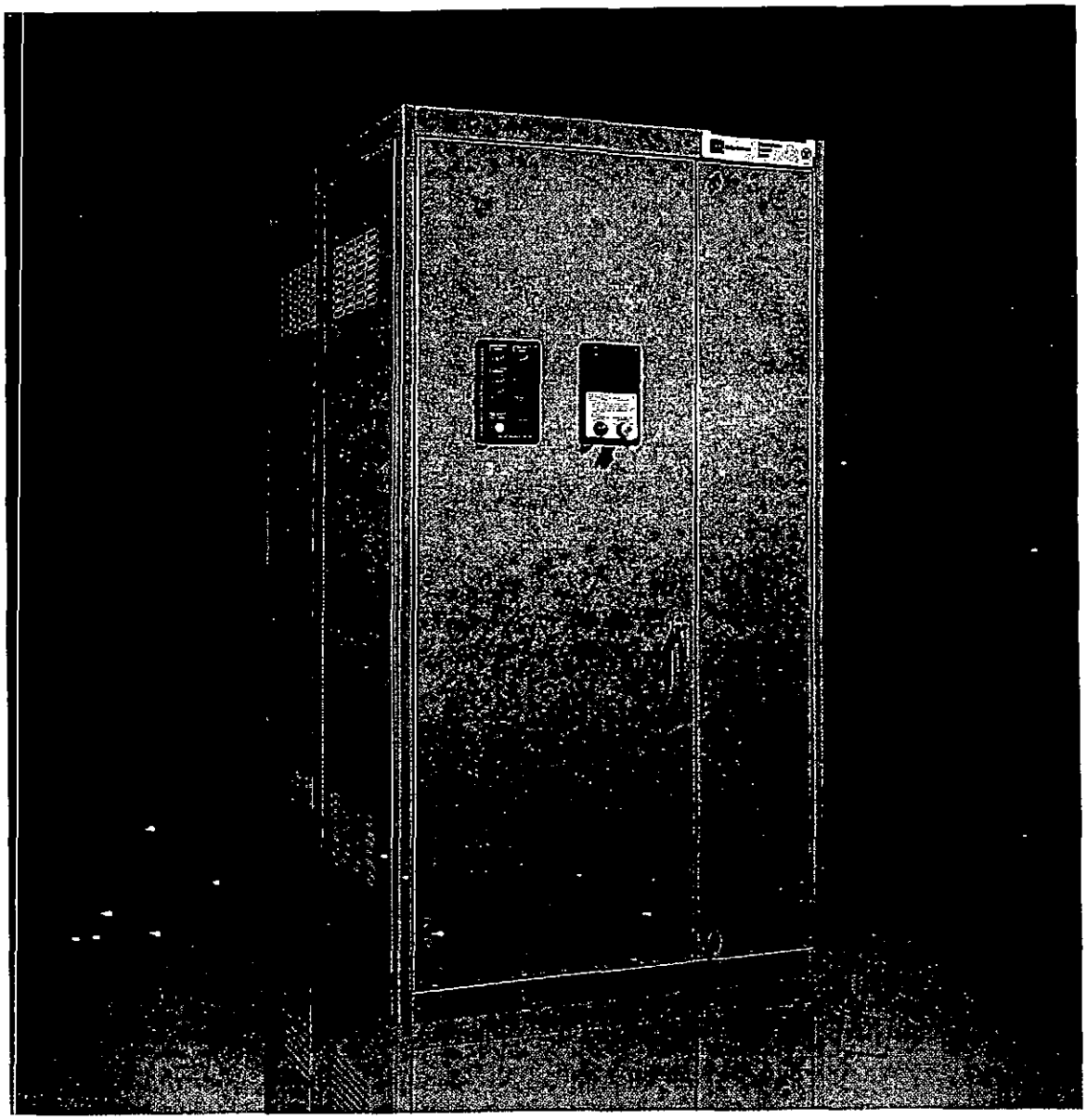
Westinghouse Transfer Switch Equipment

SPB Fixed Mount Transfer Switches
800 - 4000 Amperes

Our time proven vertical SPB transfer switch combines superior system coordination with our popular modular solid state logic elements for unmatched versatility and performance.



