

NEMA Labeled KWIKStarters

Preassembled or
build from stock –
Easy, fast, economical
enclosed starters for
applications up to 30HP



Most KWIKstarters are equipped with Thermal Overload protection as standard

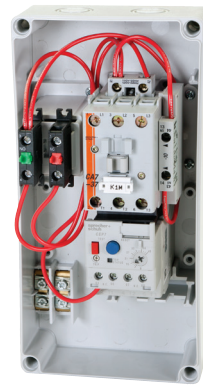
Sprecher + Schuh offers a broad selection of pre-assembled or “build-from-stock” starters housed in a high impact, non-metallic, cUL Approved, Type 1, 12, 4, 4X enclosure. Built for convenience, space savings and economy, KWIKstarters are efficiently designed to use stock CA7 contactors and CEP7 or CT7N overloads usually stocked by distributors. Contactor and overload are either pre-wired and pre-mounted onto the enclosure’s built-in DIN-rail or may be ordered as separate components. Ample knockouts and open terminals guarantee quick, no fuss wiring.

Sized for most industrial applications

KWIKstarters control motors up to 30HP @ 460V in two sizes of enclosures, measuring only 208 x 98mm (7.4” x 3.9”) or 250 x 125mm (9.85” x 4.93”) for our larger sizes. This covers over 85% of industrial motor control applications in a very compact package that can be mounted adjacent to or directly on equipment.

Thermal overload protection

KWIKstarters, sized 9 to 23 amps, are equipped with Sprecher + Schuh’s CT7N bimetallic thermal overload relay as standard. The consistent high quality of our thermal overload relays is ensured by a complex current calibration procedure performed after each unit is at full operating temperature.



KWIKstarters are also available with our advanced CEP7 Solid State Overload Relay (select appropriate overload relay code for this option)

Solid state overload options

KWIKstarters, sizes 9 to 23 amps, can also be supplied with Sprecher + Schuh’s CEP7 solid state overload relay. The CEP7 Overload is standard on larger (sizes 30 to 43 amps) and all reversing KWIKstarters. The CEP7 solid state overload relays measure motor current directly through integrated current transformers and on board electronics. The electronics provide increased accuracy and numerous other advantages over electromechanical relays. Learn more about Sprecher + Schuh overload relays in Section B of this catalog.

Build it yourself...

KWIKstarters may be assembled from stock components. Just grab a CA7 contactor and overload of your choice and snap them into the enclosure. Minimal wiring is required and assembly can be completed in minutes.





Start-Stop
Reset only

Hand-Off-Auto
with Pilot Light

Multi-Function

Forward-Stop-Reverse
options

NEMA KWIKstarters with CEP7 Overload Relays

Cover Control/ Enclosure (KS7-COS1/COS4)	NEMA Size	Maximum Horsepower						Total Aux. Contacts Installed		cUL Approved- Type 1/12/4/4X IP66	D I M
		Single Ø		Three Ø							
		115V	230V	200V	230V	460V	575V	NO	NC	Catalog Number	③
	KWIKstarter with Start & Raised Stop with AC Coil ④⑤										
	00	.33	1	~	~	~	~	1 ②	0	CBKN7-12-*-*♦-P2 CAKN7-12-*-*♦-P2	Q1
	0	1	2	~	~	~	~	1 ②	0	CBKN7-16-*-*♦-P2 CAKN7-16-*-*♦-P2	Q1
		~	~	3	3	5	5				
	KWIKstarter with Start & Raised Stop with Electronic DC Coil ⑥										
	00	.33	1	~	~	~	~	1 ②	0	CBKN7-12E-*-*♦-P2 CAKN7-12E-*-*♦-P2	Q1
	0	1	2	~	~	~	~	1 ②	0	CBKN7-16E-*-*♦-P2 CAKN7-16E-*-*♦-P2	Q1
		~	~	3	3	5	5				
	KWIKstarter with Reset with AC Coil										
	00	.33	1	~	~	~	~	1 ②	0	CBKN7-12-*-*♦-P0 CAKN7-12-*-*♦-P0	Q1
	0	1	2	~	~	~	~	1 ②	0	CBKN7-16-*-*♦-P0 CAKN7-16-*-*♦-P0	Q1
		~	~	3	3	5	5				
KWIKstarter with Reset with Electronic DC Coil ⑥											
	00	.33	1	~	~	~	~	1 ②	0	CBKN7-12E-*-*♦-P0 CAKN7-12E-*-*♦-P0	Q1
	0	1	2	~	~	~	~	1 ②	0	CBKN7-16E-*-*♦-P0 CAKN7-16E-*-*♦-P0	Q1
		~	~	3	3	5	5				

Coil Codes ⑥⑥

A.C. Coil Code	Voltage Range		Control Source	
	50 Hz	60 Hz	CBK7	CAK7
24Z	24V	24V	Separate	Separate
120	110V	120V	Common	Separate
220W	200-220V	208-240V	Common	Common
277	240V	277V	Common	~
415	400-415V	~	~	Common
480	440V	480V	~	Common
600	550V	600V	~	Common
D.C. Coil Code	Voltage Range			
	VDC			
	12V			
	24V			

Control Circuit Note

Common: Coils are assumed to be common with the line voltage and will be connected to the line source (L1-L2) per the table.


Separate: Coils are assumed to be from a separate source and will not be connected to the line source per the table.

Ordering Instructions

Specify Catalog Number	
Replace (✱) with Coil Code Replace (◆) with O/L Relay	See this page See page C7:14
Important Note: KWIKstarters are only designed to accommodate CEP7 Solid State Overload Relays. Select O/L Relay Code from page C7:14.	

- ① KWIKstarters are designed for three-wire control circuits. Two-wire (maintain) control can be accomplished by adding pushbutton latch KS7-PLA.
- ② A special design NO auxiliary contact (Cat.# KS7-PCK) is used as the holding circuit interlock, as well as, the START button interface. It is not available for other use.
- ③ Refer to page C7:17 for dimensional information.
- ④ STOP button also functions as RESET button. Plastic Bezel is standard.
- ⑤ Other voltages available, see Section A.
- ⑥ CAN7-12E...16E with electronic coils are not interchangeable with non-electronic DC or AC coils.

