KOHLER®

Model: RXT

Automatic Transfer Switch
100- 400 Amps

ISO 9001 KOHLER® NATIONALLY REGISTERED

Covers have been removed for illustration.

Available Models

- 100, 200, and 400 amp standard and service entrance models are available.
- 150 and 300 amp service entrance models are also available.
- Combined interface/load management board is available on single-phase standard and service entrance models. (Not available on 3-phase or load center models.)
- 100 amp standard single-phase models are available with or without a 16-space load center. Up to 8 tandem breakers can be used for a total of 24 circuits.
- 100amp standard single phase model with a 12-space load center and a NEMA 1 enclosure is available as a standalone non-configurable spec (GM85273-SA_).
- See page 7 for more information.

Model RXT Automatic Transfer Switch

The Model RXT automatic transfer switch is designed for use only with Kohler® generator sets equipped with RDC2 or DC2 generator set/transfer switch controls. The transfer switch operation is controlled by the RDC2/DC2 controller.

Standard Features

- Allows utility voltage display on the RDC2/DC2 generator set/transfer switch controller, available exclusively on Kohler® residential and light commercial generator sets
- UL listed
  - UL 1008 listed, file # E58962
  - Models with load centers use UL 67 listed components
- CSA certification, file # LR58301, is available for:
  - Standard ATS without load center (single and three-phase)
  - Service entrance ATS 100 and 200 amp models
- Corrosion-resistant NEMA 3R aluminum enclosure
  - Padlockable
  - Approved for indoor or outdoor installation
  - ANSI 49 gray
- NEMA 1 enclosure available on 100 amp load center models
- Contactor electrically and mechanically interlocked
- Double throw inherently interlocked design
- Contactor manually operable for maintenance purposes
- Silver alloy main contacts
- Transfer switches are 100% equipment rated and can be applied at the rated current without derating (non-service entrance models)
- Service entrance models include disconnect circuit breaker on the utility (normal) source side (80% rated)
- Five-year limited warranty

Standard Interface Board

- Standard interface board connects to the Model RDC2 or DC2 generator set/transfer switch controller.
- Includes a load control contact that provides a 5 minute time delay for startup of selected loads after transfer to the emergency source. Use for large motor loads.

Combined Interface/ Load Management Board

- Optional combined interface/load management board replaces the standard interface board and connects to the Model RDC2 or DC2 generator set/transfer switch controller.
- The combined board is available on single-phase standard and service entrance models.
  (Not available on 3-phase or load center models.)
- The combined board automatically manages up to six residential loads:
  - Up to four customer-supplied power relay modules can be connected for management of non-essential secondary loads.
  - Two HVAC relays are included for control of two independent air conditioner loads.

Specifications

Standard Interface Board	
Controller interface connections A and B	#20 AWG shielded twisted-pair Belden 9402 or 8762 or equivalent
Controller interface connections PWR and COM	#12- 20 AWG (see ATS Installation Manual)
Load control contact rating	10 A @ 250 VAC
Load control connections	#12- 18 AWG

Note: For combined interface/load management board specifications, see page 3.

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

Codes and Standards

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

- Underwriters Laboratories UL 1008, Standard for Automatic Transfer Switches for Use in Emergency Systems, file #E58962
- Underwriters Laboratories UL 508, Standard for Industrial Control Equipment
- CSA certification available, file #LR58301 (not available for 150, 300, or 400 amp service entrance or 100 amp load center models). Must be selected when the transfer switch is ordered.
- NFPA 70, National Electrical Code
- NFPA 110, Emergency and Standby Power Systems
- NEMA Standard IC10- 1993, AC Automatic Transfer Switches