Cutler-Hammer

EATON

Westinghouse Transfer Switch Equipment

Switch Application Section

Westinghouse Fixed Mount SPB Transfer Switches are designed for applications requiring superior system coordination capability, delivering industry leading withstand, interrupting and closing performance.

Westinghouse 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. They also comply with emergency and standby system requirements as defined in NFPA 99 for health care facilities.

DESIGN HIGHLIGHTS

- Utilizes SPB insulated case switches as power switching elements
- Full 60 cycle withstand rating capability
- Safe to manually transfer under full load
- Modular solid state logic
- Overcurrent protection available
- UL 1008 service equipment rating available
- Seismic qualified for UBC Zone 4
- Significant size advantage over competitors' designs
- Multi-tap voltage selection plug
- Manufactured in an ISO 9002 facility and designed in an ISO 9001 facility

Westinghouse 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 (see next page). Cutler-Hammer also offers an extensive array of optional features and accessories that permits the user to customize a new transfer switch to match the application. The customization process is simple. Select the appropriate catalog number for your application from the charts below. Then choose any optional features or accessories needed to complete the project requirements.

CATALOG NUMBER

SWITCH TYPE	ARRANGEMENT NORMAL/ EMERGENCY	NUMBER OF SWITCHED POLES	SWITCH RATING	VOLTAGE FREQUENCY	ENCLOSURE TYPE	UL
ATVSSP	A = Switch/Switch	2 = 2 Pole	0800 = 800A	A = 120/60	S = Type 1	U
NTVSSP	B = Breaker/Breaker	3 = 3 Pole	1000 = 1000A	B = 208/60	R = Type 3R	
	C = Breaker/Switch	4 = 4 Pole	1200 = 1200A	E = 600/60		
	D = Switch/Breaker		1600 = 1600A	G = 220/50/60		
			2000 = 2000A	H = 380/50		
			2500 = 2500A	K = 600/50		
			3000 = 3000A	M = 230/50		
			4000 = 4000A	N = 401/50		
				O = 415/50		
				W = 240/60		
			*Only available in 2 and 3 poles	X = 480/60		
				Z = 365/50		

SYSTEMS COORDINATION INFORMATION

STANDARD WITHSTAND, CLOSING & INTERRUPTING RATINGS

	Rating when used with upstream breaker (kA)			Rating when used with upstream fuse (kA)		
AMPERE RATING	240V	480V	600V	MAX. FUSE RATING	FUSE TYPE	600V
800	100	100	85	2000	L	200
1000	100	100	85	2000	L	200
1200	100	100	85	2000	L	200
1600	100	100	85	3000	L	200
2000	100	100	85	3000	L	200
2500	100	100	85	4000	L	200
3000	100	100	85	4000	L	200

Tested in accordance with UL 1008.

Westinghouse SPB Transfer Switches will coordinate with a power circuit breaker's short time rating. Contact factory for details.

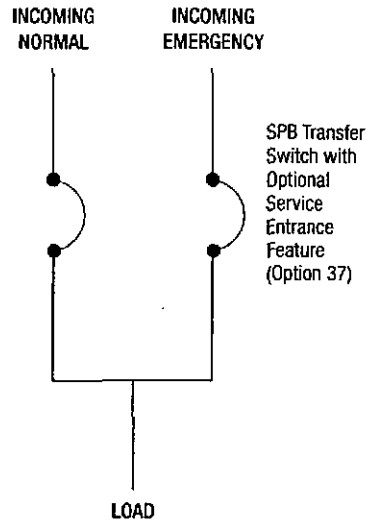
Functional and Operational Capabilities

Our design provides you with an SPB Transfer Switch that offers the utmost in flexibility, reliability and value. The long list of standards and codes below illustrates the versatility of our unit. The Westinghouse SPB Transfer Switch meets or exceeds many national and international standards. It is also designed and built in accordance with the following:

