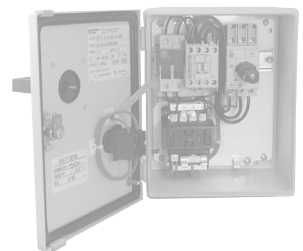


**Enclosed Non-Reversing Combination Controller, AC Operation - Type 4 / 12**

| Amp / Horsepower Rating                        |       |       |      |                        | Painted Steel, Type 4 / 12 Enclosure |         |                           | Dimension Code |
|--|-------|-------|------|------------------------|--------------------------------------|---------|---------------------------|----------------|
| Max. Horsepower ①②③                            |       |       |      | O/L Relay Ampere Range | Magnetic Response Current            | Index ④ | Catalog Number ⑤⑦         |                |
| Three Phase                                    |       |       |      |                        |                                      |         |                           |                |
| 200V   | 230V  | 460V  | 575V |                        |                                      |         |                           |                |
| <b>KTA7-25S Standard Interrupting Capacity</b> |       |       |      |                        |                                      |         |                           |                |
| ~  | ~     | ~     | ~    | 0.10...0.16            | 2.1                                  | 1       | CX7-9-10-*-AS0.16A-A10-WG | W6             |
| ~  | ~     | ~     | ~    | 0.16...0.25            | 3.3                                  | 2       | CX7-9-10-*-AS0.25A-A10-WG | W6             |
| ~  | ~     | ~     | ~    | 0.25...0.40            | 5.2                                  | 3       | CX7-9-10-*-AS0.4A-A10-WG  | W6             |
| ~  | ~     | ~     | ~    | 0.40...0.63            | 8.2                                  | 4       | CX7-9-10-*-AS0.63A-A10-WG | W6             |
| ~  | ~     | 1/2   | 3/4  | 0.63...1.0             | 13                                   | 5       | CX7-9-10-*-AS1A-A10-WG    | W6             |
| ~  | ~     | 1     | 1    | 1.0...1.6              | 21                                   | 6       | CX7-9-10-*-AS1.6A-A10-WG  | W6             |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5              | 33                                   | 7       | CX7-9-10-*-AS2.5A-A10-WG  | W6             |
| 1  | 1     | 3     | 3    | 2.5...4                | 52                                   | 8       | CX7-9-10-*-AS4A-A10-WG    | W6             |
| 1-1/2  | 2     | 5     | ~    | 4...6.3                | 82                                   | 9       | CX7-9-10-*-AS6.3A-A10-WG  | W6             |
| 3  | 3     | 7-1/2 | ~    | 6.3...10               | 130                                  | 10      | CX7-12-10-*-AS10A-A10-WG  | W6             |
| 5  | 5     | 10    | ~    | 10...16                | 208                                  | 11      | CX7-16-10-*-AS16A-A10-WG  | W6             |
| 5  | 7-1/2 | 15    | ~    | 16...20                | 260                                  | 15      | CX7-23-10-*-AS20A-A10-WG  | W6             |
| <b>KTA7-25H High Interrupting Capacity</b>     |       |       |      |                        |                                      |         |                           |                |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5              | 33                                   | 17      | CX7-9-10-*-AH2.5A-A10-WG  | W6             |
| 1  | 1     | 3     | 3    | 2.5...4                | 52                                   | 18      | CX7-9-10-*-AH4A-A10-WG    | W6             |
| 1-1/2  | 2     | 5     | 5    | 4...6.3                | 82                                   | 22      | CX7-9-10-*-AH6.3A-A10-WG  | W6             |
| 3  | 3     | 7-1/2 | 10   | 6.3...10               | 130                                  | 24      | CX7-12-10-*-AH10A-A10-WG  | W6             |
| 5  | 5     | 10    | 15   | 10...16                | 208                                  | 28      | CX7-16-10-*-AH16A-A10-WG  | W6             |
| 5  | 7-1/2 | 15    | ~    | 14.5...20              | 260                                  | 31      | CX7-23-10-*-AH20A-A10-WG  | W6             |
| 5  | 7-1/2 | 15    | ~    | 18...25                | 325                                  | 33      | CX7-23-10-*-AH25A-A10-WG  | W6             |
| <b>KTA7-45H High Interrupting Capacity</b>     |       |       |      |                        |                                      |         |                           |                |
| 3  | 3     | 7-1/2 | 10   | 6.3...10               | 130                                  | 36      | CX7-30-10-*-AH10A-A10-WG  | W7             |
| 5  | 5     | 10    | 15   | 10...16                | 208                                  | 37      | CX7-30-10-*-AH16A-A10-WG  | W7             |
| 5  | 7-1/2 | 15    | 20   | 14.5...20              | 260                                  | 38      | CX7-30-10-*-AH20A-A10-WG  | W7             |
| 7-1/2  | 10    | 20    | 20   | 18...25                | 325                                  | 39      | CX7-30-10-*-AH25A-A10-WG  | W7             |
| 7-1/2  | 10    | 20    | 25   | 23...32                | 416                                  | 41      | CX7-30-10-*-AH32A-A10-WG  | W7             |
| 10   | 10    | 25    | ~    | 32...45                | 585                                  | 45      | CX7-37-10-*-AH45A-A10-WG  | W7             |
| 10   | 15    | 30    | ~    | 32...45                | 585                                  | 46      | CX7-43-10-*-AH45A-A10-WG  | W7             |

Painted Steel, Type 4 / 12 Enclosure



**Includes:**

- Type 4 / 12 enclosure - watertight, dustight
- KTA7 "Type E/F" Self-protected Combination Motor Controller with 1 NO front mount Auxiliary Contact (Cat #: KT7-PE1-10)
- Terminal Adaptor for Type E Applications (Cat.# KT7-25-TE1 or KT7-45-TE)
- CA7 contactor (for remote operation), AC coil
- Power wiring
- Gray and black Type 4/4X/12; IP66 handle (Cat.# KT7-HTN) ④
- Pilot device shown is factory installed option

