

Automatic Transfer Switches Standard Any Breaker Rated



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	

Transfer Switch Standard Features

- UL 1008 listed
file # E58962 (automatic), # E86894 (nonautomatic)
- CSA certification available
- IBC and OSHPD seismic certification available
- Available in 2, 3, or 4 pole configurations
- Integral solid neutral provides line-to-neutral monitoring
- 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.

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

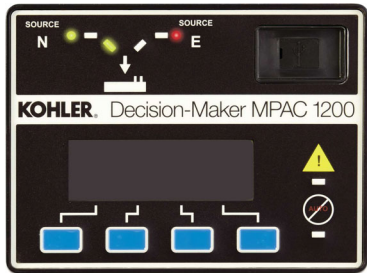
Closed-Transition Models (KCC)

- 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.

Codes and Standards

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

- CSA C22.2 No. 178 certification 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
- 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)

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 AWG	(3) #6 to 3/0
	200	(1) #14 AWG to 4/0 AWG <i>Cu only</i>	(3) #14 to 4/0 AWG <i>Cu only</i>	(3) #6 to 3/0
	230 (208- 480 V)			
	230 (600 V)			
KCP KCC	260- 400	(2) 1/0 to 250 KCMIL	(6) 1/0 to 250 KCMIL	(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) 1/0 AWG to 750 KCMIL	
	1200 (NEMA 3R)			
	1200 (NEMA 1)	(4) 1/0 AWG to 750 KCMIL	(12) 1/0 AWG to 750 KCMIL	(3) #4 to 500 KCMIL
	1600- 2000 F † (NEMA 3R)	(6) 1/0 AWG to 750 KCMIL	(18) 1/0 AWG 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	(18) 1/0 AWG to 750 KCMIL	(3) #4 to 500 KCMIL
	2600- 3000	(12) 1/0 AWG to 750 KCMIL	(36) 1/0 AWG 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.				
		480 V Max.	600 V Max.	Amps, Max.	Fuse Class	Time, sec.	240 V, Max	480 V, Max	600 V, Max	.13	.2	.3	.5	.1	.13	.3	.5	
KCS	30	100kA	—	300	J	0.025	10kA	10kA	10kA	—				—				
		200kA	35kA	200	J					—				—				
		35kA	35kA	200	RK1					—				—				
	70 104 150	200kA	35kA	200	J	0.025	10kA	10kA	10kA	—				—				
		35kA	35kA	200	RK1	0.025	10kA	10kA	10kA	—				—				
	200	200kA	35kA	200	J	0.025	10kA	10kA	10kA	—				—				
		35kA	35kA	200	RK1					—				—				
230 (480V)	100kA	—	300	J	0.025	10kA	10kA	—	—				—					
230 (600V)	200kA	200kA	600	J	0.05	65kA	42kA †	35kA	7500A	—				—				
			800	L						—				—				
KCP KCC	150	200kA	200kA	600	J	0.05	65kA	42kA †	35kA	7500A	—				—			
				800	L	0.05	65kA	42kA †	35kA	7500A	—				—			
KCP	225	200kA	200kA	600	J	0.05	65kA	42kA †	35kA	7500A	—				—			
				800	L	0.05	65kA	42kA †	35kA	7500A	—				—			
KCS KCP KCC	260 400	200kA	200kA	600	J	0.05	65kA	42kA †	35kA	7500A	—				—			
				800	L	0.05	65kA	42kA †	35kA	7500A	—				—			
	600	200kA	200kA	600	J	0.05	65kA	42kA †	35kA	—	—				—			
				800	L	0.05	65kA	42kA †	35kA	—	—				—			
	800- 1200	200kA	200kA	1600	L	0.05	50kA	50kA	50kA	36kA	—		36kA	—				
	1600- 2000 F	200kA	200kA	2500	L	0.05	85kA	85kA	85kA	42kA	36kA	—						
	1600- 2000 S	200kA	200kA	3000	L	0.05	100kA	100kA	100kA	42kA	36kA	42kA	—					
2600 3000	200kA	200kA	4000	L	0.05	100kA	100kA	100kA	42kA	36kA	42kA	—						
4000	200kA	200kA	5000	L	0.05	100kA	100kA	100kA	85kA	65kA		65kA						