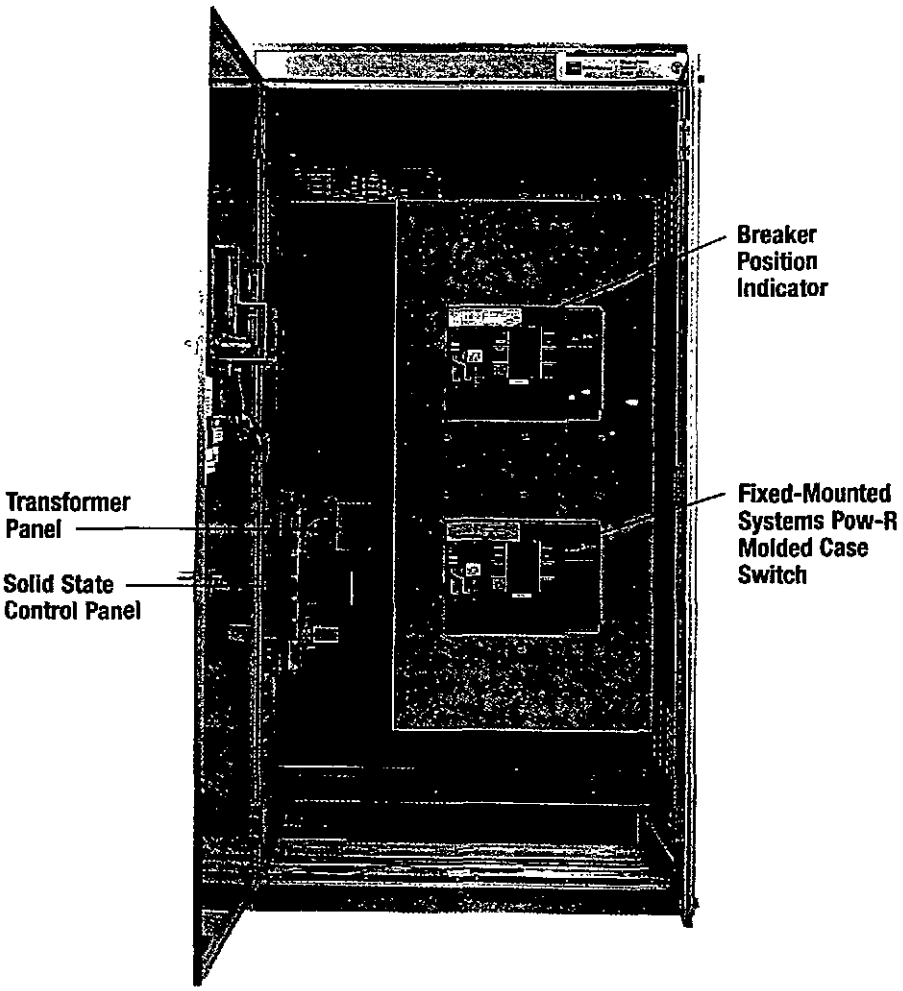
UL 1008	***Standard for Safety for Automatic Transfer Switches***
UL 489	***Standard for Circuit Breakers***
UL 1087	***Standard for Molded Case Switches***
NEC	***Articles 517, 700, 701, 702***
ANSI/NFPA 70	
NFPA 110	***Emergency and Standby Power Systems***
NFPA 99	***Health Care Facilities***
EGSA	***Standard for Transfer Switches***
NEMA	***ICS 2-447.10***
UBC	***Uniform Building Code for Seismic Zone 4***
ISO 9000	***International Organization for Standardization***

SERVICE EQUIPMENT – TRANSFER SWITCH

Often, it is desirable to apply the transfer switch as a service equipment device thereby eliminating the need for separate service disconnects and overcurrent protective devices. This switch is particularly adaptable to waste water 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.



