



## CAT<sup>®</sup> ATC POWER BREAKER & POWER CASE SWITCH AUTOMATIC TRANSFER SWITCH

Cat<sup>®</sup> transfer switches are designed for a variety of standby power applications. They provide flexibility, reliability and value in a compact package. The open transition power case switch-based Automatic Transfer Switch (ATS) will provide fully functioning transfer in applications where a momentary loss of power is acceptable on retransfer from emergency to normal power supply. The Cat power case switch-based ATS also permits periodic testing of the emergency source without interrupting power to the loads and are available from 200 to 5000 amperes.

### FEATURES

- ATC-800 microprocessor-based controller
- Voltage and frequency sensing
- Fastest switching times available (<3 cycles).
- Full 60-cycle short time withstand capability
- Multiple field programmable time delays
- Switch position indication
- Source availability indication
- Safe manual transfer under load.
- Source 1 and 2 auxiliary contacts
- Programmable plant exerciser
- System test pushbutton
- Load shed from emergency
- Mimic diagram
- True RMS three phase voltage sensing on Source 1, Source 2 and Load
- Frequency sensing on Source 1 and Source 2
- Mechanical (cable) and electrical interlocking to prevent paralleling of sources.
- Safe manual operation under full load with permanently affixed operating handle
- Ambient temperature range: -40°C to 40°C (-40°F to 104°F).
- Operating temperature range: -20°C to 70°C (-4°F to 158°F).
- Operating humidity: up to 90%.
- Relative humidity (non-condensing)
- Source paralleling duration is limited to 100 msec or less
- Source availability indication

## OPTIONS

- Closed transition
- Open transition
- Suitable for service entrance
- Integral overcurrent protection
- 2 or 4-position test switch
- Multi meter options available
- Selectable Automatic or Non-Automatic operation
- Space heaters (recommended for use in NEMA 3R enclosures)
- Load sequencing contacts
- Surge suppression
- Remote communications
- Controller availability: ATC-100, ATC-300+, and ATC-800
- Field selectable, multi ratio, control voltage transformer 50/60 Hz

## OPTIONAL DELAYED TRANSITION INCLUDES:

- Time Delay Neutral
- In-Phase Transition
- Pre-Transfer Signal with 1 N.O. and 1 N.C. contacts

## RATINGS

- Fixed Mount 200-3200A 2, 3, or 4 Pole
- Drawout 200-5000A 2-, 3-, 4-pole
- 120 – 600 Vac 50/60 Hz
- 100,000 amps withstand/closing/ interrupting at 600 Vac
- 100% rated Short
- Time Withstand – 85,000 for 30 cycles
- UL 1008 listed
- CSA C22.2 No. 178 certified
- IBC 2006, CBC 2007 and OSHPD

## CONTROLS AND WIRING

All control relays and industrial-grade relays are totally encapsulated to minimize exposure to dust and dirt. Lugs are 90°C rated and all control wire is #16 AWG, type XLPE with a 125°C temperature rating.

## ENCLOSURE

Durable powder-coated steel NEMA 1, 3R, or 12 enclosures with three door hinges to ensure proper support of the door and door mounted devices. The enclosures are Seismic Qualified (BOCA, CBC, IBC, UBC). The hinges have removable hinge pins to facilitate door removal for easy wall mounting or service and are supplied with pad-lockable latches.



## TESTING STANDARDS

UL 991 UL standards for safety tests for safety-related controls employing solid-state devices	IEC 1000-5 Surge withstand tests
UL 1008 Dielectric test (endurance, withstand, etc.)	NEMA® ICS 109.21 Impulse withstand test
IEEE® 472 (ANSI C37.90A) Ringing wave immunity/voltage surge test	CSA® conformance C22.2 No. 178-1978 (reaffirmed 1992)
EN55022 (CISPR11): Conducted and radiated emissions	UL 869A Reference Std for Service Equipment
EN61000-4-2 Class B Level 4 ESD immunity test	UL 50/508 Enclosures
EN61000-4-3 (ENV50140) radiated RF, electromagnetic field immunity test	NEMA ICS 1 General standards for industrial control system
EN61000-4-4 Electrical fast transient/burst immunity test	NEMA ICS 2 Standards for industrial control devices, controllers, and assemblies
EN61000-4-5 IEEE C62.41: Surge immunity test	NEMA ICS 6 Enclosures for industrial controls and systems
EN61000-4-6 (ENV50141) Conducted immunity test	NEMA ICS 10-1993 AC automatic transfer switches
EN61000-4-11 Voltage dips and interruption immunity	ANSI C33.76 Enclosures
FCC Part 15 Conducted/radiated emissions (Class A)	NEC® 517, 700, 701, and 702 National Electrical Code
CISPR 11 Conducted/radiated emissions (Class A)	NFPA® 70 National Fire Protection Agency
IEC 1000-2 Electrostatic discharge test	NFPA 99 Health care facilities
IEC 1000-3 Radiated susceptibility tests	NFPA 101 Life safety code
IEC 1000-4 Fast transient tests	NFPA 110 Emergency and standby power systems
	EGSA 100S Standard for transfer switches
	CSA C22.2 No. 178-1978 Canadian Standards Association

