Test Pushbutton	O	O	O	O		
6D	Maintained 2-Position Test Switch	O	O	O	O		
6H	Maintained 4-Position Test Switch	O	O	O	O		
7	Time Delay Emergency Fail (TDEF) Adjustable 0 – 6 Seconds	S	S	S	S		
8	Pushbutton Bypass						
8C	Bypass TDEN	O	O	O	O		
8D	Bypass TDNE	O	O	O	O		
9	Maintenance Selector Switch						
9B	Electrical Operator Isolator Switch	O	O	O	O		
10	Preferred Source Selector Switch						
10B	Utility to Utility or Utility to Generator	O	O	O	O		
10D	Generator to Generator	O	O	O	O		
12	Pilot Lights						
12C	Normal (S1) Source Connected	S	S	S	S	O	O
12D	Emergency (S2) Source Connected	S	S	S	S	O	O
12G	Normal (S1) Source Available	S	S	S	S	O	O
12H	Emergency (S2) Source Available	S	S	S	S	O	O
12L	Normal (S1) Source Tripped (Requires Feature 16)	O	O	O	O	O	O
12M	Emergency (S2) Source Tripped (Requires Feature 16)	O	O	O	O	O	O
14	Auxiliary Relay Contacts						
14C	Normal (S1) Source Available 2NO/2NC	S	S	S	S	O	O
14D	Emergency (S2) Source Available 2NO/2NC	S	S	S	S	O	O
16	Integral Overcurrent Protection						
16N	Normal (S1) Switching Device Only	O	O	O	O	O	O
16E	Emergency (S2) Switching Device Only	O	O	O	O	O	O
16B	Normal (S1) and Emergency (S2) Switching Device	O	O	O	O	O	O

① 5B or 5J is standard based on system application voltage.

S = Standard O = Optional

Table 3. Standard and Optional Features (Continued)

Feature Number and Standard Feature Group (FG) Numbers	Description	ATVISP		CTVISP		NTVS	
		Mini-SPB ATC-600 IQ Transfer	SPB Fixed and Drawout Mount ATC-600 IQ Transfer	Mini-SPB ATC-800 Closed Transition IQ Transfer	SPB Fixed and Drawout Mount ATC-800 Closed Transition IQ Transfer	Mini-SPB Non-Automatic	SPB Fixed and Drawout Mount Non-Automatic
17 17C	High Withstand Rating 100 kAIC at 480 Vac		S		S		S
18	Metering						
18I	IQ Generator Normal (S1)	O	O	O	O	O	O
18J	IQ Generator Emergency (S2)	O	O	O	O	O	O
18K	IQ Generator Switch Selectable (S1) and (S2)	O	O	O	O	O	O
18L	IQ Generator Load Side	O	O	O	O	O	O
18O	IQ Analyzer Normal (S1)	O	O	O	O	O	O
18P	IQ Analyzer Emergency (S2)	O	O	O	O	O	O
18Q	IQ Analyzer Switch Selectable (S1) and (S2)	O	O	O	O	O	O
18V	IQ Analyzer Load Side	O	O	O	O	O	O
18R	IQ DP-4000 Normal (S1)	O	O	O	O	O	O
18S	IQ DP-4000 Emergency (S2)	O	O	O	O	O	O
18T	IQ DP-4000 Switch Selectable (S1) and (S2)	O	O	O	O	O	O
18U	IQ DP-4000 Load Side	O	O	O	O	O	O
20A	Rear Bus Connections						
21 21A	Non-Standard Terminals Insulated Case Device (SPB)	O	O	O	O	O	O
23 23J	Automatic Plant Exerciser Selectable – Disabled/7 Day Interval, 0 – 600 Minutes, Load/No Load, with Failsafe	O	O	O	O		
24 24C 24D	Self-Contained Battery Charger 120 Vac Input, 12 Vdc Output 120 Vac Input, 24 Vdc Output	O O O	O O O	O O O	O O O		
26 26A 26C 26D 26E 26F 26H	Normal Source Sensing All Phase Undervoltage All Phase Overvoltage Go to Emergency (S2) Input Under Frequency Protection Over Frequency Protection Phase Reversal Protection	S O O O O O O	S O O O O O O	S O O O O O O	S O O O O O O		
29 29A 29G 29J	Alternate Transfer Modes of Operation Automatic Transfer and Retransfer Selector Switch for Automatic or Non-Automatic Operation (Must be Labeled as Non-Automatic) Automatic Transfer Operation with Selectable (Via Programming) Automatic or Non-Automatic Retransfer Operation with Failsafe	S O O O	S O O O	S O O O	S O O O		
32 32A 32B 32C 32D	Delayed Transfer Operation Modes Time Delay Neutral Load Voltage Decay In-Phase Monitor Defaults to Load Voltage Decay In-Phase Monitor Defaults to Time Delay Neutral	O O O O	O O O O				
34 34A 34B 34C 34D 34E	Logic Extender Cable 48 Inches (1219 mm) 72 Inches (1829 mm) 96 Inches (2438 mm) 120 Inches (3048 mm) 144 Inches (3658 mm)	O O O O O	O O O O O	O O O O O	O O O O O	O O O O O	O O O O O
35A	Pretransfer Signal Contacts 1NO/1NC	O	O	O	O		
36	Load Shed from Emergency	O	O	O	O		
37 37A 37B	Rated as Suitable for Use as Service Equipment ^① (Requires 16B or 16N) Without Ground Fault Protection With Ground Fault Protection	O O O	O O O	O O O	O O O	O O O	O O O
41 41A 41B 41C	Space Heater with Thermostat 100 Watts 200 Watts 400 Watts	O O O O	O O O O	O O O O	O O O O	O O O O	O O O O
42	Seismic Zone 4 Qualified (BOCA, CBC, IBC, UBC)	S	S	S	S	S	S

