Picture shown may not reflect actual configuration

Cat® ATC Contactor-based 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 and are available from 40-3000A. The open and delayed transition contactor-based ATS provides fully functioning transfer in applications where a momentary loss of power is acceptable during transfer and retransfers between normal and emergency power supply.

The closed transition contactor-based ATS is designed to meet application requirements where emergency backup power is required with no momentary loss of power by connecting both sources before the transfer occurs. Closed transition also permits periodic testing of the emergency power source without interrupting power to the loads.

Features

- ATC-300+ or ATC-900 microprocessor-based controller
- Voltage and frequency sensing
- High withstand and closing ratings
- Multiple field programmable set points
- Status display including switch position indication
- Source availability indication
- Source 1 and Source 2 auxiliary contacts
- True RMS voltage and frequency sensing
- Programmable plant exerciser
- System test pushbutton
- Mimic diagram
- Double-throw, mechanically interlocked transfer mechanism
- Switch position indication
- Status display
- Double-throw UL 1008 2- and 3-position contactors

Options

- 2- or 4-position test switch
- Multiple metering options available
- Delayed transition and closed transition
- Selectable automatic or non-automatic operation
- Space heaters (recommended for use in outdoor enclosures)
- Surge suppression
- Remote communications
- Load shed from emergency
- 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

- Wall mount 40-400A, 2-, 3- or 4-pole
- Floor-standing 600-1600A 2-, 3-, or 4-pole
- Open, delayed, or closed transition 2000-3000A, 480V, 3- or 4-pole in a floor-standing enclosure
- Up to 600 VAC, 50/60 Hz for 40-1200A
- 100% rated
- UL 1008 listed
- CSA C22.2 No. 178 certified
- Seismic IBC 2006, CBC 2007 and OSHPD

Contact Composition

Caterpillar uses silver composition contacts designed to meet the stringent requirements of UL 1008. All contactors are designed so that the contacts can be visually inspected without major disassembly and are protected by arcing contacts.

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

The ATS is housed in rugged steel NEMA 1, 3R, or 12 enclosure which is seismic qualified (BOCA, CBC, IBC, UBC, OSHPD). ATS enclosures have 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 UL 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

Open Transition Contactor-based Transfer Switch 40-3000A

Ampere Rating	Number of Poles	Height inches (mm)	Width inches (mm)	Depth inches (mm)	Standard Terminals*		
					Load Side, Normal and Standby Source	Neutral Connection	Shipping Weight Lbs (kg)
40-100 @ 120-480V	2 3 4	38.68 (982.5) 38.68 (982.5) 38.68 (982.5)	18.31 (465.1) 18.31 (465.1) 18.31 (465.1)	13.34 (338.8) 13.34 (338.8) 13.34 (338.8)	(1) #14-2/0 kcmil	(1) #14-1/0 kcmil	156 (70.8) 156 (70.8) 156 (70.8)
40-100 @ 600V	2 3 4	38.68 (982.5) 38.68 (982.5) 38.68 (982.5)	18.31 (465.1) 18.31 (465.1) 18.31 (465.1)	13.34 (338.8) 13.34 (338.8) 13.34 (338.8)	(1) #14-2/0 kcmil	(1) #14-1/0 kcmil	156 (70.8) 160 (72.6) 164 (74.4)
150-200 @ 120-480V	2 3 4	38.68 (982.5) 38.68 (982.5) 38.68 (982.5)	18.31 (465.1) 18.31 (465.1) 18.31 (465.1)	13.34 (338.8) 13.34 (338.8) 13.34 (338.8)	(1) #6-300 kcmil	(3) 1/0-250 kcmil	156 (70.8) 160 (72.6) 164 (74.4)
150-200 @ 600V	3 4	52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425)	(1) #6-250 kcmil	(3) 1/0-250 kcmil	250 (113.4) 260 (117.9)
225-400 @ 120-480V	2 3 4	52.00 (1321) 52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425) 16.75 (425)	(2) 3/0-250 kcmil	(6) 250-500 kcmil	240 (108.9) 250 (113.4) 260 (117.9)
225-1200 @ 600V◊	3 4	79.41 (2017) 79.41 (2017)	29.19 (741.4) 29.19 (741.4)	22.46 (570.5) 22.46 (570.5)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	650 (294.8) 650 (294.8)
600-1200 @ 120-480V	2 3 4	79.41 (2017) 79.41 (2017) 79.41 (2017)	25.25 (648.2) 25.25 (648.2) 29.19 (741.4)	22.46 (570.5) 22.46 (570.5) 22.46 (570.5)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	590 (267.6) 600 (272.2) 650 (294.8)
1600 @ 120-480V	2 3 4	90.00 (2288) 90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016) 40.00 (1016)	26.73 (730) 26.73 (730) 26.73 (730)	Contact Factory		
2000 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		
2600 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		
3000 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		

NEMA 1 dimensions and weights shown are approximate, subject to change without notice, and are not for construction use.

