

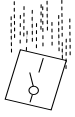
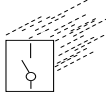
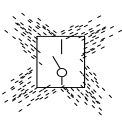
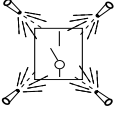
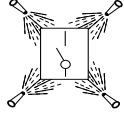
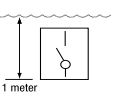


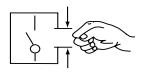
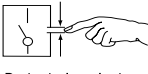
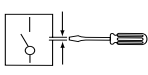
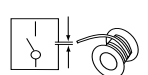




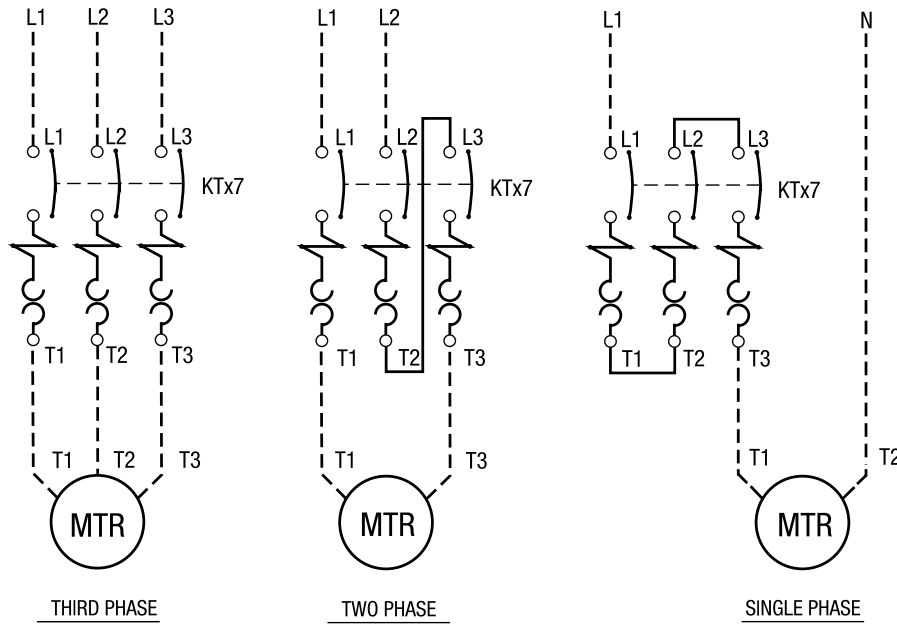
IP Ratings Definitions

<p>IP Ratings Definitions</p> <p>The first IP number (left side of chart) is protection against solid objects. The second IP number (across top) is protection against liquids. The chart itself shows degrees of protection according to IEC 529.</p>	 No protection IP...0	 Protected against vertically falling drops of water (condensation) IP...1	 Protected against dripping water with enclosure up to 15° from vertical IP...2	 Protected against sprayed water up to 60° from vertical IP...3	 Protected against sprayed water from all directions (limited ingress permitted) IP...4	 Protected against low pressure water jets from all directions (limited ingress permitted) IP...5	 Protected against strong jets of water from all directions IP...6	 Protected against immersion up to one meter IP...7	 Protected against long periods of immersion under pressure IP...8
<p>IP0...</p>  No protection IP00									
<p>IP1...</p>  Protected against solid objects up to 50mm (accidental touch by hands) IP10	IP11	IP12							
<p>IP2...</p>  Protected against solid objects up to 12mm (fingers, knuckles) IP20	IP21	IP22	IP23						
<p>IP3...</p>  Protected against solid objects up to 2.5mm (tools, wires) IP30	IP31	IP32	IP33	IP34					
<p>IP4...</p>  Protected against solid objects up to 1mm (wires) IP40	IP41	IP42	IP43	IP44					
<p>IP5...</p>  Protected against dust (limited ingress permitted) IP50			IP53	IP54	IP55	IP56			
<p>IP6...</p>  Totally protected against dust IP60					IP65	IP66	IP67		