## UL 1008 ENDURANCE TESTING

ATS RATING (Amperes)	RATE OF OPERATION PER MINUTE	LIFE EXPECTANCY IN YEARS		TOTAL
		WITH CURRENT	WITHOUT CURRENT	
0-300	1	6000	-----	6000
301-400	1	4000	-----	4000
401-800	1	2000	1000	3000
801-1600	0.5	1500	1500	3000
1601-4000	0.25	1000	2000	3000

ATS RATING (Amperes)	MINIMUM OPERATIONS PER YEAR	LIFE EXPECTANCY IN YEARS	
		WITH CURRENT APPLIED	WITHOUT CURRENT APPLIED
0-300	52	115	115
301-400	52	76	76
401-800	52	38	57
801-1600	52	28	57
1601-4000	52	19	57

# AUTOMATIC TRANSFER SWITCH



## UL 1008 WITHSTAND AND CLOSE-ON RATINGS (kA)

Rating When Used with:

Ampere Rating	Upstream Circuit Breaker	Upstream Fuse
	3-Cycle 600 V (kA)	30-Cycle 600 V (kA)
800	100	85
1000	100	85
1200	100	85
1600	100	85
2000	100	85
2500	100	85
3200	100	85
4000	100	85
5000	100	85

I changed out this table and header only

## FIXED MOUNT POWER BREAKER-BASED TRANSFER SWITCH 200–3200A

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs. (kg)
NEMA 1 Enclosed Fixed Mount Transfer Switch					
200-2000	2	90 (2286)	32 (813)	48 (1219)	1050 (477)
200-2000	3	90 (2286)	32 (813)	48 (1219)	1050 (477)
200-2000	4	90 (2286)	32 (813)	48 (1219)	1250 (568)
2500-3200	2	90 (2286)	44 (1118)	48 (1219)	1900 (863)
2500-3200	3	90 (2286)	44 (1118)	48 (1219)	1900 (863)
2500-3200	4	90 (2286)	44 (1118)	48 (1219)	2000 (910)
NEMA 3R Enclosed Fixed Mount Transfer Switch					
200-2000	2	90 (2286)	32 (813)	63 (1600)	1600 (727)
200-2000	3	90 (2286)	32 (813)	63 (1600)	1600 (727)
200-2000	4	90 (2286)	32 (813)	63 (1600)	1800 (818)
2500-3200	2	90 (2286)	32 (813)	63 (1600)	2400 (1091)
2500-3200	3	90 (2286)	32 (813)	63 (1600)	2400 (1091)
2500-3200	4	90 (2286)	32 (813)	63 (1600)	2500 (1136)

Dimensions in Inches (mm) & Approximate Shipping lbs (kg)

# AUTOMATIC TRANSFER SWITCH



## DRAWOUT BREAKER-BASED TRANSFER SWITCH 200–5000A

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs. (kg)
<b>NEMA 1 Enclosed Drawout Transfer Switch</b>					
200-2000	2	90 (2286)	32 (813)	60 (1524)	1600 (727)
200-2000	3	90 (2286)	32 (813)	60 (1524)	1600 (727)
200-2000	4	90 (2286)	32 (813)	60 (1524)	1900 (864)
2500-3200	2	90 (2286)	44 (1118)	60 (1524)	2500 (1136)
2500-3200	3	90 (2286)	44 (1118)	60 (1524)	2500 (1136)
2500-3200	4	90 (2286)	44 (1118)	60 (1524)	2800 (1273)
4000-5000	2	90 (2286)	86 (2184)	71 (1803)	4150 (1886)
4000-5000	3	90 (2286)	86 (2184)	71 (1803)	4150 (1886)
4000-5000	4	90 (2286)	86 (2184)	71 (1803)	4175 (1898)
<b>NEMA 3R Enclosed Drawout Transfer Switch</b>					
200-2000	2	90 (2286)	32 (813)	75 (1905)	2100 (955)
200-2000	3	90 (2286)	32 (813)	75 (1905)	2100 (955)
200-2000	4	90 (2286)	32 (813)	75 (1905)	2400 (1089)
2500-3200	2	90 (2286)	44 (1118)	75 (1905)	3000 (1364)
2500-3200	3	90 (2286)	44 (1118)	75 (1905)	3000 (1364)
2500-3200	4	90 (2286)	44 (1118)	75 (1905)	3300 (1500)
4000-5000	2	90 (2286)	86 (2184)	87 (2210)	4250 (1932)
4000-5000	3	90 (2286)	86 (2184)	87 (2210)	4250 (1932)
4000-5000	4	90 (228/6)	86 (2184)	87 (2210)	4275 (1943)

Dimensions in inches (mm) and approximate shipping lbs (kg)

**All dimensions and weights are approximate and subject to change without notice and are not for construction use.**

Information contained in this publication may be considered confidential. Discretion is recommended when distributing.

Materials and specifications are subject to change without notice.

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow", the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

[www.Cat-ElectricPower.com](http://www.Cat-ElectricPower.com)