

# Cam Switches



Model		4F-10A	4F-16A
Rated insulation voltage $U_i$	V	690	690
Rated impulse withstand voltage $U_{imp}$ (sectionable)	kV	4	4
Rated thermal current $I_{th}$	A	16	20
Rated thermal current in enclosed $I_{the}$	A	10	16
Frequency	Hz	50/60	50/60

RATED OPERATING CURRENT $I_e$ : alternate current					
AC-21A Switching resistive loads (p) with light overloads	400V	A	10	16	
AC-22A Switching mixed resistive and inductive loads at light overloads	400V	A	10	16	
AC-23A Periodic switching of motors (p)	Single phase - 1 Pole	110V	A/Kw	12/1.1	14/1.5
		230V	A/Kw	12/2.2	14/3
	3 phase - 3 Pole	230V	A/Kw	10/3	13/4
		400V	A/Kw	10/5.5	13/7.5
		500V	A/Kw	10/7.5	14/10
		690V	A/Kw	10/7.5	14/10
AC3 Starting of cage motors (interruption while running)	Single phase - 2 Pole	110V	A/Kw	10/0,75	12/1.1
		230V	A/Kw	10/2	12/2.2
	3 phase - 3 Pole	230V	A/Kw	8/2,2	10/3
		400V	A/Kw	8/4	10/5.5
		500V	A/Kw	8/5,5	10/7.5
		690V	A/Kw	6/5,5	8/7.5

RATED OPERATING CURRENT $I_e$ : direct current				
DC-21 A Switching resistive loads with light overloads	50V (1 Phase)	A	10	12
DC-22A Switching mixed resistive and inductive loads at light overloads	30V (1 Phase)	A	8	10

SHORT CIRCUIT CHARACTERISTICS				
Rated short-time short circuit withstand current $I_{cw}$ (1s)		A	300	300
Rated short circuit making capacity $I_{cm}$		A	1200	1200