See page F109 for factory installed modifications

Section Obsolete  
See pages F1.56 - F1.88

**Contactor AC Coil Codes (\*) ⑤**

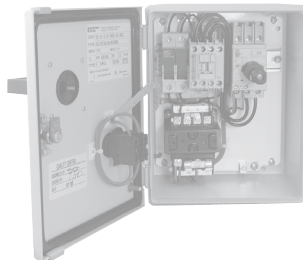
| AC Coil Code | Voltage Range |          |
|--------------|---------------|----------|
|              | 50 Hz         | 60 Hz    |
| 24Z          | 24V           | 24V      |
| 120          | 110V          | 120V     |
| 220W         | 200-220V      | 208-240V |
| 277          | 240V          | 277V     |
| 415 ⑦        | 400-415V      | ~        |
| 480 ⑦        | 440V          | 480V     |
| 600 ⑦        | 550V          | 600V     |

- ① Horsepower ratings shown in the table above are for reference. The final selection of the controller depends on the actual motor full load current and service factor.
  - For motor with service factor less than 1.15. Use motor nameplate full load current times 0.9 and choose the motor starter with the appropriate current range. Example: Motor FLC = 4.2A; S.F. = 1.0. 4.2A x 0.9 = 3.78A. Select catalog number KTA7-25S-4A.
- ② Magnetic trip is fixed at 13x the maximum value of the current adjustment range.
- ③ CX7 may be applied to single phase loads. See footnote 1 for device selection criteria. To order single phase unit, change "CX7" in catalog number to "CBX7". Three pole series connection will be provided. Ex: Change CX7-9-10-\*-0.16A-A10-WG to CBX7-9-10-\*-0.16A-A10-WJ.

- ④ A red and yellow handle may be selected instead of the standard gray and black handle. Change "WG" suffix to "WJ". Ex: Change CX7-9-10-\*-0.16A-A10-WG to CX7-9-10-\*-0.16A-A10-WJ.
- ⑤ Other voltages available, see Section A in this catalog.
- ⑥ KAIC Assembly Rating Index. See pages F73-F76 for Application Rating Guide.
- ⑦ Catalog number (-A10) includes front-mounted auxiliary KT7-PE1-10 with 300 VAC maximum control circuit matching line voltage, or provided from separate source, used to de-energize contactor coil under fault condition (auxiliary not available for customer use). For control circuits greater than 300 VAC, which is common with line voltage, the auxiliary will not be wired into the control circuit since the contactor coil will be de-energized when KTA7 is tripped due to overload or short circuit; therefore, the KT7-PE1-10 auxiliary is available for customer use.

**Enclosed Non-Reversing Combination Controller, Electronic DC Coil - Type 4 / 12**

| Amp / Horsepower Rating                        |       |       |      |             | Painted Steel, Type 4 / 12 Enclosure |                             |                            |                  |                |
|--|-------|-------|------|-------------|--------------------------------------|-----------------------------|----------------------------|------------------|----------------|
| Max. Horsepower ①②③                            |       |       |      |             | O/L Relay Ampere Range               | Mag-netic Re-sponse Current | Index ⑦                    | Catalog Number ④ | Dimension Code |
| Three Phase                                    |       |       |      |             |                                      |                             |                            |                  |                |
| 200V   | 230V  | 460V  | 575V |             |                                      |                             |                            |                  |                |
| <b>KTA7-25S Standard Interrupting Capacity</b> |       |       |      |             |                                      |                             |                            |                  |                |
| ~  | ~     | ~     | ~    | 0.10...0.16 | 2.1                                  | 1                           | CX7-9E-10-*-AS0.16A-A10-WG | W6               |                |
| ~  | ~     | ~     | ~    | 0.16...0.25 | 3.3                                  | 2                           | CX7-9E-10-*-AS0.25A-A10-WG | W6               |                |
| ~  | ~     | ~     | ~    | 0.25...0.40 | 5.2                                  | 3                           | CX7-9E-10-*-AS0.4A-A10-WG  | W6               |                |
| ~  | ~     | ~     | ~    | 0.40...0.63 | 8.2                                  | 4                           | CX7-9E-10-*-AS0.63A-A10-WG | W6               |                |
| ~  | ~     | 1/2   | 3/4  | 0.63...1.0  | 13                                   | 5                           | CX7-9E-10-*-AS1A-A10-WG    | W6               |                |
| ~  | ~     | 1     | 1    | 1.0...1.6   | 21                                   | 6                           | CX7-9E-10-*-AS1.6A-A10-WG  | W6               |                |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5   | 33                                   | 7                           | CX7-9E-10-*-AS2.5A-A10-WG  | W6               |                |
| 1  | 1     | 3     | 3    | 2.5...4     | 52                                   | 8                           | CX7-9E-10-*-AS4A-A10-WG    | W6               |                |
| 1-1/2  | 2     | 5     | ~    | 4...6.3     | 82                                   | 9                           | CX7-9E-10-*-AS6.3A-A10-WG  | W6               |                |
| 3  | 3     | 7-1/2 | ~    | 6.3...10    | 130                                  | 11                          | CX7-12E-10-*-AS10A-A10-WG  | W6               |                |
| 5  | 5     | 10    | ~    | 10...16     | 208                                  | 12                          | CX7-16E-10-*-AS16A-A10-WG  | W6               |                |
| 5  | 7-1/2 | 15    | ~    | 14.5...20   | 260                                  | 15                          | CX7-23E-10-*-AS20A-A10-WG  | W6               |                |
| <b>KTA7-25H High Interrupting Capacity</b>     |       |       |      |             |                                      |                             |                            |                  |                |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5   | 33                                   | 17                          | CX7-9E-10-*-AH2.5A-A10-WG  | W6               |                |
| 1  | 1     | 3     | 3    | 2.5...4     | 52                                   | 19                          | CX7-9E-10-*-AH4A-A10-WG    | W6               |                |
| 1-1/2  | 2     | 5     | 5    | 4...6.3     | 82                                   | 22                          | CX7-9E-10-*-AH6.3A-A10-WG  | W6               |                |
| 3  | 3     | 7-1/2 | 10   | 6.3...10    | 130                                  | 24                          | CX7-12E-10-*-AH10A-A10-WG  | W6               |                |
| 5  | 5     | 10    | 15   | 10...16     | 208                                  | 28                          | CX7-16E-10-*-AH16A-A10-WG  | W6               |                |
| 5  | 7-1/2 | 15    | ~    | 14.5...20   | 260                                  | 33                          | CX7-23E-10-*-AH20A-A10-WG  | W6               |                |
| 5  | 7-1/2 | 15    | ~    | 18...25     | 325                                  | 35                          | CX7-30E-10-*-AH25A-A10-WG  | W6               |                |
| <b>KTA7-45H High Interrupting Capacity</b>     |       |       |      |             |                                      |                             |                            |                  |                |
| 3  | 3     | 7-1/2 | 10   | 6.3...10    | 130                                  | 36                          | CX7-30E-10-*-AH10A-A10-WG  | W7               |                |
| 5  | 5     | 10    | 15   | 10...16     | 208                                  | 37                          | CX7-30E-10-*-AH16A-A10-WG  | W7               |                |
| 5  | 7-1/2 | 15    | 20   | 14.5...20   | 260                                  | 38                          | CX7-30E-10-*-AH20A-A10-WG  | W7               |                |
| 7-1/2  | 10    | 20    | 20   | 18...25     | 325                                  | 39                          | CX7-30E-10-*-AH25A-A10-WG  | W7               |                |
| 7-1/2  | 10    | 20    | 25   | 23...32     | 416                                  | 41                          | CX7-37E-10-*-AH32A-A10-WG  | W7               |                |
| 10   | 10    | 25    | ~    | 32...45     | 585                                  | 45                          | CX7-37E-10-*-AH45A-A10-WG  | W7               |                |
| 10   | 15    | 30    | ~    | 32...45     | 585                                  | 46                          | CX7-43E-10-*-AH45A-A10-WG  | W7               |                |



