



**EPA-Certified for Stationary  
Emergency Applications**

**Ratings Range**

Standby:	kW kVA	<b>60 Hz</b>
		25
		25- 31



**The Kohler® Advantage**

- **High Quality Power**  
Kohler generators provide advanced voltage and frequency regulation along with ultra-low levels of harmonic distortion for excellent generator power quality to protect your valuable electronics.
- **Extraordinary Reliability**  
Kohler is known for extraordinary reliability and performance and backs that up with a premium five-year or 2000 hour limited warranty.
- **All-Aluminum Sound Enclosure**  
Durable aluminum sound-attenuating enclosure.

**Standard Features**

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set accepts rated load in one step.
- A five-year/2000 hour limited warranty covers all generator set systems and components. A five-year extended comprehensive limited warranty is also available.
- **Engine Features**
  - Powerful and reliable 2.2 L turbocharged liquid-cooled engine
  - Electronic engine management system.
  - Simple field conversion between natural gas and LPG fuels while maintaining emission certification.
- **Innovative Cooling System**
  - Electronically controlled fan speeds minimize generator set sound signature.
- **Alternator features:**
  - Kohler’s wound field excitation system with its unique PowerBoost™ design delivers great voltage response and short-circuit capability.
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Kohler designed controller for one-source system integration and remote communication. See Controller on page 3.
- **Certifications**
  - The generator set engine is certified by the Environmental Protection Agency (EPA) to conform to the New Source Performance Standard (NSPS) for stationary spark-ignited emissions.
  - UL 2200/cUL listing is available.
  - The generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
  - CSA certification is available.
  - Accepted by the Massachusetts Board of Registration of Plumbers and Gas Fitters.
- Approved for stationary standby applications in locations served by a reliable utility source.

**Generator Set Ratings**

Alternator	Voltage	Ph	Hz	Natural Gas 130°C Rise Standby Rating		LP Gas 130°C Rise Standby Rating	
				kW/kVA	Amps	kW/kVA	Amps
4D8.3	120/208	3	60	25/31	87	25/31	87
	127/220	3	60	25/31	82	25/31	82
	120/240	3	60	25/31	75	25/31	75
	120/240	1	60	25/25	105	25/25	105
	139/240	3	60	25/31	75	25/31	75
	220/380	3	60	25/31	48	25/31	48
	277/480	3	60	25/31	38	25/31	38
4E8.3	347/600	3	60	25/31	30	25/31	30
4E8.3	120/240	1	60	25/25	105	25/25	105

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

# Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Exciter type	Brushless, Wound-Field
Leads: quantity, type	
4D	12, Reconnectable
4E	4, 110- 120/220- 240 V
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V	4D8.3 (12 lead) 120
240 V	4E8.3 (4 lead) 74

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

## Application Data

### Engine

Engine Specifications	
Manufacturer	Kohler
Engine: model, type	KG2204T, 2.2 L, 4-Cycle Turbocharged
Cylinder arrangement	In-line 4
Displacement, L (cu. in.)	2.2 (134.25)
Bore and stroke, mm (in.)	91 x 86 (3.5 x 3.4)
Compression ratio	10.5:1
Piston speed, m/min. (ft./min.)	340 (1016)
Main bearings: quantity, type	5, plain alloy steel
Rated rpm	1800
Max power at rated RPM, kW (HP)	
LPG	47.8 (64.1)
Natural Gas	47.6 (63.9)
Cylinder head material	Cast Iron
Piston type and material	High Silicon Aluminum
Crankshaft material	Nodular Iron
Valve (exhaust) material	Forged Steel
Governor type	Electronic
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±1.0%
Frequency	Fixed
Air cleaner type, all models	Dry

### Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust temperature at rated kW, dry exhaust, °C (°F)	605 (1121)
Maximum allowable back pressure, kPa (in. Hg)	7.5 (2.2)

### Fuel

Fuel System	
Fuel type	Natural Gas or LPG
Fuel supply line inlet	1 NPTF
Natural gas fuel supply pressure, kPa (in. H <sub>2</sub> O)	1.7- 2.7 (7-11)
LPG vapor withdrawal fuel supply pressure, kPa (in. H <sub>2</sub> O)	1.7- 2.7 (7-11)

Fuel Composition Limits *	Nat. Gas	LP Gas
Methane, % by volume	90 min.	—
Ethane, % by volume	4.0 max.	—
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume	0.1 max.	5.0 max.
C <sub>4</sub> and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass	25 max.	
Lower heating value, MJ/m <sup>3</sup> (Btu/ft <sup>3</sup> ), min.	33.2 (890)	84.2 (2260)

\* Fuels with other compositions may be acceptable. If your fuel is outside the listed specifications, contact your local distributor for further analysis and advice.

