Picture shown may not reflect actual configuration

Cat® ATC Power Breaker and Power Case Switch Automatic Transfer Switch (ATS)

Cat® 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 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-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-900 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 Source 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
- Multiple metering options available
- Selectable automatic or non-automatic operation
- Space heaters (recommended for use in NEMA 3R enclosures)
- Load sequencing contacts
- Surge suppression
- Remote communications
- Communications for the ATC-300+ and ATC-900 via Modbus through an integrated RS-485 port
- Controller availability: ATC-100, ATC-300+
- 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 90ºC 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 padlockable latches.

Testing Standards

- UL 991 standards for safety tests for safety-related controls employing solid-state devices
- UL 1008 dielectric test (endurance, withstand, etc.)
- IEEE® 472 (ANSI C37.90A) ringing wave immunity/voltage surge test
- EN55022 (CISPR11): conducted and radiated emissions
- EN61000-4-2 Class B Level 4 ESD immunity test
- EN61000-4-3 (ENV50140) radiated RF, electromagnetic field immunity test
- EN61000-4-4 electrical fast transient/burst immunity test
- EN61000-4-5 IEEE C62.41: surge immunity test
- EN61000-4-6 (ENV50141) conducted immunity test
- EN61000-4-11 voltage dips and interruption immunity
- FCC Part 15 conducted/radiated emissions (Class A)
- CISPR 11 conducted/radiated emissions (Class A)
- IEC 1000-2 electrostatic discharge test
- IEC 1000-4 fast transient tests
- IEC 1000-5 Surge withstand tests
- NEMA® ICS 109.21 impulse withstand test
- CSA® conformance C22.2 No. 178-1978 (reaffirmed 1992)
- UL 869A reference standard for service equipment
- UL 50/508 enclosures
- NEMA ICS 1 general standards for industrial control system
- NEMA ICS 2 standards for industrial control devices, controllers, and assemblies
- NEMA ICS 6 enclosures for industrial controls and systems
- NEMA ICS 10-1993 AC automatic transfer switches
- ANSI C33.76 enclosures
- NEC® 517, 700, 701, and 702 National Electrical Code
- NFPA® 70 National Fire Protection Agency
- NFPA 99 health care facilities
- NFPA 101 life safety code
- 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	With Current	Without Current	Total
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

Fixed Mount Power Breaker-based Transfer Switch 200–5000A

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs (kg)
NEMA 1 Enclosed Fixed Mount Transfer Switch					
200-2000 200-2000 200-2000	2 3 4	90 (2286) 90 (2286) 90 (2286)	32 (711) 32 (711) 32 (711)	48 (1219) 48 (1219) 48 (1219)	1050 (477) 1050 (477) 1250 (568)
2500-3200 2500-3200 2500-3200	2 3 4	90 (2286) 90 (2286) 90 (2286)	44 (1118) 44 (1118) 44 (1118)	48 (1219) 48 (1219) 48 (1219)	1900 (863) 1900 (863) 2000 (910)
4000-5000 4000-5000 4000-5000	2 3 4	Consult Factory			
NEMA 3R Enclosed Fixed Mount Transfer Switch					
200-2000 200-2000 200-2000	2 3 4	90 (2286) 90 (2286) 90 (2286)	32 (711) 32 (711) 32 (711)	63 (1600) 63 (1600) 63 (1600)	1600 (727) 1600 (727) 1800 (818)
2500-3200 2500-3200 2500-3200	2 3 4	90 (2286) 90 (2286) 90 (2286)	44 (1118) 44 (1118) 44 (1118)	63 (1600) 63 (1600) 63 (1600)	2400 (1091) 2400 (1091) 2500 (1136)
4000-5000 4000-5000 4000-5000	2 3 4	Consult Factory			

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

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

Drawout Breaker-based Transfer Switch 200–5000A

Ampere Rating	Number of Poles	Height	Width	Depth	Shipping Weight Lbs (kg)
NEMA 1 Enclosed Drawout Transfer Switch					
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)
NEMA 3R Enclosed Drawout Transfer Switch					
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 (2286)	86 (2184)	87 (2210)	4275 (1943)

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

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