**Includes:**

- Type 4 / 12 enclosure - watertight, dusttight
- KT7 "Type E/F" Combination Motor Controller with 1 NO front mount Auxiliary Contact (Cat #: KT7-PE1-10)
- Terminal Adaptor for Type E Applications (Cat.# KT7-25-TE1 or KT7-45-TE)
- CA7 contactor (for remote operation), Electronic DC coil
- Power wiring
- Gray and black Type 4/4X/12; IP66 handle (Cat.# KT7-HTN) ④
- Pilot device shown is factory installed option

See page F109 for factory installed modifications

Section Obsolete  
See pages F1.56 - F1.88

**Contactors Electronic DC Coil Codes (\*) ⑤**

| DC Coil Codes | Voltage  |
|---------------|----------|
| 12E           | 12V      |
| 24E           | 24V      |
| 36E           | 36-48V   |
| 48E           | 48-72V   |
| 110E          | 110-125V |
| 220E          | 220-250V |

① Horsepower ratings shown in the table above are for reference. *The final selection of the controller depends on the actual motor full load current and service factor.*

- For motor with service factor less than 1.15. Use motor nameplate full load current times 0.9 and choose the motor starter with the appropriate current range. Example: Motor FLC = 4.2A; S.F. = 1.0. 4.2A x 0.9 = 3.78A. Select catalog number KTA7-25S-4A.

② Magnetic trip is fixed at 13x the maximum value of the current adjustment range.

③ CX7 may be applied to single phase loads. Contact factory for these specifications.

④ A red and yellow handle may be selected instead of the standard gray and black handle. Change "WG" suffix to "WJ". Ex: Change CX7-9E-10-\*-0.16A-A10-WG to CX7-9E-10-\*-0.16A-A10-WJ.

⑤ CX7-9E...43E with electronic coils are not interchangeable with non-electronic DC or AC coils.

⑦ KAIC Assembly Rating Index. See pages F73-F76 for Application Rating Guide.

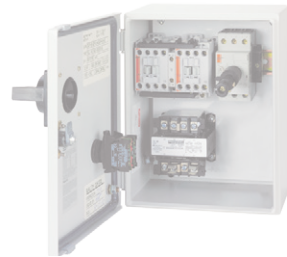
**Ordering Instructions**

|                                  |   |
|----------------------------------|---|
| Specify Catalog Number           |   |
| Replace (*) with Coil Code       | See Coil Code tables on this page for codes |
| Select modifications if required |   |