* 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 35kA, 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	
		25,000		Siemens/ITE	ITE CED6	125	
	70	150,000	240	Square D	HR	250	
		125,000			HL	150	
		100,000			BJ, HJ	125	
		65,000			BG, HG	125	
		42,000			QG, QJ	90	
		25,000			HD	150	
		25,000			BD	125	
		22,000			GE	THED	90
		85,000	480	Square D	HL, HR	150	
		50,000			BJ	125	
		35,000			HG, HJ	150	
		18,000			BG	125	
		104	25,000	600	Square D	BD, HD	125
			18,000			HJ, HL, HR	150
	14,000		BJ			125	
			HG			150	
			BG			125	
			HD			150	
KCS	104	150,000	240	Square D	BD	125	
		125,000			HR	250	
		100,000			HL	150	
		65,000			BJ, HJ	125	
		42,000			BG, HG	125	
		25,000			QG, QJ	125	
					HD	150	
					BD	125	
		22,000	480	Square D	GE	THED	150
		85,000			HL, HR	150	
		50,000			BJ	125	
		35,000			HG, HJ	150	
		104	18,000	600	Square D	BG	125
			25,000			BD, HD	125
	18,000		HJ, HL, HR			150	
	14,000		BJ			125	
			HG			150	
			BG			125	
		HD	150				
				BD	125		

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers				
				Manufacturer	Type or Class	Max. Size, amps		
KCS	150	150,000	240	Square D	HR	250		
		125,000			HL	150		
		100,000			BJ, HJ	125		
		65,000			JG, JJ, JL, JR	200		
		42,000			BG, HG	125		
		25,000			QG, QJ	200		
					HD	150		
					BD	125		
		22,000	480	Square D	GE	THED	150	
		85,000			HL, HR	150		
		50,000			BJ	125		
		35,000			HG, HJ	150		
		25,000			BG	125		
		18,000			JG, JJ, JL	200		
					BD, HD	125		
25,000	600	Square D	HJ, HL, HR	150				
18,000			BJ	125				
			HG	150				
14,000			BG	125				
			HD	150				
			BD	125				
KCS	200 230	200,000	240	Square D	JR	250		
		125,000			JL	250		
		100,000			JJ	250		
		65,000			JG	250		
		42,000			QG, QJ	225		
		25,000			JD	250		
		85,000			480	Square D	JL, JR	250
		30,000					JG, JJ	250
	18,000	JD	250					
	200	600	Square D	JD, JG, JJ, JL, JR	250			
	230	42,000	600	Eaton/ Cutler Hammer	JGU, JGX, JGH	250		
					KDC	400		
					LDC, CLDC	600		
				GE	TBC4	400		
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP	600		
				Siemens /ITE	HJD, CFD6	250		
					HHJD6, HHJXD6, CJD6, SCJD6	400		
					HHL6, HHLXD6, CLD6, SCLD6, LNG, LPG, LGC*, LGU*, LGX*	600		
				Square D	HJ, HL, HG	150		
KI, JJ, JL, JR, CF250L					250			
CK400H, CK400HH, CJ400L					400			
CK800H, CK800HH, MasterPact STR 28D, PK					800			
LL (current limiting)	600							
LR (current limiting)	600							
50,000	600	Eaton/ Cutler Hammer	PD3 (current limiting)	600				
100,000								
65,000								