Service Entrance Application



Westinghouse SPB Transfer Switch

RELIABLE AND EASY TO USE

SUPERIOR MAIN CONTACT STRUCTURE

The Westinghouse SPB Transfer Switch meets or exceeds the standards set forth in UL 1008, UL 1087 and UL 489. No other transfer switch manufacturer has met the rigid testing requirements of this combination of standards. Completely enclosed contacts provide both safety and reliability. They also ensure the integrity of the contact assemblies and minimize the need for periodic maintenance of the contacts, reducing downtime and maintenance time.

RELIABLE SOLID STATE LOGIC

The transfer switch intelligence panel utilizes the reliable, close differential sensing Westinghouse Modular Solid State Logic Package. This provides the system designer the opportunity to tailor the switch to the application as well as providing the capability of future upgrading of logic components in the field.

A wide range of field installable option kits are available with retention of UL label.

Keyed Quick Disconnect plugs are provided to completely isolate the control circuitry for maintenance purposes.

EASE OF COORDINATION

The Westinghouse SPB Transfer Switch is easily coordinated with any system power or air circuit breaker. The SPB switches have been tested to withstand a short circuit for up to 60 cycles. With optionally added overcurrent protection, the Westinghouse Drawout SPB Transfer Switch offers the greatest flexibility in system coordination of any transfer switch design.

FAST, POWERFUL AND SAFE SWITCHING MECHANISM

1. The mechanism utilizes a high speed, stored energy switching mechanism. This mechanism is able to be operated manually under a FULL LOAD.
2. With both mechanical and electrical interlocking the Westinghouse Mini-SPB offers no chance of a dangerous paralleling of sources

STANDARD FEATURES AND ACCESSORIES

TEST SELECTOR SWITCH

Provides a spring release push button for test operation of the ATS. It simulates a loss of the Normal Power Source, initiates an engine start and transfers the load to the Emergency/Standby Power Source.

ENGINE STARTING CONTACT

Provides a 10A, 30VDC contact closure to initiate engine starting upon failure of the Normal Power Source. This feature, specifically designed for low current applications, is wired to red terminal blocks on the control panel for ease of identification and maintenance.

FULL PHASE PROTECTION

Provides phase failure protection on each phase of the Normal Power Source. Should the voltage drop below a pre-selected, fully adjustable value on any phase, a signal is sent to initiate engine start.

FULLY RATED NEUTRAL

Provides a fully rated solid neutral for all 2 and 3 pole switches. All 4 pole switches are supplied with switched neutral contacts of identical construction and rating as the power poles and are mounted on the power contact shaft, integral to the completely enclosed contact assemblies.

MULTI-TAP VOLTAGE SELECTION

Provides line voltage selection of 208, 220, 240, 380, 415, 480 or 600VAC, 50 to 60 Hz by proper insertion of voltage selection plug.

Transfer Switch Dimensions

All transfer switch enclosures are constructed of high quality, 12 gauge steel and include a key lockable door handle as standard equipment. Enclosures for Westinghouse SPB Switches are freestanding Type 1 and Type 3R and meet all current applicable NEMA and UL standards for conduit entry, cable bending, gutter space and shielding of live components. See chart for approximate enclosure dimensions.

