Picture shown may not reflect actual configuration

Cat® ATC Molded Case Circuit Breaker And Molded 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 breaker-based ATS will provide fully functioning transfer in applications where a momentary loss of power is acceptable on re-transfer from emergency to normal power supply. The Cat open transition MCCB and MCS types of ATS also permit periodic testing of the emergency source without interrupting power to the loads and are available from 30 to 1000 amperes.

Features

- ATC-100, ATC-300+ or ATC-900 microprocessor-based controller
- Voltage and frequency sensing
- 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 (ATC-900 only)
- Mimic diagram
- 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)
- Frequency sensing on Source 1 and Source 2
- True RMS three-phase voltage sensing on Source 1, Source 2 and load.

Options

- 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
- Controller availability: ATC-100, ATC-300+, or ATC-900
- Field-selectable, multi-ratio, control voltage transformer 50/60 Hz
- Communications for the ATC-300+ and ATC-900 controller via Modbus through an integrated RS-485 port

Picture shown may not reflect actual configuration

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
- 120-600 VAC 50/60 Hz
- 100,000 amps withstand/closing/interrupting at 480 VAC
- 100% rated
- 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, NEMA 3R, and NEMA 12 are available with ATC-100, ATC-300+ and ATC-900 controllers. NEMA 4 is only available with the ATC-900 controller. The enclosures are seismic qualified (BOCA, CBC, IBC, UBC, OSHPD). 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

Molded Case Circuit Breaker Dimensions and Weights 40-1000A*

Ampere Rating	Breaker Type	Number of Poles	Switch Type	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight Lbs
Distribution Panels (240/120V Single-Phase, ATC-300 only) NEMA 1, 3R, & 12							
225	FD	2	BOTH	53 (1346)	26 (660)	17 (432)	304
300	KD		Non Service Entrance Service Entrance	64 (1626) 64 (1626)	26 (660) 26 (660)	17 (432) 17 (432)	405 405
400	LD		Non Service Entrance Service Entrance	77 (1956) 77 (1956)	26 (660) 26 (660)	18 (457) 18 (457)	505 505
Automatic Transfer Switches (AG: 240/120 Single-Phase, 280/120, ATC-100 & ATC-300) NEMA 1, 3R, & 12							
30-100	FD	2 3 2 3 4	Non Service Entrance Non Service Entrance Service Entrance Service Entrance BOTH	36 (914) 36 (914) 36 (914) 36 (914) 36 (914)	20 (509) 20 (509) 20 (509) 20 (509) 20 (509)	11.5 (292) 11.5 (292) 11.5 (292) 11.5 (292) 11.5 (292)	150 150 150 150 150
150-225	FD	2 3 2 3 4	Non Service Entrance Non Service Entrance Service Entrance Service Entrance BOTH	36 (914) 36 (914) 36 (914) 36 (914) 36 (914)	20 (509) 20 (509) 20 (509) 20 (509) 20 (509)	11.5 (292) 11.5 (292) 11.5 (292) 11.5 (292) 11.5 (292)	150 150 150 150 150
400-600	LD	2 3 2 3 4	Non Service Entrance Non Service Entrance Service Entrance Service Entrance BOTH	64 (1626) 64 (1626) 64 (1626) 64 (1626) 64 (1626)	26 (660) 26 (660) 26 (660) 26 (660) 26 (660)	17 (432) 17 (432) 17 (432) 17 (432) 17 (432)	445 475 445 475 475
600-800	MD	2 3 2 3	Non Service Entrance Non Service Entrance Service Entrance Service Entrance	77 (1956) 77 (1956) 77 (1956) 77 (1956)	26 (660) 26 (660) 26 (660) 26 (660)	18 (457) 18 (457) 18 (457) 18 (457)	480 510 570 570
Automatic Switches & Non-Automatic Transfer Switches NEMA 1, 3R, & 12							
30-100	FD	2 3 2 3 4	Non Service Entrance Non Service Entrance Service Entrance Service Entrance BOTH	48 (1219) 48 (1219) 48 (1219) 48 (1219) 48 (1219)	21 (533) 21 (533) 21 (533) 21 (533) 21 (533)	15 (381) 15 (381) 15 (381) 15 (381) 15 (381)	227 232 227 232 240
150	FD	2 3 2 3 4	Non Service Entrance Non Service Entrance Service Entrance Service Entrance BOTH	48 (1219) 48 (1219) 48 (1219) 48 (1219) 48 (1219)	21 (533) 21 (533) 21 (533) 21 (533) 21 (533)	15 (381) 15 (381) 15 (381) 15 (381) 15 (381)	227 232 227 232 240

