P/N 8-078-877-00
effective 12/27/12

Installation and Service Instructions for Stearns AAB Rectifier

Important

Please read these instructions carefully before installing, operating, or servicing your Stearns brake and rectifier. Failure to comply with these instructions could cause injury to personnel and/or damage to property if the brake is installed or operated incorrectly. For definition of limited warranty/liability, contact Rexnord Industries, LLC, Stearns Division, 5150 S. International Dr., Cudahy, Wisconsin 53110,(414) 272-1100.

OEM's and subsystem suppliers, please forward these instructions with your components to the final user.

Caution

1. Servicing shall be in compliance with applicable local safety codes including Occupational Safety and Health Act (OSHA). All wiring and electrical connections must comply with the National Electric Code (NEC) and local electric codes in effect.
2. To prevent an electrical hazard, disconnect power source before working on the brake. If power disconnect point is out of sight, lock disconnect in the *off* position and tag to prevent accidental application of power to system.
3. Maximum operating ambient temperature for these rectifiers should not exceed 65°C (150° F).
4. Refer to specific brake Installation and Service Instructions for proper mounting of brake.

Wiring

1. Connect coil leadwires to rectifier as shown in diagrams. (Polarity does **not** matter.)
2. Connect rectifier leadwires to AC power source.

Note 1: For each nominal AC line voltage, use table to determine the proper DC coil rating requirement.

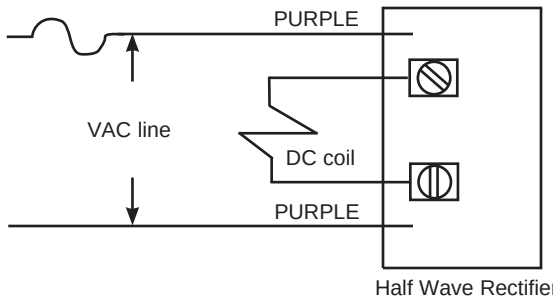
Note 2: Rectifiers must be fused with a 1 amp; fast acting fuse, with a rating at, or above the line voltage input to the rectifier. The exception to fusing are kits #412-0292-01 and 412-0292-03, which have built in fuses.

Table

Line Voltage (AC)	Rectifier Type	Recommended Coil Voltage Rating	Stearns Rectifier Part Number	Rectifier Output Voltage
100	full	90	412-029*-01K	90
110	full	103	412-029*-01K	99
115	full	103	412-029*-01K	103
127	full	103	412-029*-01K	115
208	full	180	412-029*-01K	187
220	full	205	412-029*-01K	198
230	full	205	412-029*-01K	207
240	full	205	412-029*-01K	216
230	full	205	412-0292-03K	207
220	half	103	412-0591-01K	99
230	half	103	412-0591-0*K	103
240	half	103	412-0591-0*K	108
380/400	half	180	412-0591-0*K	171/180
415	half	180	412-0591-0*K	187
460	half	205	412-0591-0*K	207
460	half	205	412-0493-0*K	207
575	half	260	412-0591-0*K	259
480	half	205	412-0591-0*K	216

Note: *Insert numeral from existing rectifier in this position. Full Wave rectifier output is 90% of AC line input. Half wave rectifier output is 45% of AC line input.

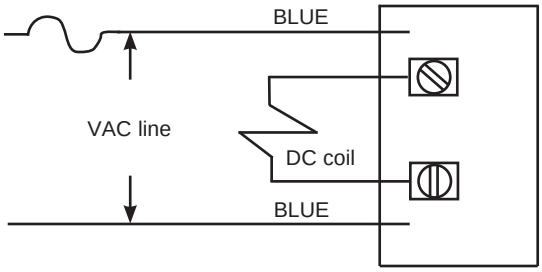
Kit Number 412-0591-01K**



Half Wave Rectifier

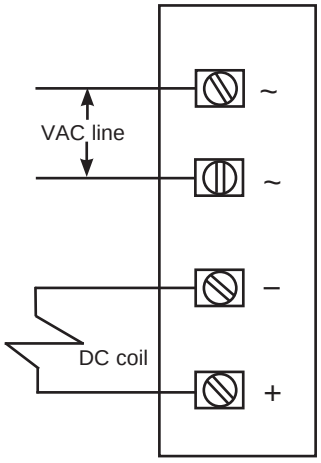
** A suppression device is required when switching on the DC side of the line and using the half wave rectifier (412-0591-01K).