NEMA KWIKstarters with CEP7 Overload Relays with H-O-A and Light ①②③④

Cover Control/ Enclosure (KS7-COS1)	NEMA Size	Maximum Horsepower						Total Aux. Contacts Installed		cUL Approved- Type 1/12/4/4X IP66	D I M	
		Single Ø		Three Ø				NO	NC			
		115V	230V	200V	230V	460V	575V			Catalog Number		④
	NEMA KWIKstarter with Reset and H-O-A Selector Switch and Light with AC Coil											
	00	.33	1	~	~	~	~	1 ⑤	0	CBKN7-12-✱-◆-P0+1R7	Q1	
		~	~	1.5	1.5	2	2			CAKN7-12-✱-◆-P0+1R7		
	0	1	2	~	~	~	~	1 ⑤	0	CBKN7-16-✱-◆-P0+1R7	Q1	
		~	~	3	3	5	5			CAKN7-16-✱-◆-P0+1R7		
	NEMA KWIKstarter with Reset and H-O-A Selector Switch and Light with Electronic DC Coil ⑥											
	00	.33	1	~	~	~	~	1 ⑤	0	CBKN7-12E-✱-◆-P0+1R7	Q1	
		~	~	1.5	1.5	2	2			CAKN7-12E-✱-◆-P0+1R7		
	0	1	2	~	~	~	~	1 ⑤	0	CBKN7-16E-✱-◆-P0+1R7	Q1	
		~	~	3	3	5	5			CAKN7-16E-✱-◆-P0+1R7		

Coil Codes ⑥

A.C. Coil Code	Voltage Range		Control Source	
	50 Hz	60 Hz	CBK7	CAK7
24Z	24V	24V	Separate	Separate
120	110V	120V	Common	Separate
220W	200V-220V	208V-240V	Common	Common
D.C. Coil Code	Voltage Range			
	VDC			
12E	12V			
24E	24V			

Control Circuit Note

Common: Coils and pilot devices in the control circuit are assumed to be common with the line voltage and will be connected to the line source (L1-L2) per the table.


Separate: Coils and pilot devices in the control circuit are assumed to be from a separate source and will not be connected to the line source per the table. Line Voltage not listed: (i.e.: 480 and 575 VAC) require a separate control source (i.e.: 120 VAC). D7D pilot devices are rated 300 VAC maximum.

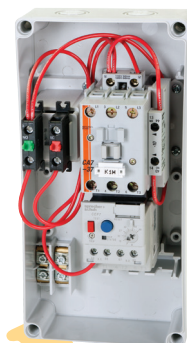
Ordering Instructions

Specify Catalog Number	
Replace (✱) with Coil Code Replace (◆) with O/L Relay	See this page See page C7:14
Important Note: KWIKstarters are only designed to accommodate CEP7 Solid State Overload Relays. Select O/L Relay Code from page C7:14.	

- ① This is a factory assembly. The KS7-COS1 (Q1) enclosure does not include knock-outs for field assembly of this starter.
- ② Uses D7D-P4N_ Red Monolithic "Run" pilot light with LED bulb. Pilot light voltage to match coil voltage for 24, 120, 240 VAC control. Red "Run" Light can be changed for Green. Change +1R7 to +1G7. For example, CAKN7-12-✱-◆-P0+1R7 becomes CAKN7-12-✱-◆-P0+1G7.
- ③ Uses D7D-SM32x20 Monolithic 3-position selector switch for maintain control, HAND-OFF-AUTO function with legend plate.
- ④ Refer to page C7:10 for wiring and C7:17 for dimensional information. This is a clam-shell enclosure design with wires to cover controls.
- ⑤ One NO auxilliary for customer use. There is no room for additional auxilliaries.
- ⑥ CAN7-12E...16E with electronic coils are not interchangeable with non-electronic DC or AC coils.

NEMA KWIKstarters with CEP7 Overload Relays

Enclosure (KS7-C2S4)	NEMA Size	Maximum Horsepower						Total Aux. Contacts Installed		cUL Approved-Type 1/12/4/4X IP66	Catalog Number	DIM ③
		Single Ø		Three Ø				NO	NC			
		115V	230V	200V	230V	460V	575V					
	NEMA KWIKstarters with AC Coil											
	1	2	3	~	~	~	~	1	0	CBKN7-37-~-♦-P▼	Q2	Q2
		~	~	7.5	7.5	10	10			CAKN7-37-~-♦-P▼		
	2	3	7.5	~	~	~	~	1	0	CBKN7-43-~-♦-P▼	Q2	Q2
		~	~	10	15	25	25			CAKN7-43-~-♦-P▼		
	NEMA KWIKstarters with Electronic DC Coil ④											
	1	3	5	~	~	~	~	1	0	CBKN7-37E-~-♦-P▼	Q2	Q2
		~	~	7.5	7.5	10	10			CAKN7-37E-~-♦-P▼		
	2	3	7.5	~	~	~	~	1	0	CBKN7-43E-~-♦-P▼	Q2	Q2
		~	~	10	15	25	25			CAKN7-43E-~-♦-P▼		



C7

NEMA Starters

Coil Codes (*) ④⑤⑦

A.C. Coil Code	Voltage Range		Control Source	
	50 Hz	60 Hz	CBK7	CAK7
24Z	24V	24V	Separate	Separate
120	110V	120V	Common	Separate
220W	200-220V	208-240V	Common	Common
277	240V	277V	Common	~
415	400-415V	~	~	Common
480	440V	480V	~	Common
600	550V	600V	~	Common

D.C. Coil Code	Voltage Range
	VDC
12E	12V
24E	24V
48E	48-72V
220E	220-250V

AC Control Circuit Note

Common: Coils and pilot devices in the control circuit are assumed to be common with the line voltage and will be connected to the line source (L1-L2) per the table.

Separate: Coils and pilot devices in the control circuit are assumed to be from a separate source and will not be connected to the line source per the table. Pilot lights are 240 VAC maximum.

Replace ♦ with one of the following Overload Relays

For use with KWIKstarter...	Amp Range	Overload Relay Code (♦)	Catalog Number (of Overload Relay used)
1-Phase & 3-Phase / Manual Reset / Class 10 or 20			
CAK7-30...43	5.4...27	1EED	CEP7-1EEED
	11...55	1EFD	CEP7-1EEFD
1-Phase & 3-Phase / Auto or Manual Reset / Class 10, 15, 20, 30 ③			
CAK7-30...43	5.4...27	FED	CEP7-1EFED
	11...55	FFD	CEP7-1EFFD

Pilot Device Options (includes reset) ②③

Pushbutton Description	Replace ▼ in catalog number with
START-STOP Multi-function (shown)	3U
I-O Multi-function	4U
OFF-ON 2-Position Selector switch	6
Pilot Light Red (LED) with START-STOP Multi-function ③	1R3U
Pilot Light Red (LED) with I-O Multi-function ③	1R4U

Optional CA7 Modifications (Factory Assembled) ③

Description	Add to end of catalog number
Electronic Interface	-JE
Surge Suppressor RD	-C
Surge Suppressor Varistor	-V
Additional NC Contact	-L01
Additional NO Contact	-L10

Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	
Replace (♦) with O/L Relay	
Replace (▼) with Pilot Device Option	See this page only

① Use CEP7-1 overloads only - and also backward compatible to CEP7-ED1/EE.