Molded Case Circuit Breaker Dimensions and Weights 40-1000A* (continued)

Ampere Rating	Breaker Type	Number of Poles	Switch Type	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Weight Lbs
150-225	KD	2	Non Service Entrance	48 (1219)	21 (533)	17 (432)	305
		3	Non Service Entrance	48 (1219)	21 (533)	17 (432)	305
		2	Service Entrance	48 (1219)	21 (533)	17 (432)	305
		3	Service Entrance	48 (1219)	21 (533)	17 (432)	305
		4	BOTH	48 (1219)	21 (533)	17 (432)	315
300	KD	2	Non Service Entrance	56 (1422)	21 (533)	17 (432)	295
		3	Non Service Entrance	56 (1422)	21 (533)	17 (432)	305
		2	Service Entrance	56 (1422)	21 (533)	17 (432)	295
		3	Service Entrance	56 (1422)	21 (533)	17 (432)	305
		4	BOTH	56 (1422)	21 (533)	17 (432)	315
400	LD	2	Non Service Entrance	53 (1346)	26 (660)	17 (432)	395
		3	Non Service Entrance	53 (1346)	26 (660)	17 (432)	425
		2	Service Entrance	53 (1346)	26 (660)	17 (432)	395
		3	Service Entrance	53 (1346)	26 (660)	17 (432)	425
		4	BOTH	53 (1346)	26 (660)	17 (432)	455
400-600	LD	2	Non Service Entrance	64 (1626)	26 (660)	17 (432)	395
		3	Non Service Entrance	64 (1626)	26 (660)	17 (432)	425
		2	Service Entrance	64 (1626)	26 (660)	17 (432)	395
		3	Service Entrance	64 (1626)	26 (660)	17 (432)	425
		4	BOTH	64 (1626)	26 (660)	17 (432)	425
600-800	MD	2	Non Service Entrance	77 (1956)	26 (660)	18 (457)	480
		3	Non Service Entrance	77 (1956)	26 (660)	18 (457)	510
		2	Service Entrance	77 (1956)	26 (660)	18 (457)	570
		3	Service Entrance	77 (1956)	26 (660)	18 (457)	570
600-1000	NB	2	Non Service Entrance	77 (1956)	26 (660)	18 (457)	540
		3	Non Service Entrance	77 (1956)	26 (660)	18 (457)	570
		2	Service Entrance	77 (1956)	26 (660)	18 (457)	540
		3	Service Entrance	77 (1956)	26 (660)	18 (457)	570
		4	BOTH	77 (1956)	26 (660)	18 (457)	600

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

Molded Case Circuit Breaker Standard Terminal*** Data for Power Cable Connections for NEMA 1, 3R, and 12

