# KOHLER POWER SYSTEMS

Model: **RXT** 

Automatic Transfer Switch 100-400 Amps





Covers have been removed for illustration.

## Model RXT Automatic Transfer Switch

The Model RXT automatic transfer switch is designed for use only with Kohler<sup>®</sup> generator sets equipped with RDC2 or DC2 generator set/transfer switch controls. The transfer switch operation is controlled by the RDC2/DC2 integrated generator set/transfer switch controller, which is mounted on the following Kohler<sup>®</sup> generator set models:

- 0 14RESA/RESAL
- O 20RESA/RESAL
- 38RCL
- 0 48RCL

## **Standard Features**

- Allows utility voltage display on the RDC2/DC2 integrated generator set/transfer switch controller, available exclusively on Kohler<sup>®</sup> residential and light commercial generator sets
- Interface board for connection to the Model RDC2 or DC2 generator set/transfer switch controller (mounted on generator set models listed above)
- UL listed
  - Models with load centers, UL 67 listed, file # E251086
  - Models without load centers, UL 1008 listed, file #E58962
- CSA certified, file #LR58301 (not applicable to service entrance or load center 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)
- 100, 200, and 400 amp standard and service entrance models are available; see page 6 for available models
- 100 amp standard single-phase models are available with or without 16-space load center. Up to 8 tandem breakers can be used for a total of 24 circuits.
- Service entrance models include disconnect circuit breaker on the utility (normal) source side (80% rated)
- Five-year limited warranty
- Optional status indicator available:
  - LED indicators for source availability and contactor position
  - View transfer switch status without removing enclosure cover

# **Codes and Standards**

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

- Underwriters Laboratories UL 67, Enclosed Panel Boards (load center models) file #E251086
- 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 certified, file #LR58301 (not applicable to service entrance or load center models)
- NFPA 70, National Electrical Code
- NFPA 110, Emergency and Standby Power Systems
- NEMA Standard IC10-1993, AC Automatic Transfer Switches

# **Specifications**

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				

Interface Module Specifications					
Load Control Contact Rating	10 A @ 250 VAC				
Load Control Wire Size	#12-18 AWG				
Controller Interface Connections A and B Wire Size	#20 AWG shielded twisted-pair Belden 9402 or 8723 or equivalent				
Controller Interface Connections PWR and COM Wire Size	#12-20 AWG				

	Cable Sizes									
	AL/CU UL-Listed Solderless Screw-Type Terminals for External Power Connections									
Switch			Range of Wire Sizes, Cu/Al							
Size, Amps	Switch	Phases	Normal and Emergency Load		Neutral	Ground				
	Standard	1	(1) #14 - 1/0 AWG	(1) #14 – 1/0 AWG	(3) #12 – 1/0 AWG	(9) #4 – 14 AWG				
100	With load center	1	(1) #14 – 1/0 AWG	per customer-supplied circuit breaker	(1) #6 – 2/0 AWG	(9) #4 – 14 AWG				
100	Service Entrance	1	Normal: (1) #12 – 2/0 AWG Emerg: (1) #6 – 250 MCM	(1) #6 – 250 MCM	(3) #6 – 250 MCM	(3) #14 – 1/0 AWG				
	3-Phase	3	(1) #8 – 3/0 AWG	(1) #8 – 3/0 AWG	(3) #6 AWG – 3/0 AWG	(3) #6 – 3/0 AWG				
	Standard	1	(1) #6 AWG – 250 MCM	(1) #6 AWG – 250 MCM	(3) #6 AWG – 250 MCM	(9) #4 – 14 AWG				
200	Service Entrance	1	Normal: (1) #4 – 300 MCM Emerg: (1) #6 - 250 MCM	(1) #6 AWG – 250 MCM	(3) #6 AWG – 250 MCM	(3) #14 – 1/0 AWG				
	3-Phase	3	(1) #6 AWG – 250 MCM	(1) #6 AWG – 250 MCM	(3) #4 AWG – 600 MCM (6) 1/0 – 250 MCM	(3) #6 – 3/0 AWG				
	Standard	1	(2) #6 – 250 MCM	(2) #6 – 250 MCM						
	Service Entrance	1	Normal: (2) 3/0 – 250 MCM Emerg: (2) #6 - 250 MCM	(2) #6 – 250 MCM						
400	3-pole 208-240 V	3	(2) #6 – 250 MCM	(2) #6 – 250 MCM	(3) #4 – 600 MCM (6) 1/0 – 250 MCM	(3) #6 – 3/0 AWG				
	3 or 4 pole 480 V	3	(1) #4 – 600 MCM (2) #6 – 250 MCM	(1) #4 – 600 MCM (2) #6 – 250 MCM						

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

# 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 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 *				
200 *	22,000			
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 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.