Enclosed Motor Circuit Controllers

Enclosed Reversing Combination Controller, AC Operation - Type 4 / 12

| Amp / Horsepower Rating                        |       |       |      |                        | Painted Steel, Type 4 / 12 Enclosure |         |                            |                |  |
|--|-------|-------|------|------------------------|--------------------------------------|---------|----------------------------|----------------|--|
| Max. Horsepower ①②③                            |       |       |      | O/L Relay Ampere Range | Magnetic Response Current            | Index ④ | Catalog Number ⑤⑦          | Dimension Code |  |
| Three Phase                                    |       |       |      |                        |                                      |         |                            |                |  |
| 200V   | 230V  | 460V  | 575V |                        |                                      |         |                            |                |  |
| <b>KTA7-25S Standard Interrupting Capacity</b> |       |       |      |                        |                                      |         |                            |                |  |
| ~  | ~     | ~     | ~    | 0.10...0.16            | 2.1                                  | 1       | CXU7-9-22-*-AS0.16A-A10-WG | W6             |  |
| ~  | ~     | ~     | ~    | 0.16...0.25            | 3.3                                  | 2       | CXU7-9-22-*-AS0.25A-A10-WG | W6             |  |
| ~  | ~     | ~     | ~    | 0.25...0.40            | 5.2                                  | 3       | CXU7-9-22-*-AS0.4A-A10-WG  | W6             |  |
| ~  | ~     | ~     | ~    | 0.40...0.63            | 8.2                                  | 4       | CXU7-9-22-*-AS0.63A-A10-WG | W6             |  |
| ~  | ~     | 1/2   | 3/4  | 0.63...1.0             | 13                                   | 5       | CXU7-9-22-*-AS1A-A10-WG    | W6             |  |
| ~  | ~     | 1     | 1    | 1.0...1.6              | 21                                   | 6       | CXU7-9-22-*-AS1.6A-A10-WG  | W6             |  |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5              | 33                                   | 7       | CXU7-9-22-*-AS2.5A-A10-WG  | W6             |  |
| 1  | 1     | 3     | 3    | 2.5...4                | 52                                   | 8       | CXU7-9-22-*-AS4A-A10-WG    | W6             |  |
| 1-1/2  | 2     | 5     | ~    | 4...6.3                | 82                                   | 9       | CXU7-9-22-*-AS6.3A-A10-WG  | W6             |  |
| 3  | 3     | 7-1/2 | ~    | 6.3...10               | 130                                  | 10      | CXU7-12-22-*-AS10A-A10-WG  | W6             |  |
| 5  | 5     | 10    | ~    | 10...16                | 208                                  | 11      | CXU7-16-22-*-AS16A-A10-WG  | W6             |  |
| 5  | 7-1/2 | 15    | ~    | 16...25                | 260                                  | 15      | CXU7-23-22-*-AS20A-A10-WG  | W6             |  |
| <b>KTA7-25H High Interrupting Capacity</b>     |       |       |      |                        |                                      |         |                            |                |  |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5              | 33                                   | 17      | CXU7-9-22-*-AH2.5A-A10-WG  | W6             |  |
| 1  | 1     | 3     | 3    | 2.5...4                | 52                                   | 18      | CXU7-9-22-*-AH4A-A10-WG    | W6             |  |
| 1/1/2  | 2     | 5     | 5    | 4...6.3                | 82                                   | 19      | CXU7-9-22-*-AH6.3A-A10-WG  | W6             |  |
| 3  | 3     | 7-1/2 | 10   | 6.3...10               | 130                                  | 24      | CXU7-12-22-*-AH10A-A10-WG  | W6             |  |
| 5  | 5     | 10    | ~    | 10...16                | 208                                  | 28      | CXU7-16-22-*-AH16A-A10-WG  | W6             |  |
| 5  | 7-1/2 | 15    | ~    | 16...25                | 260                                  | 31      | CXU7-23-22-*-AH20A-A10-WG  | W6             |  |
| 5  | 7-1/2 | 15    | ~    | 18...25                | 325                                  | 33      | CXU7-23-22-*-AH25A-A10-WG  | W6             |  |
| <b>KTA7-45H High Interrupting Capacity</b>     |       |       |      |                        |                                      |         |                            |                |  |
| 3  | 3     | 7-1/2 | 10   | 6.3...10               | 130                                  | 36      | CXU7-30-22-*-AH10A-A10-WG  | W7             |  |
| 5  | 5     | 10    | 15   | 10...16                | 208                                  | 37      | CXU7-30-22-*-AH16A-A10-WG  | W7             |  |
| 5  | 7-1/2 | 15    | 20   | 14.5...20              | 260                                  | 38      | CXU7-30-22-*-AH20A-A10-WG  | W7             |  |
| 7-1/2  | 10    | 20    | 20   | 18...25                | 325                                  | 39      | CXU7-30-22-*-AH25A-A10-WG  | W7             |  |
| 7-1/2  | 10    | 20    | 25   | 23...32                | 416                                  | 41      | CXU7-37-22-*-AH32A-A10-WG  | W7             |  |
| 10   | 10    | 25    | ~    | 32...45                | 585                                  | 45      | CXU7-37-22-*-AH45A-A10-WG  | W7             |  |
| 10   | 15    | 30    | ~    | 32...45                | 585                                  | 46      | CXU7-43-22-*-AH45A-A10-WG  | W7             |  |



**Includes:**

- Type 4 / 12 enclosure - watertight, dustight
- KT7 "Type E/F" Combination Motor Controller with 1 NO front mount Auxiliary Contact (Cat #: KT7-PE1-10)
- Terminal Adaptor for Type E Applications (Cat.# KT7-25-TE1 or KT7-45-TE)
- CA7 contactors (for remote operation), AC coil
- Power wiring
- Gray and black Type 4/4X/12; IP66 handle (Cat.# KT7-HTN) ④
- Control power transformer, pilot device, terminals and other equipment shown are factory installed options

See page F109 for factory installed modifications

Section Obsolete  
See pages F1.56 - F1.88

**Contactor AC Coil Codes (\*) ⑤**

| AC Coil Code | Voltage Range |          |
|--------------|---------------|----------|
|              | 50 Hz         | 60 Hz    |
| 24Z          | 24V           | 24V      |
| 120          | 110V          | 120V     |
| 220W         | 200-220V      | 208-240V |
| 277          | 240V          | 277V     |
| 415 ⑦        | 400-415V      | ~        |
| 480 ⑦        | 440V          | 480V     |
| 600 ⑦        | 550V          | 600V     |

① Horsepower ratings shown in the table above are for reference. The final selection of the controller depends on the actual motor full load current and service factor.

- For motor with service factor less than 1.15. Use motor nameplate full load current times 0.9 and choose the motor starter with the appropriate current range. Example: Motor FLC = 4.2A; S.F. = 1.0. 4.2A x 0.9 = 3.78A. Select catalog number KTA7-25S-4A.

② Magnetic trip is fixed at 13x the maximum value of the current adjustment range.

③ CXU7 may be applied to single phase loads. Contact factory for these applications.

④ A red and yellow handle may be selected instead of the standard gray and black handle. Change "WG" suffix to "WJ". Ex: Change CXU7-9-10-\*-0.16A-A10-WG

to CXU7-9-10-\*-0.16A-A10-WJ.

⑤ Other voltages available, see Section A in this catalog.

⑥ KAIC Assembly Rating Index. See pages F73-F76 for Application Rating Guide.