② Plastic Bezel is standard. Pilot Device options include D7-BX_ Base Mounted contact blocks. See page H69 for more information.

③ Refer to page C7:15 for wiring diagram and C7:17 for dimensional information.

④ CAN7-37E...43E with electronic coils are not interchangeable with non-electronic DC or AC coils.


⑤ Other voltages available, see Section A.

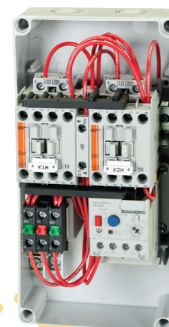
⑥ One and only one Pilot Device option must be selected. If Pilot Light option is selected then coil voltage must be 24V AC or DC, 120V or 240V AC only.

⑦ CPT not possible with KS7-C2S4 (Q2) enclosure.

⑧ List price adder may apply for this option.

Three Phase Reversing NEMA KWIKstarters with CEP7 Overload Relays ①②

Enclosure (KS7-C0S4R)	NEMA Size	Maximum Horsepower				Total Aux. Contacts Installed		cUL Approved- Type 1/12/4/4X IP66	D I M ③
		Three Ø							
		200V	230V	460V	575V	NO	NC	Catalog Number	
	3-Phase FVR NEMA KWIKstarter with AC Coil								
	00	1.5	1.5	2	2	1	1	CAUKN7-12-*-*♦-P▼	Q3
	0	3	3	5	5	1	1	CAUKN7-16-*-*♦-P▼	Q3
	3-Phase FVR NEMA KWIKstarter with Electronic DC Coil								
	00	1.5	1.5	2	2	1	1	CAUKN7-12E-*-*♦-P▼	Q3
	0	3	3	5	5	1	1	CAUKN7-16E-*-*♦-P▼	Q3



Coil Codes (*) ④⑤⑦

A.C. Coil Code	Voltage Range		Control Source		D.C. Coil Code	Voltage Range VDC
	50 Hz	60 Hz	CBK7	CAK7		
24Z	24V	24V	Separate	Separate	12E	12V
120	110V	120V	Common	Separate	24E	24V
220W	200-220V	208-240V	Common	Common	36E	36-48V
277	240V	277V	Common	~	48E	48-72V
415	400-415V	~	~	Common	110E	110-125V
480	440V	480V	~	Common	220E	220-250V
600	550V	600V	~	Common		

AC Control Circuit Note

Common: Coils and pilot devices in the control circuit are assumed to be common with the line voltage and will be connected to the line source (L1-L2) per the table.

Separate: Coils and pilot devices in the control circuit are assumed to be from a separate source and will not be connected to the line source per the table. Pilot lights are 240 VAC maximum.

Pilot Device Options (includes reset) ②③

Pushbutton Description	Replace ▼ in catalog number with
FOR-STOP-REV Multi-function (shown)	3U
UP-STOP-DOWN Multi-function	4U
OPEN-STOP-CLOSE Multi-function	5U
FOR-STOP-REV 3-Position Selector switch	6
UP-OFF-DOWN 3-Position Selector switch	7
OPEN-OFF-CLOSE 3-Position Selector switch	8
Overload Alarm Pilot Light	1Y
D7-N8 22mm Hole Plug	0

Optional CA7 Modifications (Factory Assembled) ④

Description (supplied on each contactor)	Add to end of catalog number
Electronic Interface	-2JE
Surge Suppressor RD	-2C
Surge Suppressor Varistor	-2V

Replace ♦ with one of the following Overload Relays

For use with KWIKstarter...	Amp Range	Overload Relay Code (♦)	Catalog Number (of Overload Relay used)
1-Phase & 3-Phase / Manual Reset / Class 10 or 20			
CAUKN7-12..16 CAUKN7-12E..16E	0.1...0.5	1EAB	CEP7-1EEAB
	0.2...1.0	1EBB	CEP7-1EEBB
	1.0...5.0	1ECB	CEP7-1EECB
	3.2...16	1EDB	CEP7-1EEDB
	5.4...27	1EEB	CEP7-1EEEB
1-Phase & 3-Phase / Auto or Manual Reset / Class 10, 15, 20, 30 ⑨			
CAUKN7-12..16 CAUKN7-12E..16E	0.1...0.5	FAB	CEP7-1EFAB
	0.2...1.0	FBB	CEP7-1EFBB
	1.0...5.0	FCB	CEP7-1EFCB
	3.2...16	FDB	CEP7-1EFDB
	5.4...27	FEB	CEP7-1EFEB

- ① Use CEP7-ED/CEP7-EE overloads only.
- ② Plastic Bezel is standard. Pilot Device options include D7-BX_ Base Mounted contact blocks. See page H69 for more information.
- ③ Refer to page C7:16 for wiring diagram and C7:17 for dimensional information.
- ④ CAN7-12E...16E with electronic coils are not interchangeable with non-electronic DC or AC coils.
- ⑤ Other voltages available, see Section A.
- ⑥ One Pilot Device option must be selected. Blanks are not available. If Pilot Light option is selected then Pilot Light must match Coil Voltage 24V AC or DC, 120V or 240V AC only.
- ⑦ CPT not possible with KS7-COS4R (Q3) enclosure.
- ⑧ One N.C. auxiliary contact is used for electrical interlocking. On CAUKN7 reversing starters, the N.C. contact comes from the Mechanical/Electrical Interlock unit (Cat# CM7-02).
- ⑨ List price adder may apply for this option.

Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	See this page only
Replace (♦) with O/L Relay	
Replace (▼) with Pilot Device Option	

Three Phase, Non-Reversing CAKN7 @ 200V AC KWIKstarter

NEMA Size	Max HP 3 Ø	Adjustment Range	Start-Stop Pushbutton or Multifunction with Reset	Reset Only	D I M 6
	200V		Catalog Number	Catalog Number	
00	0.5	1.0...5.0	CAKN7-12-220W-1ECB-P2 ① ② ③	CAKN7-12-220W-1ECB-P0 ① ②	Q1
	0.75	1.0...5.0	CAKN7-12-220W-1ECB-P2 ① ② ③	CAKN7-12-220W-1ECB-P0 ① ②	
	1	3.2...16	CAKN7-12-220W-1EDB-P2 ① ② ③	CAKN7-12-220W-1EDB-P0 ① ②	
	1.5	3.2...16	CAKN7-12-220W-1EDB-P2 ① ② ③	CAKN7-12-220W-1EDB-P0 ① ②	
0	2	3.2...16	CAKN7-16-220W-1EDB-P2 ① ② ③	CAKN7-16-220W-1EDB-P0 ① ②	Q1
	3	3.2...16	CAKN7-16-220W-1EDB-P2 ① ② ③	CAKN7-16-220W-1EDB-P0 ① ②	
1	5	5.4...27	CAKN7-37-220W-1EED-P3U ④ ⑤		Q2
	7.5	11...55	CAKN7-37-220W-1EFD-P3U ④ ⑤		
2	10	11...55	CAKN7-43-220W-1EFD-P3U ④ ⑤		