Cable Sizes

AL/CU UL-Listed Solderless Screw-Type Terminals for External Power Connections

Switch Size, Amps	Switch	Phases	Range of Wire Sizes, Cu/Al			
			Normal and Emergency	Load	Neutral	Ground
100	Standard	1	(1) #14 - 1/0 AWG	(1) #14 – 1/0 AWG	(5) #12 to 250 KCMIL (Cu) or (5) #10 to 250 KCMIL (Al)	(9) #6 – #14 AWG (4) #14 - 1/0 AWG
	12- or 16-space load center (NEMA 1)	1	(1) #14 – 1/0 AWG	per customer-supplied circuit breaker	(26) #4 - 14 AWG or (2) #14 - 1/0 AWG or (1) #6 – 2/0 AWG	
	16-space load center (NEMA 3R)	1	(1) #14 – 1/0 AWG	per customer-supplied circuit breaker	(26) #4 - 14 AWG or (2) #14 - 1/0 AWG or (1) 2/0 AWG	
	Service Entrance	1	Normal: (1) #12 – 2/0 AWG Emerg: (1) #14 – 1/0 AWG	(1) #14 – 1/0 AWG	(5) #12 to 250 KCMIL (Cu) or (5) #10 to 250 KCMIL (Al)	(4) #14 – 1/0 AWG (9) #14 - #6 AWG
	3-Phase	3	(1) #14 – 1/0 AWG	(1) #14 – 1/0 AWG	(3) #4 AWG – 600 KCMIL (6) 1/0 AWG – 250 KCMIL	
150 200	Service Entrance	1	Normal: (1) #4 – 300 KCMIL Emerg: (1) #6 - 250 KCMIL	(1) #6 – 250 KCMIL	(5) #12 to 250 KCMIL (Cu) or (5) #10 to 250 KCMIL (Al)	
200	Standard	1	(1) #6 AWG – 250 KCMIL	(1) #6 – 250 KCMIL	(5) #12 to 250 KCMIL (Cu) or (5) #10 to 250 KCMIL (Al)	(9) #14 – #4 AWG (4) #14 - 1/0 AWG
	3-Phase	3				
300 400	Service Entrance	1	Normal: : (1) #1 - 600 KCMIL or (2) #1 – 250 KCMIL Emerg: (2) #6 - 250 KCMIL	(2) #6 – 250 KCMIL	(3) #4 AWG – 600 KCMIL (6) 1/0 AWG – 250 KCMIL	(6) #6 – 3/0 AWG
400	Standard	1	(2) #6 – 250 KCMIL	(2) #6 – 250 KCMIL	(3) #4 AWG – 600 KCMIL (6) 1/0 AWG – 250 KCMIL	(6) #6 – 3/0 AWG
	3-pole 208-240 V	3				
	3 or 4 pole 480 V	3	(1) #4 – 600 KCMIL (2) 1/0 – 250 KCMIL	(1) #4 – 600 KCMIL (2) 1/0 – 250 KCMIL		

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

Optional Combined Interface/Load Management Board

The RXT transfer switch is available with either a standard interface board or a combined interface/load management board. The combined board allows load management as described below.

Load Management

- The combined load management board disconnects non-critical loads to prevent generator overload, in compliance with NEC.
- The combined load management board monitors generator current and frequency to determine when to add or shed loads. This monitoring prevents frequency drops that can damage valuable electronics like computers and televisions.
- Load management allows the use of a smaller generator set.

Operation

- Loads are automatically added or shed based on generator capacity.
- The load control system uses dynamic logic to prevent shedding important loads unnecessarily when air conditioning, refrigerator, or water pump motors start (patent pending).
- The load management board and generator communicate to provide smart power management. The time to shed loads decreases as each load is shed to quickly adapt to critical power requirements.
- Load shed power level and frequency setpoints can be adjusted using a personal computer (laptop) and Kohler® SiteTech™ software, which is only available to Kohler-authorized distributors and dealers.

Priority Setting

- Loads are added and shed according to their priority. Load 1 is the top priority, which is added first and shed last. Load 6 is the lowest priority.
- Less critical loads can be turned off automatically when essential appliances are running.
- Load priorities are hard-wired at installation.

Viewing Load Shed Outputs with OnCue® Plus

- Use Kohler's OnCue® Plus Generator Management System (sold separately) to view load status (On or Off) for loads connected to the load shed relays.
- Use OnCue® Plus to remotely monitor when loads are shed or added.
- The load shed outputs can be labeled in OnCue® Plus.