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers				
				Manufacturer	Type or Class	Max. Size, amps		
KCP KCC	150 225 §	65,000	240	GE	THQMV	225		
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6	600		
				Eaton/Cutler Hammer	LDC, CLDC, HLD, CHLD	600		
				Siemens/ITE	HLD6, HLXD6	600		
				Square D	QG, QJ	250		
		100,000						
		125,000						
		200,000	480	50,000	Eaton/Cutler Hammer	HFDE, FDC, FDCE	225	
						NHH	250	
						JDC, JGU, JGX	350	
						HKD, CHKD, KDC, HKDB, CHKDB, LHH	400	
						HLD,CHLD, LDC, CLDC, LGH*, LGC*, LGU*, LGX*	600	
						HMDLB, CHMDLB	800	
		GE	SEL, SEP	150				
			SFL, SFP, FEN, FEH	250				
			TBC4	400				
			FGN, FGH, FGL, FGP, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, TJL4V, TJL1S-6S, TBC6	600				
			TB8	800				
		Siemens/ITE	HDG, LDG	150				
			HFD, HFD6, HFXD, HFXD6, HHFD6, HHFXD6, CFD6, HFG, LFG	250				
			HJD, HJD6, HJXD, HJXD6, SHJD, SHJD6, HHJD6, HHJXD6, CJD6, SCJD6, HJG, LJG, LLG	400				
			HLD6, HLXD6, HHL6, HHLXD6, CLD6, SHLD6, SCLD6, HLG	600				
		Square D	HJ, HL	150				
			KC, KI, CF250L, NSF250	250				
			CK400N, CK400NN, CK400H, CK400HH, CJ400L, NSJ400	400				
			LC, DJ, DL, LI, NSJ600	600				
			MasterPact STR 28D, PK, PJ, PL	800				
			JJ (current limiting)	250				
			LJ (current limiting)	600				
			JL (current limiting)	250				
			LL (current limiting)	600				
		Eaton/Cutler Hammer	PD2 (current limiting)	225				
			PD3 (current limiting)	600				
		Square D	JR (current limiting)	250				
			LR (current limiting)	600				
		42,000	600	Eaton/Cutler Hammer	JGU, JGX, JGH	250		
					KDC	400		
LDC, CLDC	600							
GE	TBC4			400				
	SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP			600				
Siemens/ITE	HJD, CFD6			250				
	HHJD6, HHJXD6, CJD6, SCJD6			400				
	HHL6, HHLXD6, CLD6, SCLD6, LNG, LPG, LGC*, LGU*, LGX*			600				
Square D	HJ, HL, HG			150				
	KI, JJ, JL, JR, CF250L			250				
	CK400H, CK400HH, CJ400L			400				
	LI, MasterPact STR 28D, PK			600				
	LL (current limiting)	600						
Eaton/Cutler Hammer	PD3 (current limiting)	600						
50,000								
65,000								
100,000								

* With Digitrip 310+ LS or LSG Inst. Override set to 12X.

§ KCP only

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers			
				Manufacturer	Type or Class	Max. Size, amps	
KCS KCP KCC	260	65,000	240	GE	THQMV	225	
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6	600	
				Eaton/Cutler Hammer	LDC, CLDC, HLD, CHLD	600	
				Square D	Siemens/ITE	HLD6, HLXD6	600
					QG, QJ	250	
					LJ (current limiting)	600	
		LL (current limiting)	600				
		200,000	Eaton/Cutler Hammer	PD2 (current limiting)	225		
				PD3 (current limiting)	600		
		50,000	480	Eaton/Cutler Hammer	HFDE, FDCE, HFD, FDC, LHH	225	
					JDC, JGH, JGC, JGU, JGX	250	
					HKD, HKDB, CHKD, CHKDB, KDC	400	
					HLD,CHLD, LDC, CLDC, LGH*, LGC*, LGU*, LGX*, NHH	600	
					MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC, MDLB, CMDLB, HMDLB, CHMDLB	800	
				GE	SFL, SFP, FEN, FEH	250	
					TBC4	400	
					TBC6, TJL4V, TJL1S- 6S, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGN, FGH, FGL, FGP	600	
				Siemens/ITE	TBC8, TKL4V, TKH8S- 12S, TKL8S- 12S, SKH8, SKL8, SKP8, TB8	800	
					HFD6, HFXD6, HHFD6, HHFXD6, CFD6, HFG, LFG	250	
					HJD6, HJXD6, SHJD6, HHJD6, HHJXD6, CJD6, SCJD6, HJG, LJG, LLG	400	
					HLD6, HLXD6, SHLD6, HHL6, HHLXD6, CLD6, SCLD6, HLG	600	
				Square D	LMD, LMD6, LMXD, LMXD6, HLMD, HLMD6, HLMXD, HLMXD6, MD, MD6, MXD6, HMG, HMD6, HMXD6, SMD6, SHMD6, CMD6, SCMD6, LMG, MG	800	
					KI, KC, CF250L, NSF250	250	
					CK400N, CK400NN, CK400H, CK400HH, CJ400L, NSJ400	400	
					LC, DJ, DL, LJ, LL, LR, LI, NSJ600	600	
					CK800N, CK800NN, CK800H, CK800HH, MasterPact STR 28D, MJ, PK, PJ, PL	800	
					CK1000HL	1000	
		CK1200NN, CK1200HH	1200				
		JJ (current limiting)	250				
		LJ (current limiting)	600				
JL (current limiting)	250						
LL (current limiting)	600						
200,000	Eaton/Cutler Hammer	JR (current limiting)	250				
		LR (current limiting)	600				
		PD2 (current limiting)	225				
		PD3 (current limiting)	600				

* With Digitrip 310+ LS or LSG Inst. Override set to 12X.