Ampere Rating	Breaker Frame	Terminals	Line Side (Normal and Standby Source)	Load Connection	Neutral Connection
30-100 150 200	RTHMFDA RTHMFDA RTHMFDA	Default Default Default	(1) #14-1/0 CU/AL (1) #6-300 CU/AL (1) #6-300 CU/AL	(1) #14-1/0 CU/AL (1) #6-300 CU/AL (1) #6-300 CU/AL	(3) #14-1/0 CU/AL (3) #4-300 CU/AL (3) #4-300 CU/AL
30-100 150-225	FD FD	Default Default	(1) #14-1/0 CU/AL (1) #6-300 CU/AL	(1) #14-1/0 CU/AL (1) #6-300 CU/AL	(3) #14-1/0 CU/AL (3) #4-300 CU/AL
30, 100, 150, 225 Open Enclosure**	KD KD Open Enclosure**	Default Special Open Enclosure**	(1) #3-350 CU/AL (1) #3-350 CU (2) 3/0-250 CU/AL (2) 3/0-250 CU (1) 250-500 CU/AL (1) 250-500 CU (1) 2/0-250 & (1) 2/0-500 CU/AL Bus Provision	(1) #6-350 CU/AL (1) 3/0-250 & 250-500 CU/AL (2) 3/0-250 CU/AL (2) 3/0-250 CU Bus Provision	(3) #4-350 CU/AL (3) 3/0-250 & 250-500 CU/AL None
400 400 Open Enclosure**	LD LD Open Enclosure**	Default Special Open Enclosure**	(1) 4/0-600 CU/AL (2) 3/0-350 CU/AL (2) 250-350 CU (2) 400-500 CU/AL Bus Provision	(2) #1-500 CU/AL (2) 500-750 CU/AL (3) 3/0-300 CU (2) 2/0-500 CU (3) 3/0-400 CU/AL Bus Provision	(6) 250-350 CU/AL (12) 4/0-500 CU/AL (9) 500-750 CU/AL None
600 600 Open Enclosure**	LD LD Open Enclosure**	Default Special Open Enclosure**	(2) 3/0-350 CU/AL (1) 4/0-600 CU/AL (2) 250-350 CU (2) 400-500 CU/AL Bus Provision	Bus Provision	(6) 250-350 CU/AL (12) 4/0-500 CU/AL (9) 500-750 CU/AL None
600 600 Open Enclosure**	MD MD Open Enclosure**	Default Special Open Enclosure**	(2) #1-500 CU/AL (3) 3/0-400 CU/AL (2) 500-750 CU/AL (3) 3/0-300 CU (2) 2/0-500 CU Bus Provision	(2) #1-500 CU/AL (3) 3/0-400 CU/AL (2) 500-750 CU/AL (3) 3/0-300 CU (2) 2/0-500 CU Bus Provision	(6) 4/0-500 CU/AL (12) 4/0-500 CU/AL (9) 500-750 CU/AL None

Molded Case Circuit Breaker Standard Terminal*** Data for Power Cable Connections for NEMA 1, 3R, and 12 (continued)

Ampere Rating	Breaker Frame	Terminals	Line Side (Normal and Standby Source)	Load Connection	Neutral Connection
800 800 Open Enclosure**	MD MD Open Enclosure**	Default Special Open Enclosure**	(3) 3/0-400 CU/AL (2) 500-750 CU/AL (3) 3/0-300 CU (2) 2/0-500 CU (2) #1-500 CU/AL Bus Provision	(3) 3/0-400 CU/AL (2) 500-750 CU/AL (3) 3/0-300 CU (2) 2/0-500 CU (2) #1-500 CU/AL Bus Provision	(6) 4/0-500 CU/AL (12) 4/0-500 CU/AL (9) 500-750 CU/AL None
600 600 Open Enclosure**	NB NB Open Enclosure**	Default Special Open Enclosure**	(3) 3/0-400 CU/AL (4) 4/0-500 CU/AL (3) 3/0-500 CU (2) #1-500 CU/AL (4) 3/0-400 CU (3) 500-750 CU/AL Bus Provision	(3) 3/0-400 CU/AL (4) 4/0-500 CU/AL (3) 3/0-500 CU (2) #1-500 CU/AL (4) 3/0-400 CU (3) 500-750 CU/AL Bus Provision	(12) 4/0-500 CU/AL (9) 500-750 CU/AL None
800-1200 800-1200 Open Enclosure**	NB NB Open Enclosure**	Default Special Open Enclosure**	(4) 4/0-500 CU/AL (3) 3/0-400 CU/AL (3) 3/0-500 CU (2) #1-500 CU/AL (4) 3/0-400 CU (3) 500-750 CU/AL Bus Provision	(4) 4/0-500 CU/AL (3) 3/0-400 CU/AL (3) 3/0-500 CU (2) #1-500 CU/AL (4) 3/0-400 CU (3) 500-750 CU/AL Bus Provision	(12) 4/0-500 CU/AL (9) 500-750 CU/AL None

**When an open enclosure is ordered, an optional bus provision is available as an option on the line side and/or load connection.

***Standard Terminals – ( ) indicate the quantity of supplied terminals per pole.