### Engine Electrical

Engine Electrical System	
Ignition system	Electronic
Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	14
Ampere rating	90
Starter motor rated voltage (DC)	12
Battery, recommended cold cranking amps (CCA):	
Qty., rating for - 18°C (0°F)	One, 630
Battery voltage (DC)	12
Battery group size	24

# Application Data

## Lubrication

### Lubricating System

Type	Full Pressure
Oil pan capacity, L (qt.) ‡	4.2 (4.4)
Oil added during oil change (on average), L (qt.) ‡	3.3 (3.5)
Oil pan capacity with filter, L (qt.) ‡	8.5 (9.0)
Oil filter: quantity, type ‡	1, Cartridge
‡ Kohler recommends the use of Kohler Genuine oil and filters.	

## Cooling

### Radiator System

Ambient temperature, °C (°F)	50 (122)
Engine jacket water capacity, L (gal.)	2.65 (0.7)
Radiator system capacity, including engine, L (gal.)	13.2 (3.5)
Engine jacket water flow, Lpm (gpm)	62 (16.4)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	20.9 (1189)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	qty. 3 @ 406 (16)
Fan power requirements (powered by engine battery charging alternator)	12 VDC, 18 amps each

## Operation Requirements

### Air Requirements

Radiator-cooled cooling air, m <sup>3</sup> /min. (scfm) ‡	51 (1800)
Combustion air, m <sup>3</sup> /min. (cfm)	1.6 (57)
Air over engine m <sup>3</sup> /min. (cfm)	25 (883)
† Air density = 1.20 kg/m <sup>3</sup> (0.075 lbm/ft <sup>3</sup> )	

### Fuel Consumption ‡

Natural Gas, m <sup>3</sup> /hr. (cfh) at % load	Standby Ratings
100%	10.7 (377)
75%	9.1 (322)
50%	7.6 (267)
25%	6.0 (212)
0%	4.5 (158)

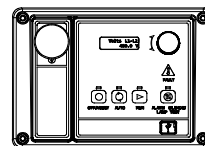
LP Gas, m <sup>3</sup> /hr. (cfh) at % load	Standby Ratings
100%	4.0 (142)
75%	3.3 (115)
50%	2.5 (88)
25%	1.7 (61)
0%	0.9 (34)

‡ Nominal fuel rating: Natural gas, 37 MJ/m<sup>3</sup> (1000 Btu/ft.<sup>3</sup>)  
LP vapor, 93 MJ/m<sup>3</sup> (2500 Btu/ft.<sup>3</sup>)

LP vapor conversion factors:

- 8.58 ft.<sup>3</sup> = 1 lb.
- 0.535 m<sup>3</sup> = 1 kg.
- 36.39 ft.<sup>3</sup> = 1 gal.

## Controller



### APM402 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
  - Measurements are selectable in metric or English units
  - Remote communication thru a PC via network or serial configuration
  - Controller supports Modbus® protocol
  - Integrated hybrid voltage regulator with ±0.5% regulation
  - Built-in alternator thermal overload protection
  - NFPA 110 Level 1 capability
- Refer to G6-161 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

## Sound Enclosure

- Durable aluminum, sound-attenuating enclosure with quiet operation of 57 dB(A) log average @ 7 m (23 ft.) at no load.
- Internally mounted silencer.
- Fade-, scratch, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption.