Current Transformer

- The combined load management board option includes a 400 amp current transfomer (CT) for load monitoring.
- A larger diameter CT is available for applications that require larger cables.
- A 500 amp CT is available for use with a 60RCL generator.
- See the table below for current transformer specifications and optional kit numbers.

Load Shed Specifications

Connection	Rating	Connection
Pilot Relays*	125VAC, 10 A total (general purpose) 120VAC, 125VA (pilot duty)	#12- 20 AWG
HVAC Relays (qty. 2)	125VAC, 10 A (general purpose) 120VAC, 125VA (pilot duty)	#12- 20 AWG
RBUS Communication and Power Connections to the RDC2/DC2 controller	0.5 A @ 12 VDC	Use Belden #9402 or equivalent 20 AWG shielded, twisted-pair communications cable †

* Four (4) pilot relays are provided for customer-supplied normally closed load-switching contactors/relays. The combination of four load relay outputs cannot exceed 10 amps total current draw. Kohler® power relay modules are recommended.

† For long distances, use an equivalent shielded, twisted-pair cable for RBUS connections and individual 12- 20 AWG wires (qty. 2) for power connections.

Current Transformer Specifications

Ratio (Amps:VAC)	Outer Diameter mm (in.)	Inner Diameter mm (in.)	Service Part Number	Sales Kit Part Number	CT Availability
400:3	63.5 (2.5)	28.7 (1.13)	GM83929	N/A	Included with combined board
400:3	111.8 (4.4)	57.2 (2.25)	GM17250	GM17250-KP1-QS	Sold Separately
500:3	171.5 (6.75)	108.0 (4.25)	GM60264	GM17250-KP2-QS	Sold Separately (use with 60RCL)

Withstand and Close-On Ratings (WCR)

Service Entrance Transfer Switch Ratings

The service entrance transfer switch is factory-equipped with a normal source disconnect circuit breaker.

Suitable for the control of motors, electric discharge lamps, tungsten filament lamps and electric heating equipment where the sum of motor full-load ampere ratings and the ampere ratings of other loads do not exceed the ampere rating of the switch and the tungsten load does not exceed 30 percent of switch rating.

Switch Rating, Amps *	WCR, RMS Symmetrical Amps at 240 VAC
100, 150, 200	22,000
300, 400	35,000
* Continuous load current not to exceed 80% of switch rating.	

Contactor Ratings with Coordinated Circuit Breakers

Single-phase transfer switches are UL listed at 240 VAC maximum. Three-phase transfer switches are rated at 480 VAC maximum. The following table lists contactor withstand current ratings (WCR) for 100- 400 ampere non-service entrance rated switches with specific manufacturer's circuit breakers per UL and Canadian safety standards. Suitable for the control of motors, electric discharge lamps, tungsten filament lamps and electric heating equipment where the sum of motor full-load ampere ratings and the ampere ratings of other loads do not exceed the ampere rating of the switch and the tungsten load does not exceed 30 percent of switch rating.

The transfer switch is rated for use on a circuit capable of delivering not more than the RMS symmetrical amperes maximum as shown in the tables below, but no greater than the interrupting capacity of the selected breaker.

WCR Ratings with Specific Manufacturer's Molded-Case Circuit Breakers

Switch Rating, Amps	Voltage, max.	Number of Poles/ Phases	WCR, RMS Symmetrical Amps	Manufacturer	Type or Class	Maximum Size, Amps
100	240	2 pole/ 1 phase	10,000	Any Breaker *	Any Breaker (0.025 seconds max.)	—
150 200	240	2 pole/ 1 phase	10,000	Any Breaker *	Any Breaker (0.025 seconds max.)	—
100 200	480	3 pole/ 3 phase 4 pole/ 3 phase	30,000	Eaton	FCL	100
					JGS, JGH, JGC, JGU, JGX, JBD, JD, HJD, JDC, LCL, LCLA	250
					LDC, CLDC, KDB, KD, HKD, KDC, LD, CLD, HLD, CHLD	400
				ITE/Siemens	CED6, HED4, HED6	125
					CFD6, FD6A, FXD6, HFD6, HFXD6, HHFD6, HHFXD6	250
					CJD6	400
				General Electric	SEL, SEP, THLC1, PE_E, PE_N, PE_H, PE_L	150
					THLC2	225
					SFH, SFL, SFP, PE_E, PE_N, PE_H, PE_L	250
					SGH, SGL, SGP, FGN, FGH, FGL, FGP, PG_E, PG_N, PG_H, PG_L, PG_P	400
				Schneider	HG, HJ, HL, HR	150
					JJ, JL, JR	250
					LG, LJ, LL, LR	400

