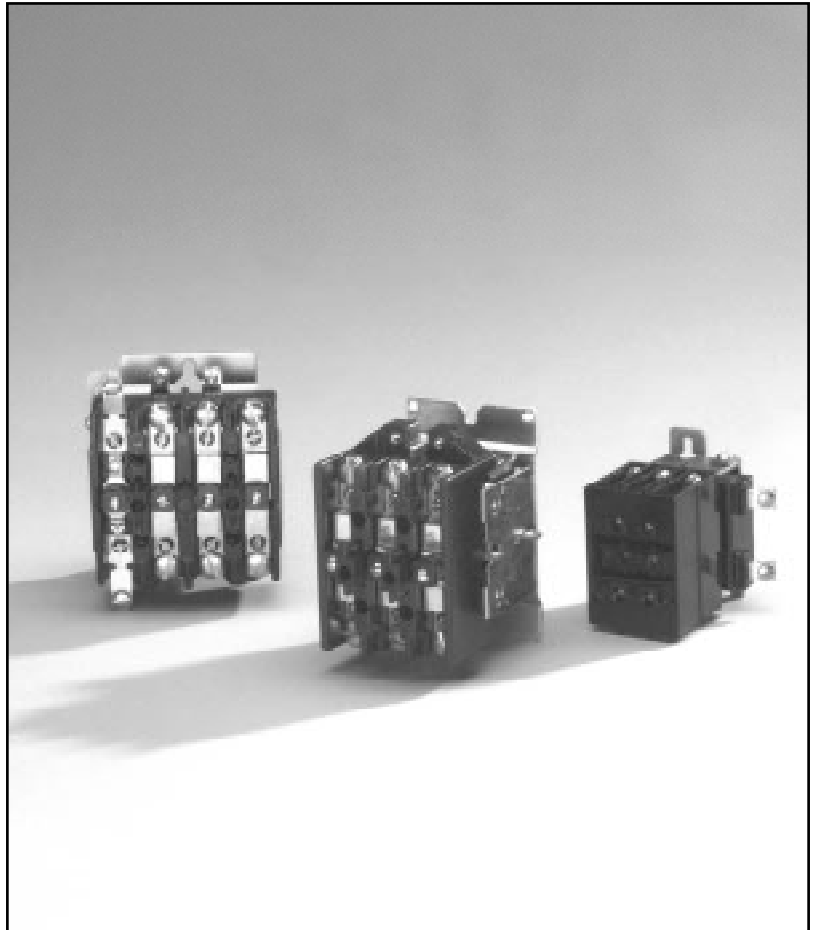


Rowan Control®

Definite Purpose Contactors & Relays

Class 8910

OBSOLETE



-  **Merlin Gerin**
-  **Modicon**
-  **Square D**
-  **Telemecanique**

Schneider Electric Brands

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SQUARE D
Schneider Electric

Rowan® Control — Definite Purpose Contactors & Relays B Contactors — 25-75 Ampere Rating

B CONTACTORS – AC OR DC CONTROL

The B line of contactors is a very flexible line of definite purpose contactors with inductive ratings from 25 through 75 amps. A wide variety of power and auxiliary contact configurations including normally closed power poles and low energy auxiliary contacts may be assembled in a single contactor. Typical applications of the B line of contactors are computer equipment, radar and sonar equipment, medical products and energy management systems. Refer to page 4 for coil selection.

| Amps | Rating | | | | | | | | | | |
|--|------------------|----------------------------------|---------------------|--|------------------|----------------------------------|---------------------|---|---|---|--------|
| | Ø | HP Rating | | Number of Power Poles | Poles N.O. | Poles N.C. | Catalog Number | | | | |
| | | V | HP | | | | | | | | |
| 25 A @ 600 Vac 25 A @ 60 Vdc Res load per pole 25 A @ 180 Vdc Res load use 2 poles in series | 1 1 3 3 | 120 240 200-240 460-575 | 2 3 5 7½ | 2 | 2 | 0 | B220AA | | | | |
| | | | | | 0 | 2 | B202AA | | | | |
| | | | | | 1 | 1 | B211AA | | | | |
| | | | | 3 | 3 | 0 | B230AA | | | | |
| | | | | | 2 | 1 | B221AA | | | | |
| | | | | | 1 | 2 | B212AA | | | | |
| | | | | 4 | 0 | 3 | B203AA | | | | |
| | | | | | 4 | 0 | B240AA | | | | |
| | | | | | 3 | 1 | B231AA | | | | |
| | | | | 5 | 2 | 2 | B222AA | | | | |
| | | | | | 1 | 3 | B213AA | | | | |
| | | | | | 5 | 0 | B250AA | | | | |
| | | | | | 3 | 2 | B232AA | | | | |
| | | | | | 2 | 3 | B223AA | | | | |
| | | | | | 4 | 1 | B241AA | | | | |
| 30 A @ 600 Vac 30 A @ 60 Vdc Res load per pole 30 A @ 180 Vdc Res load use 2 poles in series | 1 1 3 3 | 120 240 200-240 460-575 | 2 5 7½ 10 | 2 | 2 | 0 | B320AA | | | | |
| | | | | | 0 | 2 | B302AA | | | | |
| | | | | | 1 | 1 | B311AA | | | | |
| | | | | 3 | 3 | 0 | B330AA | | | | |
| | | | | | 2 | 1 | B321AA | | | | |
| | | | | | 1 | 2 | B312AA | | | | |
| | | | | 4 | 0 | 3 | B303AA | | | | |
| | | | | | 4 | 0 | B340AA | | | | |
| | | | | | 3 | 1 | B331AA | | | | |
| | | | | 5 | 2 | 2 | B322AA | | | | |
| | | | | | 1 | 3 | B313AA | | | | |
| | | | | | 5 | 0 | B350AA | | | | |
| | | | | | 3 | 2 | B332AA | | | | |
| | | | | | 2 | 3 | B323AA | | | | |
| | | | | | 4 | 1 | B341AA | | | | |
| 40 A @ 600 Vac 40 A @ 48 Vdc Res load per pole 40 A @ 150 Vdc Res load use 2 poles in series | 1 1 3 3 | 120 240 200-240 460-575 | 2 5 10 15 | 2 | 2 | 0 | B420AA | | | | |
| | | | | | 0 | 2 | B402AA | | | | |
| | | | | | 1 | 1 | B411AA | | | | |
| | | | | 3 | 3 | 0 | B430AA | | | | |
| | | | | | 2 | 1 | B421AA | | | | |
| | | | | | 1 | 2 | B412AA | | | | |
| | | | | 4 | 0 | 3 | B403AA | | | | |
| | | | | | 4 | 0 | B440AA | | | | |
| | | | | | 3 | 1 | B431AA | | | | |
| | | | | 5 | 2 | 2 | B422AA | | | | |
| | | | | | 1 | 3 | B413AA | | | | |
| | | | | | 5 | 0 | B450AA | | | | |
| | | | | | 3 | 2 | B432AA | | | | |
| | | | | | 2 | 3 | B423AA | | | | |
| | | | | | 4 | 1 | B441AA | | | | |
| 60 A @ 600 Vac 50 A @ 48 Vdc Res load per pole 50 A @ 130 Vdc Res load use 2 poles in series | 1 1 3 3 | 120 240 200-240 460-575 | 3 7½ 15 25 | 2 | 2 | 0 | B620AA | | | | |
| | | | | | 0 | 2 | B602AA | | | | |
| | | | | | 1 | 1 | B611AA | | | | |
| | | | | 3 | 3 | 0 | B630AA | | | | |
| | | | | | 1 | 2 | B612AA | | | | |
| | | | | | 2 | 1 | B621AA | | | | |
| | | | | 4 | 4 | 0 | B640AA | | | | |
| | | | | | 2 | 2 | B622AA | | | | |
| | | | | | 2 | 0 | B720AA | | | | |
| | | | | 75 A @ 600 Vac 55 A @ 48 Vdc Res load per pole 55 A @ 130 Vdc Res load use 2 poles in series | 1 1 3 3 | 115 240 200-240 460-575 | 3 7½ 15 25 | 2 | 0 | 2 | B702AA |
| | | | | | | | | | 1 | 1 | B711AA |
| | | | | | | | | | 3 | 0 | B730AA |
| | | | | | | | | 3 | 1 | 2 | B712AA |
| | | | | | | | | | 2 | 1 | B721AA |
| | | | | | | | | | 4 | 0 | B740AA |
| 4 | 2 | 2 | B722AA | | | | | | | | |