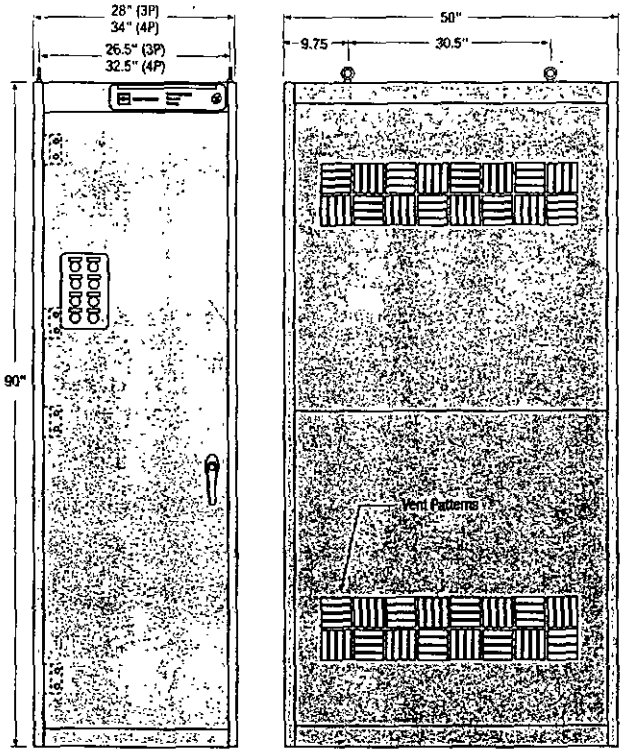
Dimensions & Conduit Opening In Inches	② A	③ B	C	Wt. (lbs.)
3 Pole 800-2000A①	28.00	50.00	23.50	1300
4 Pole 800-2000A①	34.00	50.00	29.50	1400
3 or 4 Pole 2500-3000A	48.00	60.00	43.25	1900
3 Pole 4000A	48.00	60.00	43.25	2100

① 800-1200A supplied with Option 17C

② NEMA 3R requires additional 2" clearance on each side of enclosure for hooded vent patterns.

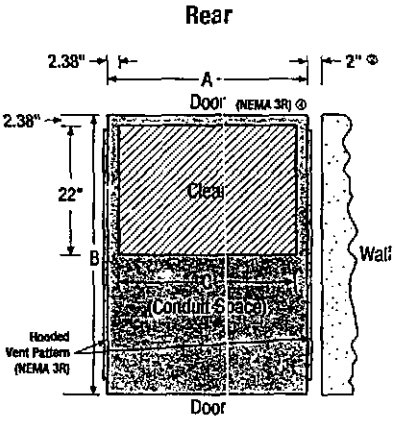
③ NEMA 3R requires appropriate rear-end clearance based on 28-34" door (800-2000 A) or 24" double doors (2500-4000 A).

NOTE: When open switch is mounted in customer enclosure, a vent pattern similar to that used on a Westinghouse enclosure must be utilized.



Front View **Side View**

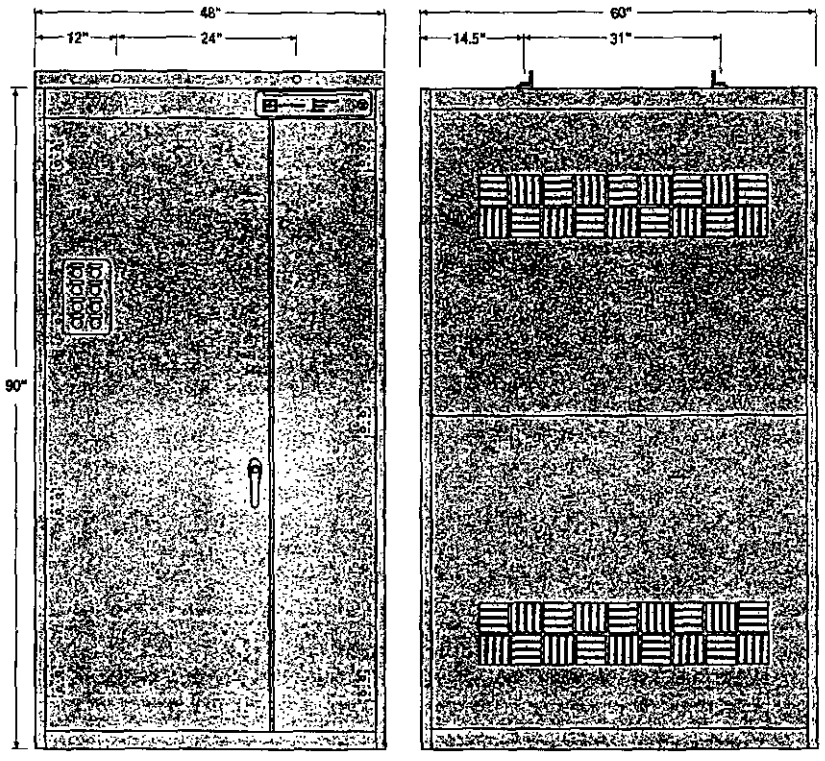
800-2000 Amperes, 3 or 4 Poles ①



Plan View

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

④ NEMA 3R Transfer Switches are supplied with front & rear doors. They can be mounted against a wall (allowing for hooded vent pattern clearance) but not in corner. Access to cable space is via rear only.