 CAK7-12...16 Amp
(Q1 Dim - Start/Stop)

 CAK7-12...16 Amp
(Q1 Dim - Reset) Only

 CAK7-37...43 Amp
(Q2 Dim)

C7
NEMA Starters

Three Phase, Non-Reversing CAKN7 @ 230V AC KWIKstarter

NEMA Size	Max HP 3 Ø	Adjustment Range	Start-Stop Pushbutton or Multifunction with Reset	Reset Only	D I M 6
	230V		Catalog Number	Catalog Number	
00	0.5	1.0...5.0	CAKN7-12-220W-1ECB-P2 ① ② ③	CAKN7-12-220W-1ECB-P0 ① ②	Q1
	0.75	1.0...5.0	CAKN7-12-220W-1ECB-P2 ① ② ③	CAKN7-12-220W-1ECB-P0 ① ②	
	1	1.0...5.0	CAKN7-12-220W-1ECB-P2 ① ② ③	CAKN7-12-220W-1ECB-P0 ① ②	
	1.5	3.2...16	CAKN7-12-220W-1EDB-P2 ① ② ③	CAKN7-12-220W-1EDB-P0 ① ②	
0	2	3.2...16	CAKN7-16-220W-1EDB-P2 ① ② ③	CAKN7-16-220W-1EDB-P0 ① ②	Q1
	3	3.2...16	CAKN7-16-220W-1EDB-P2 ① ② ③	CAKN7-16-220W-1EDB-P0 ① ②	
1	5	5.4...27	CAKN7-37-220W-1EED-P3U ④ ⑤		Q2
	7.5	5.4...27	CAKN7-37-220W-1EED-P3U ④ ⑤		
2	10	11...55	CAKN7-43-220W-1EFD-P3U ④ ⑤		
	15	11...55	CAKN7-43-220W-1EFD-P3U ④ ⑤		

Three Phase, Non-Reversing CAKN7 @ 480V AC KWIKstarter

NEMA Size	Max HP 3 Ø	Adjustment Range	Start-Stop Pushbutton or Multifunction with Reset	Reset Only	D I M 6
	460V		Catalog Number	Catalog Number	
00	0.5	1.0...5.0	CAKN7-12-480-1ECB-P2 ① ② ③	CAKN7-12-480-1ECB-P0 ① ②	Q1
	0.75	1.0...5.0	CAKN7-12-480-1ECB-P2 ① ② ③	CAKN7-12-480-1ECB-P0 ① ②	
	1	1.0...5.0	CAKN7-12-480-1ECB-P2 ① ② ③	CAKN7-12-480-1ECB-P0 ① ②	
	1.5	1.0...5.0	CAKN7-12-480-1ECB-P2 ① ② ③	CAKN7-12-480-1ECB-P0 ① ②	
0	2	1.0...5.0	CAKN7-12-480-1ECB-P2 ① ② ③	CAKN7-12-480-1ECB-P0 ① ②	Q1
	3	3.2...16	CAKN7-16-480-1EDB-P2 ① ② ③	CAKN7-16-480-1EDB-P0 ① ②	
0	5	3.2...16	CAKN7-16-480-1EDB-P2 ① ② ③	CAKN7-16-480-1EDB-P0 ① ②	Q1
	7.5	5.4...27	CAKN7-37-480-1EED-P3U ④ ⑤		Q2
1	10	5.4...27	CAKN7-37-480-1EED-P3U ④ ⑤		
	15	11...55	CAKN7-43-480-1EFD-P3U ④ ⑤		
2	20	11...55	CAKN7-43-480-1EFD-P3U ④ ⑤		Q2
	25	11...55	CAKN7-43-480-1EFD-P3U ④ ⑤		

Full Voltage Non-Reversing (FVNR)
Features include:

- NEMA-sized CAN7 contactor
- CEP7 Solid State Overload Relay (Q1/ Q2 Dim)
- Green Start pushbutton (Q1 Dim - Start/Stop)
- Red Raise Stop pushbutton (Q1 Dim - Start/Stop)
- Reset pushbutton (Q1 Dim - Reset)
- 1-NO auxiliary for customer use
- Non-Metallic Enclosure Type 1/12/4/4X, IP66
- Pre-wired for easy installation
- Ideal for compressors, fans, blowers

- ① KWIKstarters are designed for three-wire control circuits. Two-wire (maintain) control can be accomplished by adding pushbutton latch KS7-PLA.
- ② A special design NO auxiliary contact (Cat.# KS7-PCK) is used as the holding circuit interlock, as well as, the START button interface. It is not available for other use.
- ③ STOP button also functions as RESET button. Plastic bezel is standard.
- ④ Use CEP7-1 overloads only - and also backward compatible to CEP7-ED1/EE.
- ⑤ Plastic bezel is standard. Pilot device options include D7-BX_ base Mounted contact blocks. See page H69 for more information.
- ⑥ Refer to page C100.18 for dimensional information

Single Phase, Non-Reversing CBKN7 @ 115V AC KWIKstarter ❶

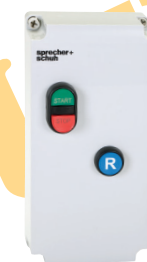
NEMA Size	Max HP 1 Ø	Adjustment Range	Start-Stop Pushbutton or Multifunction with Reset ❷❸❹	Reset Only	D I M ❸
	115V		Catalog Number	Catalog Number	
00	0.25	3.2...16	CBKN7-12-120-1EDB-P2 ❹	CBKN7-12-120-1EDB-P0 ❹	Q1
	0.33	3.2...16	CBKN7-12-120-1EDB-P2 ❹	CBKN7-12-120-1EDB-P0 ❹	
0	0.5	3.2...16	CBKN7-16-120-1EDB-P2 ❹	CBKN7-16-120-1EDB-P0 ❹	
	0.75	3.2...16	CBKN7-16-120-1EDB-P2 ❹	CBKN7-16-120-1EDB-P0 ❹	
	1	5.4...27	CBKN7-16-120-1EEB-P2 ❹	CBKN7-16-120-1EEB-P0 ❹	
1	1.5	5.4...27	CBKN7-37-120-1EED-P3U ❷❹		Q2
	2	11...55	CBKN7-37-120-1EFD-P3U ❷❹		
2	3	11...55	CBKN7-43-120-1EFD-P3U ❷❹		