## Standard Features

- Alternator Protection
- Aluminum Sound Enclosure with Enclosed Silencer
- Battery Rack and Cables
- Flexible Fuel Line
- Gas Fuel System (includes fuel mixer, electronic secondary gas regulator, gas solenoid valve, and flexible fuel line between the engine and the skid-mounted fuel system components)
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Low Fuel Pressure Switch (with NFPA fuel module)
- Oil Drain Extension
- Operation and Installation Literature
- Standard 5-Year Limited Warranty

## Available Options

### Approvals and Listings

- CSA Certified
- UL 2200 Listing

### Controller

- 15-Relay Dry Contact Board
- Communication Products
- Input/Output Module (2 inputs, 5 outputs)
- Lockable Emergency Stop (lockout/tagout)
- Manual Key Switch
- Manual Speed Adjust
- Remote Annunciator Panel
- Remote Emergency Stop
- Run Relay

### Enclosure Accessories

- Enclosure Doors for 291 kph (181 mph) Wind Load

### Starting Aids\*

- Block Heater, 110- 120 V
- Block Heater, 220- 240 V

### Oil Pan Heater\*

- Oil Pan Heater, 110- 120 V
- Oil Pan Heater, 190- 240 V

\* One block heater or oil pan heater is required for ambient temperatures below 0°C (32°F). At temperatures below -18°C (0°F) installation of both heaters is required.

### Electrical System

- Alternator Strip Heater
- Battery
- Battery Charger, 6 Amp
- Battery Charger, 10 Amp w/Alarms
- Battery Heater
- Temperature Compensation for 10 Amp Battery Charger

### Miscellaneous

- Air Cleaner Restriction Indicator
- Certified Test Report
- Engine Fluids Added
- Maintenance Kit (filters, spark plugs, oil)
- Rated Power Factor Testing

### Literature

- General Maintenance
- NFPA 110
- Overhaul
- Production

### Warranty

- Optional Extended 5-Year/2000 Hour Comprehensive Limited Warranty

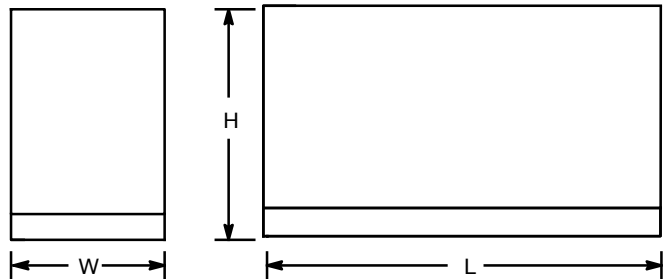
### Other Options

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
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## Dimensions and Weights

Overall Size, L x W x H, mm (in.): 2280 x 830 x 1182  
 (89.8 x 32.7 x 46.5)

Weight, with engine fluids, kg (lb.): 635 (1400)



NOTE: This drawing is provided for reference only and should not be used for planning. Contact your local distributor for more detailed information.

## DISTRIBUTED BY:

**ISO 9001**  
KOHLER  
POWER SYSTEMS  
NATIONALLY REGISTERED



### MPAC® 500 Controller Features

- User-friendly interface with easy-to-read international symbols
- Source available and contactor position indicators
- LED indication of system faults
  - Failure to acquire standby source
  - Failure to transfer
  - Auxiliary switch fault
- Common fault contact: latches closed on system faults shown above
- Engine start contact: provides contact closure to start the generator set
- Load control contact: allows 5-minute delay in startup of selected loads
- Test button (with or without load)
- Exercise set button
  - Weekly 20-minute generator set exercise
  - With or without load
- Single-phase voltage sensing on both sources,  $\pm 5\%$
- Line-to-line frequency sensing,  $\pm 2\%$
- Fixed time delays

### Standard Features

- UL listed
  - Models with load centers, UL 67 listed, file #E251086
  - Models without load centers, UL 1008 listed, file #E58962
- cUL listed
  - 100 and 200 amp models with load centers, file #E251086
- CSA certification available, file #LR58301 (not applicable to service entrance or load center models)
- 220/240 VAC, 50/60 Hz (selectable)
- 100, 200, and 400 amp models available
- Two-pole, single-phase open-transition transfer switch
- Contactor electrically and mechanically interlocked
- Double throw inherently interlocked design
- Solid neutral
- Contactor manually operable for maintenance purposes
- Silver alloy main contacts
- All models are 100% equipment rated and can be applied at the rated current without derating
- 100 and 200 amp models available with or without prewired Square D type QO load center
  - 100 amp load center models use up to 16 circuit breakers (up to 8 tandem breakers can be used for a maximum of 24 circuits)
  - 200 amp load center models use up to 24 circuit breakers
  - 200 amp service entrance model with 42-circuit breaker load center is available
- Two enclosures available
  - NEMA Type 1 steel ANSI 49 gray enclosure for indoor installation. 100 amp and 200 amp models without load centers can be recess-mounted between wall studs (not service entrance model)
  - NEMA Type 3R corrosion-resistant aluminum ANSI 49 gray padlockable enclosure. Approved for indoor or outdoor installation
- Five-year limited warranty
- See page 5 for available accessories