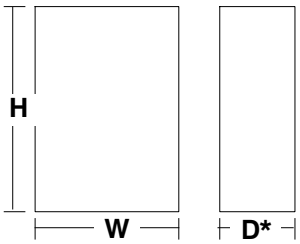
* For higher WCR values, contact the factory for additional specific breaker ratings.

WCR Ratings with Specific Manufacturer's Molded-Case Circuit Breakers						
Switch Rating, Amps	**Voltage, max.**	**Number of Poles/ Phases**	**WCR, RMS Symmetrical Amps**	**Manufacturer**	**Type or Class**	**Maximum Size, Amps**
300 400	240	2 pole/ 1 phase	35,000	ABB	T5, T6	600
				Eaton	CHKD, CKD, DK, HKD, KD, KDB, KDC, LA TRIPAC, LCL	400
					CHLD, CLD, CLDC, HLD, LD, LDB, LDC	600
					HMDL, MDL, NB TRI- PAC	800
				General Electric	FGH, FGL, FGN, FGP, SGHA	600
				Siemens	CJD6, HHJD6, HHJXD6, HJD6, HJGA, HJXD6, JD6, JXD2, JXD6, SCJD6, SHJD6, SJD6, NJGA, LJGA	400
					CLD, HHLD, HHLXD, HLD, HLGA, HLXD, LD, LLGA, LXD, NLGA, SCLD, SHLD, SLD	600
					CMD, HLMD, HLMXD, HMD, HMG, HMXD, LMD, LMG, LMXD, MD, MXD, NMG, SCMD, SHMD, SMD	800
				Square D	LA, LC, LE, LH, LI, LX, LXI	400
					DG, DJ, DL, LC, LE, LI, LX, LXI	600
				Merlin Gerin	CJ400H, CJ400L, CJ400N	400
					CJ600H, CJ600N	600
400	240	3 pole/ 3 phase 4 pole/ 3 phase	65,000	Schneider	LJ, LL, LR	600
				General Electric	SEL, SEP, PE_N, PE_H, PE_L	150
					SFL, SFP, PE_N, PE_H, PE_L	250
					SGL, SGP	400
					SGL, SGP, FGL, FGP	600
	480	3 pole/ 3 phase 4 pole/ 3 phase	50,000	Eaton	HJD, JDC, JGC, JGH, JGU, JGX	250
					CHLD4, CLD, HLD4, CLDC, LDC, KDC, HKD, CHMDL4, CMDL4	400
					CHLD6, HDL6, CHMDL6, CMDL6, CLDC, CLD6, LDC6, CLDC6	600
					CHMDL8, HMDL8, MDL8, CMDL8	800
				ITE/Siemens	CFD6, HFD6, HFXD6, HHFD6, HHFXD6	250
					CJD6	400
					CLD6, HHLD6, HHLXD6, HLD6, HLXD6	600
					CMD6, MD6, HMD6, HMXD6, MXD6	800
				General Electric	SEL, SEP, PE_N, PE_H, PE_L	150
					SFL, SFP, PE_N, PE_H, PE_L	250
					SGL, SGP	400
					FGL, FGP, SGL, SGP, PG_H, PG_L, PG_N, PG_P	600
				Schneider	HJ, HL, HR	150
					JJ, JL, JR	250
					LJ, LL, LR	600
					MJ	800
			100,000	General Electric	PG_H, PG_L, PG_P	600

Dimensions and Weights

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

Transfer switch weights and dimensions shown in the table do not include packaging. To estimate the shipping weight, add 3 kg (5 lbs.) or 10% (whichever is larger) to the weight shown.



