

IEC Power Devices IEC Assembled Starters Selection Guide C-2000

Nonreversing Starters - AC

| | | | | | | | | | | | |
|--------------------------------|-------------|--------------|--------------------------|----------------|--------------------|--------------------|--------------------|-----------|----------|-----------|-----------|
| Using contactor with CL prefix | LAC | 02 | A | J | W | L | A | 1 | B | | |
| Using contactor with CK prefix | KAC | 09 | B | J | F | N | A | 1 | B | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Family Name | Starter Size | Contactor Family Version | Coil Selection | Overload Selection | Overload Amp Range | Auxiliary Contacts | Enclosure | Operator | Lights | CPT |

Reversing Starters - AC

| | | | | | | | | | | | |
|--------------------------------|-------------|--------------|--------------------------|----------------|--------------------|--------------------|--------------------|-----------|----------|-----------|-----------|
| Using contactor with CL prefix | LAR | 02 | A | J | W | L | A | 1 | E | | |
| Using contactor with CK prefix | KAR | 09 | B | J | F | N | A | 1 | E | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Family Name | Starter Size | Contactor Family Version | Coil Selection | Overload Selection | Overload Amp Range | Auxiliary Contacts | Enclosure | Operator | Lights | CPT |

Nonreversing Starters - Wye-delta

| | | | | | | | | | | | |
|--------------------------------|-------------|--------------|--------------------------|----------------|--------------------|--------------------|--------------------|-----------|----------|-----------|-----------|
| Using contactor with CL prefix | LAD | 02 | A | J | W | L | A | 1 | B | | |
| Using contactor with CK prefix | KAD | 09 | B | J | F | N | A | 1 | B | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Family Name | Starter Size | Contactor Family Version | Coil Selection | Overload Selection | Overload Amp Range | Auxiliary Contacts | Enclosure | Operator | Lights | CPT |

Reversing/Nonreversing Starters - DC controlled

| | | | | | | | | | | | |
|---|-------------|--------------|--------------------------|----------------|--------------------|--------------------|--------------------|-----------|----------|-----------|-----------|
| Reversing using contactor with CL prefix | LDR | 02 | A | J | W | L | A | 1 | B | | |
| Nonreversing using contactor with CL prefix | LDC | 09 | B | J | F | N | A | 1 | B | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Family Name | Starter Size | Contactor Family Version | Coil Selection | Overload Selection | Overload Amp Range | Auxiliary Contacts | Enclosure | Operator | Lights | CPT |

1 Family Name

| Digits | Description | Contactor Prefix |
|--------|---|------------------|
| LAC | Assembled nonreversing starters | CL |
| KAC | Assembled nonreversing starters | CK |
| LAR | Assembled reversing starters | CL |
| KAR | Assembled reversing starters | CK |
| LAD | Assembled wye-delta starters | CL |
| KAD | Assembled wye-delta starters | CK |
| LDC | Assembled nonreversing starters (DC controlled) | CL |
| LDR | Assembled reversing starters (DC controlled) | CL |

3 Contactor Family Version

| Digits | Description |
|--------|--------------------------|
| A | Contactor with CL prefix |
| B | Contactor with CK prefix |
| C | Contactor with CK prefix |

2 Starter Size

| Contactor No. | Max. Amps @460 V | Horsepower (60 Hz) | | | | | | KW 50 Hz 380-415 V | |
|---------------|------------------|--------------------|-------|-------------|-------|-------|-------|-----------------------|------|
| | | Single-Phase | | Three-Phase | | | | | |
| | | 115 V | 230 V | 200 V | 230 V | 460 V | 575 V | | |
| CL | 00 | 10 | 0.5 | 1.5 | 3 | 3 | 5 | 7.5 | 4 |
| | 01 | 13.8 | 0.75 | 2 | 3 | 3 | 7.5 | 10 | 5.5 |
| | 02 | 17.5 | 1 | 3 | 5 | 5 | 10 | 15 | 7.5 |
| | 25 | 22 | 1.5 | 3 | 5 | 7.5 | 15 | 15 | 11 |
| | 04 | 32 | 2 | 5 | 10 | 10 | 20 | 25 | 16 |
| | 45 | 34 | 3 | 5 | 10 | 10 | 25 | 25 | 18.5 |
| | 06 | 48 | 3 | 7.5 | 15 | 15 | 30 | 40 | 22 |
| | 07 | 62 | 5 | 10 | 20 | 20 | 40 | 50 | 30 |
| | 08 | 68 | 5 | 15 | 20 | 25 | 50 | 60 | 37 |
| | 09 | 80 | 7.5 | 15 | 25 | 30 | 60 | 75 | 45 |
| CK | 10 | 96 | 10 | 20 | 30 | 40 | 75 | 75 | 55 |
| | 75 | 140 | 10 | 25 | 40 | 50 | 100 | 125 | 75 |
| | 08 | 156 | 15 | 30 | 50 | 60 | 125 | 125 | 90 |
| | 09 | 192 | | | 60 | 75 | 150 | 150 | 132 |
| | 95 | 302 | | | 100 | 100 | 250 | 300 | 160 |
| | 10 | 398 | | | 125 | 150 | 300 | 400 | 220 |
| | 11 | 480 | | | 150 | 200 | 400 | 500 | 280 |
| | 12 | 602 | | | 200 | 250 | 500 | 600 | 375 |