Rowan® Control — Definite Purpose Contactors & Relays

BX Contactors — 25-75 Ampere Rating

BX CONTACTORS – AC OR DC CONTROL

The BX line of definite purpose contactors is similar to B line except that a second block of 3 power poles is mounted on top of the bottom contact block allowing up to 8 power poles through 40 A and 6 power poles through 75 A. The option for parallel strapping of the power contacts will increase the rating to 115 A without increasing panel space. (See table below for details).

| | Contactor Amp Rating | Voltage | Single & 3 Phase Amps | | | Per Pole Addition for Parallel Strapping▲ |
|--|----------------------|---------|-----------------------|------------------|---------------|---|
| | | | Inductive | | Resistive | |
| | | | Full Load Amp | Locked Rotor Amp | Full Load Amp | Modification Number |
| Addition of parallel strapping to the Type BX Contactor gives increased ampere ratings as listed, without increasing the panel space required. | 40 | 220 | 60 | 200 | 60 | -46 |
| | | 440-550 | 60 | 160 | 60 | |
| | 75 | 220 | 115 | 525 | 125 | -47 |
| | | 440-550 | 115 | 325 | 125 | |

▲ All poles in a unit must be paralleled. Device catalog number becomes BXP.

| Amperes | Rating | | | Pole Configuration | | Open Catalog Number |
|--|-----------|---------|----|--------------------|------------|---------------------|
| | HP Rating | | HP | Power N.O. | Poles N.C. | |
| | Ø | V | | | | |
| 25 A @ 600 Vac inductive 25 A @ 60 Vdc res load per poles 30 A @ 600 Vac resistive 25 A @ 180 Vdc res load Use 2 poles in series | 1 | 120 | 3 | 8 | – | BX280AA |
| | 3 | 200-240 | 5 | 6 | – | BX260AA |
| | 3 | 460-575 | 7½ | 5 | 1 | BX251AA |
| | | | | 4 | 2 | BX242AA |
| 30 A @ 600 Vac inductive 30 A @ 60 Vdc res load per poles 40 A @ 600 Vac resistive 30 A @ 160 Vdc res load Use 2 poles in series | 1 | 120 | 5 | 8 | – | BX380AA |
| | 3 | 200-240 | 7½ | 6 | – | BX360AA |
| | 3 | 460-575 | 10 | 5 | 1 | BX351AA |
| | | | | 4 | 2 | BX342AA |
| | | | | 3 | 3 | BX333AA |
| 40 A @ 600 Vac inductive 40 A @ 48 Vdc res load per pole 50 A @ 600 Vac resistive 40 A @ 150 Vdc res load Use 2 poles in series | 1 | 120 | 5 | 8 | – | BX480AA |
| | 3 | 200-240 | 10 | 6 | – | BX460AA |
| | 3 | 460-575 | 15 | 5 | 1 | BX451AA |
| | | | | 4 | 2 | BX442AA |
| 60 A @ 600 Vac inductive & resistive 50 A @ 48 Vdc res load per poles 50 A @ 130 Vdc resistive Use 2 poles in series | | | | 3 | 3 | BX433AA |
| | | | | 6 | – | BX660AA |
| | | | | 5 | 1 | BX651AA |
| | | | | 4 | 2 | BX642AA |
| | | | | 5 | – | BX650AA |
| | | | | 4 | 1 | BX641AA |
| | | | | 3 | 2 | BX632AA |
| | | | | 3 | 3 | BX633AA |
| 75 A @ 600 Vac inductive & resistive 55 A @ 48 Vdc res load per poles 55 A @ 130 Vdc res load Use 2 poles in series | | | | 2 | 2 | BX622AA |
| | | | | 4 | – | BX640AA |
| | | | | 6 | – | BX760AA |
| | | | | 5 | 1 | BX751AA |
| | | | | 4 | 2 | BX742AA |
| | | | | 5 | – | BX750AA |
| | | | | 4 | 1 | BX741AA |
| | | | | 3 | 2 | BX732AA |
| | | | 3 | 3 | BX733AA | |
| | | | 2 | 2 | BX722AA | |
| | | | 4 | – | BX740AA | |

Coil Selection — B & BX Contactors

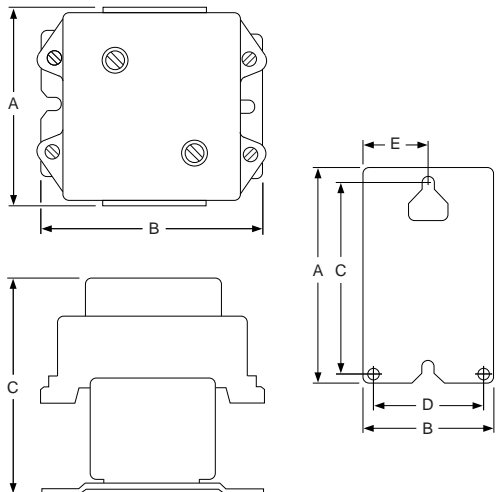
Devices shown with 110-120 Vac coil. For voltages, select code letter from table and substitute for the next to last letter in the catalog number. Example: 240 V, B220AA becomes B220BA with no change in list price.

| AC Coil Voltage | | | | | | | | |
|-----------------|----|---------|---------|-----|---------|---------|-----|-----|
| 50 Hz V | 24 | 110-120 | 208-240 | 277 | 380-460 | 550-600 | | |
| 60 Hz V | 24 | 110-120 | 208-240 | 277 | 440-480 | 550-600 | | |
| Voltage Code | E | A | B | G | K | D | | |
| DC Coil Voltage | | | | | | | | |
| Coil Voltage | 6 | 12-14 | 24-28 | 48 | 60-70 | 80 | 125 | 250 |
| Voltage Code | W | H | J | L | T | M | P | R |

NOTE: DC coils include a factory wired, N.C. latebreak auxiliary contact.



