Picture shown may not reflect actual configuration

Cat® ATC Service Entrance Rated MCCB and Power Breaker-based Automatic Transfer Switch (ATS)

Cat® Service Entrance Rated (SER) ATS are designed to provide standby or emergency power to entire installation loads to protect against utility power interruption, yet allow the ATS to be as close as possible to the point of service entrance. Integrating the necessary overcurrent protection and service disconnecting means into the automatic transfer switch, a single installation can be made at the service entrance safely and in code compliance. This design eliminates the need for a separate upstream fault protection and respective interconnections, which in turn reduces installation space, time, and cost. Breaker-based service entrance-rated transfer switches are available from 30A to 5000A.

Features

- ATC-100 on residential and light commercial MCCB based, ATC-300+ or ATC-900 on MCCB and Power Breaker ATS products
- UL 1008 service entrance listed (up to 3200A)
- Service disconnect (both off) capability
- Integral over current protection
- Lockout when in disconnected position (only)
- Service entrance labeled
- Integrated design
- Disconnecting neutral assembly
- Ground fault protection capability (all ratings) (required by code on rating 480V and 1000A or higher)

Benefits

- Loads protected against extended power loss
- Quick restoration of the circuit after a trip (versus a fused circuit that requires fuse availability)
- Trip on a fault prohibits transfer to the emergency source
- Fused circuit allows switch testing by simulating an actual power failure
- Lockable disconnect position permits safe downstream maintenance
- UL 891 for 4000-5000A
- Keyed service entrance switch
- Draw-out type breakers (available on power breaker ratings)

Options

- Open, closed or delayed transition
- Integral overcurrent protection
- 4-position test switch
- Multiple metering options available
- Selectable automatic or non-automatic operation
- Space heaters
- Load sequencing contacts
- Surge suppression
- Remote communications
- Communications for the ATC-300+ and ATC-900 controller via Modbus through an integrated RS-485 port
- Field-selectable, multi-ratio, control voltage transformer 50/60 Hz

Optional Delayed Transition Includes:

- Time delay neutral
- Pre-transfer signal with 1 N.O. and 1 N.C. contacts

Ratings

- 30-1000A 2-, 3-, or 4-pole
- 200-3200A 2-, 3-, 4-pole (fixed mount power breaker)
- 200-5000A 2-, 3-, or 4-pole (draw-out power breaker)
- 120-600 VAC 50/60 Hz
- 100% rated
- Withstand up to 100 kAIC at 600V 3 cycles (power breaker)
- CSA C22.2 No. 178 certified
- UL 1008 listed up to 3200A, 4000A, and 5000A UL 891 listed
- Seismic qualified (BOCA, CBC, IBC, UBC, 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, NEMA 3R, or NEMA 12 enclosures with three-door hinges to ensure proper support of the door and door-mounted devices. 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 1000-3 radiated susceptibility 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