CBKN7-12...16 Amp



CBKN7-12...16
Amp Reset Only



CBKN7-37...43 Amp

Single Phase, Non-Reversing CBKN7 @ 230V AC KWIKstarter ❶

NEMA Size	Max HP 1 Ø	Adjustment Range	Start-Stop Pushbutton or Multifunction with Reset ❷❸❹	Reset Only	D I M ❸
	230V		Catalog Number	Catalog Number	
00	0.25	1.0...5.0	CBKN7-12-220W-1ECB-P2 ❹	CBKN7-12-220W-1ECB-P0 ❹	Q1
	0.33	1.0...5.0	CBKN7-12-220W-1ECB-P2 ❹	CBKN7-12-220W-1ECB-P0 ❹	
	0.5	3.2...16	CBKN7-12-220W-1EDB-P2 ❹	CBKN7-12-220W-1EDB-P0 ❹	
	0.75	3.2...16	CBKN7-12-220W-1EDB-P2 ❹	CBKN7-12-220W-1EDB-P0 ❹	
	1	3.2...16	CBKN7-12-220W-1EDB-P2 ❹	CBKN7-12-220W-1EDB-P0 ❹	
0	1.5	3.2...16	CBKN7-16-220W-1EDB-P2 ❹	CBKN7-16-220W-1EDB-P0 ❹	
	2	3.2...16	CBKN7-16-220W-1EDB-P2 ❹	CBKN7-16-220W-1EDB-P0 ❹	
1	3	5.4...27	CBKN7-37-220W-1EED-P3U ❷❹		Q2
2	5	11...55	CBKN7-43-220W-1EFD-P3U ❷❹		
	7.5	11...55	CBKN7-43-220W-1EFD-P3U ❷❹		

Full Voltage Non-Reversing (FVNR)

Features include:

- NEMA-sized CAN7 contactor
- CEP7 Solid State Overload Relay
- Green Start pushbutton
- Red Raise Stop pushbutton
- Reset pushbutton
- 1-NO auxiliary for customer use
- Non-Metallic Enclosure Type 1/12/4/4X, IP66
- Pre-wired for easy installation
- Ideal for compressors, fans, blowers

❶ KWIKstarters are designed for three-wire control circuits. Two-wire (maintain) control can be accomplished by adding pushbutton latch KS7-PLA.

❷ A special design NO auxiliary contact (Cat.# KS7-PCK) is used as the holding circuit interlock, as well as, the START button interface. It is not available for other use.

❸ Refer to page C7:15 for wiring diagram and C7:17 for dimensional information.

❹ STOP button also functions as RESET button. Plastic Bezel is standard.

❺ Other voltages available, see Section A.

❻ Use CEP7-1 overloads only - and also backward compatible to CEP7-ED1/EE.

❼ Plastic Bezel is standard. Pilot Device options include D7-BX_ Base Mounted contact blocks. See page H69 for more information.

❽ CPT not possible with KS7-C254 (Q2) enclosure.

Three Phase, Non-Reversing CAKN7 @ 200V AC KWIKstarter ①②③④

NEMA Size	Max HP 3 Ø	Adjustment Range	with CT7N Overload Relay	D I M ④
	200V		Catalog Number	
00	0.5	1.0...5.0	CAKN7-12-220W-1ECB-P0+1R7	Q1
	0.75	1.0...5.0	CAKN7-12-220W-1ECB-P0+1R7	
	1	3.2...16	CAKN7-12-220W-1EDB-P0+1R7	
	1.5	3.2...16	CAKN7-12-220W-1EDB-P0+1R7	
0	2	3.2...16	CAKN7-16-220W-1EDB-P0+1R7	
	3	3.2...16	CAKN7-16-220W-1EDB-P0+1R7	

Three Phase, Non-Reversing CAKN7 @ 230V AC KWIKstarter ①②③④

NEMA Size	Max HP 3 Ø	Adjustment Range	with CEP7 Overload Relay	D I M ④
	230V		Catalog Number	
00	0.5	1.0...5.0	CAKN7-12-220W-1ECB-P0+1R7	Q1
	0.75	1.0...5.0	CAKN7-12-220W-1ECB-P0+1R7	
	1	1.0...5.0	CAKN7-12-220W-1ECB-P0+1R7	
	1.5	3.2...16	CAKN7-12-220W-1EDB-P0+1R7	
0	2	3.2...16	CAKN7-16-220W-1EDB-P0+1R7	
	3	3.2...16	CAKN7-16-220W-1EDB-P0+1R7	

Single Phase, Non-Reversing CBKN7 @ 115V AC KWIKstarter ①②③④

NEMA Size	Max HP 3 Ø	Adjustment Range	with CEP7 Overload Relay	D I M ④
	115V		Catalog Number	
00	0.25	3.2...16	CBKN7-12-120-1EDB-P0+1R7	Q1
	0.33	3.2...16	CBKN7-12-120-1EDB-P0+1R7	
	0.5	3.2...16	CBKN7-16-120-1EDB-P0+1R7	
0	0.75	3.2...16	CBKN7-16-120-1EDB-P0+1R7	
	1	5.4...27	CBKN7-16-120-1EEB-P0+1R7	

Single Phase, Non-Reversing CBKN7 @ 230V AC KWIKstarter ①②③④

NEMA Size	Max HP 3 Ø	Adjustment Range	with CEP7 Overload Relay	D I M ④
	230V		Catalog Number	
00	0.25	1.0...5.0	CBKN7-12-220W-1ECB-P0+1R7	Q1
	0.33	1.0...5.0	CBKN7-12-220W-1ECB-P0+1R7	
	0.5	3.2...16	CBKN7-12-220W-1EDB-P0+1R7	
	0.75	3.2...16	CBKN7-12-220W-1EDB-P0+1R7	
	1	3.2...16	CBKN7-12-220W-1EDB-P0+1R7	
0	1.5	3.2...16	CBKN7-16-220W-1EDB-P0+1R7	
	2	3.2...16	CBKN7-16-220W-1EDB-P0+1R7	


Full Voltage Non-Reversing (FVNR)
Features include:

- NEMA-sized CAN7 contactor
- CEP7 Solid State Overload Relay
- Red Pilot Light
- Hand-Off-Auto Selector Switch
- Reset pushbutton
- 1-NO auxiliary for customer use
- Non-Metallic Enclosure Type 1/12/4/4X, IP66
- Pre-wired for easy installation
- Ideal for compressors, fans, blowers

C7
NEMA Starters

① This is a factory assembly. The KS7-C0S1 (Q1) enclosure does not include knock-outs for field assembly of this starter.



