

Automatic Transfer Switches Standard Any Breaker Rated



Transfer Switch Standard Features

- UL 1008 listed file #E58962 (automatic), #E86894 (nonautomatic)
- CSA certification available at 600 VAC
- IBC and OSHPD seismic certification available
- Available in 2, 3, or 4 pole configurations
- Electrically operated, mechanically held mechanism
- High withstand and close-on ratings
- Design suitable for emergency and standby applications on all classes of load, 100% tungsten rated through 400 amps
- Silver alloy main contacts
- Gold-flashed engine start contacts rated 2 amps @ 30 VDC/250 VAC
- Front-accessible contacts for easy inspection
- Front-replaceable main and arcing contacts (800- 4000 amps)
- Reliable, field-proven solenoid mechanism
- Switching mechanisms lubricated for the expected life of the transfer switch
- Internal manual operating handle
- Main shaft auxiliary position-indicating contacts rated 10 amps @ 32 VDC/250 VAC
- NEMA type 1, 12, 3R, 4, and 4X enclosures available
- Standard one-year limited warranty. Extended limited warranties are available.

Available Controllers

- Decision-Maker® MPAC 1200
- Decision-Maker® MPAC 1500

Ratings

Model	Current	Voltage, Frequency
KCS	30- 4000 amps	208- 600 VAC 50/60 Hz
KCP	150- 4000 amps	
KCC	150- 4000 amps	

Standard-Transition Models (KCS)

- Standard-transition operation with either automatic or non-automatic control
- Standard-transition transfer time less than 100 milliseconds (6 cycles @ 60 Hz)
- Double-throw, mechanically interlocked design (break-before-make power contacts)
- Solid, switched, or overlapping (make-before-break) neutral

Programmed-Transition Models (KCP)

- Programmed-transition operation with either automatic or non-automatic control
- Programmed-transition operation provides a center OFF position that allows residual voltages in the load circuits to decay
- Programmable OFF time
- Double-throw, mechanically interlocked design (break-before-make power contacts)
- Solid or switched neutral

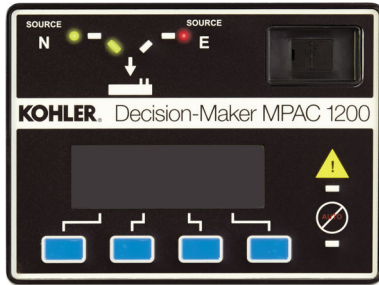
Closed-Transition Models (KCC)

- Closed-transition transfer switches operate with no power interruption during transfer and retransfer between two live sources
- Source parallel times are less than 100 milliseconds (6 cycles @ 60 Hz)
- Adjustable extended transfer time relay (ensure that the setting complies with applicable codes)
- Solid or switched neutral

Available Automatic Transfer Switch Controllers

Select one of the following controllers for your automatic transfer switch.

Decision-Maker® MPAC 1200 Controller



- LCD display, 4 lines x 20 characters, backlit
- Complete programming and viewing capability at the door using the keypad and LCD display
- LED indicators: Source available, transfer switch position, service required (fault), and “not in auto”
- Programmable voltage and frequency pickup and dropout settings
- Programmable time delays
- Programmable generator exerciser
- Time-based load control
- Two programmable inputs and two programmable outputs
- Up to four I/O extension modules available
- Modbus communication standard
- RS-485 communication standard
- Ethernet communication optional

For more information about Decision-Maker® MPAC 1200 features and functions, see specification sheet G11- 127.

Decision-Maker® MPAC 1500 Controller



- LCD display, 4 lines x 20 characters, backlit
- Complete programming and viewing capability at the door using the keypad and LCD display
- LED indicators: Source available, transfer switch position, service required (fault), and “not in auto”
- Programmable voltage and frequency pickup and dropout settings
- Programmable time delays
- Programmable generator exerciser
- Time-based load control
- Current-based load control (current-sensing kit required)
- Two programmable inputs and two programmable outputs
- Up to four I/O extension modules available
- Modbus communication standard
- RS-485 communication standard
- Ethernet communication standard
- Three-source system
- Prime power

For more information about Decision-Maker® MPAC 1500 features and functions, see specification sheet G11- 128.