Service Entrance Rated Power Breaker Dimensions and Weights 200-4000A

Ampere Rating	SER Switch Type	Enclosure Type	Number of Poles	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight Lbs
200-2000	Power Breaker Fixed	NEMA 1 Rear	2, 3	90 (2286)	32 (813)	48 (1219)	1050
200-2000	Power Breaker Fixed	NEMA 1 Rear	4	90 (2286)	32 (813)	48 (1219)	1250
2500-3200	Power Breaker Fixed	NEMA 1 Rear	2, 3	90 (2286)	44 (1118)	48 (1219)	1900
2500-3200	Power Breaker Fixed	NEMA 1 Rear	4	90 (2286)	44 (1118)	48 (1219)	2000
200-2000	Power Breaker Fixed	NEMA 1 Thru	2, 3	90 (2286)	32 (813)	48 (1219)	1050
200-2000	Power Breaker Fixed	NEMA 1 Thru	4	90 (2286)	32 (813)	48 (1219)	1250
2500-3200	Power Breaker Fixed	NEMA 1 Thru	2, 3	90 (2286)	44 (1118)	48 (1219)	1900
2500-3200	Power Breaker Fixed	NEMA 1 Thru	4	90 (2286)	44 (1118)	48 (1219)	2000
200-2000	Power Breaker Fixed	NEMA 3R	2, 3	90 (2286)	32 (813)	63 (1600)	1600
200-2000	Power Breaker Fixed	NEMA 3R	4	90 (2286)	32 (813)	63 (1600)	1800
2500-3200	Power Breaker Fixed	NEMA 3R	2, 3	90 (2286)	44 (1118)	63 (1600)	2400
2500-3200	Power Breaker Fixed	NEMA 3R	4	90 (2286)	44 (1118)	63 (1600)	2500
200-2000	Power Breaker Drawout	NEMA 1 Rear	2, 3	90 (2286)	32 (813)	60 (1524)	1600
200-2000	Power Breaker Drawout	NEMA 1 Rear	4	90 (2286)	32 (813)	60 (1524)	1900
2500-3200	Power Breaker Drawout	NEMA 1 Rear	2, 3	90 (2286)	44 (1118)	60 (1524)	2500
2500-3200	Power Breaker Drawout	NEMA 1 Rear	4	90 (2286)	44 (1118)	60 (1524)	2800
4000	Power Breaker Drawout	NEMA 1 Rear	2, 3	90 (2286)	86 (2184)	71 (1803)	4150
4000	Power Breaker Drawout	NEMA 1 Rear	4	90 (2286)	86 (2184)	71 (1803)	4150
200-2000	Power Breaker Drawout	NEMA 1 Thru	2, 3	90 (2286)	32 (813)	60 (1524)	1600
200-2000	Power Breaker Drawout	NEMA 1 Thru	4	90 (2286)	32 (813)	60 (1524)	1900
2500-3200	Power Breaker Drawout	NEMA 1 Thru	2, 3	90 (2286)	44 (1118)	60 (1524)	2500
2500-3200	Power Breaker Drawout	NEMA 1 Thru	4	90 (2286)	44 (1118)	60 (1524)	2800
200-2000	Power Breaker Drawout	NEMA 3R	2, 3	90 (2286)	32 (813)	75 (1905)	2100
200-2000	Power Breaker Drawout	NEMA 3R	4	90 (2286)	32 (813)	75 (1905)	2400
2500-3200	Power Breaker Drawout	NEMA 3R	2, 3	90 (2286)	44 (1118)	75 (1905)	3000
2500-3200	Power Breaker Drawout	NEMA 3R	4	90 (2286)	44 (1118)	75 (1905)	3300
4000	Power Breaker Drawout	NEMA 3R	2, 3	90 (2286)	86 (2184)	87 (2210)	4150
4000	Power Breaker Drawout	NEMA 3R	4	90 (2286)	86 (2184)	87 (2210)	4150
200-2000	Bypass Isolation Power Breaker	NEMA 1 Rear	2, 3	90 (2286)	64 (1626)	60 (1524)	3100
200-2000	Bypass Isolation Power Breaker	NEMA 1 Rear	4	90 (2286)	64 (1626)	60 (1524)	3700
2500-3200	Bypass Isolation Power Breaker	NEMA 1 Rear	2, 3	90 (2286)	64 (1626)	60 (1524)	4700
2500-3200	Bypass Isolation Power Breaker	NEMA 1 Rear	4	90 (2286)	64 (1626)	60 (1524)	5500
4000	Bypass Isolation Power Breaker	NEMA 1 Rear	4	90 (2286)	140 (3556)	71 (1803)	4150
200-2000	Bypass Isolation Power Breaker	NEMA 3R	2, 3	90 (2286)	64 (1626)	75 (1905)	4100
200-2000	Bypass Isolation Power Breaker	NEMA 3R	4	90 (2286)	64 (1626)	75 (1905)	4700
2500-3200	Bypass Isolation Power Breaker	NEMA 3R	2, 3	90 (2286)	64 (1626)	75 (1905)	5700
2500-3200	Bypass Isolation Power Breaker	NEMA 3R	4	90 (2286)	64 (1626)	75 (1905)	6500

Service Entrance Rated Power Breaker Dimensions and Weights 200-4000A (continued)

Ampere Rating	SER Switch Type	Enclosure Type	Number of Poles	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight Lbs
200-2000	Power Breaker Drawout	NEMA 1 Rear	4	90 (2286)	64 (1626)	48 (1219)	4700
200-2000	Power Breaker Drawout	NEMA 1 Rear	2, 3	90 (2286)	64 (1626)	48 (1219)	4700
2500-3200	Power Breaker Drawout	NEMA 1 Rear	4	90 (2286)	64 (1626)	48 (1219)	4700
2500-3200	Power Breaker Drawout	NEMA 1 Rear	2, 3	90 (2286)	64 (1626)	48 (1219)	4700
200-2000	Power Breaker Drawout	NEMA 3R	4	90 (2286)	64 (1626)	63 (1600)	5200
200-2000	Power Breaker Drawout	NEMA 3R	2, 3	90 (2286)	64 (1626)	63 (1600)	5200
2500-3200	Power Breaker Drawout	NEMA 3R	4	90 (2286)	64 (1626)	63 (1600)	5200
2500-3200	Power Breaker Drawout	NEMA 3R	2, 3	90 (2286)	64 (1626)	63 (1600)	5200
200-2000	Bypass Isolation Power Breaker	NEMA 1 Rear	2, 3	90 (2286)	96 (2438)	48 (1219)	4700
200-2000	Bypass Isolation Power Breaker	NEMA 1 Rear	4	90 (2286)	96 (2438)	48 (1219)	4700
2500-3200	Bypass Isolation Power Breaker	NEMA 1 Rear	2, 3	90 (2286)	96 (2438)	48 (1219)	4700
2500-3200	Bypass Isolation Power Breaker	NEMA 1 Rear	4	90 (2286)	96 (2438)	48 (1219)	4700
200-2000	Bypass Isolation Power Breaker	NEMA 3R	2, 3	90 (2286)	96 (2438)	63 (1600)	5200
200-2000	Bypass Isolation Power Breaker	NEMA 3R	4	90 (2286)	96 (2438)	63 (1600)	5200
2500-3200	Bypass Isolation Power Breaker	NEMA 3R	2, 3	90 (2286)	96 (2438)	63 (1600)	5200
2500-3200	Bypass Isolation Power Breaker	NEMA 3R	4	90 (2286)	96 (2438)	63 (1600)	5200