② Uses D7D-P4N_ Red Monolithic "Run" pilot light with LED bulb. Pilot light voltage to match coil voltage for 24, 120, 240 VAC control. Red "Run" Light can be changed for Green. Change +1R7 to +1G7. For example, CAKN7-12-★-◆-P0+1R7 becomes CAKN7-12-★-◆-P0+1G7.

③ Uses D7D-SM32x20 Monolithic 3-position selector switch for maintain control, HAND-OFF-AUTO function with legend plate.



④ Refer to page C7:10 for wiring and C7:17 for dimensional information. This is a clam-shell enclosure design with wires to cover controls.

⑤ One NO auxiliary for customer use. There is no room for additional auxiliaries.

KWIKstarter 9...23A Enclosures with CEP7 Overload Relays ❶

Component	Description	For Use With		Environmental Approvals	Catalog Number
		Contactors	Overload		
	Flush Green START / Extended Red STOP- Mechanical interface auxiliary contact (KS7-PCK) included in enclosure.	CA7-9...23	CEP7-1__D ❸	cUL Type 1/12/4/4x IEC IP66	KS7-C0S4
	Blue RESET Only	CA7-9...23	CEP7-1__B ❸	cUL Type 1/12/4/4x IEC IP66	KS7-C0S1

KWIKstarter Enclosures for use with CA7 Contactors and Overload Relays ❷❸

Component	Description	For Use With		Environmental Approvals	Catalog Number
		Contactors	Overload		
	Enclosure for KWIKstarter ❷ CAK7/CBK7-30...43 CAK7/CBK7-30E...43E	CA7-30...43 CA7-30E...43E	CEP7-1__D ❸	cUL Type 1/12/4/4x IEC IP66	KS7-C2S4
	Enclosure for Reversing KWIKstarter ❸ CAUK7-9...23 CAUK7-9E...23E	CAU7-9...23 CAU7-9E...23E	CEP7-1__B ❸	cUL Type 1/12/4/4x IEC IP66	KS7-C0S4R

❶ KWIKstarters are only designed to accommodate CA7-9...43 contactors with CEP7 Solid State Overload Relays. If ordering components, select contactor from Section A and overload relay from Section B in this catalog.





❷ KWIKstarter enclosure KS7-C2S4 are designed to fit CA7-30(E)...43(E) contactors with CEP7 Overload Relays. CT7N Thermal Overloads can not be substituted.

❸ KWIKstarter enclosure KS7-C0S4R are designed to fit CAU7-9(E)...23(E) reversing contactors with CEP7 Overload Relays. CT7N Thermal Overloads can not be substituted.




❹ KS7-C2S4 and KS7-C0S4R are supplied with two 22mm holes for Pilot Devices. A Reset is required and one additional pilot device kit from page C7:13 must be selected. Use of a CPT is not possible.

❺ KS7-C_ series B enclosure are compatible to 3rd gen CEP7-1 and 2nd gen CEP7-ED1/EE. KS7-C_ series A enclosures (obsolete) are compatible to 2nd gen CEP7-ED1/EE.

KWIKstarter Components with CT7N or CEP7 Overload Relays (for use with KS7-COS1/KS7-COS4)

Component	Description	For Use With...	Catalog Number
	Start - Contact kit Specially designed NO auxiliary; mechanically interfaces with the START button. Mounts on right side. A KS7-PCK is included in every KS7-COS4 enclosure.	KS7-COS4 (Replacement Part)	KS7-PCK
	Pushbutton Latch - For maintain contact control (2-wire control)	KS7-COS4	KS7-PLA
	Neutral Terminal	KS7-COS1 KS7-COS4	KS7-PNT
	Grounding Kit (for use with metal conduit)	All Kwikstarter enclosures	KS7-GR1

KWIKstarter Pilot Device Kits (for use with KS7-C2S4/KS7-COS4R) ❶

Kits	Description	For Use With Enclosure...	Contact Blocks included		Catalog Number
			NO	NC	
	Multi-Function Pushbutton kit Non-illuminated START-STOP I-O	KS7-C2S4 Type 1, 12, 4, 4X	1	1	KS7-P3U KS7-P4U
	FOR-STOP-REV UP-STOP-DOWN OPEN-STOP-CLOSE	KS7-COS4R Type 1, 12, 4, 4X	2	1	KS7-P3U-REV KS7-P4U-REV KS7-P5U-REV
	Selector switch kits Non-illuminated, includes legend plate ON-OFF 2-Position	KS7-C2S4 Type 1, 12, 4, 4X	1	-	KS7-P6
	FOR-OFF-REV 3-Position UP-OFF-DOWN 3-Position OPEN-OFF-CLOSE 3-Position	KS7-COS4R Type 1, 12, 4, 4X	2	-	KS7-P6-REV KS7-P7-REV KS7-P8-REV
	Reset Pushbutton, Blue Plastic push button, flush operator with Blue Cap and R text	KS7-C2S4 KS7-COS4	Black Plastic with Blue Cap and White "R"		D7P-F611 ❷

❶ Plastic bezel is standard. Pilot Device Kits include D7-BX_ Base Mounted contact blocks. See page H69 for more information.

❷ D7P-R611 and CEP7-1ERA can not be used with KS7-C2S4 or KS7-COS4R. See Section H for more information.

KWIKstarters with CEP7 Solid State Overload Relay

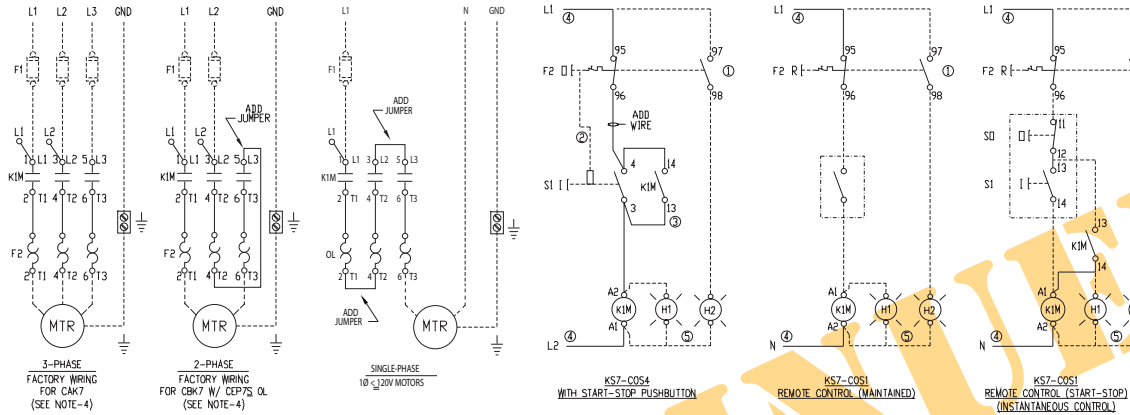
For use with KWIKstarter...	Amp Range	Overload Relay Code (◆)	Catalog Number (of Overload Relay used)
1-Phase & 3-Phase / Manual Reset / Class 10 or 20			
CAKN7-9...23 CAKN7-9E...23E	0.1...0.5	1EAB	CEP7-1EEAB
	0.2...1.0	1EBB	CEP7-1EEBB
	1.0...5.0	1ECB	CEP7-1EECB
	3.2...16	1EDB	CEP7-1EEDB
	5.4...27	1EEB	CEP7-1EEEB
1-Phase & 3-Phase / Auto or Manual Reset / Class 10...30			
CAKN7-9...23 CAKN7-9E...23E	0.1...0.5	FAB	CEP7-1EFAB
	0.2...1.0	FBB	CEP7-1EFBB
	1.0...5.0	FCB	CEP7-1EFCB
	3.2...16	FDB	CEP7-1EFDB
	5.4...27	FEB	CEP7-1EFEB