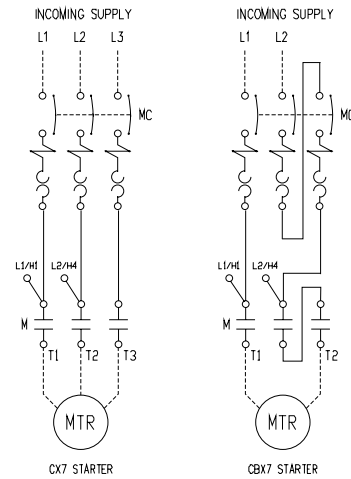
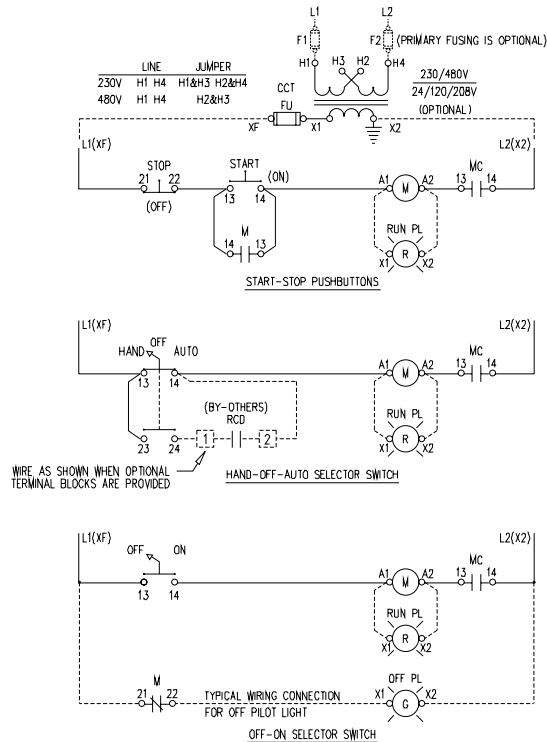
NEMA / UL Type Definitions

For a degree of protection against:	NEMA / UL Type								
	Indoor Use			Outdoor Use		Indoor or Outdoor Use			
	1	12	13	3R	3	4	4X	6P	6
Incidental contact with enclosed equipment	•	•	•	•	•	•	•	•	•
Falling dirt	•	•	•	•	•	•	•	•	•
Rust	•	•	•	•	•	•	•	•	•
Circulating dust, lint, fibers and flyings		•	•		•	•	•	•	•
Windblown dust					•	•	•	•	•
Falling liquids and light splashing		•	•		•	•	•	•	•
Rain (limited water allowed inside)				•	•	•	•	•	•
Rain (no water allowed inside)					•	•	•	•	•
Snow and sleet				•	•	•	•	•	•
Hosedown and splashing water						•	•	•	•
Occasional prolonged submersion								•	•
Oil or coolant spraying or splashing			•						
Corrosive agents							•	•	
Occasional temporary submersion								•	•