Rowan® Control — Definite Purpose Contactors & Relays B and BX Dimensions



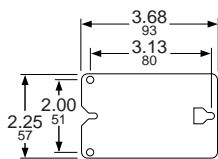
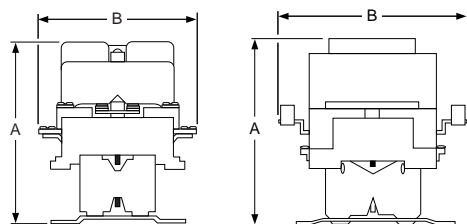
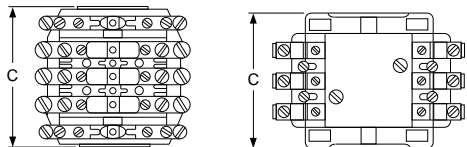
B CONTACTOR DIMENSIONS

| Poles | FLA | A | | B | | C Without Cover | | C With Cover | |
|-------|--------------------|------|-----|------|-----|-----------------|----|--------------|-----|
| | | IN | mm | IN | mm | IN | mm | IN | mm |
| 3 | 25, 30 & 40 | 2.69 | 68 | 3.64 | 92 | 3.31 | 84 | 3.44 | 87 |
| 3 | 60 | 3.38 | 86 | 5.00 | 127 | — | — | 4.12 | 105 |
| 3 | 75 (w/ lug terms.) | 3.38 | 86 | 6.19 | 157 | — | — | 4.12 | 105 |
| 4 | 25, 30 & 40 | 3.05 | 77 | 3.64 | 92 | 3.31 | 84 | 3.44 | 87 |
| 5 | 25, 30 & 40 | 3.75 | 95 | 3.64 | 92 | 3.31 | 84 | 3.44 | 87 |
| 5 | 60 | 4.25 | 108 | 5.00 | 127 | — | — | 4.12 | 105 |
| 5 | 75 (w/ lug terms.) | 4.25 | 108 | 6.19 | 157 | — | — | 4.12 | 105 |

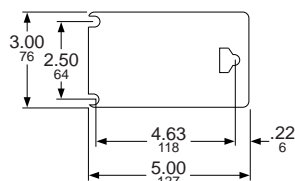
Dimension A for 60 & 75 A, 4 pole devices is 3¹⁵/₁₆". All other dimensions are the same as 3 pole units.

Approximate Mounting Plate Dimensions

| Poles | FLA | A | | B | | C | | D | | E | |
|---------|------------|------|-----|------|----|------|-----|------|----|------|----|
| | | IN | mm | IN | mm | IN | mm | IN | mm | IN | mm |
| 3, 4, 5 | 25, 30, 40 | 3.63 | 92 | 2.25 | 57 | 3.25 | 83 | 2.00 | 51 | 1.12 | 28 |
| 3, 4, 5 | 60, 75 | 4.00 | 102 | 3.00 | 76 | 4.62 | 117 | 2.50 | 64 | 1.50 | 38 |



25, 30 and 40
FLA Units



60 and 75 FLA Units

BX CONTACTORS DIMENSIONS

| FLA & Pole Configuration | Coils | A | | B | | C | |
|--------------------------------|----------------------|------|-----|------|-----|------|-----|
| | | IN | mm | IN | mm | IN | mm |
| 25 & 30 3 Cavity Lower Deck | AC coil | 4.81 | 122 | 4.11 | 104 | 2.58 | 66 |
| | DC coil below 80 Vdc | 4.81 | 122 | 4.11 | 104 | 3.00 | 76 |
| | DC coil above 80 Vdc | 4.81 | 122 | 4.11 | 104 | 3.56 | 90 |
| 40■ 3 Cavity Lower Deck | AC coil | 4.81 | 122 | 4.38 | 111 | 2.58 | 66 |
| | DC coil below 80 Vdc | 4.81 | 122 | 4.38 | 111 | 3.00 | 76 |
| | DC coil above 80 Vdc | 4.81 | 122 | 4.38 | 111 | 3.56 | 90 |
| 25 & 30 5 Cavity Lower Deck | AC coil | 4.81 | 122 | 4.11 | 104 | 3.75 | 95 |
| | DC coil below 80 Vdc | 4.81 | 122 | 4.11 | 104 | 3.75 | 95 |
| | DC coil above 80 Vdc | 4.81 | 122 | 4.11 | 104 | 4.06 | 103 |
| 40■ 5 Cavity Lower Deck | AC coil | 4.81 | 122 | 4.38 | 111 | 3.75 | 95 |
| | DC coil below 80 Vdc | 4.81 | 122 | 4.38 | 111 | 3.75 | 95 |
| | DC coil above 80 Vdc | 4.81 | 122 | 4.38 | 111 | 5.06 | 129 |
| 60 & 75 3 Cavity Lower Deck | AC coil | 4.81 | 122 | 6.19 | 157 | 3.38 | 86 |
| | DC coil | 5.81 | 148 | 6.19 | 157 | 3.75 | 95 |
| 60 & 75 5 Cavity Lower Deck | All units | 5.81 | 148 | 6.19 | 157 | 4.25 | 108 |

■ 40 FLA devices with NC contacts — A = 5¹/₈".

Dual Dimensions: INCHES
Millimeters

UL Listing or Recognition: File e 42240
CCN NLDX or NLDX 2 Valid for B, FB, and FE

CSA Certified: LR 25490 Class 321104 Valid for B, FB, and FE



Rowan® Control — Definite Purpose Contactors & Relays

FE Power Relays — 15 Ampere Rating

FE POWER RELAYS — AC OR DC CONTROL

The FE family of power relays are rated at 15 A continuous @ 300 Vac. The relays are available in any combination of normally open or normally closed poles totalling up to 8 poles, available with AC or DC operating coils utilizing a solenoid type of magnet. The solenoid type construction allows the relay to operate under vibration or shock conditions. Options include silver or gold low energy contacts and a variety of coil terminations; side located (Type FE), front located (Type FEX), or in front and back of the coil (Type FEXL). Refer to page 10. Typical applications include computer equipment, mobile refrigeration units and radio transmitters.