⑦ Catalog number (-A10) includes front-mounted auxiliary KT7-PE1-10 with 300 VAC maximum control circuit matching line voltage, or provided from separate source, used to de-energize contactor coil under fault condition (auxiliary not available for customer use). For control circuits greater than 300 VAC, which is common with line voltage, the auxiliary will not be wired into the control circuit since the contactor coil will be de-energized when KTA7 is tripped due to overload or short circuit; therefore, the KT7-PE1-10 auxiliary is available for customer use.

Enclosed Reversing Combination Controller, Electronic DC Coil - Type 4 / 12

| Amp / Horsepower Rating                        |       |       |      |                        | Painted Steel, Type 4 / 12 Enclosure |         |                            | Dimension Code |
|--|-------|-------|------|------------------------|--------------------------------------|---------|----------------------------|----------------|
| Max. Horsepower ①②③                            |       |       |      | O/L Relay Ampere Range | Magnetic Response Current            | Index ④ | Catalog Number ④           |                |
| Three Phase                                    |       |       |      |                        |                                      |         |                            |                |
| 200V   | 230V  | 460V  | 575V |                        |                                      |         |                            |                |
| <b>KTA7-25S Standard Interrupting Capacity</b> |       |       |      |                        |                                      |         |                            |                |
| ~  | ~     | ~     | ~    | 0.10...0.16            | 2.1                                  | 1       | CXU7-9E-22-*AS0.16A-A10-WG | W6             |
| ~  | ~     | ~     | ~    | 0.16...0.25            | 3.3                                  | 2       | CXU7-9E-22-*AS0.25A-A10-WG | W6             |
| ~  | ~     | ~     | ~    | 0.25...0.40            | 5.2                                  | 3       | CXU7-9E-22-*AS0.4A-A10-WG  | W6             |
| ~  | ~     | ~     | ~    | 0.40...0.63            | 8.2                                  | 4       | CXU7-9E-22-*AS0.63A-A10-WG | W6             |
| ~  | ~     | 1/2   | 3/4  | 0.63...1.0             | 13                                   | 5       | CXU7-9E-22-*AS1A-A10-WG    | W6             |
| ~  | ~     | 1     | 1    | 1.0...1.6              | 21                                   | 6       | CXU7-9E-22-*AS1.6A-A10-WG  | W6             |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5              | 33                                   | 7       | CXU7-9E-22-*AS2.5A-A10-WG  | W6             |
| 1  | 1     | 3     | 3    | 2.5...4                | 52                                   | 8       | CXU7-9E-22-*AS4A-A10-WG    | W6             |
| 1-1/2  | 2     | 5     | ~    | 4...6.3                | 82                                   | 9       | CXU7-9E-22-*AS6.3A-A10-WG  | W6             |
| 3  | 3     | 7-1/2 | ~    | 6.3...10               | 130                                  | 11      | CXU7-12E-22-*AS10A-A10-WG  | W6             |
| 5  | 5     | 10    | ~    | 10...16                | 208                                  | 13      | CXU7-16E-22-*AS16A-A10-WG  | W6             |
| 5  | 7-1/2 | 15    | ~    | 14.5...20              | 260                                  | 15      | CXU7-23E-22-*AS20A-A10-WG  | W6             |
| <b>KTA7-25H High Interrupting Capacity</b>     |       |       |      |                        |                                      |         |                            |                |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5              | 33                                   | 17      | CXU7-9E-22-*AH2.5A-A10-WG  | W6             |
| 1  | 1     | 3     | 3    | 2.5...4                | 52                                   | 19      | CXU7-9E-22-*AH4A-A10-WG    | W6             |
| 1-1/2  | 2     | 5     | 5    | 4...6.3                | 82                                   | 22      | CXU7-12E-22-*AH6.3A-A10-WG | W6             |
| 3  | 3     | 7-1/2 | 10   | 6.3...10               | 130                                  | 25      | CXU7-16E-22-*AH10A-A10-WG  | W6             |
| 5  | 5     | 10    | 15   | 10...16                | 208                                  | 28      | CXU7-16E-22-*AH16A-A10-WG  | W6             |
| 5  | 7-1/2 | 15    | ~    | 14.5...20              | 260                                  | 31      | CXU7-23E-22-*AH20A-A10-WG  | W6             |
| 5  | 7-1/2 | 15    | ~    | 18...25                | 325                                  | 33      | CXU7-23E-22-*AH25A-A10-WG  | W6             |
| <b>KTA7-45H High Interrupting Capacity</b>     |       |       |      |                        |                                      |         |                            |                |
| 3  | 3     | 7-1/2 | 10   | 6.3...10               | 130                                  | 36      | CXU7-30E-22-*AH10A-A10-WG  | W7             |
| 5  | 5     | 10    | 15   | 10...16                | 208                                  | 37      | CXU7-30E-22-*AH16A-A10-WG  | W7             |
| 5  | 7-1/2 | 15    | 20   | 14.5...20              | 260                                  | 38      | CXU7-30E-22-*AH20A-A10-WG  | W7             |
| 7-1/2  | 10    | 20    | 20   | 18...25                | 325                                  | 39      | CXU7-30E-22-*AH25A-A10-WG  | W7             |
| 7-1/2  | 10    | 20    | 25   | 23...32                | 416                                  | 41      | CXU7-37E-22-*AH32A-A10-WG  | W7             |
| 10   | 10    | 25    | ~    | 32...45                | 585                                  | 45      | CXU7-37E-22-*AH45A-A10-WG  | W7             |
| 10   | 15    | 30    | ~    | 32...45                | 585                                  | 46      | CXU7-43E-22-*AH45A-A10-WG  | W7             |