Application Data

Environmental Specifications	
Operating Temperature	- 20°C to 70°C (- 4°F to 158°F)
Storage Temperature	- 40°C to 85°C (- 40°F to 185°F)
Humidity	5% to 95% noncondensing

Input and Output Connection Specifications	
Component	Wire Size Range
Main board I/O terminals	#12- 24 AWG
I/O module terminals	#14- 24 AWG

Auxiliary Position Indicating Contacts (rated 10 amps @ 32 VDC/250 VAC)			
Switch Rating, Amps	Number of Contacts Indicating Normal, Emergency		
	KCS	KCP	KCC
30- 230	2, 2	N/A	N/A
260- 600	8, 8	—	—
150- 600	—	8, 8	7, 7
800-1200	8, 8	8, 8	7, 7
1600- 4000	8, 8	7, 7	6, 6

Extended Transfer Time Adjustable Relay (Model KCC only)	
Power	12 or 24 VDC (customer-supplied)
Connections	12- 20 AWG
Output type	Relay contacts, DPDT (2 form C)
Rating	10 amps max. resistive at 240 VAC
Note: Customer-supplied shunt trip on emergency source circuit breaker is required.	

Source Synchronization Settings (Model KCC)		
Parameter	Default	Adjustment Range
Voltage differential	5%	0- 5%
Frequency differential	0.1 Hz	0- 0.3 Hz
Phase angle	10 deg.	0- 10 deg.

Cable Sizes

Note: Cable size data is subject to change. Refer to the transfer switch dimension drawings and wiring diagrams for planning and installation.

UL-Listed Solderless Screw-Type Terminals for External Power Connections				
Range of Wire Sizes, Copper or Aluminum ‡				
Model	Switch Rating, Amps	Normal, Emergency, and Load (per phase)	Neutral (3-pole)	Ground
KCS	30- 150	(1) #14 AWG to 4/0 AWG	(3) #14 to 4/0	(3) #6 to 3/0
	200	(1) #14 AWG to 4/0 AWG <i>Cu only</i>	(3) #14 to 4/0	(3) #6 to 3/0
	230 (208- 480 V)			
	230 (600 V)	(1) #4 AWG to 600 KCMIL or (2) 1/0 to 250 KCMIL	(3) #4 AWG to 600 KCMIL or (6) 1/0 to 250 KCMIL	(3) #4 AWG to 600 KCMIL or (6) 1/0 to 250 KCMIL
260- 400				
KCP KCC	150- 400	(1) #4 AWG to 600 KCMIL or (2) 1/0 to 250 KCMIL	(3) #4 AWG to 600 KCMIL or (6) 1/0 to 250 KCMIL	(3) #4 AWG to 600 KCMIL or (6) 1/0 to 250 KCMIL
KCS KCP KCC	600	(2) #2 AWG to 600 KCMIL	(6) #2 AWG to 600 KCMIL	(3) #4 AWG to 600 KCMIL or (6) 1/0 to 250 KCMIL
	800- 1000	(4) 1/0 AWG to 750 KCMIL	(12) #2 AWG to 600 KCMIL	
	1200 (NEMA 3R)			
	1200 (NEMA 1)	(4) 1/0 AWG to 750 KCMIL	(16) 1/0 to 750 KCMIL	(3) #4 to 500 KCMIL
	1600- 2000 F † (NEMA 3R)	(6) 1/0 AWG to 750 KCMIL	(24) 1/0 to 750 KCMIL	(3) #4 AWG to 600 KCMIL or (6) 1/0 to 250 KCMIL
	1600- 2000	(6) 1/0 AWG to 750 KCMIL	(24) 1/0 to 750 KCMIL	(3) #4 to 500 KCMIL
	2600- 3000	(12) 1/0 AWG to 750 KCMIL	(36) 1/0 to 750 KCMIL	
4000	(12) 1/0 AWG to 750 KCMIL	(36) 1/0 AWG to 750 KCMIL	(18) 1/0 AWG to 750 KCMIL	

† F = Front connected
‡ Use 75°C minimum Cu/Al wire for power connections.