Single, Two and Three Phase Connection Diagram

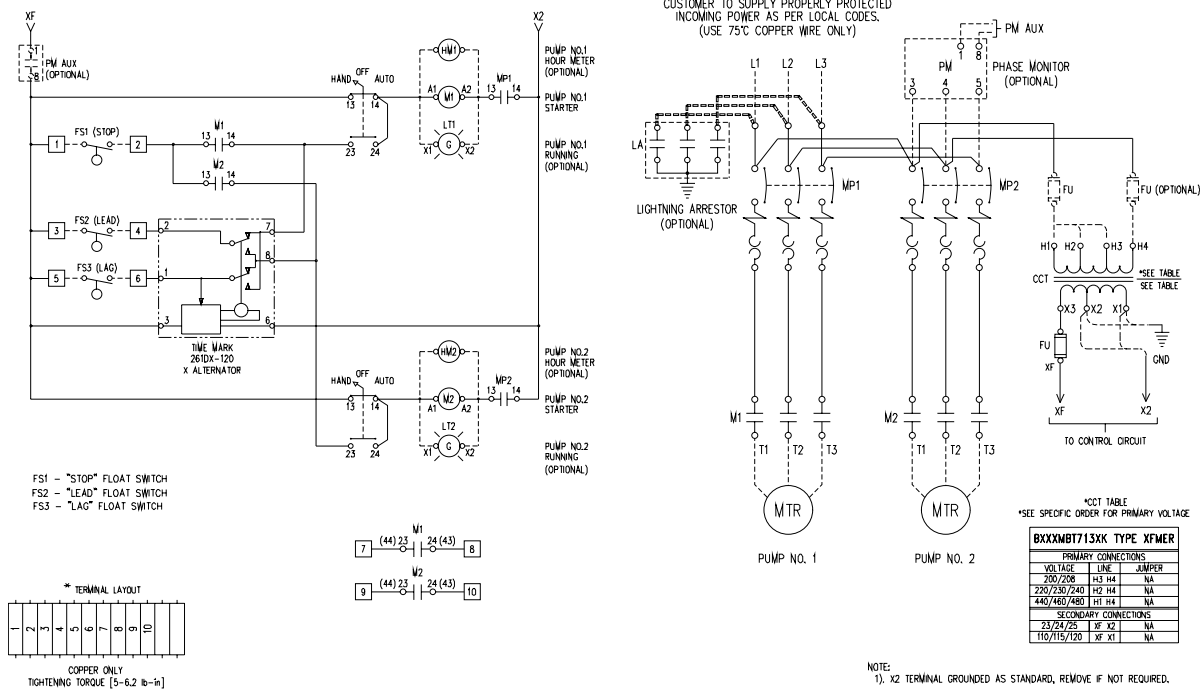


Type E/F Combination Controller Full Voltage Non-Reversing AC Control with D7 Series Pilot Devices

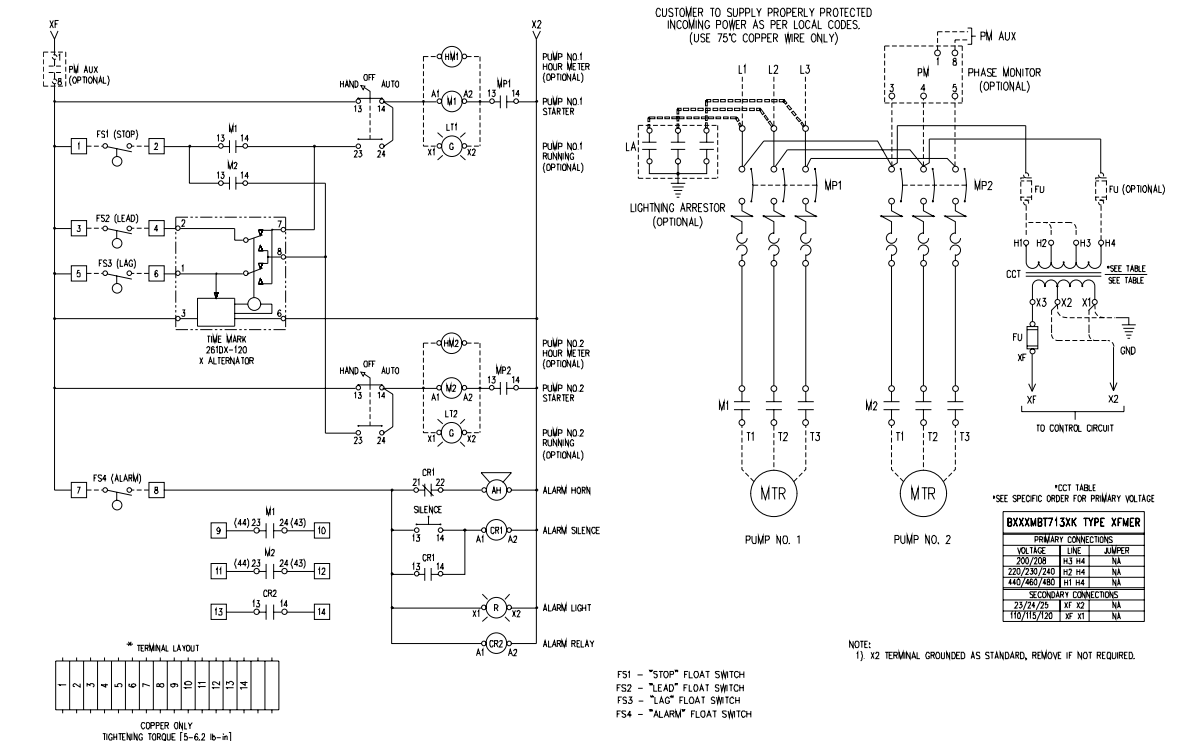


- NOTES:
- 1) RCD: STANDS FOR REMOTE CONTROL DEVICE BY CUSTOMER.
 - 2) MC: K17 "TYPE E" MOTOR CONTROLLER.
 - 3) X2 TERMINAL GROUNDED AS STANDARD, REMOVE GROUND IF NOT REQUIRED.