Amps	Description	Dimensions, H x W x D, mm (in.) †		Shipping Weight ‡ kg	(lb.)	Dimension Drawing
100	Single phase	623 x 335 x 180	(24.5 x 13.2 x 7.1)	7	(15)	ADV-8688
	With 12-space load center (NEMA 1)	610 x 330 x 154	(24.0 x 13.0 x 6.0)	12	(26)	ADV-9186
	With 16-space load center (NEMA 1)	610 x 330 x 154	(24.0 x 13.0 x 6.0)	12	(26)	ADV-9187
	With 16-space load center	614 x 335 x 180	(24.2 x 13.2 x 7.1)	8	(18)	ADV-9188
	Three phase	682 x 462 x 228	(26.8 x 18.2 x 9.0)	14	(30)	ADV-8689
	Service entrance (ASE)	734 x 416 x 175	(28.9 x 16.4 x 6.9)	10	(22)	ADV-9046
	Service entrance (CSE)	754 x 416 x 175	(29.7 x 16.4 x 6.9)	14	(30)	ADV-8797
150	Service entrance (ASE)	734 x 416 x 175	(28.9 x 16.4 x 6.9)	12	(26)	ADV-9046
200	Service entrance (ASE)	734 x 416 x 175	(28.9 x 16.4 x 6.9)	12	(26)	ADV-9046
	Service entrance (CSE)	754 x 416 x 175	(29.7 x 16.4 x 6.9)	16	(36)	ADV-8798
	Single phase	623 x 335 x 180	(24.5 x 13.2 x 7.1)	7	(15)	ADV-8688
	Three phase	682 x 462 x 228	(26.8 x 18.2 x 9.0)	14	(30)	ADV-8689
300	Service entrance	1075 x 559 x 329	(42.3 x 22.0 x 12.9)	46	(101)	ADV-8694
400	Single phase	1067 x 559 x 329	(42.0 x 22.0 x 12.9)	55	(120)	ADV-8691
	3-Pole/208- 240 volts	1067 x 559 x 329	(42.0 x 22.0 x 12.9)	41	(90)	ADV-8692
	3-Pole/480 volts	1222 x 610 x 343	(48.1 x 24.0 x 13.5)	59	(130)	ADV-8693
	4-Pole	1222 x 610 x 343	(48.1 x 24.0 x 13.5)	59	(130)	ADV-8693
	Service entrance	1075 x 559 x 329	(42.3 x 22.0 x 12.9)	46	(101)	ADV-8694

† Depth does not include the padlock hasp on the front of the enclosure.

‡ Transfer switch weights are approximate and do not include packaging.

Note: Enclosures are type NEMA 3R except as noted.

Accessories

❑ **Auxiliary position-indicating contacts**
- One closed on normal position and one closed on emergency position
- Form C contacts rated 15 A @ 250 VAC

❑ **Power relay modules**
- 50 amp DPST power relay mounted in a NEMA type 3R enclosure
- Use up to four modules with the combined interface/load management board
- UL/cUL listed
- Dimensions: 172 x 233 x 92 mm (6.8 x 9.2 x 3.6 in.)
- For more information, see specification sheet G6-143

❑ **Status indicator kit for standard interface board**
- LEDs indicate normal and emergency source availability and contactor position
- Mounts on the outside of the RXT enclosure
- View transfer switch status without removing enclosure cover
- An overhang on the enclosure protects the indicator panel and ribbon cable opening
- Dimensions: 92 mm x 42 mm (3.62 in. x 1.65 in.)
- Connects to the standard interface board only
- For more information on the status indicator kit, see specification sheet G11-123