① Ground Fault protection is required for Service Disconnects rated 1000 amperes or more if the electrical service is a solidly grounded wye system of more than 150 volts to ground but not exceeding 600 volts phase to phase.

S = Standard O = Optional

Table 3. Standard and Optional Features (Continued)

Feature Number and Standard Feature Group (FG) Numbers	Description	ATVISP		CTVISP		NTVS	
		Mini-SPB ATC-600 IQ Transfer	SPB Fixed and Drawout Mount ATC-600 IQ Transfer	Mini-SPB ATC-800 Closed Transition IQ Transfer	SPB Fixed and Drawout Mount ATC-800 Closed Transition IQ Transfer	Mini-SPB Non-Automatic	SPB Fixed and Drawout Mount Non-Automatic
Available Features							
45	Load Sequencing Contacts						
45A	Load Sequencing Contacts (1)	O	O	O	O		
45B	Load Sequencing Contacts (2)	O	O	O	O		
45C	Load Sequencing Contacts (3)	O	O	O	O		
45D	Load Sequencing Contacts (4)	O	O	O	O		
45E	Load Sequencing Contacts (5)	O	O	O	O		
45F	Load Sequencing Contacts (6)	O	O	O	O		
45G	Load Sequencing Contacts (7)	O	O	O	O		
45H	Load Sequencing Contacts (8)	O	O	O	O		
45I	Load Sequencing Contacts (9)	O	O	O	O		
45J	Load Sequencing Contacts (10)	O	O	O	O		
47	Closed Transition Operational Modes (User Must Specify Mode)			S	S		
47C	Closed Transition/In-Phase/Load Voltage Decay			O	O		
47D	Closed Transition			O	O		
47E	Closed Transition/In-Phase/Time Delay Neutral			O	O		
48	Communications						
48A	IPONI Module	O	O	O	O		
48B	IPONI Module and PMCOM5	O	O	O	O		
48C	IPONI Module, PMCOM5 and Null Modem Cable	O	O	O	O		
48D	EPONI Module (10Base-T only)	O	O	O	O		
48E	EPONI Module (10Base-T and 10base-FL)	O	O	O	O		

S = Standard O = Optional

Dimensions and Weights — Mini-SPB Fixed Mount

Automatic, Non-Automatic and Manual Transfer Switches

Enclosures meet all current applicable NEMA and UL standards for conduit entry, cable bending, gutter space and shielding of live components.

Available Enclosures

- NEMA 1
- NEMA 3R
- NEMA 4
- NEMA 4X
- NEMA 12

NEMA 1 Enclosures

NEMA 1 Transfer Switches are supplied with a front door only. They can be mounted in a corner or against a wall.

All Mini-SPB enclosure designs feature front cable access.

Table 4. Mini-SPB Fixed Mount Transfer Switches — Dimensions in Inches (mm)

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs. (kg)
NEMA 1 Enclosed Fixed Mount Transfer Switch					
600 – 1200	3	72 (1829)	38 (965)	28 (711)	850 (386)
600 – 1200	4	72 (1829)	38 (965)	28 (711)	900 (409)
NEMA 3R Enclosed Fixed Mount Transfer Switch					
600 – 1200	3	72 (1829)	38 (965)	34 (864)	1050 (477)
600 – 1200	4	72 (1829)	38 (965)	34 (864)	1100 (500)
NEMA 4, 4X and 12 Enclosed Fixed Mount Transfer Switch					
600 – 1200	3	72 (1829)	38 (965)	28 (711)	900 (409)
600 – 1200	4	72 (1829)	38 (965)	28 (711)	950 (432)
Open Type Fixed Mount Transfer Switch					
600 – 1200	3	—	—	—	400 (182)
600 – 1200	4	—	—	—	500 (227)

Dimensions and Weights — SPB Fixed Mount and Drawout Transfer Switches

Automatic, Non-Automatic and Manual Transfer Switches

Enclosures meet all current applicable NEMA and UL standards for conduit entry, cable bending, gutter space and shielding of live components.