Front View **Side View**

2500-4000 Amperes, 3 Poles
2500-3000 Amperes, 4 Poles

Dimensions are approximate and should not be used for construction purposes.

FOR ADDITIONAL INFORMATION ON WESTINGHOUSE TRANSFER SWITCHES:

Bypass Isolation Transfer Switches 800-3000 Amperes	B 1221
Mini-SPB Transfer Switches 600-1200 Amperes	B 1222
ATS Solid State Logic	SA 12075
ATS Relay Logic	SA 12076
ATS Renewal Parts Catalog	SA 12077
Automatic, Manual, Non-Automatic Transfer Switches Vertical Design 150-1000 Amperes	B 1223
Automatic, Manual, Non-Automatic Transfer Switches 30-4000 Amperes, Price List	PL 29-920
Transfer Switch Equipment 30-4000 Amperes	TB 29-925
ATS Renewal Parts Price List	PL 29-995
Combination Bypass Isolation and Automatic Transfer Switches 100-1000 Amperes	SA 11844
Drawout Transfer Switches 800-4000 Amperes	SA 11873
IQ Transfer	SA 12142
Service Equipment Rated Transfer Switches	SA 12149

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EATON

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 corner or against a wall. Access to cable space can be via either side, bottom, top, or the rear.

NEMA 3R Enclosures

Additional 2" (5.1cm) clearance on each side of enclosure for hooded vent patterns.

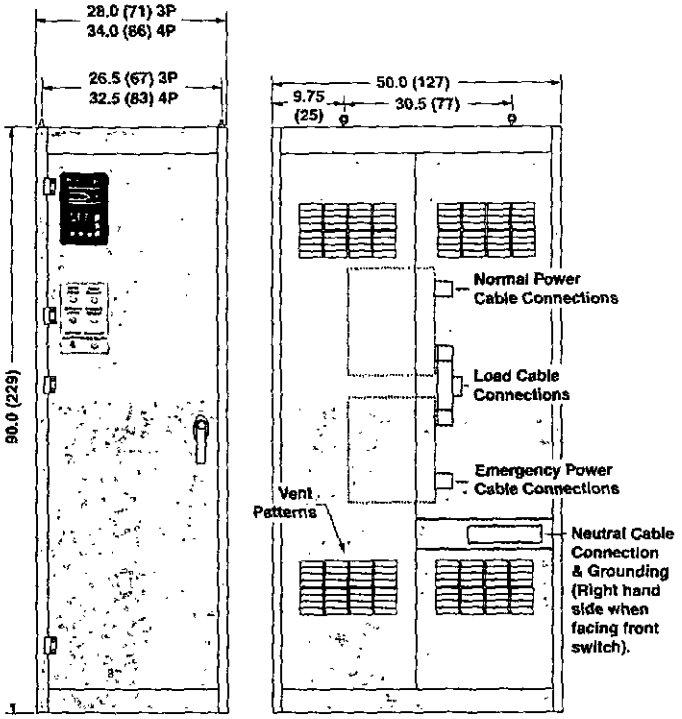
Requires appropriate rear-end clearance based on 26-34" (66-86cm) door (800-2000A) or 24" (61cm) double doors (2500-4000A).

NEMA 3R Transfer Switches are supplied with front & 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.

