

## Automatic Transfer Switches Mechanically Operated Bypass/Isolation



### Transfer Switch Standard Features

- UL 1008 listed, file #E108981
- CSA certification available
- IBC and OSHPD seismic certification available
- Bypass/isolation switches for uninterrupted power to the load during switch maintenance and testing
- 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
- Fully rated for use as a manual 3-position transfer switch
- Heavy duty mechanical interlocks
- Bypass switch and contactor position indicators
- Drawout contactor for ease of maintenance
- Design suitable for emergency and standby applications on all classes of load, 100% tungsten rated through 400 amps
- Reliable, field-proven solenoid mechanism
- Switching mechanisms lubricated for life
- Main shaft auxiliary contacts
- Front-connected style available for some amperages
- Standard one-year limited warranty. Extended limited warranties are available.

### Standard Transition Models (KBS)

- Standard-transition transfer time less than 100 milliseconds (6 cycles @ 60 Hz)
- Double-throw, mechanically interlocked design (break before make)
- Solid, switched, or overlapping neutral

### Programmed Transition Models (KBP)

- 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 both sides)
- Solid or switched neutral

### Closed Transition Models (KBC)

- Closed-transition transfer switches operate with no power interruption during transfer and retransfer when both sources are within specified parameters (make before break)
- Quick-make, quick-break bypass switch operation for load transfer between 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

### Controller

- Decision-Maker® MPAC 1500

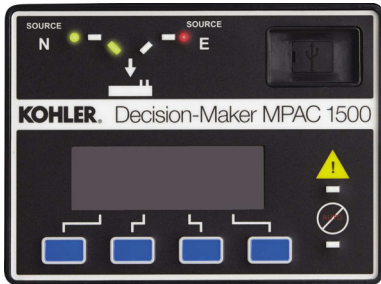
### Ratings

Model	Current	Voltage, Frequency
KBS	150- 4000 amps	208- 600 VAC 50/60 Hz
KBP		
KBC		

## Automatic Transfer Switch Controller

The Decision-Maker® MPAC 1500 Automatic Transfer Switch Controller is used on bypass/isolation transfer switch models.

### 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 is 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 508, Standard for Industrial Control Equipment
- Underwriters Laboratories UL 1008, Standard for Automatic Transfer Switches for Use in Emergency Standby Systems, file #E108981

# 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

UL-Listed Solderless Screw-Type Terminals for External Power Connections	
Switch Rating, Amps	Normal, Emergency, and Load Terminals Per Phase and Neutral
	Range of Wire Sizes, Copper or Aluminum *
150-400	(1) #4 AWG to 600 KCMIL
	(2) 1/0 AWG to 250 KCMIL
600	(2) #2 AWG to 600 KCMIL
800 - 1200 F	(3) #1 AWG to 600 KCMIL
800-1200 S	(4) 1/0 AWG to 750 KCMIL
1600-2000	(6) 1/0 AWG to 750 KCMIL
2600-3000	(10) 1/0 AWG to 750 KCMIL
4000	(12) 1/0 AWG to 750 KCMIL

F: Front-connected  
S: Standard rear-connected  
\* Use 75°C minimum Cu/Al wire for power connections.

Extended Transfer Time Adjustable Relay (Model KBC) Specifications	
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 KBC)		
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.

Auxiliary Position Indicating Contacts (rated 10 amps @ 32 VDC/250 VAC)			
Switch Rating, Amps	Number of Contacts Indicating Normal, Emergency		
	KBS	KBP	KBC
150-600	8, 8	6, 6	5, 5
800-1200	8, 8	7, 7	7, 7
1600-4000	8, 8	7, 7	6, 6

## Weights and Dimensions

**Note: Weights and dimensions are provided for reference only. 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 bypass/isolation transfer switches in **NEMA type 1** enclosures. See the transfer switch dimension drawings for other enclosure types.

Model	Amps	Dimensions mm (in.)			Weight kg (lb.) *			Dimension Drawing
		Height	Width †	Depth	2-Pole	3-Pole	4-Pole	
KBS KBP KBC	150- 600	2162 (85.1)	864 (34)	711 (28)**	431 (950)	431 (950)	431 (950)	ADV-8600
	800 F	2311 (91)	965 (38)	813 (32) ‡	—	635 (1400)	635 (1400)	ADV-8601
	1000- 1200 F	2311 (91)	965 (38)	864 (34) ‡	—	635 (1400)	635 (1400)	ADV-8601
	800- 1200 S	2311 (91)	965 (38)	1219 (48) §	—	708 (1560)	708 (1560)	ADV-8602
	1600- 2000	2311 (91)	965 (38)	1524 (60) §	—	1070 (2360)	1152 (2540)	ADV-8603
KBS	2600- 3000	2311 (91)	965 (38)	1829 (72) §	—	1240 (2730)	1525 (3360)	ADV-8604
KBP KBC	2600- 3000	2311 (91)	965 (38)	1829 (72) §	—	1325 (2920)	1611 (3550)	ADV-8604
KBS KBP KBC	4000	2311 (91)	1524 (60)	2438 (96)	—	2269 (5000)	2358 (5200)	ADV-8605

F: Front-connected

S: Standard rear-connected

\* Approximate weights

† Optional pull boxes will increase the width. Pull box is required for bottom cable entry on 400- 600 amp units. See Transfer Switch Accessories for available pull boxes (for NEMA type 1 enclosures only).