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

MCCB Dimensions and Weights for Service Entrance Rated Switches

Ampere Rating	Breaker Type	Number of Poles	Switch Type	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight Lbs (kg)
Distribution Panels (240/120V Single-phase, ATC-300 only) NEMA 1, 3R, and 12							
225	FD	2	Service Entrance	53 (1346)	26 (660)	17 (432)	304 (138)
300	KD		Service Entrance	64 (1626)	26 (660)	17 (432)	405 (184)
400	LD		Service Entrance	77 (1956)	26 (660)	18 (457)	505 (229
Automatic Transfer Switches (AG: 240/120 Single-phase, 280/120, ATC-100 & ATC-300) NEMA 1, 3R, and 12							
30-100	FD	2	Service Entrance	36 (914)	20 (509)	11.5 (292)	150 (68)
		3	Service Entrance	36 (914)	20 (509)	11.5 (292)	150 (68)
		4	Service Entrance	36 (914)	20 (509)	11.5 (292)	150 (68)
150-225	FD	2	Service Entrance	36 (914)	20 (509)	11.5 (292)	150 (68)
		3	Service Entrance	36 (914)	20 (509)	11.5 (292)	150 (68)
		4	Service Entrance	36 (914)	20 (509)	11.5 (292)	150 (68)
400-600	LD	2	Service Entrance	64 (1626)	26 (660)	17 (432)	445 (202)
		3	Service Entrance	64 (1626)	26 (660)	17 (432)	475 (215)
		4	Service Entrance	64 (1626)	26 (660)	17 (432)	475 (215)
600-800	MD	2	Service Entrance	77 (1956)	26 (660)	18 (457)	570 (259)
		3	Service Entrance	77 (1956)	26 (660)	18 (457)	570 (259)
Automatic Switches and Non-automatic Transfer Switches NEMA 1, 3R, and 12							
30-100	FD	2	Service Entrance	48 (1219)	21 (533)	15 (381)	227 (103)
		3	Service Entrance	48 (1219)	21 (533)	15 (381)	232 (105)
		4	Service Entrance	48 (1219)	21 (533)	15 (381)	240 (109)
150	FD	2	Service Entrance	48 (1219)	21 (533)	15 (381)	227 (103)
		3	Service Entrance	48 (1219)	21 (533)	15 (381)	232 (105)
		4	Service Entrance	48 (1219)	21 (533)	15 (381)	240 (109)
150-225	KD	2	Service Entrance	48 (1219)	21 (533)	17 (432)	305 (138)
		3	Service Entrance	48 (1219)	21 (533)	17 (432)	305 (138)
		4	Service Entrance	48 (1219)	21 (533)	17 (432)	315 (143)
300	KD	2	Service Entrance	56 (1422)	21 (533)	17 (432)	295 (134)
		3	Service Entrance	56 (1422)	21 (533)	17 (432)	305 (138)
		4	Service Entrance	56 (1422)	21 (533)	17 (432)	315 (143)
400	LD	2	Service Entrance	53 (1346)	26 (660)	17 (432)	395 (179)
		3	Service Entrance	53 (1346)	26 (660)	17 (432)	425 (193)
		4	Service Entrance	53 (1346)	26 (660)	17 (432)	455 (206)
400-600	LD	2	Service Entrance	64 (1626)	26 (660)	17 (432)	395 (179)
		3	Service Entrance	64 (1626)	26 (660)	17 (432)	425 (193)
		4	Service Entrance	64 (1626)	26 (660)	17 (432)	425 (193)
600-800	MD	2	Service Entrance	77 (1956)	26 (660)	18 (457)	570 (259)
		3	Service Entrance	77 (1956)	26 (660)	18 (457)	570 (259)
600-1000	NB	2	Service Entrance	77 (1956)	26 (660)	18 (457)	540 (245)
		3	Service Entrance	77 (1956)	26 (660)	18 (457)	570 (259)
		4	Service Entrance	77 (1956)	26 (660)	18 (457)	600 (272)

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Automatic Transfer Switch

LEHE0832-00 (3-15)