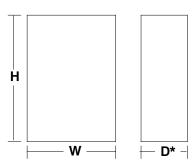
The transfer switch is rated for use on a circuit capable of delivering not more than the RMS symmetrical amperes maximum as shown in the tables below, but no greater than the interrupting capacity of the selected breaker.

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	
				Eaton/	FCL, FB, QCHW, GB, GHB, GC, GHC, GD, EHD	100	
				Cutler-Hammer	FDB, FD, HFD, FDC, CA, CAH	150	
					FI, FC, FA, FH	100	
					QOM1, QOM1-VH	125	
				Square D	Q2, Q2-H. Q2H	175	
		0 mala/			QOM2, QOM2-VH	225	
100	240	2 pole/ 1 phase	10,000		QB, QD, QG, GJ	250	
				Siemens	CED6, ED2, ED4, ED6, HED4, HED6, QP(Q2125), QPH(Q2125H)	125	
					QJ2, QJH2	150	
				GE	THQB, THQC, THHQB, THHQC	100	
					THHQL, TQDL, THQDL	125	
					SE, TQD, THQD, THED	150	
					CSR/BHW, FD, HFD	225	
			10,000	Eaton/ Cutler-Hammer	JD, JDB, HJD	225-250	
					JDC	250	
					DK, KD, KDB, HKD, KDC, LCL, LA	400	
					Q2. QOM2, QOM2-VH, Q2-H, Q2H	225	
200	240	2 pole/ 1 phase		Square D	KI, KA, KH, KC, QB, QD, QG, QJ	250	
		i pridoc			LE, LX, LXI, LC, LI, LA, LH	400	
				Siemens	FD6-A, FXD6-A, HFD6, CFD6	250	
					TQDL, THQDL	125	
				GE	THLC2	225	
					SF	250	

Switch Rating, Amps	Voltage, max.	Number of Poles/ Phases	WCR, RMS Symmetrical Amps	Manufacturer	Type or Class	Maximum Size, Amps
					FDC, HFD	150
				Cutler-Hammer	HJD, JDC	250
					HKD, KD, KDB, KDC, LA TRI-PAC, LCL	400
					FC, FI	100
				Square D	KC, KH, KI	250
					LA, LC, LE, LH, LI, LX, LXI	400
		3 pole/ 3 phase			CED6, HED4, HED6	125
100	480	o pridoc	30,000	ITE/Siemens	CFD6, FD6, FXD6, HFD6	250
200		4 pole/ 3 phase	30,000	TTE/Siemens	CJD6, HJD6, HHJD6, HHJXD6, JD6, JXD6, SCJD6, SHJD6, SJD6	400
					TB1	100
				GE	SEL, SEP, TEL, THLC1	150
					TFL, THLC2	225
					SFL, SFP	250
					SGL4, SGP4, TB4, THJK4, THLC4, TJJ, TJK4, TLB4	400
		1 phase 240 3 pole/ 3 phase	50,000	Cutler-Hammer	LD, LDB, HLD, LDC, CLD, CHLD, CLDC	600
					MDL, HMDL, NB	800
				Square D	LC, LI, LE, LX, LXI, DG, DJ, DL	600
				ITE/Siemens	LD, LXD, HLD, HLXD, HHLD, HHLXD, CLD, NLGA, HLGA, LLGA, SLD, SHLD, SCLD	600
400	240				LMD, LMXD, HLMD, HLMXD, MD, MXD, HMD, HMXD, CMD, NMG, HMG, LMG, SMD, SHMD, SCMD	800
				GE	SGHA, FGN, FGL, FGP	600
				Merlin Gerin	CJ600N, CJ600H	600
				ABB	T5, T6	600
					owing breakers is selected for application, the co exceed 80 percent of the switch rating:	ontinuous load
		1 phase	phase	Cutler-Hammer	DK, KDB, KD, CKD, HKD, CHKD, KDC, LCL, LA TRIPAC	400
400	240	0 m al a (	50,000	Square D	LA, LH, LC, LI, LE, LX, LXI	400
		3 pole/ 3 phase		ITE/Siemens	NJGA, HJGA, LJGA, JXD2, JD6, JXD6, HJD6, HJXD6, HHJD6, HHJXD6, CJD6, SJD6, SHJD6, SCJD6	400
				Merlin Gerin	CJ400N, CJ400H, CJ400L	400