Withstand and Close-On Ratings (WCR)

Standard, Programmed, and Closed-Transition Models

Maximum current in RMS symmetrical amperes when coordinated with customer-supplied fuses or circuit breakers. All values are available symmetrical RMS amperes and tested in accordance with the withstand and close-on requirements of UL 1008. Application requirements may permit higher withstand ratings for certain size switches. Contact the factory for assistance.

Model	Switch Rating, Amps	Withstand Current Ratings in RMS Symmetrical Amperes							Short Time Ratings (sec.) ‡							
		Current-Limiting Fuses				Time-Based Rating *			480 V Max.				600 V Max.			
		Amps @ 480 V	Amps @ 600 V	Amps, Max.	Fuse Class	Amps @ 240 V	Amps @ 480 V	Amps @ 600 V	.1	.13	.3	.5	.1	.13	.3	.5
KCS	30-150	200,000	35,000	200	J	10,000	10,000	10,000	—				—			
		35,000	35,000	200	RK1	10,000	10,000	10,000	—				—			
	200-230 (480V)	200,000	—	200	J	10,000	10,000	—	—				—			
		100,000	—	300	J	10,000	10,000	—	—				—			
	230 (600V) 260 400 600	200,000	200,000	600	J	65,000	42,000 †	35,000	—				—			
				800	L	65,000	42,000 †	35,000	—				—			
	800-1200	200,000	200,000	1600	L	50,000	50,000	50,000	36,000	—		36,000	—			
	1600-2000 F	200,000	200,000	2500	L	85,000	85,000	85,000	—				—			
	1600-2000 S	200,000	200,000	3000	L	100,000	100,000	100,000	42,000	—		42,000	—			
2600-3000	200,000	200,000	4000	L	100,000	100,000	100,000	42,000	—		42,000	—				
4000	200,000	200,000	5000	L	100,000	100,000	100,000	85,000	65,000	65,000						
KCP	150-225-260-400-600	200,000	200,000	600	J	65,000	42,000 †	35,000	—				—			
				800	L	65,000	42,000 †	35,000	—				—			
	800-1200	200,000	200,000	1600	L	50,000	50,000	50,000	36,000	—		36,000	—			
	1600-2000 F	200,000	200,000	2500	L	85,000	85,000	85,000	—				—			
	1600-2000 S	200,000	200,000	3000	L	100,000	100,000	100,000	42,000	—		42,000	—			
	2600-3000	200,000	200,000	4000	L	100,000	100,000	100,000	42,000	—		42,000	—			
	4000	200,000	200,000	5000	L	100,000	100,000	100,000	85,000	65,000	65,000					
KCC	150-260-400-600	200,000	200,000	600	J	65,000	42,000 †	35,000	—				—			
				800	L	65,000	42,000 †	35,000	—				—			
	800-1200	200,000	200,000	1600	L	50,000	50,000	50,000	36,000	—		36,000	—			
	1600-2000 F	200,000	200,000	2500	L	85,000	85,000	85,000	—				—			
	1600-2000 S	200,000	200,000	3000	L	100,000	100,000	100,000	42,000	—		42,000	—			
	2600-3000	200,000	200,000	4000	L	100,000	100,000	100,000	42,000	—		42,000	—			
4000	200,000	200,000	5000	L	100,000	100,000	100,000	85,000	65,000	65,000						

* Based on 0.025 seconds (approximately 1.5 cycles) for 30-230 amps and 0.050 seconds for 260-4000 amps. Applicable to breakers with instantaneous trip elements.
† Applicable to 2-pole, 3-pole, and conventional 4-pole switches only. Overlapping neutral switches have "any" breaker ratings of 35,000 A, 0.050 seconds at 480 V.
‡ Short time ratings are provided for applications involving breakers that utilize trip delay settings for system selective coordination.

Ratings with Specific Manufacturers' Circuit Breakers

The following charts list power switching device withstand and close-on ratings (WCR) in RMS symmetrical amperes for specific manufacturers' circuit breakers. Circuit breakers are supplied by the customer.