Kit Number 412-0291-01K



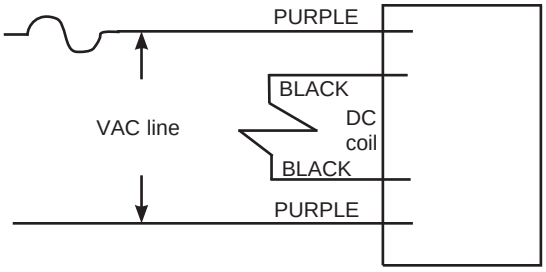
Full Wave Rectifier

Kit Number 412-0292-01K



Full Wave Rectifier

Kit Number 412-0591-03K**



Half Wave Rectifier

Stearns® *Armature Actuated Brakes*

Installation and Service Instructions for Stearns Quick Set/Quick Release Rectifiers

Important

Please read these instructions carefully before installing, operating, or servicing your Stearns brake and rectifier. Failure to comply with these instructions could cause injury to personnel and/or damage to property if the brake is installed or operated incorrectly. For definition of limited warranty/liability, contact Rexnord Industries, LLC, Stearns Division, 5150 S. International Dr., Cudahy, Wisconsin 53110,(414) 272-1100.

OEM's and subsystem suppliers, please forward these instructions with your components to the final user.

Caution

1. Servicing shall be in compliance with applicable local safety codes including Occupational Safety and Health Act (OSHA). All wiring and electrical connections must comply with the National Electric Code (NEC) and local electric codes in effect.
2. To prevent an electrical hazard, disconnect power source before working on the brake. If power disconnect point is out of sight, lock disconnect in the *off* position and tag to prevent accidental application of power to system.
3. Maximum operating ambient temperature for these rectifiers should not exceed 65°C (150° F).
4. Refer to specific brake Installation and Service Instructions for proper mounting of brake.
5. When use of these rectifiers is in conjunction with a motor operated by a variably frequency drive, the input wiring to the rectifier should be run in a wireway that does not contain the motor wires. Shielded cable should be used in applications where the rectifier and motor wires must be run together.

Wiring

1. Connect coil leadwires to rectifier as shown in diagrams. (Polarity does **not** matter.)
2. Connect rectifier leadwires to AC power source.
3. The control switch or relay needs to be on the AC side of the rectifier in order to supply the over-excitation voltage to the brake coil.

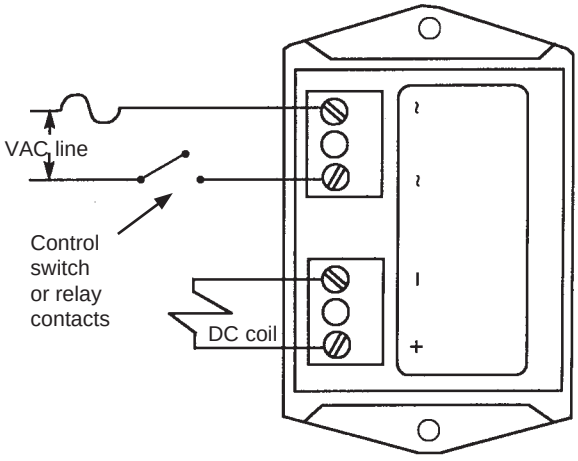
Note: For each nominal AC line voltage, use table to determine the proper DC coil rating requirement.

Table A

Line Voltage (AC)	Rectifier Type	Recommended Coil Voltage Rating	Stearns Rectifier Part Number	Rectifier Output Voltage
230	full	205	412-0296-01K	207
460	full	415	412-0498-01K	414
115	half	48	412-0196-11K	100/48*
230	half	103	412-0293-01K	207/103*
460	half	205	412-0496-01K	414/207*
575	half	260	412-0598-11K	259
460	half	205	412-0498-11K	207

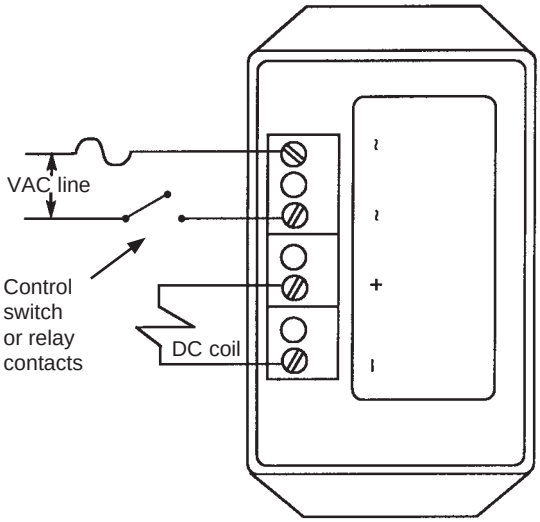
*The quick release rectifier produces a momentary fullwave output before switching to a halfwave output.

412-0296-01K
412-0498-01K
412-0498-11K
412-0598-11K



Quick-Set Rectifier/Tor-ac
Fuse is: 1A 250V for 230 VAC line
1A 600V for 460 VAC line
1A 600V for 575 VAC line

412-0196-11K
412-0293-01K
412-0496-01K



Quick Set/Quick Release Rectifier
Fuse is: 3A 250V for 230 VAC line
3A 600V for 460 VAC line
3A 125V for 115 VAC line

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