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers			
				Manufacturer	Type or Class	Max. Size, amps	
KCS KCP KCC	260	42,000	600	Eaton/ Cutler Hammer	JGU, JGX	250	
					KDC	400	
					LDC, CLDC	600	
				GE	TBC4	400	
					TBC6, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP	600	
					TBC8, TKL4V, TKL8S- 12S, SKL8, SKP8	800	
				Siemens /ITE	HJD, CFD6	250	
					HHJD6, HHJXD6, CJD6, SCJD6	400	
					HHL6, HHLXD6, CLD6, SCLD6	600	
				Square D	HLMD6, HLMXD6, HMXD6, SHMD6, HMD6, CMD6, SCMD6, LMG, LNG, LPG, LGC*, LGU*, LGX*	800	
					KI, JL, JR, JJ, CF250L	250	
					CK400H, CK400HH, CJ400L	400	
		LI	600				
		50,000	600	600	Square D	CK800H, CK800HH, MasterPact STR 28D, PK	800
						LL (current limiting)	600
						Eaton/ Cutler Hammer	PD3 (current limiting)
Square D	LR (current limiting)					600	
65,000	600	600	Square D	LR (current limiting)	600		
				LR (current limiting)	600		
100,000	600	600	Square D	LR (current limiting)	600		
				LR (current limiting)	600		

* With Digitrip 310+ LS or LSG Inst. Override set to 12X.

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers		
				Manufacturer	Type or Class	Max. Size, amps
KCS KCP KCC	400	65,000	240	GE	THQMV	225
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6	600
				Eaton/ Cutler Hammer	LDC, CLDC, HLD, CHLD	600
					PD2 (current limiting)	225
				PD3 (current limiting)	600	
				Siemens/ITE	HLD6, HLXD6	600
		Square D	QG, QJ	250		
			LJ (current limiting)	600		
			LL (current limiting)	600		
			LR (current limiting)	600		
		50,000	480	Eaton/ Cutler Hammer	JGH, JGC, NHH	250
					HKD, CHKD, KDC, HKDB, CHKDB, LHH	400
					CHLD, LDC, CLDC, LGH*, LGC*, LGU*, LGX*	600
					MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC, MDLB, CMDLB, HMDLB, CHMDLB	800
					NGU	1600
					TBC4	400
			GE	TBC6, TJK4V, TJK1S-6S, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGN, FGH, FGL, FGP	600	
				TBC8, TKL4V, TKH8S-12S, TKL8S-12S, SKH8, SKL8, SKP8, TB8	800	
				HFD6, HFXD6, HFG, LFG	250	
			Siemens/ITE	HJD6, HJXD6, SHJD6, HHJD6, HHJXD6, CJD6, SCJD6, HJG, LLG, LJG	400	
				HLD6, HLXD6, SHLD6, HHL6, HHLXD6, CLD6, SCLD6, HLG	600	
				LMD6, LMXD6, HLMD6, HLMXD6, MD6, MXD6, HMD6, HMXD6, SMD6, SHMD6, CMD6, SCMD6, HMG, LMG	800	
				CK400N, CK400NN, CK400H, CK400HH, CJ400L, NSJ400	400	
				LC, DJ, DL, LJ, LL, LR, LI, NSJ600	600	
				CK800N, CK800NN, CK800H, CK800HH, MJ	800	
			Square D	CK1000HH	1000	
				PK, PJ, PL, MH, MasterPact STR 28D, CK1200HH	1200	
				LJ (current limiting)	600	
		LL (current limiting)		600		
		LR (current limiting)		600		
		Eaton/ Cutler Hammer		PD3 (current limiting)	600	
		42,000	600	Eaton/ Cutler Hammer	KDC	400
LDC, CLDC, LGC*, LGU*, LGX*	600					
PD3 (current limiting)	600					
GE	TBC4		400			
	TBC6, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP		600			
	TBC8, TKL4V, TKL8S-12S, SKL8, SKP8		800			
Siemens/ITE	HHJD6, HHJXD6, CJD6, SCJD6		400			
	HHL6, HHLXD6, CLD6, SCLD6		600			
	HLMD6, HLMXD6, HMXD6, SHMD6, HMD6, CMD6, SCMD6, LMG		800			
	LNG, LPG		1200			
Square D	CK400H, CK400HH, CJ400L		400			
	LI		600			
	CK800H, CK800HH	800				
	MasterPact STR 28D, PK	1200				
	LL (current limiting)	600				
LR (current limiting)	600					
50,000						
100,000						