4 Coil Selection

| Number or Digit | For Contactor with CL Prefix | | For Contactor with CK prefix |
|-----------------|------------------------------|-----------|------------------------------|
| | 60 Hz | 50 Hz | 60/50 Hz or DC |
| 1 | 24 V | 24 V | |
| D | | | 24-28 V |
| F | 48 V | 42 V | |
| J | 120 V | 110 V | 110-127 V |
| L | 208 V | | |
| N | 277 V | 220/230 V | 220-250 V |
| S | 240 V | | |
| U | 480 V | 380/400 V | 380-415 V |
| W | | 415 V | |
| Y | 600 V | 500 V | 440-500 V |

5 Overload Selection

| Overload Type/Class | |
|---------------------|----------|
| Manual/Automatic | |
| Digit | Class |
| W | Class 10 |
| F ¹ | Class 30 |

¹Class 30 overloads available with CK09-CK12 contactors only.



6 Overload Amp Range

| Digit | Amp Range | | | | |
|-------|-----------|-----------|----------|---------------------------|-----------------------|
| | Class 10 | Class 10 | Class 10 | Class 10 and Class 30 | Class 10 and Class 30 |
| | CL00-CL45 | CL05-CL10 | CK75-08 | CK09-95 | CK10-12 |
| A | | 11.5-15 | | | 120-190 |
| B | 0.16-0.26 | 14.5-19 | 55-80 | | 175-280 |
| C | 0.25-.41 | 18.5-25 | 63-90 | | 250-400 |
| D | 0.4-.65 | 24-32 | 90-120 | | 315-500 |
| E | | 30-43 | 110-140 | | 430-650 |
| F | .65-1.1 | | 140-190 | | |
| G | 1-1.5 | 42-55 | | | |
| H | 1.3-1.9 | 54-65 | | | |
| J | 1.8-2.7 | 64-82 | | | |
| K | 2.5-4.1 | | | | |
| L | 4-6.3 | 78-97 | | 60-90 (Class 30 only) | |
| M | 5.5-8.5 | 90-110 | | 80-125 (Class 30 only) | |
| N | 8-12 | | | 120-190 | |
| P | 10-16 | | | 175-280 | |
| R | | | | 200-310 | |
| S | 14.5-18 | | | | |
| T | 17.5-22 | | | | |
| U | 21-26 | | | | |
| V | 25-32 | | | | |
| W | 30-40 | | | | |

For wye-delta starters, overload current rating is determined by multiplying motor amps x .58.

7 Auxiliary Contacts

| Digits | Description |
|--------|-------------|
| A | None |
| B | 1NO-1NC |
| C | 2NO-0NC |

8 Enclosure

| Digits or Number | Description |
|------------------|----------------------|
| 1 | NEMA 1 w/Reset |
| 2 | NEMA 12/3R w/Reset |
| 4 | NEMA 4 w/Reset |
| 5 | NEMA 1, no Reset |
| 6 | NEMA 12/3R, no Reset |
| 8 | NEMA 4, no Reset |

9 Operator

| Digits | Description |
|--------|---|
| A | None |
| B | Start/Stop Push Button |
| C | H-O-A Selector Switch |
| D | On/Off Selector Switch |
| E | Forward/Off/Reverse Selector Switch |
| F | Forward/Reverse Selector Switch with Start/Stop Push Button |
| G | Forward/Stop/Reverse Push Buttons |

10 Lights

For Starters

| Digits | Description |
|--------|--------------------------|
| A | None |
| B | RIL X-Coil |
| C | RIL NO Aux. |
| D | RIL X-Coil, GIL NC Aux. |
| E | RIL NO Aux., GIL NC Aux. |
| F | GIL NC Aux. |
| G | GIL X-Coil |

For Reversers Only

| Digits | Description |
|--------|---|
| B | RIL/Forward, WIL/Rev. X-Coil |
| C | RIL/Forward, WIL/Rev. X NO |
| D | RIL/Forward, WIL/Rev. X-Coil, GIL NC Aux. (2 in series) |
| E | RIL/Forward, WIL/Rev. X-NO, GIL NC Aux. (2 in series) |
| F | GIL NC Aux. (2 in series) |

For Wye-Delta Only

| Digits | Description |
|--------|--------------------------------------|
| B | RIL X-Coil |
| D | RIL X-Coil, GIL NC Aux. |
| H | Red/Run, Y/Start X-Coil |
| J | Red/Run, Y/Start X-Coil, GIL NC Aux. |

Note: RIL = Red Indicating Light
 GIL = Green Indicating Light
 WIL = White Indicating Light
 Y = Yellow
 X-Coil = Across Coil

11 CPT

| Digits | Description |
|--------|--|
| B | Control Circuit Fusing |
| C | Wired For Separate Control |
| D | Separate Control and CCF |
| F | Standard CPT, 110-120 V Sec (One Sec Fuse, Two Primary Fuses) |
| H | CPT + ExtraVA, 110-120 V Sec (One Sec Fuse, Two Primary Fuses) |