NEMA 1 Enclosures

NEMA 1 Transfer Switches are supplied with a front door only. They can be mounted in a corner or against a wall. Access to cable space can be via either side, bottom, top, or the rear.

NEMA 3R Enclosures

Mini-SPB (600 – 1200 A only)

Access to cable space is via front, side and rear.

SPB (800 – 2000 A with Feature 17C only)

Access to cable space is via side and rear.

SPB (2500 – 4000 A only)

Additional 2-inch (50.8 mm) clearance on each side of enclosure for hooded vent patterns.

Requires appropriate rear-end clearance based on 24-inch (609.6 mm) double doors.

NEMA 3R Transfer Switches are supplied with front and rear doors. They can be mounted against a wall (allowing for hooded vent pattern clearance) but not in a corner. Access to cable space is via rear only.

Note: When open switch is mounted in customer enclosure, a vent pattern similar to that used on a Cutler-Hammer enclosure must be utilized.

Table 5. SPB Fixed Mount Transfer Switches — Dimensions in Inches (mm)

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs. (kg)
NEMA 1 Enclosed Fixed Mount Transfer Switch					
800 – 1200 ①	3	90 (2286)	28 (711)	50 (1270)	1200 (545)
800 – 1200 ①	4	90 (2286)	34 (864)	50 (1270)	1300 (590)
1600 – 2000	3	90 (2286)	28 (711)	50 (1270)	1250 (568)
1600 – 2000	4	90 (2286)	34 (864)	50 (1270)	1350 (613)
2500 – 3000	3	90 (2286)	48 (1219)	60 (1524)	1900 (863)
2500 – 3000	4	90 (2286)	48 (1219)	60 (1524)	2000 (908)
4000	3	90 (2286)	48 (1219)	60 (1524)	2700 (1226)

NEMA 3R Enclosed Fixed Mount Transfer Switch

800 – 1200 ①	3	90 (2286)	28 (711)	56 (1422)	1350 (613)
800 – 1200 ①	4	90 (2286)	34 (864)	56 (1422)	1500 (681)
1600 – 2000	3	90 (2286)	28 (711)	56 (1422)	1400 (636)
1600 – 2000	4	90 (2286)	34 (864)	56 (1422)	1550 (704)
2500 – 3000	3	90 (2286)	48 (1219)	60 (1524)	2400 (1090)
2500 – 3000	4	90 (2286)	48 (1219)	60 (1524)	2500 (1135)
4000	3	90 (2286)	48 (1219)	60 (1524)	3300 (1498)

Open Type Fixed Mount Transfer Switch

800 – 1200 ①	3	—	—	—	500 (227)
800 – 1200 ①	4	—	—	—	550 (250)
1600 – 2000	3	—	—	—	550 (250)
1600 – 2000	4	—	—	—	600 (273)
2500 – 3000	3	—	—	—	850 (386)
2500 – 3000	4	—	—	—	1150 (523)
4000	3	—	—	—	1800 (818)

① With Option 17C.

Table 6. SPB Drawout Transfer Switches — Dimensions in Inches (mm)

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs. (kg)
NEMA 1 Enclosed Fixed Mount Transfer Switch					
800 – 1200	3	90 (2286)	28 (711)	60 (1524)	1700 (772)
800 – 1200	4	90 (2286)	34 (864)	60 (1524)	1950 (886)
800 – 1200	3	90 (2286)	48 (1219)	72 (1829)	2500 (1135)
800 – 1200	4	90 (2286)	48 (1219)	72 (1829)	2800 (1271)
4000	3	90 (2286)	48 (1219)	72 (1829)	4300 (1952)
NEMA 3R Enclosed Fixed Mount Transfer Switch					
800 – 2000	3	90 (2286)	28 (711)	66 (1676)	1900 (863)
800 – 2000	4	90 (2286)	34 (864)	66 (1676)	1100 (500)
2500 – 3000	3	90 (2286)	48 (1219)	72 (1829)	4000 (1816)
2500 – 3000	4	90 (2286)	48 (1219)	72 (1829)	4300 (1952)
4000	3	90 (2286)	48 (1219)	72 (1829)	4900 (2225)

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