DISCONTINUED

① CEP7 Overloads are available for use in KWIKStarters if the premium features are required (see Section B).

KWIKstarter (in enclosure KS7-C0S1/C0S4)

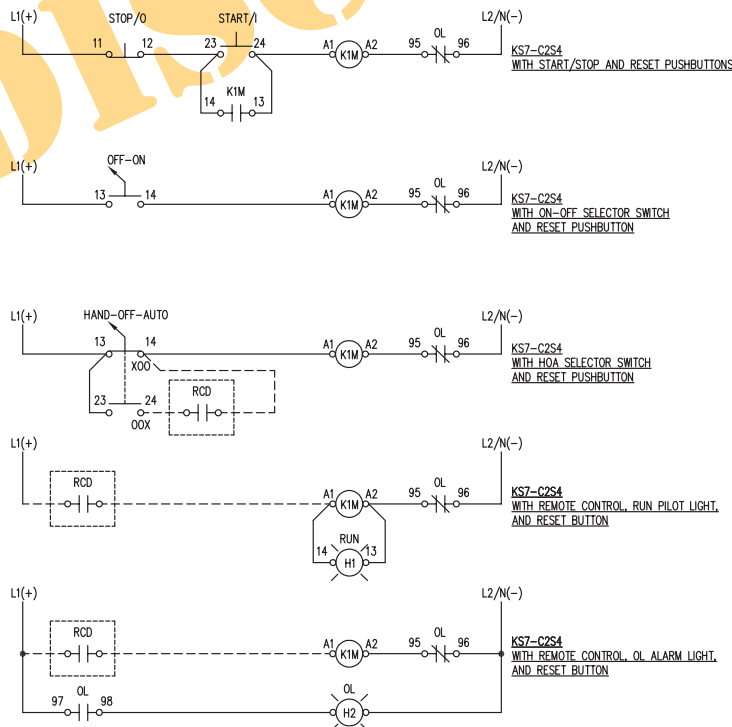
CUSTOMER MUST PROVIDE PROPER BRANCH CIRCUIT PROTECTION (F1)
SEE THE APPLICATION INSTRUCTION SHEET - COMPONENT SELECTION TABLES
FOR MAX. FUSE SIZE & CLASS AND APPLICABLE SHORT CIRCUIT RATING
(USE 75°C COPPER WIRE ONLY)



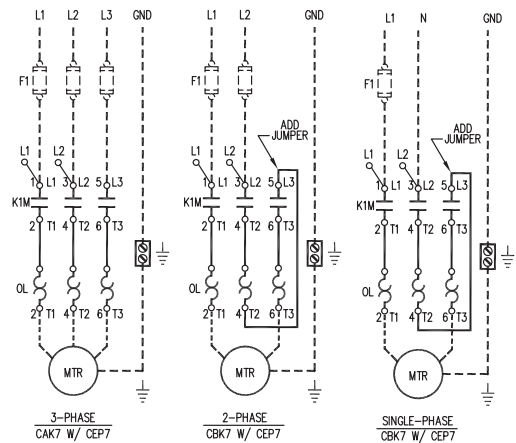
THIS DRAWING IS FOR THE FOLLOWING ENCLOSURES:
KS7-C0S4 with integrated START-STOP push buttons
KS7-C0S1 with integrated RESET push button

- NOTES:
- 1) MECHANICAL LATCH KS7-PLA FOR MAINTAINED CONTROL (OPTIONAL).
 - 2) START CONTACT KIT KS7-PCK (INCLUDED) MOUNTS ON THE RIGHT SIDE WITH MOLDED PRE-FORMED JUMPERS.
 - 3) DO NOT WIRE CONTROLS CIRCUIT TO LINE SIDE OF CONTACTOR WHEN COIL VOLTAGE IS 120V OR LESS. (FACTORY WIRING STANDARD)
 - 4) OPTIONAL PILOT LIGHTS.

KWIKstarter (in enclosure KS7-C2S4)

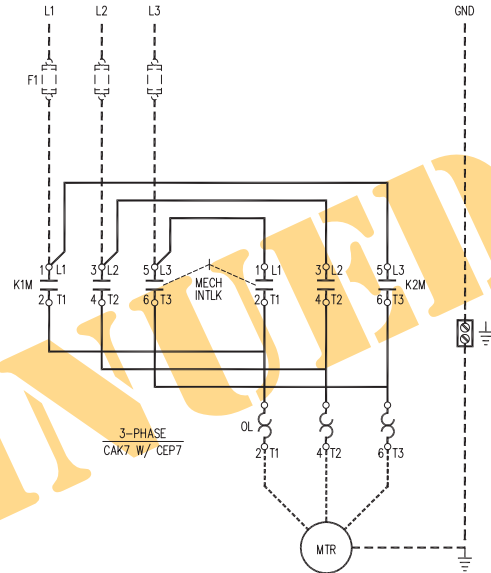
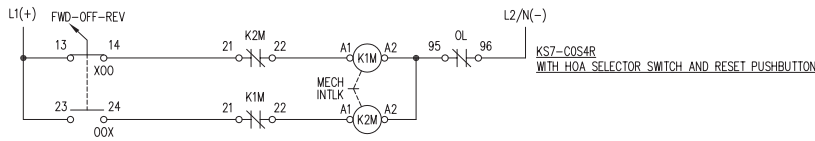
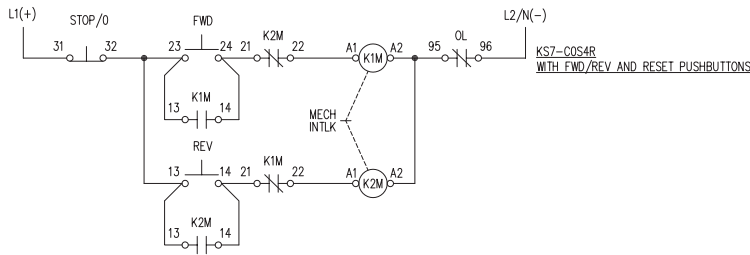