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers						
				Manufacturer	Type or Class	Max. Size, amps				
KCS	30	22,000	480	GE	THED	40				
		42,000	240	Square D	QG, QJ	90				
	70	22,000	480	GE	THED	90				
		42,000	240	Square D	QG, QJ	125				
	104	22,000	480	GE	THED	150				
		65,000	240	Square D	JG, JJ, JL	200				
	42,000	QG, QJ			200					
	150	25,000	480	Square D	JG, JJ, JL	200				
		22,000			GE	THED	150			
	200	65,000	240	Square D	JG, JJ, JL	250				
		42,000			QG, QJ	225				
	230	25,000	480	Square D	JG, JJ, JL	250				
					Eaton	JGC	250			
		42,000	600			KDC	400			
					GE	LDC, CLDC	600			
						TBC4	400			
Siemens/ITE					TBC6, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6	600				
					TBC8, TKL4V, TKL8S- 12S, SKL8, SKP8	800				
								HLMD, HLMXD, HMXD, SHMD	800	
	KCP KCC	150	50,000	480				Eaton	HJD, JDC, JGH, JGC	250
GE					HKD, CHKD, KDC	400				
					Siemens/ITE	HLD,CHLD, LDC, CLDC	600			
						Square D	SFL, SFP	250		
							SGL1, SGL4, SGP1, SGP4, TJL4V, TJL1S- 6S, TBC6	600		
							HFD, HFXD	250		
			HJD, HJXD, SHJD	400						
			KC	250						
				42,000	600		CK400N, CK400NN	400		
		Eaton					JGC	250		
GE							KDC	400		
				LDC, CLDC	600					
						SGL1, SGL4, SGP1, SGP4	600			
KCS KCP KCC						225 (KCP) 260	50,000	480	Eaton	HJD, JDC, JGH, JGC
			GE							HKD, CHKD, KDC
	Siemens/ITE	HLD,CHLD, LDC, CLDC		600						
		Square D		MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC	800					
				SFL, SFP	250					
				TBC4	400					
							SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, TBC6, TJL4V, TJL1S- 6S	600		
										SKL8, SKP8, SKH8, TBC8, TKL4V, TKH8S- 12S
						KC				
									CK400N, CK400NN	

Ratings with Specific Manufacturers' Circuit Breakers, continued

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers			
				Manufacturer	Type or Class	Max. Size, amps	
KCS KCP KCC	400	50,000	480	Eaton	HKD, CHKD, KDC	400	
					HLD, CHLD, LDC, CLDC	600	
					MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC	800	
				GE	TBC4	400	
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, TBC6, TJL4V, TJL1S- 6S	600	
					SKH8, SKL8, SKP8, TBC8, TKL4V, TKH8S- 12S	800	
				Siemens/ITE	HJD, HJXD, SHJD	400	
					HLD	600	
					HLMD, HLMXD, HMG, HMD, HMXD, LMD, LMXD, MXD, SMD, SHMD	800	
		Square D	CK400N, CK400NN	400			
			LC	600			
			CK800N, CK800NN	800			
		42,000	600	Eaton	KDC	400	
					LDC, CLDC	600	
					TBC4	400	
GE	TBC6, SGL1, SGL6, SGP1, SGP4, SGP6			600			
	TBC8, TKL4V, TKL8S- 12S, SKL8, SKP8			800			
	HLMD, HLMXD, HMXD, SHMD			800			
Siemens/ITE	HLD, CHLD, LDC, CLDC			600			
	MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC			800			
	SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, TBC6, TJL4V, TJL1S- 6S			600			
KCS KCP KCC	600	50,000	480	Eaton	MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC	800	
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, TBC6, TJL4V, TJL1S- 6S	600	
					SKH8, SKL8, SKP8, TBC8, TKL4V, TKH8S- 12S	800	
				GE	HLD	600	
					HLMD, HLMXD, HMD, HMG, HMXD, LMD, LMXD, MXD, SMD, SHMD	800	
					HND, HNXD, HNG, SND, SHND	1200	
				Square D	CK400N, CK400NN	400	
					LC	600	
					CK800N, CK800NN	800	
		42,000	600	Eaton	600	MH, CK1200N, CK1200NN	1200
						LDC, CLDC	600
						TBCY	400
				GE	SGL1, SGL6, SGP1, SGP4, SGP6, TBC6	600	
					TBC8, TKL4V, TKL8S- 12S, SKL8, SKP8	800	
					HLMD, HLMXD, HMXD, SHMD	800	
Siemens/ITE	SHND			1200			
	Eaton			HLD	600		
	GE			TB8	800		
TKL, SKL		1200					
Siemens/ITE		CLD6, HHLD6, HHLXD6, HLD6, SCLD6, SHLD6	600				
	CMD6, HMD6, SCMD6, SHMD6	800					
	CND6, HND6, SCND6, SHND6	1200					
800 1000 1200	65,000	480	Square D	CPD6	1600		
				MH Series 2	1000		
				PJ, PL	1200		
			600	Eaton	RJ, RL	1600	
					SE (LS Trip), SEH (LS Trip)	2500	
					Tri-Pac NB	800	
1600 2000	125,000	480	Square D	Tri-Pac PB	1600		
				RDC	2500		
				Masterpact NW-L	3000		