**Includes:**

- Type 4 / 12 enclosure - watertight, dusttight
- KT7 "Type E/F" Combination Motor Controller with 1 NO front mount Auxiliary Contact (Cat #: KT7-PE1-10)
- Terminal Adaptor for Type E Applications (Cat.# KT7-25-TE or KT7-45-TE)
- CA7 contactors (for remote operation), Electronic DC coil
- Power wiring
- Gray and black Type 4/4X/12; IP66 handle (Cat.# KT7-HTN) ④
- Control power transformer, pilot device, terminals and other equipment shown are factory installed options

See page F109 for factory installed modifications

Section Obsolete  
See pages F1.56 - F1.88

**Contactors Electronic DC Coil Codes (\*) ⑤**

| DC Coil Codes | Voltage  |
|---------------|----------|
| 12E           | 12V      |
| 24E           | 24V      |
| 36E           | 36-48V   |
| 48E           | 48-72V   |
| 110E          | 110-125V |
| 220E          | 220-250V |

- ① Horsepower ratings shown in the table above are for reference. The final selection of the controller depends on the actual motor full load current and service factor.
  - For motor with service factor less than 1.15. Use motor nameplate full load current times 0.9 and choose the motor starter with the appropriate current range. Example: Motor FLC = 4.2A; S.F. = 1.0. 4.2A x 0.9 = 3.78A. Select catalog number KTA7-25S-4A.
- ② Magnetic trip is fixed at 13x the maximum value of the current adjustment range.
- ③ CXU7 may be applied to single phase loads. Contact factory for these applications.
- ④ A red and yellow handle may be selected instead of the standard gray and black handle. Change "WG" suffix to "WJ". Ex: Change CXU7-9E-10-\*0.16A-A10-WG to CXU7-9E-10-\*0.16A-A10-WJ.
- ⑤ CXU7-9E...43E with electronic coils are not interchangeable with non-electronic DC or AC coils.
- ⑥ KAIC Assembly Rating Index. See pages F73-F76 for Application Rating Guide.

**Ordering Instructions**

|                                  |   |
|----------------------------------|---|
| Specify Catalog Number           |   |
| Replace (□) with Coil Code       | See Coil Code tables on this page for codes |
| Select modifications if required |   |

Enclosed Motor Circuit Controllers

**Non-Reversing and Reversing CX7 Combination Controller Modifications (Factory Assembled)**

| Description   | Add Suffix to Catalog Number                              |
|---|---|
| <b>Pilot Devices ①</b>                                |   |
| START-STOP multi-function pushbutton                  | 3U  |
| ON-OFF multi-function pushbutton                      | 4U  |
| FOR-STOP-REV multi-function pushbutton                | 3U  |
| UP-STOP-DOWN multi-function pushbutton                | 4U  |
| OPEN-STOP-CLOSE multi-function pushbutton             | 5U  |
| HAND-AUTO selector switch                             | 5   |
| OFF-ON selector switch                                | 6   |
| HAND-OFF-AUTO selector switch                         | 7   |
| FOR-OFF-REV selector switch                           | 6   |
| UP-OFF-DOWN selector switch                           | 7   |
| OPEN-OFF-CLOSE selector switch                        | 8   |
| Pilot light only ③                                    | 1   |
| Pilot lights only (2) ③                               | 2   |
| Pilot light w/ START-STOP multi-function pushbutton ③ | 13U   |
| Pilot light w/ ON-OFF multi-function pushbutton ③     | 14U   |
| Pilot light w/ HAND-AUTO selector switch ③            | 15  |
| Pilot light w/ OFF-ON selector switch ③               | 16  |
| Pilot light w/ HAND-OFF-AUTO selector switch ③        | 17  |
| <b>Control Power Transformer</b>                      |   |
| (with fused primary and secondary)                    | Replace (*) with the catalog # with the blue wire codes ② |
| Primary volts   | Secondary volts   |
| 208   | 120   |
| 240   | 24  |
| 480   | 120   |
| 575   | 120   |
| 380   | 110   |
| 240   | 24  |
| 480   | 24  |
| 600   | 24  |
| 50 watt Standard Capacity                             |   |
|   | XB  |
|   | XC  |
|   | XD  |
|   | XE  |
|   | XF  |
|   | XJ  |
| <b>KT7 Auxiliaries &amp; Trip Contacts ⑤</b>          |   |
|   | Change "-A10-" to ...                                     |
| <b>Front mount 300V maximum</b>                       |   |
| 1 NO + 1 NC Auxiliary                                 | -A11  |
| 2 NO Auxiliaries                                      | -A20  |
| 1 NO SC+OL + 1 NC Auxiliary                           | -T10A01   |
| 1 NO SC+OL + 1 NO Auxiliary                           | -T10A10   |
| <b>Side Mount 600V maximum</b>                        |   |
| 2 NC Auxiliaries                                      | -AS02   |
| 2 NO Auxiliaries                                      | -AS20   |
| 1 NO + 1 NC Auxiliary                                 | -AS11   |
| 1 NC SC+OL + 1 NO Auxiliary                           | -R10  |
| 1 NC SC+OL + 1 NC Auxiliary                           | -R11  |

| Description   | Add Suffix to Catalog Number         |
|---|--------------------------------------|
| <b>Additional KT7 Trip Contacts - Side Mount (600V max)</b> |                                      |
| 1 NO SC+OL + 1 NO SC  | -R00                                 |
| 1 NO SC+OL + 1 NC SC  | -R01                                 |
| 1 NC SC+OL + 1 NO SC  | -R10                                 |
| <b>KT7 Accessories</b>                                      |                                      |
| Undervoltage Release Module                                 | Select coil voltage from table below |
| Shunt Release Module  | -UA-*<br>-AA-*                       |
| <b>CA7 Auxiliary Contacts ⑥</b>                             |                                      |
| 1 NO Auxiliary  | -S10                                 |
| 1 NC Auxiliary  | -S01                                 |
| 1 NO + 1 NC Auxiliary                                       | -S11                                 |
| 2 NO Auxiliaries  | -S20                                 |
| 2 NC Auxiliaries  | -S02                                 |
| 1 NO + 2 NC Auxiliary                                       | -S12                                 |
| 2 NO + 1 NC Auxiliary                                       | -S21                                 |
| 3 NO Auxiliaries  | -S30                                 |
| 3 NC Auxiliaries  | -S03                                 |
| 1 NO + 3 NC Auxiliary                                       | -S13                                 |
| 3 NO + 1 NC Auxiliary                                       | -S31                                 |
| 2 NO + 1 NC Auxiliary                                       | -S22                                 |
| 4 NO Auxiliaries  | -S40                                 |
| 4 NC Auxiliaries  | -S04                                 |
| <b>Alternate Aux. Contact Arrangements (7-10)</b>           |                                      |
| 1 NC in lieu of standard 1 NO                               | -SX10                                |
| 2 NC in lieu of standard 2 NO (on CXU7 only)                | -SX2                                 |
| <b>CA7 Contactor Accessories</b>                            |                                      |
| Encoder Interface   | -JE ④                                |
| Surge Suppressor RC   | -R                                   |
| Surge Suppressor Varistor                                   | -V                                   |
| <b>Unwired Terminal Blocks</b> Specify quantity (▼)         | -▼TB                                 |