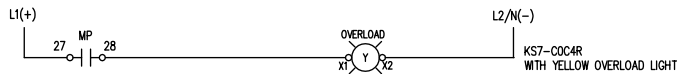
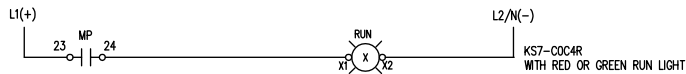
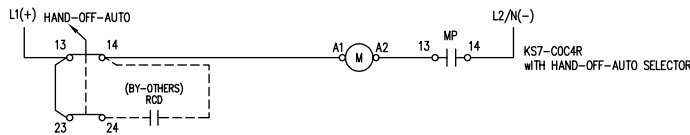
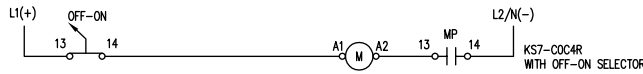
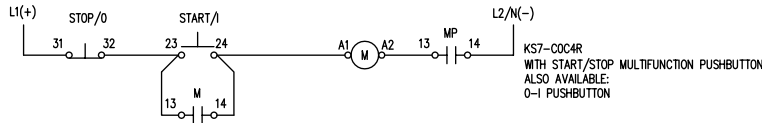
KTA7 Type E/F Combination 3-PH FVNR Duplex Alternating Panel with H.O.A, Alarm CKT, Lead, Lag, Stop, 1-Pole Float Switches, Alarm Circuit



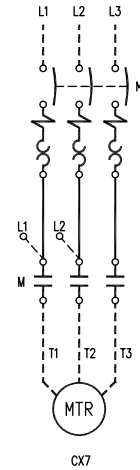
KTA7 Type E/F Combination 3-PH FVNR Duplex Alternating Panel with H.O.A, Alarm CKT, Lead, Lag, Stop, 1-Pole Float Switches



ECombo/EComboPlus/CX7 KWIKstarters Non-Reversing

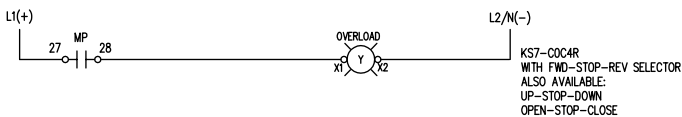
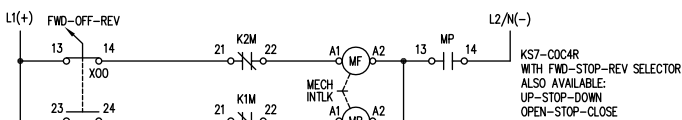
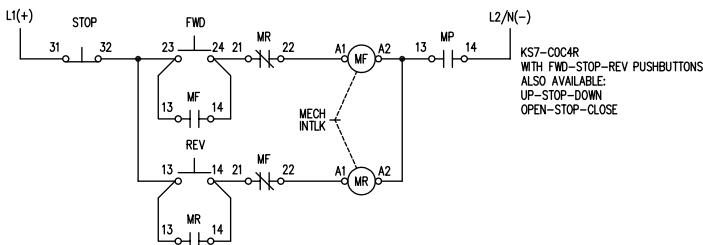


CUSTOMER TO SUPPLY PROPER BRANCH CIRCUIT PROTECTION AS PER LOCAL CODES. (USE 75°C COPPER WIRE ONLY)

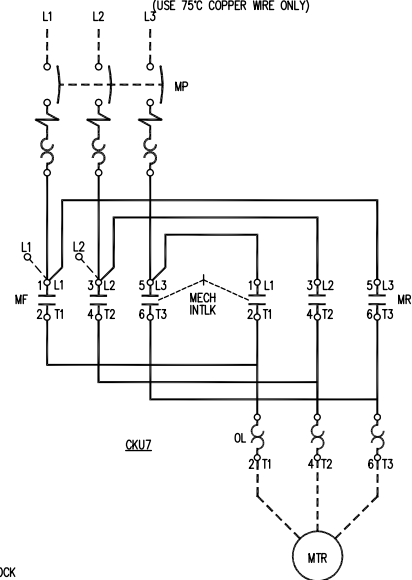


- NOTES:
1. MI: MECHANICAL INTERLOCK
 2. MP: KT7 "TYPE E" MOTOR CONTROLLER
 3. DO NOT CONNECT A1-A2 TO L1-L2 UNLESS COIL VOLTAGE MATCHES LINE VOLTAGE
 4. OPTIONAL RUN LIGHT, MAY BE RED OR GREEN