❑ **Status indicator kit for combined interface/load management board**
- LEDs indicate normal and emergency source availability and contactor position
- Dual color LEDs for each load indicate load status (powered or shed) and flash during a test
- Load shed test button allows the operator to cycle the load shed relays in order of priority (when generator is in RUN mode)
- Mounts on the outside of the RXT enclosure
- View transfer switch and load status without removing enclosure cover
- An overhang on the enclosure protects the indicator panel and ribbon cable opening
- Dimensions: 183 mm x 42 mm (7.20 in. x 1.65 in.)
- Connects to the combined interface/load management board only
- For more information on the status indicator kit, see specification sheet G11-123

❑ **Auxiliary circuit breaker (service entrance models only)**
- 15 amp single-pole type QO circuit breaker
- Mounts on a bracket inside the enclosure

Available Models

All Model RXT transfer switches are standard-transition 60 Hz automatic transfer switches. Letters in parentheses refer to the model designation code described on the last page.

Amps	Description (Connections)	Voltages			Poles	Phases	WCR § RMS Symmetrical Amps
		208 (C)	240 (F)	480 (M)			
100	Standard (A)		●		2 (N)	1	10,000
	Standard, with 16-space load center (B) ¶		●		2 (N)	1	10,000
	Standard, with 12-space load center **		●		2 (N)	1	10,000
	Service entrance (ASE, CSE)		●		2 (N)	1	22,000
	Standard, 3-phase (A)	●	●	●	3 (T) or 4 (V)	3	30,000
150	Service entrance (ASE)		●		2 (N)	1	22,000
200	Standard (A)		●		2 (N)	1	10,000
	Service entrance (ASE, CSE)		●		2 (N)	1	22,000
	Standard, 3-phase (A)	●	●	●	3 (T) or 4 (V)	3	30,000
300	Service entrance (ASE)		●		2 (N)	1	35,000
400	Standard (A)		●		2 (N)	1	50,000
	Service entrance (ASE)		●		2 (N)	1	35,000
	Standard, 3-phase (A)	●	●	●	3 (T) or 4 (V)	3	50,000

§ Withstand and close-on rating. See pages 3-5 for WCR information and specific breaker ratings.

¶ With 16-space load center and NEMA 1 or NEMA 3R enclosure. Up to 8 tandem breakers can be used, for a maximum of 24 circuits.

** GM85273- SA_ with 12-space load center and NEMA 1 enclosure.

Note: Combined interface board is available on single-phase standard or service entrance models. (Not available on 3-phase or load center models.)

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Phone 920-457-4441, Fax 920-459-1646
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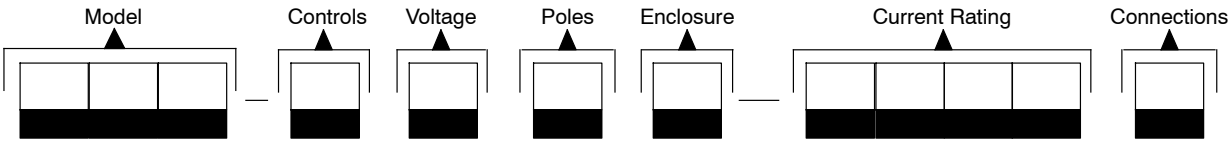
KOHLERPower.com

Model Designation



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

Sample Model Designation: RXT-JFNC-0200A

Model

RXT: Kohler Automatic Transfer Switch

Controls

J: Interface for RDC2/DC2 Controller (standard or combined interface/load management)

Voltage/Frequency

C: 208 Volts/60 Hz (3-phase only)
F: 240 Volts/60 Hz
M: 480 Volts/60 Hz (3-phase only)

Number of Poles/Wires

N: 2-pole, 3-wire, solid neutral (120/240 V only)
T: 3-pole, 4-wire, solid neutral
V: 4-pole, 4-wire, switched neutral

Enclosure

A: NEMA 1 *
C: NEMA 3R

* NEMA 1 enclosure is available on 100 amp load center models only.

Current Rating

0100: 100 amps
0150: 150 amps
0200: 200 amps
0300: 300 amps
0400: 400 amps

Connections

A: No load center
B: With load center (100 amp single-phase only)
ASE: Service entrance rated
CSE: Service entrance rated with CSA certification (100/200 amps only)

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