‡ Handles extend 159 mm (6.25 in.). Standard enclosures for 800 amp models are suitable for top and upper left side cable entrance only.

§ Recommended clearance to enclosure: 0.9 m (3 ft.) from rear, 1.2 m (4 ft.) from front [0.64 m (25 in.) required for transfer switch drawout].

|| Recommended clearance to enclosure: 0.9 m (3 ft.) from rear, 1.5 m (5 ft.) from front [0.9 m (3 ft.) required for transfer switch drawout].

\*\* Both bypass switch manual operation handle and transfer switch carriage manual crank handle can be removed. Also note that the transfer switch carriage manual crank handle can be left in place and folded down. Recommended front clearance is 32 in. minimum.

# 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.

**Note: For specific breaker ratings, refer to the next table.**

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	.13	.2	.3	.5	.1	.13	.3	.5
150 225 260 400 600	200kA	200kA	600	J	65kA	42kA †	35kA	7500A				—			
800			L												
800-1200 FC	200kA	200kA	1200	L	50kA	50kA	50kA	36kA		—		36kA		—	
800-1200	200kA	200kA	1600	L	50kA	50kA	50kA	36kA		—		36kA		—	
1600-2000	200kA	200kA	3000	L	100kA	100kA	100kA	42kA		36kA		42kA		—	
2600-3000	200kA	200kA	4000	L	125kA	125kA	100kA	42kA		36kA		42kA		—	
4000	200kA	200kA	5000	L	100kA	100kA	100kA	85kA	65kA		65kA				

\* Based on 0.050 seconds (approximately 3 cycles). 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.  
FC = Front Connected

## Ratings with Specific Manufacturers' Circuit Breakers

The following charts list power switching device withstand and close-on ratings (WCR) in RMS symmetrical amperes for circuit breakers from specific manufacturers. Ratings apply to both open- and programmed-transition models. Circuit breakers are supplied by the customer.

Switch Rating, amps	Molded-Case Circuit Breakers					
	WCR, amps RMS	Voltage, Max.	Manufacturer	Type	Max. Size, amps	
150 225	65,000	240	GE	THQMV SGL1, SGL4, SGL6, SGP1, SGP4, SGP6	225 600	
			Eaton/ Cutler Hammer	LDC, CLDC, HLD, CHLD	600	
			Siemens/ITE	HLD6, HLXD6	600	
			Square D	QG, QJ LJ, LL, LR	250 600	
	50,000	480	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	
			Siemens/ITE	TB8	800	
				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	
			Square D	HLD6, HLXD6, HHL6, HHLXD6, CLD6, SHLD6, SCLD6, HLG	600	
				HJ, HL	150	
				KC, KI, CF250L, NSF250	250	
				CK400N, CK400NN, CK400H, CK400HH, CJ400L, NSJ400	400	
			Square D	LC, DJ, DL, LI, NSJ600	600	
	MasterPact STR 28D, PK, PJ, PL	800				
	JJ (Current Limiting)	250				
	JL (Current Limiting)					
	JR (Current Limiting)					
	65,000	42,000	600	Eaton/ Cutler Hammer	JGU, JGX, JGH	250
	100,000				KDC	400
	200,000				LDC, CLDC	600
	Square D			TBC4	400	
				SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP	600	
				HJ, HL, HG	150	
KI, JJ, JL, JR, CF250L				250		
Siemens/ITE	CK400H, CK400HH, CJ400L			400		
	LI, MasterPact STR 28D, PK			600		
Siemens/ITE	HJD, CFD6			250		
	HHJD6, HHJXD6, CJD6, SCJD6			400		
	HHL6, HHLXD6, CLD6, SCLD6, LNG, LPG, LGC*, LGU*, LGX*			600		

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

Switch Rating, amps	Molded-Case Circuit Breakers						
	WCR, amps RMS	Voltage, Max.	Manufacturer	Type	Max. Size, amps		
260	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		
				LJ, LL, LR	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		
			Siemens/ITE	TBC6, TJL4V, TJL1S-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, HHFD6, HHFXD6, CFD6, HFG, LFG	250		
				HJD6, HJXD6, SHJD6, HHJD6, HHJXD6, CJD6, SCJD6, HJG, LJG, LLG	400		
				HLD6, HLXD6, SHLD6, HHLD6, 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		
			65,000			JJ (Current Limiting)	250
			100,000			JL (Current Limiting)	
			200,000			JR (Current Limiting)	
			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		
		HHLD6, 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		
		CK800H, CK800HH, MasterPact STR 28D, PK			800		