		WCR F	Ratings with Sp	ecific Manufactur	er's Molded-Case Circuit Breakers	
Rating, Voltage, of Po		Number of Poles/ Phases	WCR, RMS Symmetrical Amps	Manufacturer	Type or Class	Maximum Size, Amps
					HJD, JDC	250
				Outles Hereiner	HKD, CHKD, KDC, LCL, LA TRIPAC	400
				Cutler-Hammer	HLD, CHLD, LDC, CLDC	300-600
					NB TRI-PAC	300-800
					KI, KC	250
			50,000	Square D	LI, LXI, LX, LE, LC	600
					MX, ME, MH	800
		3 pole/ 3 phase 4 pole/ 3 phase		ITE/Siemens	CFD6, HFD6	250
					CJD6, SCJD6, HHJD6, HHJXD6, SHJD6, HJD6	400
400	480				CLD6, SCLD6, HHLD6, HHLXD6, SHLD6, HLD6	600
400	460				CMD6, SCMD6, HMD6, SHMD6, HMXD6, MD6, MXD6, SMD6	800
		5 priase			SFL, SFP, TFL, THLC2	250
				05	SGL4, SGP4, TB4, THLC4, TLB4	400
				GE	SGL6, SGP6, TB6, TJL4V, TKL4V, TJL1S-6S	600
					SKL8, SKP8, TB8, SKH8	800
					CF250L, CF250H	250
				Marilia Operia	CJ400L, CK400H, CJ400H, CK400N	400
				Merlin Gerin	СЈ600Н	600
					CK800H, CK800N	800

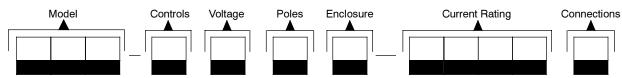
# **Dimensions and Weights**



				Shipping	Weight 🕆
Amps	Description	Dimensions, H	kg	(lb.)	
	Single phase	620 x 335 x 180	(24.4 x 13.2 x 7.1)	7	(15)
	With load center (NEMA 1)	610 x 330 x 154	(24.0 x 13.0 x 6.0)	12	(26)
100	With load center (NEMA 3R)	614 x 335 x 180	(24.2 x 13.2 x 7.1)	9	(20)
	Three phase	679 x 462 x 228	(26.7 x 18.2 x 9.0)	15	(34)
	Service Entrance	731 x 416 x 175	(28.8 x 16.4 x 6.9)	12	(26)
	Single phase	620 x 335 x 180	(24.4 x 13.2 x 7.1)	8	(17)
200	Three phase	679 x 462 x 228	(26.7 x 18.2 x 9.0)	16	(35)
	Service Entrance	731 x 416 x 175	(28.8 x 16.4 x 6.9)	14	(30)
	Single phase	1067 x 559 x 329	(42.0 x 22.0 x 12.9)	50	(110)
	3-Pole/208-240 Volts	1067 x 559 x 329	(42.0 x 22.0 x 12.9)	54	(120)
400	3-Pole/480 Volts	1222 x 610 x 343	(48.1 x 24.0 x 13.5)	68	(150)
	4-Pole	1222 x 610 x 343	(48.1 x 24.0 x 13.5)	73	(160)
	Service Entrance	1067 x 559 x 329	(42.0 x 22.0 x 12.9)	59	(130)

Shipping weights are approximate and include packaging.

# **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

#### 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 0200: 200 amps 0400: 400 amps

## Connections

- A: No load center
- B: With load center (100 amp single-phase only)
- ASE: Service entrance rated

## **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 above.

	Description	Voltages					WCR *
Amps	(Connections)	208 (C) 240 (F) 480 (M)		Poles	Phases	RMS Symmetrical Amps	
	Standard (A)		•		2 (N)	1	10,000
100	Standard, with load center (B) $\ddagger$		•		2 (N)	1	10,000
100	Service entrance (ASE)		•		2 (N)	1	22,000
	Standard, 3-phase	•	•	•	3 (T) or 4 (V)	3	30,000
	Standard (A)		•		2 (N)	1	10,000
200	Service entrance (ASE)		٠		2 (N)	1	22,000
	Standard, 3-phase (A)	•	•	•	3 (T) or 4 (V)	3	30,000
	Standard (A)		•		2 (N)	1	50,000
400	Service entrance (ASE)		٠		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.

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