Electrical Contact Ratings

| AC 25 - 400 Hz | | Horsepower | | |
|---------------------------|------------------------------|----------------------|----|----|
| Continuous Current Rating | Maximum Interrupting Current | (Non-jogging) Rating | 1Ø | 3Ø |
| 15 A @ 300 Vac | 90 A @ 300 Vac | 115 Vac | ¾ | 1½ |
| 5 A @ 600 Vac | 24 A @ 600 Vac | 230 Vac | 1½ | 3 |
| | | 440 Vac | — | 1 |

Electrical Contact Ratings

| DC Continuous Current Rating | Maximum DC Interruption Rating | | | |
|---------------------------------|--------------------------------|------|------|-------|
| | Resistance Load | 24 V | 48 V | 125 V |
| 15 A @ 50 Vdc | 1 pole (2 breaks) | 90 A | 90 A | 9 A |
| 10 A @ 100 Vdc | 2 poles in series (4 breaks) | — | — | 90 A |

| AC Coils | | | | |
|--------------|------------|------------|---------------------------------|-----------------------------|
| No. of Poles | Poles N.O. | Poles N.C. | Non-Reversing Catalog Number | Reversing Catalog Number |
| 2 | 2 | 0 | FE20AA | RFER20AA |
| | 0 | 2 | FE02AA | RFER02AA |
| | 1 | 1 | FE11AA | RFER11AA |
| 3 | 3 | 0 | FE30AA | RFER30AA |
| | 0 | 3 | FE03AA | RFER03AA |
| | 2 | 1 | FE21AA | RFER21AA |
| | 1 | 2 | FE12AA | RFER12AA |
| 4 | 4 | 0 | FE40AA | RFER40AA |
| | 0 | 4 | FE04AA | RFER04AA |
| | 2 | 2 | FE22AA | RFER22AA |
| | 1 | 3 | FE13AA | RFER13AA |
| | 3 | 1 | FE31AA | RFER31AA |
| 5 | 5 | 0 | FE50AA | RFER50AA |
| | 4 | 1 | FE41AA | RFER41AA |
| | 3 | 2 | FE32AA | RFER32AA |
| | 2 | 3 | FE23AA | RFER23AA |
| 6 | 1 | 4 | FE14AA | RFER14AA |
| | 6 | 0 | FE60AA | RFER60AA |
| | 5 | 1 | FE51AA | RFER51AA |
| | 4 | 2 | FE42AA | RFER42AA |
| | 3 | 3 | FE33AA | RFER33AA |
| 7 | 2 | 4 | FE24AA | RFER24AA |
| | 7 | 0 | FE70AA | RFER70AA |
| | 6 | 1 | FE61AA | RFER61AA |
| | 5 | 2 | FE52AA | RFER52AA |
| 8 | 4 | 3 | FE43AA | RFER43AA |
| | 3 | 4 | FE34AA | RFER34AA |
| | 8 | 0 | FE80AA | RFER80AA |
| | 7 | 1 | FE71AA | RFER71AA |
| | 6 | 2 | FE62AA | RFER62AA |
| 8 | 5 | 3 | FE53AA | RFER53AA |
| | 4 | 4 | FE44AA | RFER44AA |

Coil Selection

Devices shown with 110-120 Vac coil. For different coil voltages, select code letter from table and substitute for the next to last letter in the catalog number. Example: 240 V, FE20AA becomes FE20BA with no change in list price.

| AC Coil Voltage | | | | | | |
|-----------------|----|---------|---------|-----|---------|---------|
| 50 Hz Voltage | 24 | 110-120 | 208-240 | 277 | 380-460 | 550-600 |
| 60 Hz Voltage | 24 | 110-120 | 208-240 | 277 | 440-480 | 550-600 |
| Voltage Code | E | A | B | G | K | D |



Rowan® Control — Definite Purpose Contactors & Relays FE Power Relays — 15 Ampere Rating

| DC Coils | | | | |
|--------------|------------|------------|------------------------------|--------------------------|
| No. of Poles | Poles N.O. | Poles N.C. | Non-Reversing Catalog Number | Reversing Catalog Number |
| 2 | 2 | 0 | DFE20JA | RDFER20JA |
| | 0 | 2 | DFE02JA | RDFER02JA |
| | 1 | 1 | DFE11JA | RDFER11JA |
| 3 | 3 | 0 | DFE30JA | RDFER30JA |
| | 0 | 3 | DFE03JA | RDFER03JA |
| | 2 | 1 | DFE21JA | RDFER21JA |
| 4 | 1 | 2 | DFE12JA | RDFER12JA |
| | 4 | 0 | DFE40JA | RDFER40JA |
| | 0 | 4 | DFE04JA | RDFER04JA |
| | 2 | 2 | DFE22JA | RDFER22JA |
| 5 | 1 | 3 | DFE13JA | RDFER13JA |
| | 3 | 1 | DFE31JA | RDFER31JA |
| | 5 | 0 | DFE50JA | RDFER50JA |
| | 4 | 1 | DFE41JA | RDFER41JA |
| | 3 | 2 | DFE32JA | RDFER32JA |
| 6 | 2 | 3 | DFE23JA | RDFER23JA |
| | 1 | 4 | DFE14JA | RDFER14JA |
| | 6 | 0 | DFE60JA | RDFER60JA |
| | 5 | 1 | DFE51JA | RDFER51JA |
| | 4 | 2 | DFE42JA | RDFER42JA |
| 7 | 3 | 3 | DFE33JA | RDFER33JA |
| | 2 | 4 | DFE24JA | RDFER24JA |
| | 7 | 0 | DFE70JA | RDFER70JA |
| | 6 | 1 | DFE61JA | RDFER61JA |
| 8 | 5 | 2 | DFE52JA | RDFER52JA |
| | 4 | 3 | DFE43JA | RDFER43JA |
| | 3 | 4 | DFE34JA | RDFER34JA |
| | 8 | 0 | DFE80JA | RDFER80JA |
| 8 | 7 | 1 | DFE71JA | RDFER71JA |
| | 6 | 2 | DFE62JA | RDFER62JA |
| | 5 | 3 | DFE53JA | RDFER53JA |
| | 4 | 4 | DFE44JA | RDFER44JA |

Coil Selection

Devices shown with 24 Vdc coil. For different coil voltages select code letter from table and substitute for the next to last letter in catalog number. Example: 125 Vdc DFE20JA becomes DFE20PA with no change in list price.

| DC Coil Voltage | | | | | | | | |
|-----------------|---|-------|-------|----|-------|----|-----|-----|
| Coil Voltage | 6 | 12-14 | 24-48 | 48 | 60-70 | 80 | 125 | 250 |
| Voltage Code | W | H | J | L | T | M | P | R |

Low Energy Contacts:

Type FE, FEX, FEXL can be supplied with gold or silver low energy bifurcated contacts.

These are recommended for circuits below 20 V. See factory modifications, Page 10.