CUSTOMER WILL PROVIDE BRANCH CIRCUIT PROTECTION (F1)
SEE THE APPLICATION INSTRUCTION SHEET - COMPONENT SELECTION TABLES
FOR MAX. FUSE SIZE, CLASS, AND APPLICABLE SHORT CIRCUIT RATING
(USE 75°C COPPER WIRE ONLY)



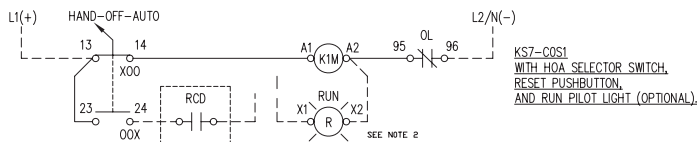
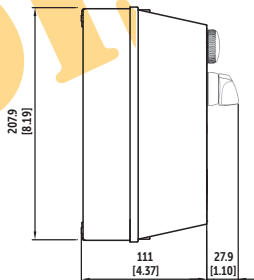
- NOTES:
1. DO NOT CONNECT A1-A2 TO L1-L2 UNLESS COIL VOLTAGE MATCHES LINE VOLTAGE
 2. PILOT LIGHTS POSSIBLE FOR REMOTE OR OVERLOAD ALARM IF NO START/STOP CONTROL DEVICES IN COVER
 3. RCD = REMOTE CONTROL DEVICE (BY OTHERS)

Reversing KWIKstarter (in enclosure KS7-C0S4R)

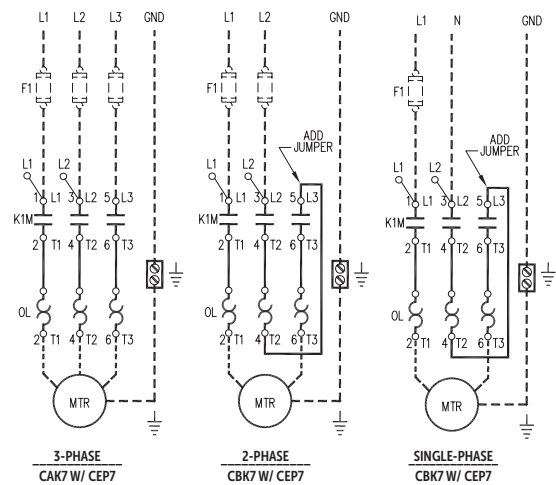


KWIKstarter (in enclosure KS7-C0S1) with HOA option

HAND-OFF-AUTO with Pilot Light



CUSTOMER WILL PROVIDE BRANCH CIRCUIT PROTECTION (F1)
SEE THE APPLICATION INSTRUCTION SHEET - COMPONENT SELECTION TABLES
FOR MAX. FUSE SIZE, CLASS, AND APPLICABLE SHORT CIRCUIT RATING
(USE 75°C COPPER WIRE ONLY)



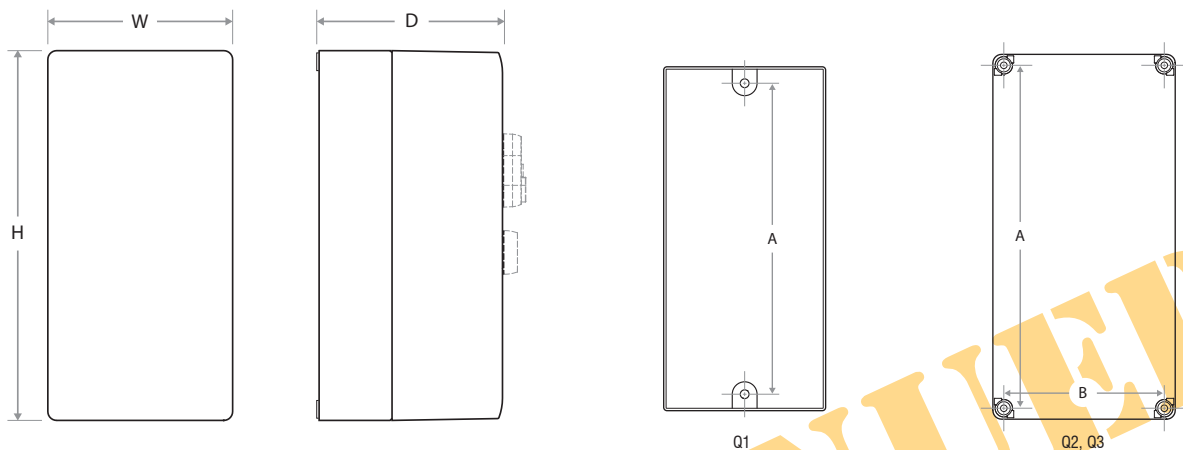
A.C. Coil Code	Voltage Range		Control Source	
	50 Hz	60 Hz	CBK7	CAK7
24Z	24V	24V	Separate	Separate
120	110V	120V	Common	Separate
208	~	208V	Common	Common
220W	200V-220V	208V-240V	Common	Common
240	220V	240V	Common	Common
D.C. Coil Code	Voltage Range		Control Source	
	VDC		CBK7	CAK7
12E	12V		Separate	Separate
24E	24V		Separate	Separate

NOTES:

- RCD = REMOTE CONTROL DEVICE (BY OTHERS). WIRE RCD TO TERMINAL 24 ON THE H-O-A SEL. SW. AND TERMINAL A1 ON THE CONTACTOR.
- DASHED LINES - - - - - INDICATE WIRING PROVIDED IN THE FIELD.

KWIKstarter Enclosure KS7-C0S1/C0S4 (Dimension Code Q1-Q3)

Dimensions are in millimeters (inches). Dimensions not intended for manufacturing purposes.



Enclosure Size

DIM Code	W	H	D
Q1	97 [3.86]	205 [8.08]	111 [4.37]
Q2, Q3	125 [4.93]	250 [9.85]	125 [4.93]

Provision for Cable Gland Fittings

DIM Code	Ø Top	Ø Back
Q1	2 X 20.3 [0.80] or 25.3 [1.00]	4 X 20.3 [0.80] or 25.3 [1.00]
Q2, Q3	2 X 20.3 [0.80] or 25.3 [1.00]	~

Mounting

DIM Code	Mount Type	Ø A	Ø B	Dia.
Q1	2 Center screws	188 [7.4]	Centered	5.3 [0.2]
Q2, Q3	4 Corner screws	235 [9.26]	110 [4.33]	5.3 [0.2]

C7

NEMA Starters