* With Digitrip 310+ LS or LSG Inst. Override set to 12X.

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers			
				Manufacturer	Type or Class	Max. Size, amps	
KCS KCP KCC	600	65,000	240	GE	THQMV	225	
					SGL1, SGL4, SGL6, SGP1, SGP4, SGP6	600	
				Siemens/ITE	HLD6, HLXD6	600	
				Eaton/Cutler Hammer	LDC, CLDC, HLD, CHLD	600	
				Square D	QG, QJ	250	
					LJ (current limiting)	600	
		LL (current limiting)	600				
		100,000	200,000	Eaton/Cutler Hammer	PD2 (current limiting)	225	
					PD3 (current limiting)	600	
					LR (current limiting)	600	
		125,000	50,000	Eaton/Cutler Hammer	JGH, JGC, HFG, LFG	250	
					HLD, CHLD, LDC, CLDC, LGH*, LGC*, LGU*, LGX*	600	
					MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC, NGU, MDLB, CMDLB, NF	800	
		50,000	480	GE	TBC6, TJK4V, TJK1S- 6S, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGN, FGH, FGL, FGP	600	
					TBC8, TKL4V, TKH8S- 12S, TKL8S- 12S, SKH8, SKL8, SKP8, TB8	800	
					SKL12, SK12P	1200	
				Siemens/ITE	HLD6, HLXD6, SHLD6, HHLXD6, HHLXD6, CLD6, SCLD6, HLG, LLG	600	
					LMD6, LMXD6, HLMD6, HLMXD6, MD6, MXD6, HMD6, HMXD6, SMD6, SHMD6, CMD6, SCMD6, HMG, LMG	800	
					HND6, HNXD6, SND6, SHND6, ND6, NXD6, HNG, LNG, CND6	1200	
				Square D	LC, DJ, DL, LI, NSJ600	600	
					CK800N, CK800NN, MJ	800	
					MH, CK1200N, CK1200NN, CK1200H, CK1200HH, NT- H, NT- L1, NT- L, NT- LF, PK, PJ, PL	1200	
					CM2000HH	2000	
					CM2500HH	2500	
					PL1200	1200	
		85,000	600	Eaton/Cutler Hammer	LJ (current limiting)	600	
					LL (current limiting)	600	
					LR (current limiting)	600	
		65,000	42,000	Eaton/Cutler Hammer	PD3 (current limiting)	600	
					JGC	250	
					TBC4	400	
		100,000	600	Eaton/Cutler Hammer	LDC, CLDC	600	
					GE	TBC6, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP	600
					TBC8, TKL4V, TKL8S- 12S, SKL8, SKP8	800	
		200,000	42,000	Siemens/ITE	SKL12, SKP12	1200	
					HHLXD6, HHLXD6, CLD6, SCLD6	600	
HLMD6, HLMXD6, HMXD6, SHMD6, HMD6, CMD6, SCMD6, LMG	800						
100,000	600	Square D	HND6, HNXD6, HNG, LNG, SHND6	1200			
			LI	600			
			CK800H, CK800HH	800			
50,000	600	Eaton/Cutler Hammer	CK1000HL	1000			
			CK1200H, CK1200HH, NT- H, NT- L, NT- LF, NT- L1, MasterPact STR 28D, PK	1200			
			LL (current limiting)	600			
65,000	600	Eaton/Cutler Hammer	PD3 (current limiting)	600			
			LR (current limiting)	600			
100,000	600	Square D	LR (current limiting)	600			

* With Digitrip 310+ LS or LSG Inst. Override set to 12X.