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

◊ For 3-position contactor

Delayed Transition Contactor-based Transfer Switch 40-3000A

Ampere Rating	Number of Poles	NEMA 1 Enclosure			Standard Terminals*		
		Height inches (mm)	Width inches (mm)	Depth inches (mm)	Load Side, Normal and Standby Source	Neutral Connection	Shipping Weight Lbs (kg)
40-100 @ 120-480V	3 4	52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425)	(1) #14-2/0 kcmil	(3) #14-2/0 kcmil	250 (113.7) 260 (118.2)
40-200 @ 600V	3 4	52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425)	(1) #6-250 kcmil	(3) #6-250 kcmil	250 (113.7) 260 (118.2)
150-200 @ 120-480V	3 4	52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425)	(1) #6-250 kcmil	(3) 6-250 kcmil	250 (113.7) 260 (118.2)
225-400 @ 120-480V	3 4	52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425)	(2) 3/0-250 or (1) 3/0-600 kcmil	(6) 3/0-250 or (3) 3/0-600 kcmil	250 (113.7) 260 (118.2)
225-400 @ 600V	3 4	52.00 (1321) 52.00 (1321)	19.81 (503) 19.81 (503)	16.75 (425) 16.75 (425)	(2) 3/0-250 or (1) 3/0-600 kcmil	(6) 3/0-250 or (3) 3/0-+600 kcmil	250 (113.7) 260 (118.2)
600-1200 @ 120-480V	3 4	79.41 (2017) 79.41 (2017)	25.25 (641.4) 25.25 (641.4)	22.46 (570.5) 22.46 (570.5)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	650 (294.8) 650 (294.8)
600-1200 @ 600V	3 4	79.41 (2017) 79.41 (2017)	25.25 (641.4) 25.25 (641.4)	22.46 (570.5) 22.46 (570.5)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	600 (272.2) 650 (294.8)
1600A @ 120-480V	2 3 4	90.00 (2288) 90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016) 40.00 (1016)	26.73 (730) 26.73 (730) 26.73 (730)	Contact Factory		
2000 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		
2600 @ 120-480V	3 4	90.00 (2288) 90.00 (2288))	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		
3000 @ 120-480V	3 4	90.00 (2288) 90.00 (2288))	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		

NEMA 1 dimensions and weights shown are approximate, subject to change without notice, and are not for construction use.

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

Closed Transition Contactor-based Transfer Switch 40-3000A

Ampere Rating	Number of Poles	NEMA 1 Enclosure			Standard Terminals*		
		Height inches (mm)	Width inches (mm)	Depth inches (mm)	Load Side, Normal and Standby Source	Neutral Connection	Shipping Weight Lbs (kg)
40-100 @ 120-480V	2 3 4	52.74 (1339.6) 52.74 (1339.6) 52.74 (1339.6)	25 (635) 25 (635) 25 (635)	17.18 (436.4) 17.18 (436.4) 17.18 (436.4)	(1) #14-2/0	(1) #14-2/0	180 (81.8) 190 (86.4) 200 (90.9)
40-100 @ 600V	2 3 4	52.74 (1339.6) 52.74 (1339.6) 52.74 (1339.6)	25 (635) 25 (635) 25 (635)	17.18 (436.4) 17.18 (436.4) 17.18 (436.4)	(1) #14-2/0	(1) #14–2/0	200 (90.9) 210 (95.5) 220 (100.0)
150-200 @ 120-480V	2 3 4	52.74 (1339.6) 52.74 (1339.6) 52.74 (1339.6)	25 (635) 25 (635) 25 (635)	17.18 (436.4) 17.18 (436.4) 17.18 (436.4)	(1) #6-250 kcmil	(3) 1/0–250 kcmil	200 (90.9) 210 (95.5) 220 (100.0)
150-200 @ 600V	3 4	71.02 (1804) 71.02 (1804)	31.11 (546) 31.11 (546)	14.72 (374) 14.72 (374)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	320 (145.5) 440 (200)
225-400 @ 120-480V	3 4	71.02 (1804) 71.02 (1804)	31.11 (546) 31.11 (546)	14.72 (374) 14.72 (374)	(2) 1/0-250 or (1) 1/0-750 kcmil	(6) 250-500 kcmil	320 (145.5) 440 (200)
225-1200 @ 600V	2 3 4	90.00 (2286) 90.00 (2286) 90.00 (2286)	46 (1168.4) 46 (1168.4) 46 (1168.4)	32 (812.8) 32 (812.8) 32 (812.8)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	750 (340.9) 800 (363.6) 900 (409.1)
*600-1200 @ 120-480V	3 4	90.00 (2286) 90.00 (2286)	46 (1168.4) 46 (1168.4)	32 (812.8) 32 (812.8)	(4) 1/0-750 kcmil	(12) 1/0-750 kcmil	800 (363.6) 900 (409.1)
1600 @ 120-480V	2 3 4	90.00 (2288) 90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016) 40.00 (1016)	26.73 (730) 26.73 (730) 26.73 (730)	Contact Factory		
2000 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		
2600 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		
3000 @ 120-480V	3 4	90.00 (2288) 90.00 (2288)	40.00 (1016) 40.00 (1016)	40.00 (1016) 40.00 (1016)	Contact Factory		

NEMA 1 dimensions and weights shown are approximate, subject to change without notice, and are not for construction use. For 600-1200A w/NEMA 3R, add 1" height, 16" depth, and 50 lbs. to weight.

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

Materials and specifications are subject to change without notice.
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