ECombo/EComboPlus/CXU7 KWIKstarters Reversing



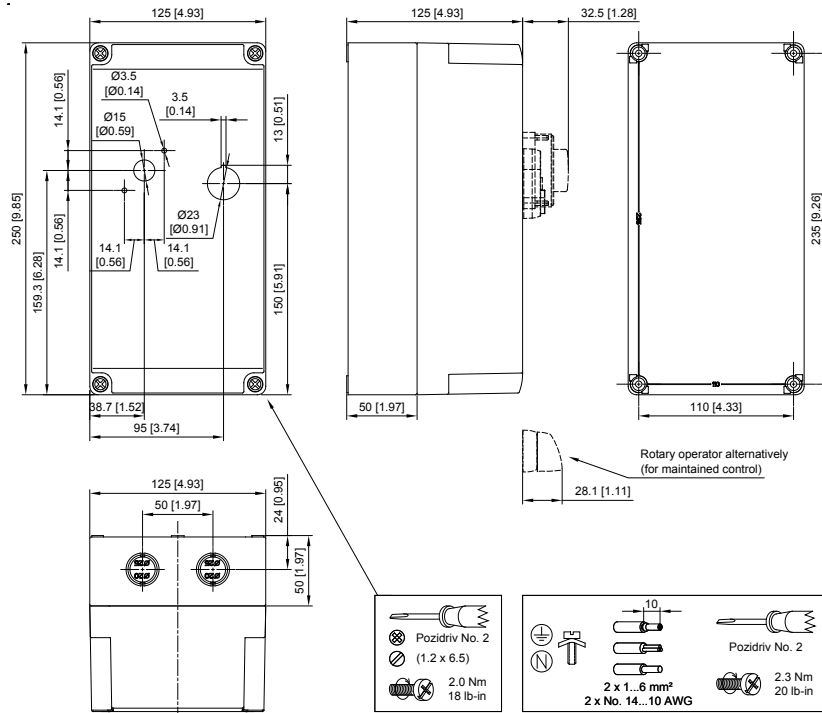
CUSTOMER WILL PROVIDE BRANCH CIRCUIT PROTECTION (F1) SEE THE APPLICATION INSTRUCTION SHEET - COMPONENT SELECTION TABLES FOR MAX. FUSE SIZE, CLASS, AND APPLICABLE SHORT CIRCUIT RATING (USE 75°C COPPER WIRE ONLY)



- NOTES:
1. MI: MECHANICAL INTERLOCK
 2. MP: KT7 "TYPE E" MOTOR CONTROLLER
 3. DO NOT CONNECT A1-A2 TO L1-L2 UNLESS COIL VOLTAGE MATCHES LINE VOLTAGE

CX7/CXU7 KWIKstarter II Enclosure KS7-COC4R (Dimension Code Q4)

Dimensions are in decimal inches. Dimensions not intended for manufacturing purposes.



Enclosure Dimensions

Dimensions are in decimal inches. Dimensions not intended for manufacturing purposes. See dimension drawings on next page.

IP65 ENCLOSURE

Encl. ID Dim.	Figure No.	Enclosure Size			Mtg Depth D	Mtg Centers		Panel Size Sub-Pan	
		A	B	C		E	F		
AY	1	5.91	3.54	5.12	N/A	N/A	5.32	N/A	N/A

TYPE-4/4X/12 ENCLOSURE

Encl. ID Dim.	Figure No.	Enclosure Size			Mtg Depth D	Mtg Centers		Panel Size Sub-Pan	
		A	B	C		E	F		
Q5	2	7.00	5.03	7.35	4.3	4.21	6.18	N/A	N/A
Q6	3	7.00	7.00	8.35	5.3	6.18	6.18	N/A	N/A
Q7	4	11.87	7.31	10.6	7.23	6.54	11.10	N/A	N/A

TYPE-4/12 & 12 ENCLOSURES

Encl. ID Dim.	Figure No.	Enclosure Size			Mtg Depth D	Mtg Centers		Panel Size Sub-Pan		H
		A	B	C		E	F			
W6	5	9.84	7.87	8.24	5.31	5.31	9.13	9.09	7.13	-
W7	5	13.78	11.81	10.2	7.28	9.25	13.07	13.03	11.06	-
L	6	8	6	8.33	5.53	4	8.75	6.75	4.88	9.5

TYPE 7/9 ENCLOSURES

Encl. ID Dim.	Figure No.	Mtg. Dim.			Inside Dim. D	Outside Dim.				Conduit Entry Top & Bot
		A	B	C		E	F	G	H	
EX	7	3.25	8.0	3.50	6.0	3.50	4.688	7.25	4.50	0.75
EY	8	6.375	2.125	4.0	6.0	5.0	7.375	9.375	6.0	1.0
EZ	8	9.125	4.50	6.0	8.0	6.75	10.438	12.50	8.375	1.50

Enclosures

See Enclosure Dimension Charts on Previous Page.