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

Switch Rating, amps	Molded-Case Circuit Breakers						
	WCR, amps RMS	Voltage, Max.	Manufacturer	Type	Max. Size, amps		
400	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		
	LJ, LL, LR	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		
			GE	TBC4	400		
				TBC6, TJL4V, TJL1S-6S, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGN, FGH, FGL, FGP	600		
				TBC8, TKL4V, TKH8S-12S, TKL8S-12S, SKH8, SKL8, SKP8, TB8	800		
			Siemens/ITE	HFD6, HFXD6, HFG, LFG	250		
				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		
			Square D	CK400N, CK400NN, CK400H, CK400HH, CJ400L, NSJ400	400		
				LC, DJ, DL, LJ, LL, LR, LI, NSJ600	600		
				CK800N, CK800NN, CK800H, CK800HH, MJ	800		
				CK1000HH	1000		
				PK, PJ, PL, MH, MasterPact STR 28D, CK1200HH	1200		
			42,000	600	Eaton/Cutler Hammer	KDC	400
						LDC, CLDC, LGC*, LGU*, LGX*	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		



Switch Rating, amps	Molded-Case Circuit Breakers				
	WCR, amps RMS	Voltage, Max.	Manufacturer	Type	Max. Size, amps
600	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
				LJ, LL, LR	600
	85,000		Square D	PL1200	1200
	50,000	480		JGH, JGC, HFG, LFG	250
			Eaton/Cutler Hammer	HLD, CHLD, LDC, CLDC, LGH*, LGC*, LGU*, LGX*	600
				MDL, CMDL, HMDL, CHMDL, NGS, NGH, NGC, NGU, MDLB, CMDLB, NF	800
			GE	TBC6, TJL4V, TJL1S-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
			42,000	600	Eaton/Cutler Hammer
		TBC4			400
		LDC, CLDC			600
	GE	TBC6, SGL1, SGL4, SGL6, SGP1, SGP4, SGP6, FGP			600
		TBC8, TKL4V, TKL8S-12S, SKL8, SKP8			800
		SKL12, SKP12			1200
	Siemens/ITE	HHLXD6, HHLXD6, CLD6, SCLD6			600
		HLMD6, HLMXD6, HMXD6, SHMD6, HMD6, CMD6, SCMD6, LMG			800
		HND6, HNXD6, HNG, LNG, SHND6			1200
Square D	LI	600			
	CK800H, CK800HH	800			
	CK1000HL	1000			
	CK1200H, CK1200HH, NT-H, NT-L, NT-LF, NT-L1, MasterPact STR 28D, PK	1200			

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

Switch Rating, amps	Molded-Case Circuit Breakers						
	WCR, amps RMS	Voltage, Max.	Manufacturer	Type	Max. Size, amps		
800 1000 1200	150,000	480	Square D	MTZ216-LF1	1600		
	65,000		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		
				TBC6, TJL4V, SGL, SGP6	600		
			GE	TBC8, SKL8, SKP8	800		
				SKL12, SKP12, TKL4V	1200		
				HLXD6, HHLXD6, HHLD6, CLD6, SHLD6, SCLD6, HLG, LLG	600		
			Siemens/ITE	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		
				LI, LE LSI, LE LI, LX, LXI, LJ, LL, LR	600		
			Square D	MJ, ME, MX, CK800H, CK800HH	800		
				CK1000HL	1000		
				NT-L1, NT-L, NT-LF, NE, NX, CK1200H, CK1200HH, PJ, PL	1200		
				NW, RJ, RL	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		
				600	Eaton/ Cutler Hammer	Tri-Pac NB	800
					RDC	2500	
					Siemens/ITE	CND	1200
			1600 2000	200,000	480	Square D	MTZ-L1/L/LF, MTZ2/3-L1/L1F, MTZ2/3-L/LF except MTZ2/3-20L
1600 2000 2600 3000	125,000	480	Square D	Masterpact NW-L	3000		

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

## Controller Accessories

### Accessory Modules

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

### Controller Disconnect Switch

### Current Sensing Kit

### Padlockable User Interface Cover

### Supervised Transfer Control Switch

See the controller specification sheet for more information.

## 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
- 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

### 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

### Literature Kits

- Production literature kit (included with 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 only

### Pull Box

- Available in a variety of sizes for 150-3000 amp units in NEMA type 1 enclosures

Amps	Pull Box Width, mm (in.)
150-600	305 or 381 mm (12 or 15 in.)
800F	305 or 560 mm (12 or 22 in.)
800-1200S, 1000-1200F	305, 460, or 560 mm (12, 18, or 22 in.)
1600-2000	460 or 610 mm (18 or 24 in.)
2600-3000	460 or 660 mm (18 or 26 in.)

### 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
- 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

### Extended Limited Warranties

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

## Seismic Certification

### IBC Seismic Certification

- Certification depends on application and geographic location. Contact your distributor for details.
- Available for KB model transfer switches with enclosures shown below:
  - 150-4000 amp models with NEMA 1 enclosures
  - 4000 amp models with NEMA 3R enclosures

### California OSHPD Approval

- Available for KB model transfer switches with enclosures shown below:
  - 150-4000 amp models with NEMA 1 enclosures
  - 4000 amp models with 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	Split	3	0.6 / 1.2 / 0.7	0.6 / 0.4 / 0.6	0.8 / 0.7 / 0.8	200	175 / 350
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