Section Obsolete  
See pages F1.56 - F1.88

**-UA..-AA Coil Codes (\*)**

| AC Coil Code | Voltage Range |            |
|--------------|---------------|------------|
|              | 50 Hz         | 60 Hz      |
| 24V          | 21V           | 24V        |
| 28V          | 24V           | 28V        |
| 120V         | 105V          | 120V       |
| 127V         | 110V          | 127V       |
| 230V         | 220...230V    | ~          |
| 240V         | ~             | 240...260V |
| 277V         | 240V          | 277V       |
| 460V         | 380...400V    | 400...460V |
| 480V         | 415V          | 480V       |
| 600V         | 550V          | 600V       |

① Currently supply D7 multi-function pushbuttons as standard which do not require protective boots to meet Type 4X. See Section H in this catalog for description (all suffix's ending in "U").  
 ② Factory modifications often change the enclosure size. Refer to factory for dimensions when critical to the installation.

③ Pilot Lights may be applied with 24VAC/VDC, 120VAC or 240VAC Control Circuit. Pilot Lights with 277 VAC...575VAC require a control circuit transformer.  
 ④ CRI7E-24 will be used. CRI7E-12 by special order only.  
 ⑤ Additional auxiliaries are per contactor. Number of auxiliaries is double for reversing applications.



**CX7 Explosion Proof Combination Controllers - NEMA Type 4/4X/7/9 with Type 4 Gaskets**

| Amp / Horsepower Rating                        |       |       |      |             | O/L Relay Ampere Range | Magnetic Response Current       | Catalog Number ⑤ | Dimension Code |
|--|-------|-------|------|-------------|------------------------|---------------------------------|------------------|----------------|
| Max. Horsepower ①②③                            |       |       |      |             |                        |                                 |                  |                |
| Three Phase                                    |       |       |      |             |                        |                                 |                  |                |
| 200V   | 230V  | 460V  | 575V |             |                        |                                 |                  |                |
| <b>KTA7-25S Standard Interrupting Capacity</b> |       |       |      |             |                        |                                 |                  |                |
| ~  | ~     | ~     | ~    | 0.10...0.16 | 2.1                    | <b>CX7-9-10*-AS0.16A-A10-EZ</b> | EZ               |                |
| ~  | ~     | ~     | ~    | 0.16...0.25 | 3.3                    | <b>CX7-9-10*-AS0.25A-A10-EZ</b> | EZ               |                |
| ~  | ~     | ~     | ~    | 0.25...0.40 | 5.2                    | <b>CX7-9-10*-AS0.4A-A10-EZ</b>  | EZ               |                |
| ~  | ~     | ~     | ~    | 0.40...0.63 | 8.2                    | <b>CX7-9-10*-AS0.63A-A10-EZ</b> | EZ               |                |
| ~  | ~     | 1/2   | 3/4  | 0.63...1.0  | 13                     | <b>CX7-9-10*-AS1A-A10-EZ</b>    | EZ               |                |
| ~  | ~     | 1     | 1    | 1.0...1.6   | 21                     | <b>CX7-9-10*-AS1.6A-A10-EZ</b>  | EZ               |                |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5   | 33                     | <b>CX7-9-10*-AS2.5A-A10-EZ</b>  | EZ               |                |
| 1  | 1     | 3     | 3    | 2.5...4     | 52                     | <b>CX7-9-10*-AS4A-A10-EZ</b>    | EZ               |                |
| 1-1/2  | 2     | 5     | ~    | 4...6.3     | 82                     | <b>CX7-9-10*-AS6.3A-A10-EZ</b>  | EZ               |                |
| 3  | 3     | 7-1/2 | ~    | 6.3...10    | 130                    | <b>CX7-12-10*-AS10A-A10-EZ</b>  | EZ               |                |
| 5  | 5     | 10    | ~    | 10...16     | 208                    | <b>CX7-16-10*-AS16A-A10-EZ</b>  | EZ               |                |
| 5  | 7-1/2 | 15    | ~    | 14.5...20   | 260                    | <b>CX7-23-10*-AS20A-A10-EZ</b>  | EZ               |                |
| <b>KTA7-25H High Interrupting Capacity</b>     |       |       |      |             |                        |                                 |                  |                |
| 1/2  | 3/4   | 1-1/2 | 2    | 1.6...2.5   | 33                     | <b>CX7-9-10*-AH2.5A-A10-EZ</b>  | EZ               |                |
| 1  | 1     | 3     | 3    | 2.5...4     | 52                     | <b>CX7-9-10*-AH4A-A10-EZ</b>    | EZ               |                |
| 1-1/2  | 2     | 5     | 5    | 4...6.3     | 82                     | <b>CX7-9-10*-AH6.3A-A10-EZ</b>  | EZ               |                |
| 3  | 3     | 7-1/2 | 10   | 6.3...10    | 130                    | <b>CX7-12-10*-AH10A-A10-EZ</b>  | EZ               |                |
| 5  | 5     | 10    | 15   | 10...16     | 208                    | <b>CX7-16-10*-AH16A-A10-EZ</b>  | EZ               |                |
| 5  | 7-1/2 | 15    | ~    | 14.5...20   | 260                    | <b>CX7-23-10*-AH20A-A10-EZ</b>  | EZ               |                |
| 5  | 7-1/2 | 15    | ~    | 18...25     | 325                    | <b>CX7-30-10*-AH25A-A10-EZ</b>  | EZ               |                |
| <b>KTA7-40 High Interrupting Capacity</b>      |       |       |      |             |                        |                                 |                  |                |
| 3  | 3     | 7-1/2 | 10   | 6.3...10    | 130                    | <b>CX7-30-10*-AH10A-A10-EZ</b>  | EZ               |                |
| 5  | 5     | 10    | 15   | 10...16     | 208                    | <b>CX7-30-10*-AH16A-A10-EZ</b>  | EZ               |                |
| 5  | 7-1/2 | 15    | 20   | 14.5...20   | 260                    | <b>CX7-30-10*-AH20A-A10-EZ</b>  | EZ               |                |
| 7-1/2  | 10    | 20    | 20   | 18...25     | 325                    | <b>CX7-30-10*-AH25A-A10-EZ</b>  | EZ               |                |
| 7-1/2  | 10    | 20    | 25   | 23...32     | 416                    | <b>CX7-30-10*-AH32A-A10-EZ</b>  | EZ               |                |
| 10   | 10    | 25    | ~    | 32...45     | 585                    | <b>CX7-37-10*-AH45A-A10-EZ</b>  | EZ               |                |
| 10   | 15    | 30    | ~    | 32...45     | 585                    | <b>CX7-43-10*-AH45A-A10-EZ</b>  | EZ               |                |