Gold Low Energy (GLE) or Silver Low Energy (SLE) Contact Ratings

- Maximum Ampere Rating — 10 A (AC or DC)
- Maximum Voltage — 250 Vac, 125 Vdc
- Maximum VA rating 250 VA



Rowan® Control — Definite Purpose Contactors & Relays

FB Contactors — 25-40 Ampere Rating

FB CONTACTORS — DC CONTROL

The FB is a hybrid definite purpose contactor consisting of the DC magnet base from our FE relay line and the power contacts from our B line. The combination gives a DC operated contactor suitable for use in high vibration and shock conditions. Typical applications include mobile refrigeration equipment and computer equipment.

| Resistive Ampere Rating | Maximum Motor Ampere Ratings | | | | | | | N.O. Power Poles | Open Catalog Number |
|-------------------------|------------------------------|----------------------|---------------|----------|---------|---------------------------|----|------------------|---------------------|
| | Full Load Current FLA | Locked Rotor Amperes | | | | Maximum Horsepower Rating | | | |
| | | 3Ø, 3-P Break | 1Ø, 2-P Break | | | 1Ø | 3Ø | | |
| | 277 Vac | 480 Vac | 600 Vac | Line Vac | | | | | |
| Non-Reversing | | | | | | | | | |
| 30 | 25 | 150 | 125 | 100 | 120 | 2 | — | 2 | FB220JA |
| | | | | | 200/240 | 3 | 5 | 3 | FB230JA |
| | | | | | 460/575 | — | 7½ | 4 | FB240JA |
| 40 | 30 | 180 | 150 | 120 | 120 | 2 | — | 2 | FB320JA |
| | | | | | 200/240 | 5 | 7½ | 3 | FB330JA |
| | | | | | 460/575 | — | 10 | 4 | FB340JA |
| 50 | 40 | 240 | 200 | 160 | 120 | 2 | — | 2 | FB420JA |
| | | | | | 200/240 | 5 | 10 | 3 | FB430JA |
| | | | | | 460/575 | — | 15 | 4 | FB440JA |
| Reversing | | | | | | | | | |
| 30 | 25 | 150 | 125 | 100 | 120 | 2 | — | 2 | FBR220JA |
| | | | | | 200/240 | 3 | 5 | 3 | FBR230JA |
| | | | | | 460/575 | — | 7½ | 4 | |
| 40 | 30 | 180 | 150 | 120 | 120 | 2 | — | 2 | RFBR320JA |
| | | | | | 200/240 | 5 | 7½ | 3 | RFBR330JA |
| | | | | | 460/575 | — | 10 | 4 | |
| 50 | 40 | 240 | 200 | 160 | 120 | 2 | — | 2 | RFBR420JA |
| | | | | | 200/230 | 5 | 10 | 3 | RFBR430JA |
| | | | | | 460/575 | — | 15 | 4 | |

Coil Selection

Devices shown with 240 Vdc coil. For different coil voltages select code letter from table and substitute for the next to last letter in catalog number. Example: 125 Vdc, FB220JA becomes FB220PA with no change in list price.

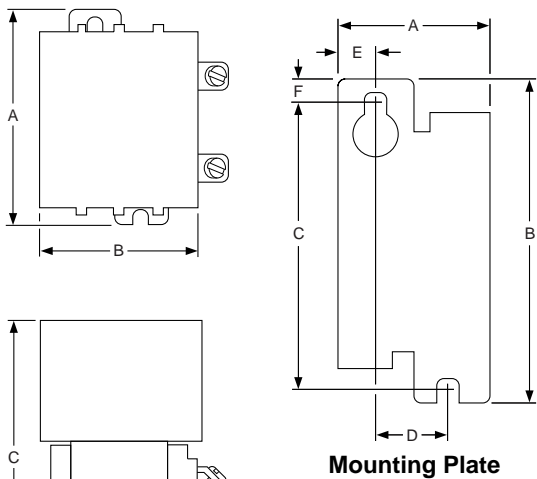
| DC Coil Voltage | | | | | | | | |
|-----------------|---|-------|-------|----|-------|----|-----|-----|
| Coil Voltage | 6 | 12-14 | 24-28 | 48 | 60-70 | 80 | 125 | 250 |
| Voltage Code | W | H | J | L | T | M | P | R |



Rowan® Control — Definite Purpose Contactors & Relays

FE and FB Dimensions

FE Power Relays

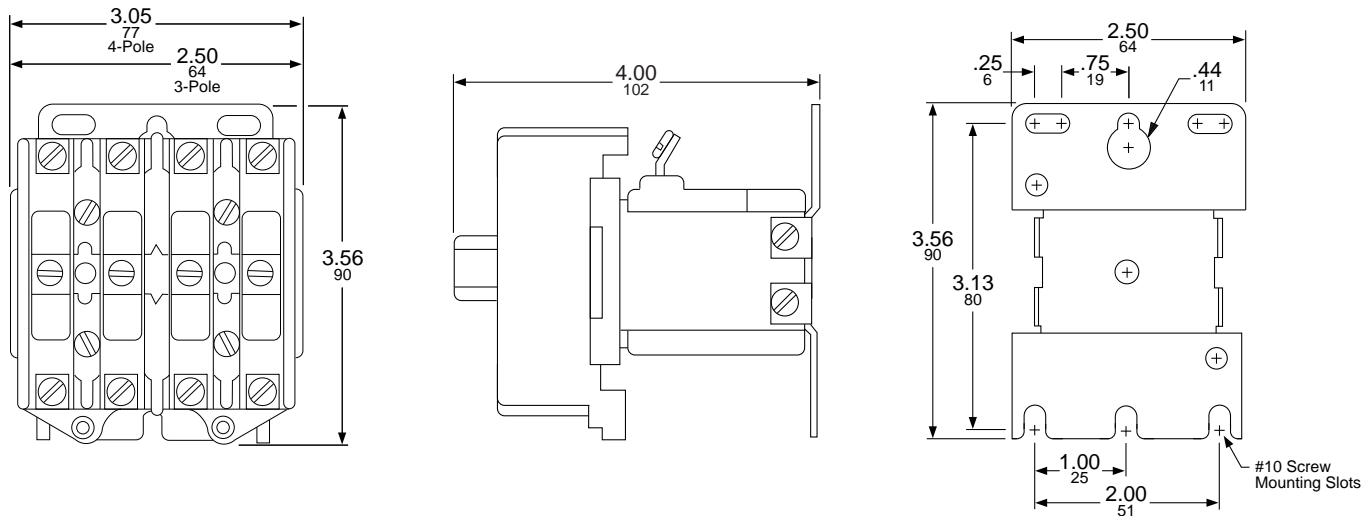


| A | | B | | C | | D | | E | | F | |
|------|----|------|----|------|----|-----|----|-----|----|-----|----|
| IN | mm | IN | mm | IN | mm | IN | mm | IN | mm | IN | mm |
| 1.25 | 32 | 2.69 | 68 | 2.38 | 60 | .63 | 16 | .31 | 8 | .19 | 5 |