# Cam Switches

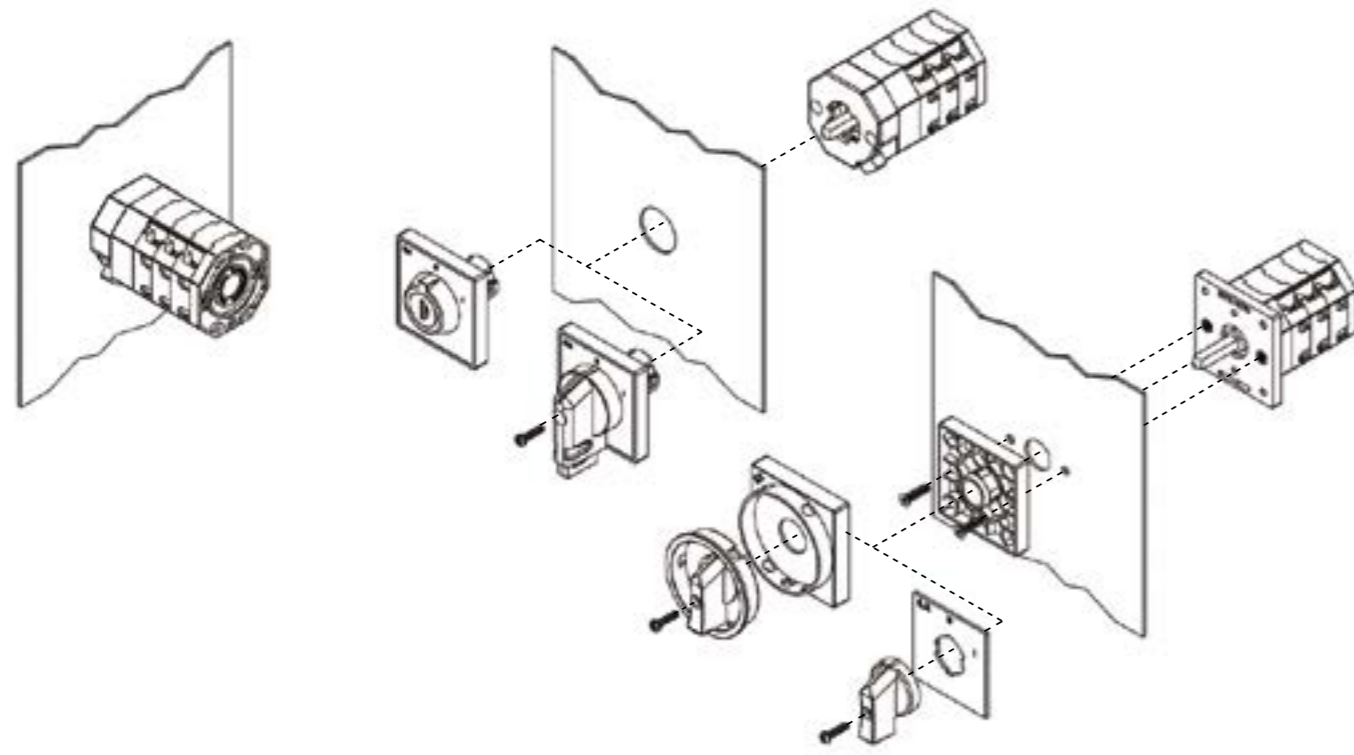


4F-20A	4F-25A	4F-32A	4F-40A	6F-40A	6F-63A	6F-80A	6F-100A	8F-100A	8F-125A	8F-160A
690	690	690	690	690	690	690	690	690	690	690
4	4	4	4	4	4	4	4	6	6	6
25	32	32	40	40	63	80	100	100	125	160
20	25	32	40	40	63	80	100	100	125	160
50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60

RATED OPERATING CURRENT $I_e$ : alternate current											
20	25	32	40	40	63	80	100	100	125	160	
20	25	32	40	40	63	80	-	-	-	-	
18/2	25/2.2	30/2.5	35/3	35/3	45/4	63/5.5	-	-	-	-	
18/4	25/4.5	30/5.5	35/6.5	35/6.5	45/7.5	63/11	70/13	70/13	-	-	
16/5	25/7.5	30/9	35/11	35/11	50/15	58/18.5	94/30	94/30	140/45	173/55	
16/9	22/11	27/15	32/18.5	32/18.5	40/22	54/30	68/37	68/37	78/45	99/55	
16/11	22/15	27/18.5	32/22	32/22	40/30	54/37	65/45	65/45	65/45	79/55	
16/12.5	20/15	22/18.5	25/22	25/22	32/30	40/37	-	-	47/45	58/55	
16/1.5	22/2	25/2.2	30/2.5	30/2.5	36/3	45/4	-	-	-		
16/3.5	22/3.7	25/4	30/5.5	30/5.5	35/6.5	45/7.5	82/15	82/15	-		
12/4	18/5.5	23/7.5	27/9	27/9	37/11	47/15	97/31	97/31	117/37	141/45	
12/6.5	18/9	23/11	27/15	27/15	35/18.5	44/22	67/37	67/37	64/37	81/45	
12/8	18/11	23/15	27/18.5	27/18.5	35/22	44/30	53/37	53/37	53/37	65/45	
10/9	14/11	18/15	20/18.5	20/18.5	25/22	32/30	-	-	39/37	47/45	

16	20	25	32	32	-	-	-	-	-	-	
12	16	20	25	25	-	-	-	-	-	-	
300	380	380	500	500	960	960	1500	1500	1500	-	
1200	2000	2000	2000	2000	2000	2000	2000	2000	2000	-	