Weights and Dimensions

Note: Always use the transfer switch dimension drawing for planning and installation. Weights and dimensions may vary for different configurations. See your local distributor for dimension drawings.

Weights and dimensions are shown for NEMA Type 1 enclosures, NEMA Type 3R enclosures and open units. Consult the factory for other enclosures.

Model	Amps	NEMA Type	Poles	Wires	Dimensions mm (in.)			Weight kg (lb.)			Dimension Drawing
					Height	Width	Depth	2-Pole	3-Pole	4-Pole	
KCS	30-200	1, 3R	2,3,4	3, 4	791 (31)	450 (18)	314 (12.4)‡	28 (62)	30 (65)	31 (68)	ADV-8566
	230 (208-480V)		2,3,4	3, 4	1223 (48)	560 (22)	362 (14.3)‡	52 (115)	56 (123)	59 (131)	ADV-8568
	230 (600 V) 260-600		2,3,4	3, 4	1702 (67)	610 (24)	514 (20.2)‡	179 (395)	183 (403)	188 (414)	ADV-8570
	800		2,3,4	3, 4	1932 (76)*	864 (34)	515 (20.3)‡	220 (485)	231 (510)	238 (525)	ADV-8572
	1000	1	3,4	4	1932 (76)*	864 (34)	515 (20.3)‡	—	231 (510)	238 (525)	ADV-8572
	1200		3R	3,4	4	2286 (90)	963 (38)	688 (27.1)	—	356 (785)	379 (835)
	1600-2000F †	1	3,4	4	2286 (90)	963 (38)	688 (27.1)	—	472 (1040)	494 (1090)	ADV-8577
			3R	3,4	4	2286 (90)	940 (37)	869 (34.2)	—	356 (785)	379 (835)
	1600-2000	1	3,4	4	2286 (90)	963 (38)	1220 (48)	—	472 (1040)	494 (1090)	ADV-8579
			3R	3,4	4	2286 (90)	940 (37)	1434 (56.4)	—	472 (1040)	494 (1090)
	2600-3000	1	3,4	4	2286 (90)	963 (38)	1524 (60)	—	649 (1430)	679 (1495)	ADV-8581
			3R	3,4	4	2286 (90)	940 (37)	1738 (68.4)	—	649 (1430)	679 (1495)
4000	1	3,4	4	2311 (91)	1524 (60)	1836 (72.3)	—	975 (2149)	1056 (2328)	ADV-8583	
		3R	3,4	4	2529 (100)	1606 (63)	2310 (91)	—	1436 (3165)		1523 (3357)
KCS	30-200	Open Unit §	2,3,4	3, 4	787 (31)	445 (18)	296 (11.6)	8 (17)	9 (20)	11 (23)	ADV-7182
	230 (208-480V)		2,3,4	3, 4	1219 (48)	457 (18)	330 (13.0)	17 (37)	21 (45)	24 (53)	
	230 (600V) 260-600		2,3,4	3, 4	1422 (56)	610 (24)	362 (14.3)	31 (68)	34 (74)	36 (80)	
	800		2,3,4	3, 4	1829 (72)	864 (34)	508 (20)	68 (150)	78 (170)	90 (196)	
	1000		3,4	4	1829 (72)	864 (34)	508 (20)	—	78 (170)	90 (196)	
	1200		3,4	4	2210 (87)	965 (38)	584 (23)	—	78 (170)	90 (196)	