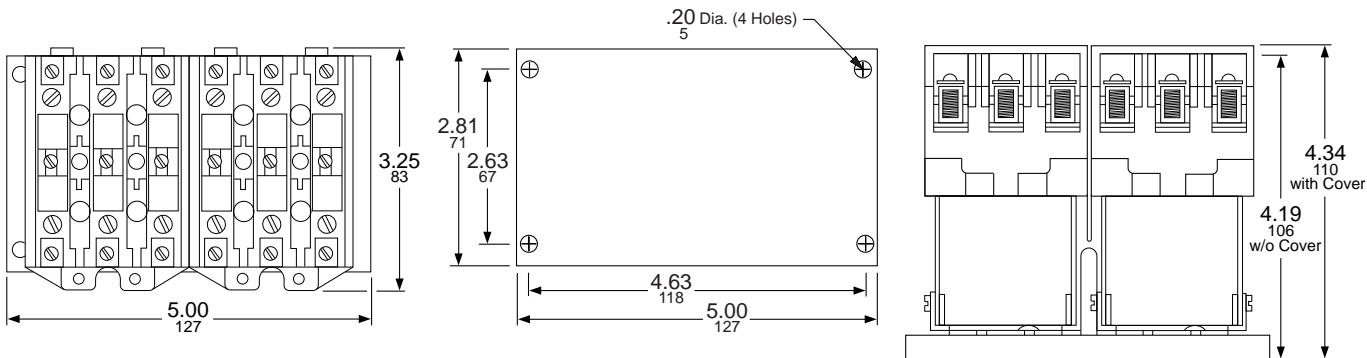
AC-DC Relay

| Pole Configuration | A | | B | | C | |
|--------------------------|------|----|------|----|------|-----|
| | IN | mm | IN | mm | IN | mm |
| AC Coil | | | | | | |
| 3 N.O. - 3 N.C. | 2.69 | 68 | 2.38 | 60 | 2.70 | 69 |
| 3 N.O. | 2.69 | 68 | 2.38 | 60 | 2.52 | 64 |
| 4 N.O. - 4 N.C. | 2.69 | 68 | 2.44 | 62 | 2.70 | 69 |
| 4 N.O. | 2.69 | 68 | 2.44 | 62 | 2.52 | 64 |
| 8 N.O. | 2.69 | 68 | 2.44 | 62 | 2.70 | 69 |
| 6 N.O. | 2.69 | 68 | 2.38 | 60 | 2.70 | 69 |
| 4 N.O. - 4 N.C. Isolated | 2.69 | 68 | 2.44 | 62 | 3.42 | 87 |
| DC Coil | | | | | | |
| 3 N.O. - 3 N.C. Isolated | 2.69 | 68 | 2.38 | 60 | 3.42 | 87 |
| 3 N.O. - 3 N.C. | 2.69 | 68 | 2.38 | 60 | 3.57 | 91 |
| 3 N.O. | 2.69 | 68 | 2.38 | 60 | 3.38 | 86 |
| 4 N.O. - 4 N.C. | 2.69 | 68 | 2.44 | 62 | 3.57 | 91 |
| 4 N.O. | 2.69 | 68 | 2.44 | 62 | 3.38 | 86 |
| 8 N.O. | 2.69 | 68 | 2.44 | 62 | 4.13 | 105 |
| 6 N.O. | 2.69 | 68 | 2.38 | 60 | 4.13 | 105 |
| 4 N.O. - 4 N.C. Isolated | 2.69 | 68 | 2.44 | 62 | 4.31 | 109 |
| 3 N.O. - 3 N.C. Isolated | 2.69 | 68 | 2.38 | 60 | 4.31 | 109 |

FB Contactor



FB Reversing Contactor



Rowan® Control — Definite Purpose Contactors & Relays

Factory Modifications

FACTORY MODIFICATIONS

How to Order

List each modification code after the catalog number. Example: B220AA with 1 NO auxiliary contact is B220AA-1.

B Contactors ♦

| | | | | Catalog Code | |
|--|--|---|----------------------------|---------------|-----|
| Contact Cavity Mounted | | Auxiliary Per Cavity Contact Ratings | | 1 N.O. | -1 |
| | | | | 1 N.C. | -2 |
| | | Amps | Volts | 2 N.O. | -3 |
| | | 10 | 600 AC | 1 N.O. - N.C. | -4 |
| | 10 | 64 DC | | | |
| | 10 Amp | 1 | 125 DC | 2 N.C. | -5 |
| | | .5 | 250 DC | | |
| | Low Energy Contacts 250 V Max Flexible Blade | | | 1 N.O. | -6 |
| | | | | 1 N.C. | -7 |
| | | | | 1 N.O. - N.C. | -8 |
| | | | | 2 N.O. | -20 |
| | | | Overlap (Inc. aux contact) | | -9 |
| | 25 Amp | | | 1 N.O. | -10 |
| | | | | 1 N.C. | -11 |
| 30 Amp | | | 1 N.O. | -12 | |
| | | | 1 N.O. | -13 | |
| Power | Overlap | | | -14 | |
| Contact Side Mounted | 15 A @ 480 V | | | -15 | |
| | 10 A @ 250 V | | | -16 | |
| Contact Cover | | | | -22 | |
| Screw Terminal 40, 60, & 75 A | | | | -41 | |
| Special Mark / Customer Requirements (Specify Marking) | | | | -29 | |

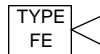
♦ See table on Page 11 for maximum number of auxiliary contacts per device.

FE Power Relays

| Feature | Code Number |
|---|-------------|
| N.O. gold low energy contacts (specify location) | -1 |
| N.C. gold low energy contacts (specify location) | -2 |
| N.O. silver low energy contacts (specify location) | -3 |
| N.C. silver low energy contacts (specify location) | -4 |
| Overlapping contacts (1 N.O. & N.C.) | -6 |
| Safety cover, covers all terminals including coil and power poles | -7 |
| Single 1/4" quick connect terminals on power poles (specify location) | -8 |
| Double 1/4" quick connect terminals on power poles (specify location) | -9 |
| Contact cover | -12 |
| Mix of standard and low energy contacts | -28 |
| Coil terminal position | FEX |
| Change FE to either— | FEXL |

Optional Terminal Positions

FE – Standard
Side Connected
Coil Terminals



FEX – Optional
Front Connected
Coil Terminals



FEXL – Optional
In-Line
Coil Terminals



FB Contactors

| Feature | Code Number |
|---------------------------------------|-------------|
| 1 N.O. Auxiliary contact ★▲ | -1 |
| 1 N.C. Auxiliary contact ★▲ | -2 |
| 2 N.O. Auxiliary contact ★▲ | -3 |
| 1 N.O. - 1 N.C. Auxiliary contacts ★▲ | -4 |
| Contact Cover | -22 |
| Special Markings (specify) | -29 |

★ Maximum number of auxiliary contacts (per contactor)

▲ Example: Reverser with 1-N.O. auxiliary contact on each contactor RFBR220JA-1-1.