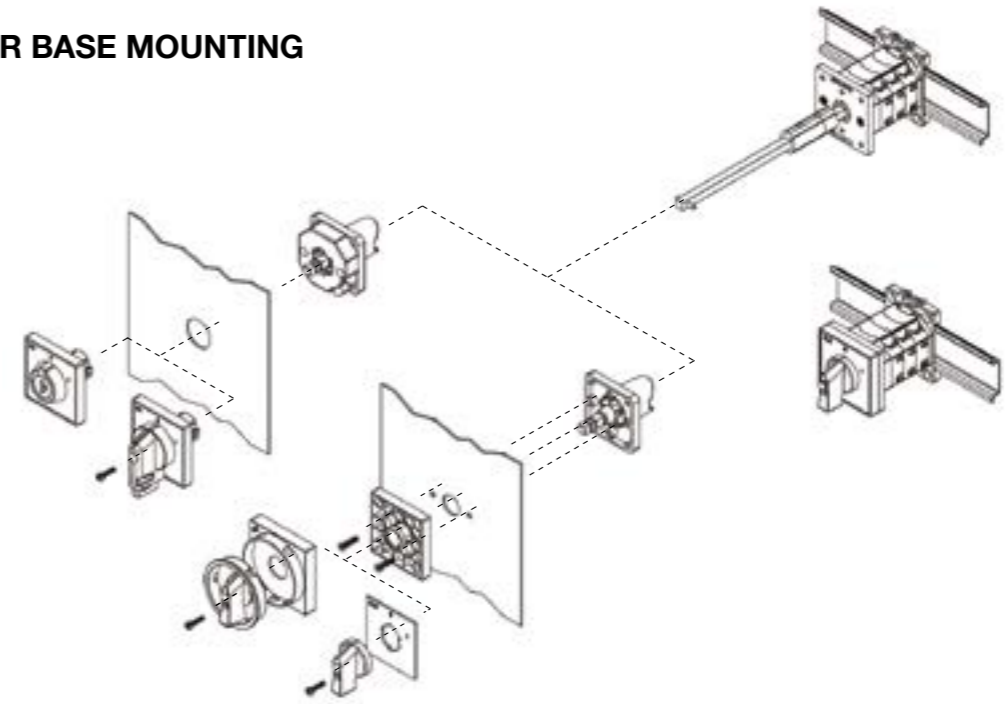
**PANEL MOUNTING**



Panel Central Hole Dimensions		Switch Mounting Dimensions																												
Mounting Without Screw	Mounting With Screw																													
		<table border="1"> <thead> <tr> <th>Switch Body Type</th> <th>a</th> <th>b</th> <th>c</th> <th>d</th> <th>e</th> <th>f</th> </tr> </thead> <tbody> <tr> <td>4F</td> <td>34</td> <td>36</td> <td>30.7</td> <td>-</td> <td>36</td> <td>M3,5</td> </tr> <tr> <td>6F</td> <td>48</td> <td>52</td> <td>34</td> <td>42</td> <td>52</td> <td>M4</td> </tr> <tr> <td>8F</td> <td>60</td> <td>68</td> <td>34</td> <td>48</td> <td>68</td> <td>M4</td> </tr> </tbody> </table>	Switch Body Type	a	b	c	d	e	f	4F	34	36	30.7	-	36	M3,5	6F	48	52	34	42	52	M4	8F	60	68	34	48	68	M4
Switch Body Type	a	b	c	d	e	f																								
4F	34	36	30.7	-	36	M3,5																								
6F	48	52	34	42	52	M4																								
8F	60	68	34	48	68	M4																								

Frame Dimensions																																									
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Frame Type	a	b	c	d	e	f	g	h	i																																
4	34	-	36	-	-	36	30,7	-	-																																
6	Slot-31,5 to 48	36	52	-	36	48	52	-	-																																
8	34	60	36	52	68	36	48	52	68																																