	1600-2000F †		3,4	4	2210 (87)	965 (38)	635 (25)	—	190 (420)	213 (470)	
	1600-2000		3,4	4	2286 (90)	965 (38)	1219 (48)	—	190 (420)	213 (470)	
	2600-3000		3,4	4	2286 (90)	965 (38)	1524 (60)	—	213 (470)	243 (535)	
KCP KCC	150-600	1, 3R	2,3,4	3, 4	1702 (67)	610 (24)	514 (20.2)‡	179 (395)	183 (403)	188 (414)	ADV-8570
	800	1, 3R	2,3,4	3, 4	1932 (76)*	864 (34)	515 (20.3)‡	220 (485)	231 (510)	238 (525)	ADV-8572
	1000	1, 3R	2,3,4	4	1932 (76)*	864 (34)	515 (20.3)‡	220 (485)	231 (510)	238 (525)	ADV-8572
	1200	1	3,4	4	2286 (90)	963 (38)	688 (27)	—	463 (1020)	485 (1070)	ADV-8574
		3R	3,4	4	2286 (90)	940 (37)	717 (28.2)	—	463 (1020)	485 (1070)	ADV-8575
	1600-2000F †	1	3,4	4	2286 (90)	963 (38)	688 (27)	—	533 (1175)	556 (1225)	ADV-8577
		3R	3,4	4	2286 (90)	940 (37)	869 (34.2)	—	533 (1175)	556 (1225)	ADV-8578
	1600-2000	1	3,4	4	2286 (90)	963 (38)	1220 (48)	—	533 (1175)	556 (1225)	ADV-8579
		3R	3,4	4	2286 (90)	940 (37)	1434 (56.4)	—	533 (1175)	556 (1225)	ADV-8580
	3000	1	3,4	4	2286 (90)	963 (38)	1524 (60)	—	735 (1620)	765 (1685)	ADV-8581
4000	3R	3,4	4	2286 (90)	940 (37)	1738 (68.4)	—	735 (1620)	765 (1685)	ADV-8582	
	1	3,4	4	2311 (91)	1524 (60)	1836 (72.3)	—	975 (2149)	1056 (2328)	ADV-8583	
KCP	150-600	Open Unit §	2,3,4	3, 4	1422 (56)	610 (24)	362 (14.3)	38 (84)	41 (90)	44 (96)	ADV-7182
	800		2,3,4	3, 4	1829 (72)	864 (34)	508 (20)	80 (175)	94 (205)	108 (235)	
	1000		2,3,4	4	1829 (72)	864 (34)	508 (20)	80 (175)	94 (205)	108 (235)	
	1200		2,3,4	4	2210 (87)	965 (38)	584 (23)	80 (175)	94 (205)	108 (235)	
	1600-2000F †		3,4	4	2210 (87)	965 (38)	635 (25)	—	252 (555)	274 (605)	
	1600-2000		3,4	4	2286 (90)	965 (38)	1219 (48)	—	252 (555)	274 (605)	
	2600-3000		3,4	4	2286 (90)	965 (38)	1524 (60)	—	300 (660)	329 (725)	
	2600-3000		3,4	4	2286 (90)	965 (38)	1524 (60)	—	300 (660)	329 (725)	

* Includes mounting feet
† F = Front connected
‡ On 30-1000 amp models, the NEMA type 3R enclosures have a security cover on the controller that extends 54 mm (2.1 in.) beyond the door.
§ Dimensions shown for open units are the minimum required enclosure size. Open unit weights are shipping weights for the contactor only.