Rowan® Control — Definite Purpose Contactors & Relays Field Accessory Kits

FIELD ACCESSORY KITS

B Contactors

Power Pole Contact Kits★

| Type | Amperes (Inductive) | Poles | Renewal Parts Kit No. |
|----------------------------|---------------------|--------|-----------------------|
| B BX (Top deck only) | 25 | 1 N.O. | SPB210■ |
| | | 1 N.C. | SPB201■ |
| | 30 | 1 N.O. | SPB310■ |
| | | 1 N.C. | SPB301■ |
| | 40 | 1 N.O. | SPB410 ■◆ |
| | | 1 N.C. | SPB401■◆ |
| BX (Bottom deck only) | 25 | 1 N.O. | SPBX210 |
| | 30 | 1 N.O. | SPBX310 |
| | 40 | 1 N.O. | SPBX410◆ |
| B, BX (Top deck only) | 60 | 1 N.O. | SPB610 ■▲ |
| | | 1 N.C. | SPBX601 ■▲ |
| | 75 | 1 N.O. | SPB710 ■▲ |
| | | 1 N.C. | SPBX701 ■▲ |
| BX (Bottom deck only) | 60 | 1 N.O. | SPBX610▲ |
| | 75 | 1 N.O. | SPBX710▲ |

Auxiliary Contact Kits★

| Type | Amperes (Inductive) | Poles | Renewal Parts Kit Number for 60-75 A Devices | Renewal Parts Kit Number for 25-40 A Devices |
|---------------------|---------------------|--------------------------|--|--|
| B | 10 | 1 N.O. | SPZ10 | SPX10 |
| | | 1 N.C. | SPZ01 | SPX01 |
| | | 1 N.O. - N.C. | SPZ11 | SPX11 |
| | | 2 N.O. | SPZ20 | SPX20 |
| | | 2 N.C. | SPZ02 | SPX02 |
| | | 1 N.O. Low Energy | SPZ10LE | SPX10LE |
| | | 1 N.C. Low Energy | SPZ01LE | SPX01LE |
| | | 1 N.O. - N.C. Low Energy | SPZ11LE | SPX11LE |
| | 2 N.O. Low Energy | SPZ20LE | SPX20LE | |
| | 2 N.C. Low Energy | SPZ02LE | SPX02LE | |
| B (side mounted) | 25 | 1 N.O. | SPZ210 | — |
| | 30 | 1 N.O. | SPZ310 | — |
| | 10 A 250 V | — | B111 | B111 |
| | 15 A 480 V | — | B100 | B100 |

★ Kits contain all hardware.

■ SPB series contact kits may be substituted for SPBX kits by reusing the terminal extensions on original devices.

◆ Replacement kits for 40 A devices with -41 modifications (screw terminals instead of box lugs) add -41 after basic catalog number.

▲ For replacement kits for 60 or 75 A devices with -41 modifications (screw terminals instead of box lugs) add -41 after basic catalog number.

Maximum Number of Auxiliary Contacts Factory Installed

| Poles | Size | 25, 30 and 40 Amps | | | 60 and 75 Amps |
|---------------|-------------------------|--------------------|-----|-----|----------------|
| | | 3 | 4 | 5 | 3 Power, 2 Aux |
| 2 Power Poles | No. of Contact Cavities | 3 | 4 | 5 | 3 Power, 2 Aux |
| | 10 A Aux. | 2 | 4 | 6 | 4 |
| | 25 A or 30 A Power Aux. | 1 | 2 | 3 | 2 |
| 3 Power Poles | 10 A Aux. | — | 2 | 4 | 4 |
| | 25 A or 30 A Power Aux. | — | 1 | 2 | 2 |
| 4 Power Poles | 10 A Aux. | — | — | 2 | N/A |
| | 25 A or 30 A Power Aux. | — | — | 1 | N/A |
| 5 Power Poles | | N/A | N/A | N/A | N/A |



Rowan® Control — Definite Purpose Contactors & Relays Field Accessory Kits

FE Power Relays

Power Pole Contact Kits

| Number of N.O. Contacts | Catalog Number |
|-------------------------|----------------|
| 3 | FE30 |
| 4 | FE40 |
| 7-8 | Order 2 FE40 |

Auxiliary Contact Kits

| Size | Poles | |
|---------|-------------------------------|------------|
| 15 Amps | 1 N.O. | SPF-10 |
| | 1 N.C. | SPF-01 |
| | 1 N.O. - 1 N.C. | SPF-11 |
| 10 Amps | 1 N.O. Low Energy | SPF-10SLE† |
| | | SPF-10GLE‡ |
| | 1 N.C. Low Energy | SPF-01SLE† |
| | | SPF-01GLE‡ |
| | 1 N.O. & 1 N.C. Low Energy | SPF-11SLE† |
| | | SPF-11GLE‡ |

If relay normally open contacts are riveted to contact base (identified by Mod. A), use part numbers on table.

If relay includes N.C. or low energy contacts, order N.C. low energy contact kits.

† SLE-Silver low energy.

‡ GLE-Gold low energy.

FB Contactors

Auxiliary Contact Kits for FB Contactors

| Amperes (Inductive) | Poles | Renewal Parts Kit Number |
|---------------------|----------------|--------------------------|
| 10 | 1 N.O. | SPX10 |
| | 1 N.C. | SPX01 |
| | 1 N.O. - 1N.C. | SPX11 |
| | 2 N.O. | SPX20 |
| 25 | 1 N.O. | SPB210 |
| | 1 N.C. | SPB201 |
| 30 | 1 N.O. | SPB310 |
| | 1 N.C. | SPB301 |
| 40 | 1 N.O. | SPB410 |
| | 1 N.C. | SPB410 |