**Includes:**

- Class I, Div I, Group B, C & D – Class II, Div I, Group E, F & G enclosure Class III, Zone I, IIB & H2
- KT7 “Type E” Self-protected Combination Manual Motor Controller with 1 NO front mount auxiliary contact (Cat.# KT7-PE1-10)
- Terminal Adaptor for Combo Type E/F Applications (Cat.# KT7-25-TE or KT7-45-TE)
- CA7 contactor (for remote operation), AC coil
- Power wiring

**Modifications (Factory Assembled)**

| KT7 Auxiliaries & Trip Contacts, | Change “A10” in Cat. # to...     |
|----------------------------------|----------------------------------|
| <b>Front Mount 300V max.</b>     |                                  |
| 1 NC Auxiliary                   | -A01                             |
| 1 NO + 1 NC Auxiliary            | -A11                             |
| 2 NC Auxiliaries                 | -A20                             |
| 1 NO SC+OL + 1 NC Auxiliary      | -T10A01                          |
| 1 NO SC+OL + 1 NO Auxiliary      | -T10A10                          |
| <b>Side Mount 600V max.</b>      |                                  |
| 2 NO Auxiliaries                 | -AS20                            |
| 1 NO + 1 NC Auxiliary            | -AS11                            |
| 1 NC SC+OL + 1 NO Auxiliary      | -R10                             |
| 1 NC SC+OL + 1 NC Auxiliary      | -R11                             |
| <b>CA7 Contactor Accessories</b> | <b>Add Suffix to Cat. Number</b> |
| 1 NC Auxiliary                   | -S01                             |
| 1 NO Auxiliary                   | -S10                             |
| Electronic Interface             | -JE                              |
| Surge Suppressor RC              | -R                               |
| Surge Suppressor Varistor        | -V                               |
| <b>Enclosure Modifications</b>   |                                  |
| Dual START/STOP pushbutton       | 3                                |
| ON/OFF selector switch           | 6                                |
| H-O-A                            | 7                                |
| Breather/Drain                   | -BD                              |

**Contactor AC Coil Codes (\*) ④**

| AC Coil Code | Voltage Range |          |
|--------------|---------------|----------|
|              | 50 Hz         | 60 Hz    |
| 24Z          | 24V           | 24V      |
| 120          | 110V          | 120V     |
| 220W         | 200-220V      | 208-240V |
| 277          | 240V          | 277V     |
| 415 ⑤        | 400-415V      | ~        |
| 480 ⑤        | 440V          | 480V     |
| 600 ⑤        | 550V          | 600V     |

- ① Horsepower ratings shown in the table above are for reference. The final selection of the controller depends on the actual motor full load current and service factor.
  - For motor with service factor less than 1.15. Use motor nameplate full load current times 0.9 and choose the motor starter with the appropriate current range. Example: Motor FLC = 4.2A; S.F. = 1.0. 4.2A x 0.9 = 3.78A. Select catalog number KTA7-25S-4A.
- ② Magnetic trip is fixed at 13x the maximum value of the current adjustment range.
- ③ CX7 may be applied to single phase loads. See footnote 1 for device selection criteria. To order single phase unit, change “CX7” in catalog number to “CBX7”. Three pole series connection will be provided. Ex: Change **CX7-9-10\*-0.16A-A10-EZ** to **CBX7-9-10\*-0.16A-A10-EZ**.
- ④ Other voltages available, see Section A in this catalog.
- ⑤ Catalog number (-A10) includes front-mounted auxiliary KT7-PE1-10 with 300 VAC maximum control circuit matching line voltage, or provided from separate source, used to de-energize contactor coil under fault condition (auxiliary not available for customer use). For control circuits greater than 300 VAC, which is common with line voltage, the auxiliary will not be wired into the control circuit since the contactor coil will be de-energized when KTA7 is tripped due to overload or short circuit; therefore, the KT7-PE1-10 auxiliary is available for customer use.

**Ordering Instructions**

|                                   |  |
|-----------------------------------|--|
| Specify Catalog Number            |  |
| <b>Replace (*) with Coil Code</b> | <b>See tables on this page for codes</b> |
| Select modifications if required  |  |

Section Obsolete - F1.88  
see pages F1.56 - F1.88