Codes and Standards

The ATS meets or exceeds the requirements of the following specifications:

- CSA C22.2 No. 178 certification 208 - 600 VAC available, file #LR58301
- EN61000-4-4 Fast Transient Immunity Severity Level 4
- EN61000-4-5 Surge Immunity Class 4 (voltage sensing and programmable inputs only)
- IEC Specifications for EMI/EMC Immunity:
 - CISPR 11, Radiated Emissions
 - IEC 1000-4-2, Electrostatic Discharge
 - IEC 1000-4-3, Radiated Electromagnetic Fields
 - IEC 1000-4-4, Electrical Fast Transients (Bursts)
 - IEC 1000-4-5, Surge Voltage
 - IEC 1000-4-6, Conducted RF Disturbances
 - IEC 1000-4-8, Magnetic Fields
 - IEC 1000-4-11, Voltage Dips and Interruptions
- IEC 60947-6-1, Low Voltage Switchgear and Control Gear; Multifunction Equipment; Automatic Transfer Switching Equipment
- IEEE Standard 446, IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
- IEEE 472 (ANSI C37.90A) Ring Wave Test
- NEMA Standard ICS 10- 2005, Electromechanical AC Transfer Switch Equipment
- NFPA 70, National Electrical Code
- NFPA 99, Essential Electrical Systems for Health Care Facilities
- NFPA 110, Emergency and Standby Power Systems
- Seismic certification in accordance with the International Building Code is available. (Accessory kit is required for seismic certification.)
 - IBC 2000, referencing ASCE 7-98 and ICC AC-156
 - IBC 2003, referencing ASCE 7-02 and ICC AC-156
 - IBC 2006, referencing ASCE 7-05 and ICC AC-156
 - IBC 2009, referencing ASCE 7-05 and ICC AC-156
 - IBC 2012, referencing ASCE 7-10 and ICC AC-156
- California OSHPD approval is available. (Accessory kit required.)
- Underwriters Laboratories UL 1008, Standard for Automatic Transfer Switches for Use in Emergency Standby Systems file #E58962 (automatic), #E86894 (nonautomatic)

Controller Accessories

See the controller specification sheets for more information.

Accessory Modules

- Alarm Module
- External Battery Supply Module
- Input/Output Module
- High-Power Input/Output Module

Controller Disconnect Switch

Ethernet Communications

Current Sensing Kit

Line-to-Neutral Voltage Monitoring

Padlockable User Interface Cover

Supervised Transfer Control Switch

Transfer Switch Accessories

Accessories are available either factory-installed or as loose kits, unless otherwise noted.

CSA Certification

Digital Meter

- Measure and display voltage, current, frequency, and power for both sources
- Programmable visual alarms for high voltage, low voltage, and high current
- Three digital outputs
- Serial port for optional network connections
- Password-protected programming menus
- Joystick operation
- Factory-installed

Export Packaging

Extended Limited Warranties

- 2-year basic
- 5-year basic
- 5-year comprehensive
- 10-year major components

Heater, Anti-Condensation

- Hygrostat-controlled 120 VAC strip heater (customer-supplied voltage source required)
- 100 or 250 watts (sized for enclosure)
- Protective 15 Amp circuit breaker

Surge Protection Device (SPD)

- SPD available for the normal source supply
- Surge protection reduces transient voltages to harmless levels
- Protection modes: L-L / L-N / L-G / N-G
- Replaceable phase and neutral cartridges for service
- Frequency: 50- 60 Hz
- Operating Temperature Range: - 40 to 176°F (- 40 to 80°C)
- Remote contacts for customer-supplied status indicators:
 - Contacts: 1 NO, 1 NC
 - Min Load: 12VDC / 10 mA
 - Max. Load: 250 VAC / 1 A
 - Wire Size (max.): 16AWG
- Fuse protection: 30 amps / 600 V
- UL 1449, 3rd Edition for Type 2 applications
- IEC 61-643-1, 2nd Edition T2/11
- See additional SPD specifications below

Literature Kits

- Production literature kit (one set of literature is included with each transfer switch)
- Overhaul literature kit

Load Shed Kit

- Forced transfer from Emergency to OFF for programmed-transition models
- Customer-supplied signal (contact closure) is required for the forced transfer to OFF function
- Factory-installed

Neutral Assembly

- Available as loose kit for open units

RSA III Remote Serial Annunciator

- Monitors the generator set
- Monitors Normal and Emergency source status and connection
- Monitors ATS common alarm
- Allows remote testing of the ATS
- For more information, see specification sheet G6- 139.