Rowan® Control — Definite Purpose Contactors & Relays Coil Data

COIL DATA

B and BX Contactors

25 to 40 FLA Ratings

| Coil Voltage | Catalog Code Description | Coil Catalog Number 2090- | Inrush VA | Sealed VA | Sealed Watts | DC Res + 10% Ohms■ | |
|------------------------------|--------------------------|---------------------------|-----------|-----------|--------------|--------------------|--------------|
| BX Contactor AC Coils | | | | | | | |
| 24 (60 Hz) | E | 50DX | 126 | 18 | 4.5 | 3.7 | |
| 110 (50 Hz) | A | 51DX | 126 | 18 | 4.5 | 87.0 | |
| 120 (60 Hz) | A | 51DX | 126 | 18 | 4.5 | 87.0 | |
| 220 (50 Hz) | B | 52DX | 126 | 18 | 4.5 | 284.0 | |
| 240 (60 Hz) | B | 52DX | 126 | 18 | 4.5 | 490.0 | |
| 277 (60 Hz) | G | 55DX | 126 | 18 | 4.5 | 497.0 | |
| 440 (50 Hz) | K | 53DX | 126 | 18 | 4.5 | 1470.0 | |
| 480 (60 Hz) | K | 53DX | 126 | 18 | 4.5 | 1470.0 | |
| 550 - 600 (60 Hz) | D | 54DX | 126 | 18 | 4.5 | 2354.0 | |
| 550 (50 Hz) | D | 54DX | 126 | 18 | 4.5 | 2354.0 | |
| B Contactor AC Coils▲ | | | | | | | |
| 24 | E | 75DX | 58 | 9.0 | 1.6 | 7.2 | |
| 110-120 | A | 70DX | 69 | 8.1 | 2.2 | 167.0 | |
| 208-240 | B | 71DX | 69 | 8.1 | 2.2 | 660.0 | |
| 265-277 | G | 87DX | 69 | 8.1 | 2.2 | 900.0 | |
| 440 - 480 (60 Hz) | K | 79DX | 69 | 8.1 | 2.2 | 2800.0 | |
| 380 - 460 (50 Hz) | K | 79DX | 69 | 8.1 | 2.2 | 2800.0 | |
| 550 - 600 | D | 96DX | 69 | 8.1 | 2.2 | 4240.0 | |
| BX Contactor DC Coils | | | | | | Start | Total |
| 12-14 | H | 111DX | 150.0 | 3.1 | 3.1 | 1.5 | 69.5 |
| 24-30 | J | 116DX | 157.9 | 3.1 | 3.1 | 5.7 | 272.7 |
| 48 | L | 112DX | 100.2 | 3.1 | 3.1 | 23.0 | 1093.0 |
| 60-70 | T | 113DX | 94.2 | 3.9 | 3.9 | 36.6 | 1728.0 |
| 125 | P | 89DX | 51.7 | 8.7 | 8.7 | 284.0 | 1802.0 |
| B Contactor DC Coils | | | | | | | |
| 6 | W | 110DX | 58.5 | 1.7 | 1.7 | .4 | 17.4 |
| 12-14 | H | 111DX | 150.0 | 3.1 | 3.1 | 1.5 | 69.5 |
| 24-28 | J | 116DX | 157.9 | 3.1 | 3.1 | 5.7 | 272.7 |
| 48 | L | 112DX | 100.2 | 3.1 | 3.1 | 23.0 | 1093.0 |
| 60-70 | T | 113DX | 94.2 | 3.9 | 3.9 | 36.0 | 1728.0 |
| 80 | M | 114DX | 71.1 | 3.3 | 3.3 | 76.0 | 2862.0 |
| 125 | P | 89DX | 51.7 | 8.7 | 8.7 | 284.0 | 2784.0 |
| 250 | R | 93DX | 52.1 | 8.7 | 8.7 | 1114.0 | 7114.0 |
| 60 to 75 FLA Ratings | | | | | | | |
| AC Coils▲ | | | | | | | |
| 24 | E | 50EA | 264 | 24.2 | 7.4 | 1.3 | |
| 110 - 120 | A | 51EA | 250 | 19.5 | 6.3 | 24.0 | |
| 208 - 240 | B | 52EA | 250 | 19.5 | 6.3 | 94.0 | |
| 277 (60 Hz) | G | 66EA | 250 | 19.5 | 6.3 | 164.0 | |
| 440 - 460 | K | 53EA | 250 | 19.5 | 6.3 | 395.0 | |
| 550 | D | 54EA | 250 | 19.5 | 6.3 | 549.6 | |
| DC Coils | | | | | | Start | Total |
| 6 | W | 57S | 90.0 | .8 | .8 | .4 | 44.3 |
| 12 | H | 55S | 96.0 | .9 | .9 | 1.5 | 163.0 |
| 24-28 | J | 54S | 209.3 | 2.9 | 2.9 | 4.0 | 618.0 |
| 48 | L | 50S | 139.6 | 2.0 | 2.0 | 16.5 | 1150.0 |
| 60-70 | T | 56S | 161.3 | 2.5 | 2.5 | 23.8 | 1470.0 |
| 110 | N | 53S | 168.1 | 3.8 | 3.8 | 72.0 | 3180.0 |
| 110-120 | P | 61E | 153.2 | 9 | 9 | 94.0 | 1594.0 |

■ Resistance measured @ 25°C.

▲ Standard AC coils rated at 50/60 Hz unless otherwise specified.



Rowan® Control — Definite Purpose Contactors & Relays

Coil Data

FE Power Relays

| Coil Voltage | Code Letter | Coil Catalog Number | Inrush VA | Sealed VA | Sealed Watts | DC Res ± 10% ■ |
|-------------------|-------------|---------------------|-----------|-----------|--------------|----------------|
| AC Coils▲ | | | | | | |
| 6 | Y | 58PB | 37 | 14.5 | 8.5 | .74 |
| 12 | Z | 64PB | 37 | 14.5 | 8.5 | 1.84 |
| 24 | E | 59PB | 37 | 14.5 | 8.5 | 7.95 |
| 48 | S | 67PB | 37 | 14.5 | 8.5 | 31.8 |
| 110 - 120 | A | 51PB | 37 | 14.5 | 8.5 | 186.0 |
| 208 - 240 | B | 52PB | 37 | 14.5 | 8.5 | 796.0 |
| 277 | G | 71PB | 37 | 14.5 | 8.5 | 1122.0 |
| 440 - 480 (60 Hz) | K | 63PB | 37 | 14.5 | 8.5 | 2912.0 |
| 380 - 460 (50 Hz) | K | 63PB | 37 | 14.5 | 8.5 | 2912.0 |
| 550 - 600 | D | 65PB | 37 | 14.5 | 8.5 | 4750.0 |
| DC Coils | | | | | | |
| 6 | W | 78RB | 5.3 | 5.3 | 5.3 | 6.8 |
| 12 - 14 | H | 59RB | 7.1 | 7.1 | 7.1 | 27.8 |
| 20 | F | 71RB | 6.9 | 6.9 | 6.9 | 58.0 |
| 24 | J | 50RB | 5.1 | 5.1 | 5.1 | 114.0 |
| 28 - 30 | Q | 53RB | 7.0 | 7.0 | 7.0 | 150.0 |
| 40 - 48 | L | 70RB | 8.2 | 8.2 | 8.2 | 280.0 |
| 60 | T | 63RB | 5.1 | 5.1 | 5.1 | 710.0 |
| 80 | M | 74RB | 6.4 | 6.4 | 6.4 | 1000.0 |
| 100 - 115 | N | 54RB | 7.4 | 7.4 | 7.4 | 1775.0 |
| 120 - 130 | P | 58RB | 5.9 | 5.9 | 5.9 | 2900.0 |
| 250 | R | 64RB | 6.0 | 6.0 | 6.0 | 10500.0 |

Renewal coils for types FEL, FEXL, FERL, FEXRL, add suffix L to coil Cat. No Ex: 58PBL. Coil Data as above.

■ Resistance measured @ 25°C.

▲ All standard AC coils rated 50/60 Hz unless otherwise specified.


FB Contactors

| Coil Voltage | Code Letter | Coil Catalog Number | Inrush VA | Sealed VA | Sealed Watts | DC Res ± 10% ■ |
|-----------------|-------------|---------------------|-----------|-----------|--------------|----------------|
| DC Coils | | | | | | |
| 10 - 12 | H | 82RB | 10.9 | 10.9 | 10.9 | 13.2 |
| 20 - 24 | J | 81RB | 11.5 | 11.5 | 11.5 | 50.0 |
| 28 - 30 | Q | 84RB | 12.3 | 12.3 | 12.3 | 75.0 |
| 48 | L | 86RB | 11.1 | 11.1 | 11.1 | 212.0 |
| 60 | T | 83RB | 8.3 | 8.3 | 8.3 | 438.0 |
| 115 - 125 | N | 87RB | 12.5 | 12.5 | 12.5 | 1242.0 |
| 250 | R | 88RB | 12.1 | 12.1 | 12.1 | 5183.0 |



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