### Service Entrance Model Features

- 200 and 400 amp service entrance rated automatic transfer switches available
- Service disconnect circuit breaker on the normal (utility) source (80% rated)
- NEMA 3R aluminum ANSI 49 gray enclosure
- Circuit breaker for generator set battery charger
- See page 5 for available SE model accessories

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

Contact Ratings	
Engine start	0.5 A @ 125 VAC; 2 A @ 30 VDC SPST normally closed (NC)
Common fault	0.5 A @ 125 VAC; 2 A @ 30 VDC SPST normally open (NO)
Load control	10 A @ 120 VAC SPST normally open (NO)
Auxiliary contacts (optional)	15 A @ 277 VAC Form C

Source Sensing	
Undervoltage dropout	80%
Undervoltage pickup	85%
Underfrequency dropout	90%
Underfrequency pickup	96%

Time Delays			
Time Delay	Factory Setting	Adjustment with Accessory Board*	
		Range	Increment
Engine start	3 seconds	1-10 seconds	1 second
Transfer from Normal to Emergency	3 seconds	1-10 seconds	1 second
Retransfer from Emergency to Normal	6 minutes	3-30 minutes	3 minutes
Engine cooldown	5 minutes	1-10 minutes	1 minute
Exercise run time	20 minutes	5-50 minutes	5 minutes
Exercise interval	1 week	1 week/2 week (DIP switch)	
Load control connection delay	5 minutes	5 or 10 minutes (DIP switch)	
Failure to acquire Emergency source	78 seconds	NA	
Undervoltage dropout	0.5 second	NA	
Underfrequency dropout	3 seconds	NA	

\* Optional accessory board required for time delay adjustments  
NA = not adjustable

Cable Sizes					
AL/CU UL-Listed Solderless Screw-Type Terminals for External Power Connections					
Switch Size, Amps	Range of Wire Sizes, Cu/Al				
	Normal (per phase)	Emergency (per phase)	Load (per phase)	Neutral	Ground
100	(1) #14 - 1/0 AWG	(1) #14 - 1/0 AWG	(1) #14 - 1/0 AWG	(5) #12 - 250 MCM (Cu) or (5) #10 - 250 MCM (Al)	(9) #14 - #6 AWG (4) #14 - 1/0 AWG
100 B	(1) #14 - 1/0 AWG	(1) #14 - 1/0 AWG	per customer-supplied branch circuit breakers	(27) #14 - #4 AWG or (3) #14 - 1/0 AWG or (1) #6 - 2/0 AWG	
200	(1) #6 AWG - 250 MCM	(1) #6 AWG - 250 MCM	(1) #6 AWG - 250 MCM	(5) #12 - 250 MCM (Cu) or (5) #10 - 250 MCM (Al)	
200 B	(1) #6 AWG - 250 MCM	(1) #6 AWG - 250 MCM	per customer-supplied branch circuit breakers	(36) #14 - #4 AWG or (3) #14 - 1/0 AWG or (1) #4 AWG - 250 MCM	(4) #14 - 1/0 AWG (9) #14 - #6 AWG
200 BSE	(1) #4 - 300 MCM	(1) #6 - 250 MCM	per customer-supplied branch circuit breakers	(4) #12 - 250 MCM (Cu) or (4) #10 - 250 MCM (Al)	
200 SE	(1) #4 - 300 MCM	(1) #6 - 250 MCM	(1) #6 AWG - 250 MCM	(5) #12 - 250 MCM (Cu) or (5) #10 - 250 MCM (Al)	
400	(2) #6 - 250 MCM	(2) #6 - 250 MCM	(2) #6 - 250 MCM	(3) #4 - 600 MCM (6) 1/0 - 250 MCM	(6) #6 - 3/0 AWG
400 SE	(1) #1 - 600 MCM or (2) #1 - 250 MCM	(2) #6 - 250 MCM	(2) #6 - 250 MCM	(3) #4 - 600 MCM (6) 1/0 - 250 MCM	

B = Load center model  
SE = Service entrance model

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

## Contactor Ratings with Coordinated Circuit Breakers

The transfer switches are UL listed at 240 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.