Seismic Certification

IBC Seismic Certification

- Certification depends on application and geographic location. Contact your distributor for details.
- Available for the KC model transfer switches with enclosures shown below:

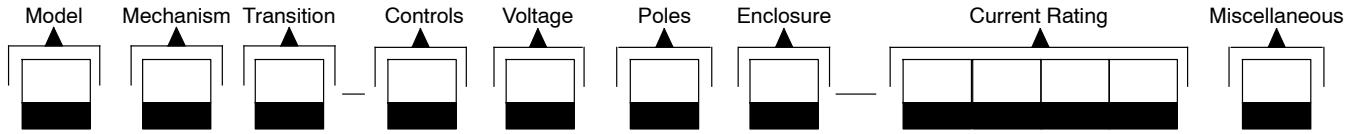
ATS Size, Amps	Enclosure, NEMA Type:				
	1	3R	4	4X	12
30- 1200	●	●	●	●	●
1600- 4000	●	●			

California OSHPD Approval

- Available for KC model transfer switches with NEMA 1 and NEMA 3R enclosures.

SPD Specifications								
Nominal Voltage (V ± 15%)	Max. Discharge Current (kA)	Phase	Poles	UL VPR 3rd Ed (L-N/N-G/L-G) (kV)	Limiting Voltage, (L-N/N-G/L-G) (kV)		Short Circuit Withstand Current (kA)	Maximum Continuous Operating Voltage (VAC)
					at 3kAmps	at 10kAmp		
					240/120	40		
208/120	40	Wye	4	0.6 / 1.2 / 0.7	0.6 / 0.4 / 0.6	0.8 / 0.7 / 0.8	200	175 / 350
480/277	40	Wye	4	1.0 / 1.2 / 1.1	1.0 / 0.4 / 1.0	1.2 / 0.7 / 1.2	200	320 / 460
240/120	40	HLD	4	1.0 / 1.2 / 1.1	1.0 / 0.4 / 1.0	1.2 / 0.7 / 1.2	200	320 / 460
600/347	40	Wye	4	1.3 / 1.2 / 1.4	1.3 / 0.4 / 1.3	1.5 / 0.7 / 1.5	200	440 / 880

Model Designation



Record the transfer switch model designation in the boxes. The transfer switch model designation defines characteristics and ratings as explained below.

Sample Model Designation: KCS-DNTA-0400S

Model

K: Kohler

Mechanism

C: Standard (Any Breaker)

Transition

S: Standard

P: Programmed

C: Closed

Controller

A: Decision-Maker® MPAC 1200, Automatic

B: Decision-Maker® MPAC 1200, Non-Automatic

D: Decision-Maker® MPAC 1500, Automatic

F: Decision-Maker® MPAC 1500, Non-Automatic

Voltage/Frequency

C: 208 Volts/60 Hz

K: 440 Volts/60 Hz

D: 220 Volts/50 Hz

M: 480 Volts/60 Hz

F: 240 Volts/60 Hz

N: 600 Volts/60 Hz

G: 380 Volts/50 Hz

P: 380 Volts/60 Hz

H: 400 Volts/50 Hz

R: 220 Volts/60 Hz

J: 416 Volts/50 Hz

Number of Poles/Wires

N: 2 Poles/3 Wires, Solid Neutral

T: 3 Poles/4 Wires, Solid Neutral

V: 4 Poles/4 Wires, Switched Neutral

W: 4 Poles/4 Wires, Overlapping Neutral

Enclosure

A: NEMA 1

D: NEMA 4

B: NEMA 12

F: NEMA 4X

C: NEMA 3R

G: Open Unit

Current, Amps

0030

0230

1200

0070

0260

1600

0104

0400

2000

0150

0600

2600

0200

0800

3000

0225

1000

4000

Connections

S: Standard

F: Front (1600 and 2000 amp only)

Note: Some selections are not available for every model. Contact your Kohler distributor for availability.

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