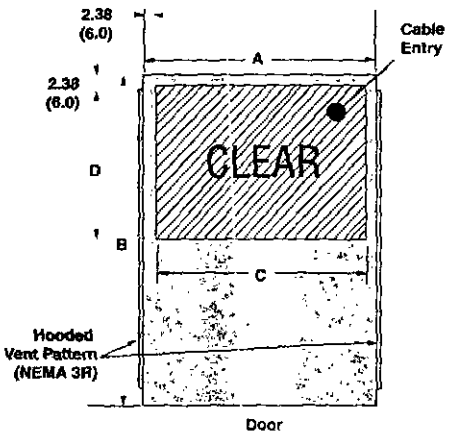
Transfer Switch Rating		Dimensions & Conduit Opening				Wt
		A	B	C	D	
		in (cm)	in (cm)	in (cm)	in (cm)	lb (kg)
3 pole	Fixed	28.00 (71.1)	50.00 (127.0)	23.50 (59.7)	22.00 (55.9)	1300 (590)
800-2000①	Drawout		60.00 (152.4)		28.40 (72.1)	1650 (748)
4 pole	Fixed	34.00 (86.4)	50.00 (127.0)	29.50 (74.9)	22.00 (55.9)	1400 (635)
800-2000①	Drawout		60.00 (152.4)		28.40 (72.1)	1900 (862)
3 pole	Fixed	48.00 (121.9)	60.00 (152.4)	43.25 (109.9)	22.00 (55.9)	1900 (862)
2500-4000A	Drawout		72.00 (182.9)		33.80 (85.9)	2200 (998)
4 pole	Fixed	48.00 (121.9)	60.00 (152.4)	43.25 (109.9)	22.00 (55.9)	2100 (953)
2500-3000A	Drawout		72.00 (182.9)		29.60 (75.2)	2400 (1089)

① 800-1200A supplied with Option 17C.

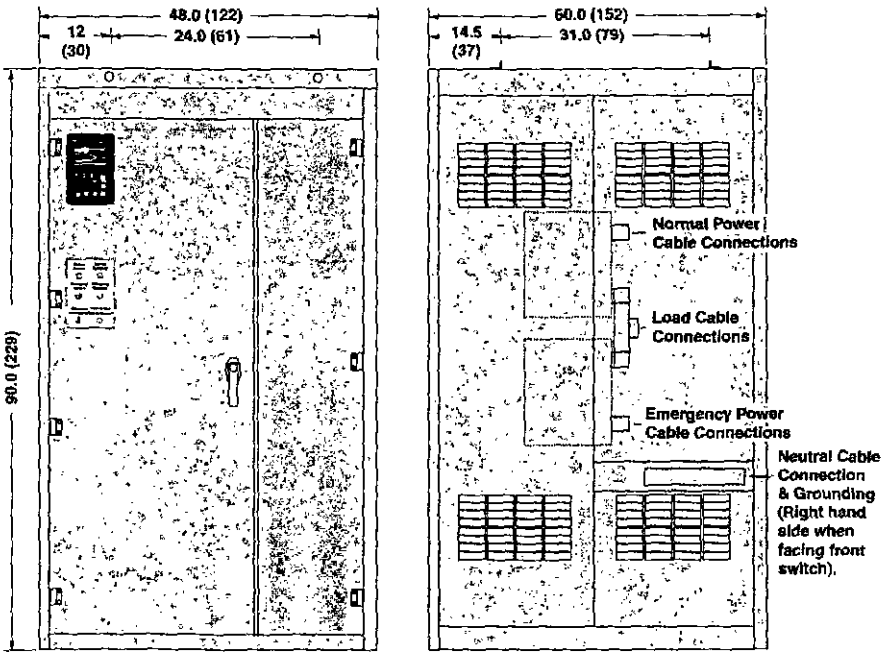


Front View **Side View**

800-2000 amperes, 3 or 4 poles
800-1200 only if Option 17C is selected



Top View



Front View **Side View**

2500-4000 amperes, 3 poles
2500-3000 amperes, 4 poles

Dimensions are approximate in inches (centimeters) and should not be used for construction purposes.