<b>WCR Ratings with Specific Manufacturer’s Molded-Case Circuit Breakers</b>					
Switch Rating, Amps	Voltage, max.	WCR, RMS Symmetrical Amps	Manufacturer	Type or Class	Maximum Size, Amps
100	240	10,000	Any Breaker *	Any Breaker (0.025 seconds max.)	—
200	240	10,000	Any Breaker *	Any Breaker (0.025 seconds max.)	—
400	240	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
			Merlin Gerin	CJ400H, CJ400L, CJ400N	400
				CJ600H, CJ600N	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	
		50,000	Eaton	LD	600

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

### Service Entrance Transfer Switch Ratings

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

Switch Rating, Amps	WCR, RMS Symmetrical Amps at 240 VAC
200	22,000
400	35,000

## 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 models)
- NFPA 70, National Electrical Code
- NFPA 110, Emergency and Standby Power Systems
- IEEE Standard 446, IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
- NEMA Standard IC10-1993 (formerly ICS2-447), AC Automatic Transfer Switches
- ANSI C37.90.1 (IEEE472), 2000, EFT/Surge Relay Systems
- EN61000-4-5 Surge Immunity Class 4 (voltage sensing and programmable inputs only)
- EN61000-4-4 Fast Transient Immunity Severity Level 4
- IEC Specifications for EMI/EMC Immunity
  - CISPR 11, Radiated and Conducted Emissions, Class B
  - IEC 61000-4-2, 2001, Electrostatic Discharge
  - IEC 61000-4-3, 2002, Radiated Immunity
  - IEC 61000-4-4, 2001, Electrical Fast Transients (Bursts)
  - IEC 61000-4-5, 2001, Surge Voltage Immunity
  - IEC 61000-4-6, 2003, Conducted RF Immunity
  - IEC 61000-4-8, Magnetic Field Immunity
  - IEC 61000-4-11, Voltage Dips and Interruptions

## Weights and Dimensions

**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	Load Center	Enclosure Type	Weight kg (lb.)	Transfer Switch Dimensions H x W x D, mm (in.)		Dimension Drawing
100	None	NEMA 1 (steel)	7 (15)	610 x 330 x 154 *	(24.0 x 13.0 x 6.0) *	ADV-8437
100	16 circuits		18 (40)	914 x 406 x 154	(36.0 x 16.0 x 6.0)	ADV-8435
200	None		7 (15)	610 x 330 x 154 *	(24.0 x 13.0 x 6.0) *	ADV-8438
200	24 circuits		21 (45)	914 x 406 x 154	(36.0 x 16.0 x 6.0)	ADV-8436
400	None	NEMA 1 (aluminum)	40 (89)	1067 x 560 x 269	(42.0 x 22.0 x 10.6)	ADV-8439
100	None	NEMA 3R (aluminum)	7 (15)	613 x 340 x 177	(24.1 x 13.4 x 7.0)	ADV-8440
100	16 circuits		8 (18)	917 x 416 x 177	(36.1 x 16.4 x 7.0)	ADV-8442
200	None		7 (15)	613 x 340 x 177	(24.1 x 13.4 x 7.0)	ADV-8441
200	24 circuits		8 (18)	917 x 416 x 177	(36.1 x 16.4 x 7.0)	ADV-8443
200 SE †	None		12 (26)	858 x 473 x 163	(33.8 x 18.6 x 6.4)	ADV-8444
200 SE †	42 circuits		32 (70)	967 x 762 x 165	(38.1 x 30.0 x 6.5)	ADV-8540
400	None		40 (89)	1067 x 560 x 269	(42.0 x 22.0 x 10.6)	ADV-8439
400 SE †	None		46 (101)	1067 x 560 x 269	(42.0 x 22.0 x 10.6)	ADV-8445

\* Can be recess-mounted between 16 in. O.C. wall studs.  
 † Service entrance model



## Accessories

### Auxiliary position-indicating contacts

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

### Accessory board

- Alarm horn indicates system faults
- Adjustable time delays:
  - Engine start
  - Engine cooldown
  - Preferred to standby
  - Standby to preferred
  - Exercise duration
- Inputs and Outputs:
  - Remote start/stop input (loaded)
  - Programmable exerciser input
  - Generator set supplying load output: 10 A @ 120 V SPST normally open (NO) contact
- External alarm module connection
- Dip switches:
  - 1 week/2 week exerciser
  - Load/no load exercise mode (for optional programmable exerciser)
  - Momentary/maintained external start/stop input: Selects momentary (1 second) push button or maintained contact closure for remote start/stop signal
  - Load control, 5 minutes/10 minutes: Allows adjustment of the startup delay after transfer to generator set for selected loads (e.g. air conditioners or other large motor starting loads)
  - Audible alarm disable