Model	Switch Rating, amps	WCR, amps RMS	Volts, Max.	Molded-Case Circuit Breakers		
				Manufacturer	Type or Class	Max. Size, amps
KCS KCP KCC	800 1000 1200	65,000	480	Eaton/ Cutler Hammer	HLD, CHLD, LGH, LGC, LGU, LGX, LDC, CLDC	600
					HMDL, CHMDL, HMDLB, CHMDLB	800
					HND, CHND, NDC, CNDC, NF	1200
					NGH, NGC, NGU	1600
					RGH, RGC	2500
				GE	TBC6, TJL4V, SGL, SGP6	600
					TBC8, SKL8, SKP8	800
					SKL12, SKP12, TKL4V	1200
				Siemens / ITE	HLXD6, HHLXD6, HHLD6, CLD6, SHLD6, SCLD6, HLG, LLG	600
					HMXD6, HMD6, SHMD6, HMG, LMG, CMD6, SCMD6	800
					SHND6, CND6, HNXD6, HNG, LNG	1200
					HPG, LPG, HPD, HPD6, CPD6, HPXD, HPXD6, SHPD, SHPD6	1600
		HRD6, HRXD6	2000			
		Square D	LI, LE LSI, LE LI, LX, LXI, LJ, LL, LR	600		
			MJ, ME, MX, CK800H, CK800HH	800		
			CK1000HL	1000		
			NT- L1, NT- L, NT- LF, NE, NX, CK1200H, CK1200HH, PJ, PL	1200		
			NW, RJ, RL, MTZ	1600		
			PE, PX	2500		
			SES, SE, SEH (LS or LSI TRIP)	3000		
			SE (LI, LSI- E, and LI- E TRIP)	4000		
MasterPact STR 28D	6300					
		65,000	600	Eaton/ Cutler Hammer	Tri-Pac NB	800
					RDC	2500
				Siemens / ITE	CND	1200
KCS KCP KCC	1600 2000	150,000	480	Square D	MTZ2- LF	2000
		200,000			MTZ2-L1/L1F	2000

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. See the transfer switch dimension drawings for other enclosure types.

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
3R		3,4	4	2286 (90)	940 (37)	1738 (68.4)	—	735(1620)	765(1685)	ADV-8582	
4000	1	3,4	4	2311 (91)	1524 (60)	1836 (72.3)	—	975(2149)	1056(2328)	ADV-8583	
	3R	3,4	4	2528 (100)	1606 (63)	2310 (91)	—	1436(3165)	1523(3357)	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.

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

(Standard with MPAC1500 controller)

Current Sensing Kit

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
- 35 programmable alarms
- LCD display, 67 x 62.5 mm (2.65 x 2.5 in.)
- Pushbutton operation
- Password-protected programming menus
- Two digital inputs
- Two digital outputs and two Form A relay outputs
- Serial port for optional network connections
- Data logging
- Factory-installed

Engine Start Circuit Monitor

See Specification Sheet G6-165.

Export Packaging

Extended Limited Warranties

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

Heater, Anti-Condensation

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

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 or closed-transition models
- Customer-supplied signal (contact closure) is required for the forced transfer to OFF function
- Factory-installed and loose kits available

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.

Surge Protection Device (SPD)

- SPD available for the normal source supply
- 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

Seismic Certification

California OSHPD Pre-Approval

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

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:

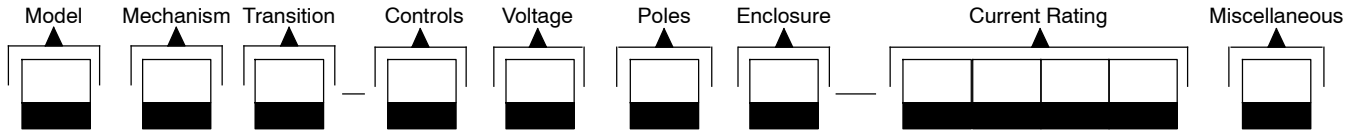
ATS Size, Amps	Enclosure, NEMA Type:				
	1	3R	4	4X	12
30-1200	•	•	•	•	•
1600-4000	•	•			

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 / 640
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 / 640
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

Notes

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 (Time-Based)

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

S: 400 Volts/60 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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