### External alarm module

- Alarm horn
- Alarm silence/lamp test button
- Remote start/stop button
- Generator supplying load indicator
- Fault indicator
- Fits into standard outlet box
- Multiple alarm modules can be connected
- Accessory board required

### Load shed kit

- Automatically sheds non-critical loads when essential appliances are running
- Prevents generator overload in compliance with NEC 2008
- Provides two (2) HVAC relays, rated 10 A @ 125 VAC, to control two independent air conditioner loads
- Includes four (4) pilot relays rated 120VAC, 125VA (pilot duty), 10 A @ 125 VAC (general purpose) to control customer-provided power relays for non-essential loads
- Mounts inside the ATS enclosure
- Uses Kohler's exclusive RBUS communication protocol
- Requires Kohler® residential generator set with RDC2 or DC2 controller
- See specification sheet G11-124

### Power relay modules

- 50 amp power relay mounted in a NEMA Type 3R enclosure
- Use up to four modules with the load shed kit
- 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

### Programmable exerciser

- Seven-day programmable timer allows scheduling up to 56 on/off events
- LCD display indicates day, time, program/run modes, and on/off/skip status
- Skip next cycle button
- Lithium backup battery with 5-year expected life
- Accessory board required

### Wall-mount bezel (for Type 1 enclosures)

- For 100 and 200 amp recess-mounted switches
- For NEMA type 1 enclosures only (not for NEMA 3R or service entrance switches)

## Additional Accessories for Service Entrance Models

### Accessory circuit breaker

- For generator set engine heater or other AC accessory
- 15 A single-pole Square D type QO circuit breaker

### Enclosure space heater

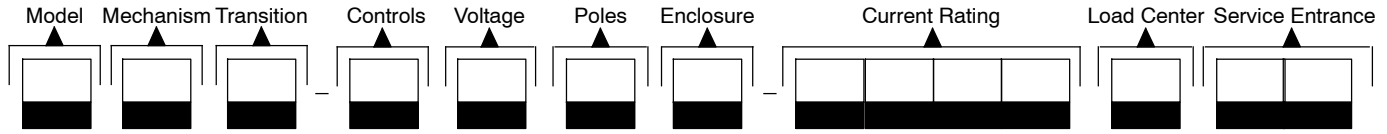
- 150 Watts
- Hygrostat (humidity control)
- Built-in temperature limiter for overheat protection
- 15 A single-pole Square D type QO circuit breaker

### Utility-side surge suppressor

- 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 specifications below

### Surge Suppressor 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 3kA	at 10kA		
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



## Kohler® Model Designation Key

This chart explains the Kohler® transfer switch model designation system. The sample model designation shown is for a Model R service entrance rated automatic transfer switch that uses a standard-transition contactor with MPAC® 500 electrical controls rated at 240 Volts/60 Hz with 2 poles, 3 wires, and solid neutral in a NEMA 3R enclosure with a current rating of 200 amperes and no load center.

## SAMPLE MODEL DESIGNATION

# RDT-CFNC-0200ASE

### Model

R: Model R automatic transfer switch

### Mechanism

D: Specific-breaker rated

### Transition

T: Standard transition

### Electrical Controls

C: MPAC® 500 (Microprocessor ATS Control)

### Voltage/Frequency

D: 220 Volts/50 Hz

F: 240 Volts/60 Hz

### Number of Poles/Wires

N: 2-pole, 3-wire, solid neutral

### Enclosure

A: NEMA 1 (steel) \*

C: NEMA 3R (aluminum)

### Current Rating: Numbers indicate the current rating of the switch in amperes:

0100: 100 amps      0200: 200 amps      0400: 400 amps

### Load Center

A: Without load center

B: With load center (not available on 400 Amp models)

### Service Entrance:

SE: Service entrance model (200 and 400 Amp models available)

Blank: Not rated for service entrance

\* NEMA 1 only: 100 and 200 amp models without load centers can be recess-mounted between wall studs. Optional wall-mount bezel available. The NEMA 1 enclosure for 400 amp models is aluminum.

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