**RAIL OR BASE MOUNTING**

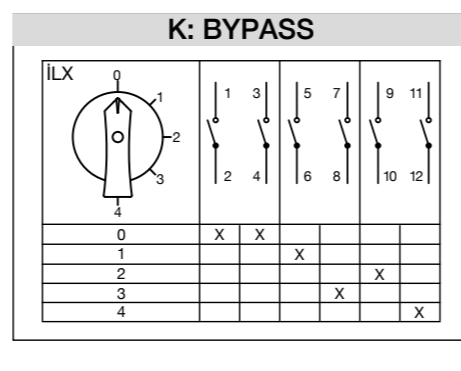
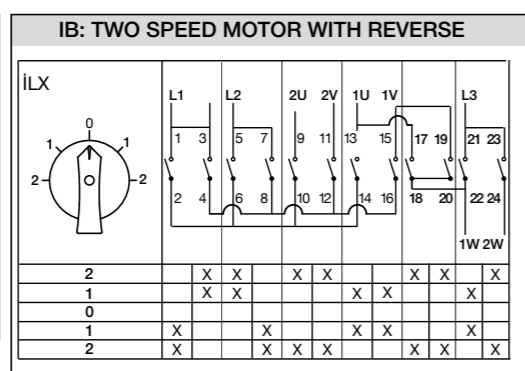
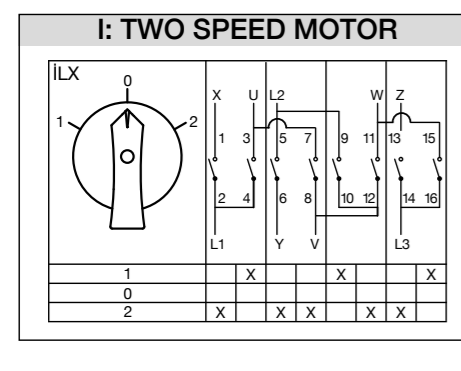
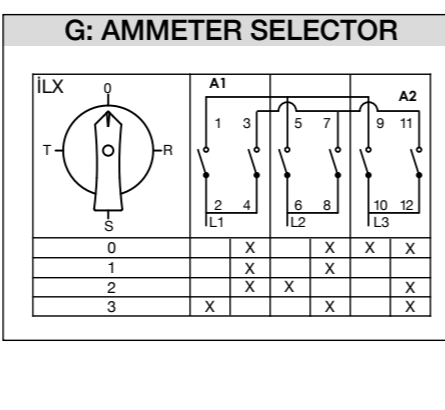
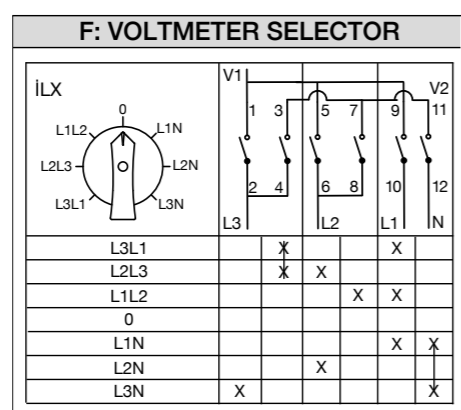
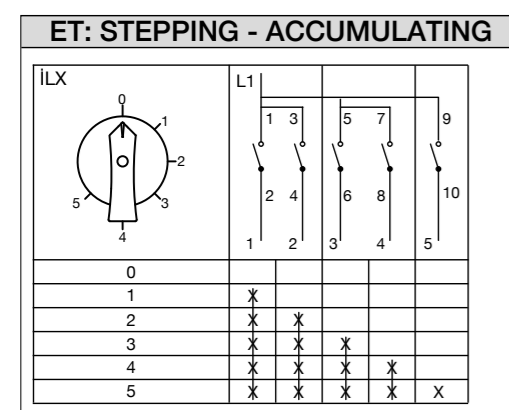
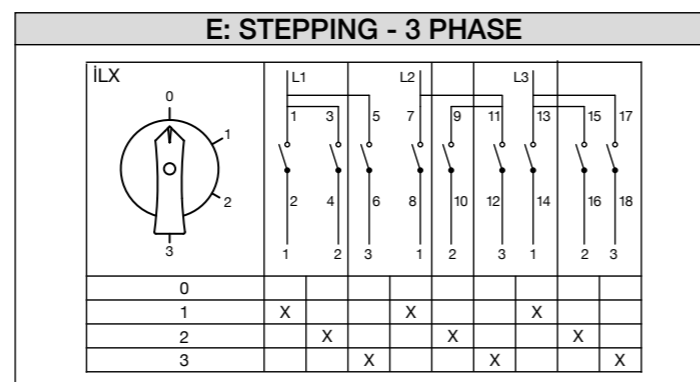
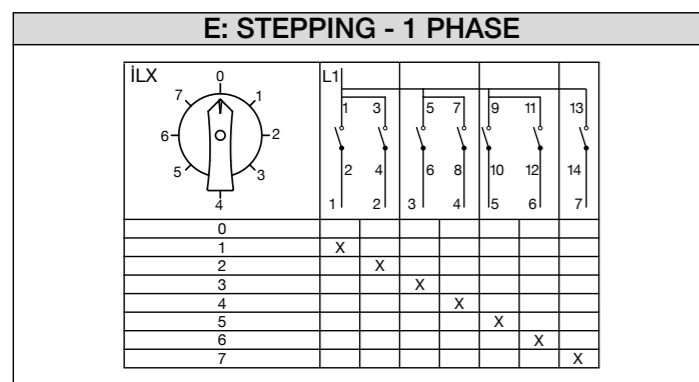
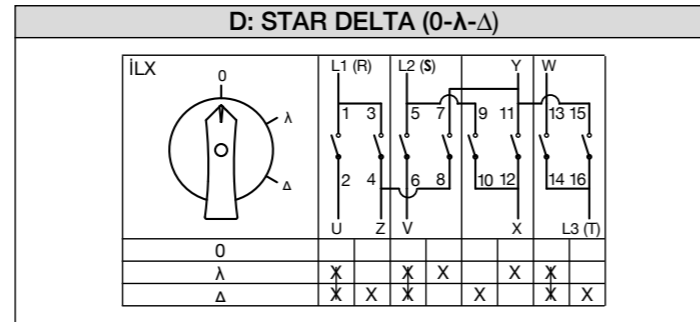
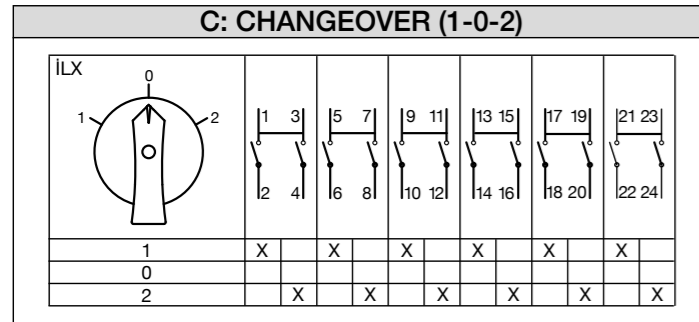
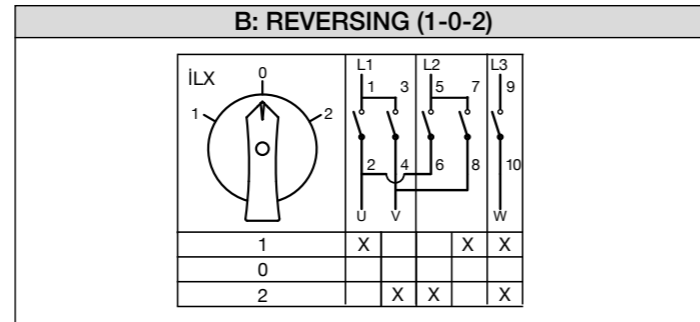
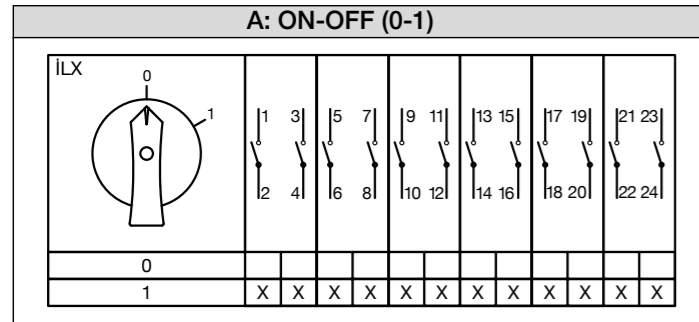


Base Mounting Dimensions																													
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Switch Body Type	a	b	c	d	e	f																							
4F	44	34	33	60	45	10,5																							
6F	65	48	54	74	55	11,2																							
8F	76	60	66	91	68	9,5																							

Panel Central Hole Dimensions		Ext. Shaft Body Dimensions	Extension Shaft Dimensions
Mounting Without Screw	Mounting With Screw		

Cam Switches Dimensions																																																									
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Switch Body Type	Suitable for (Ampere)			a		b									c	d	e	f	g	h	i																																				
		P Type	L Type	P Type	L Type																																																				
4	10 to 40	20,6	17	7,5	9	14	11,6	5,5	48	48	44	42,8																																													
6	40 to 80	27,4	23,3	8	10	20,3	18,2	8,2	66	66	65	63,5																																													
8	80 to 200	27,4	23,3	8	10	20,3	24,5	-	80	80	-	-																																													

CONNECTION DIAGRAM

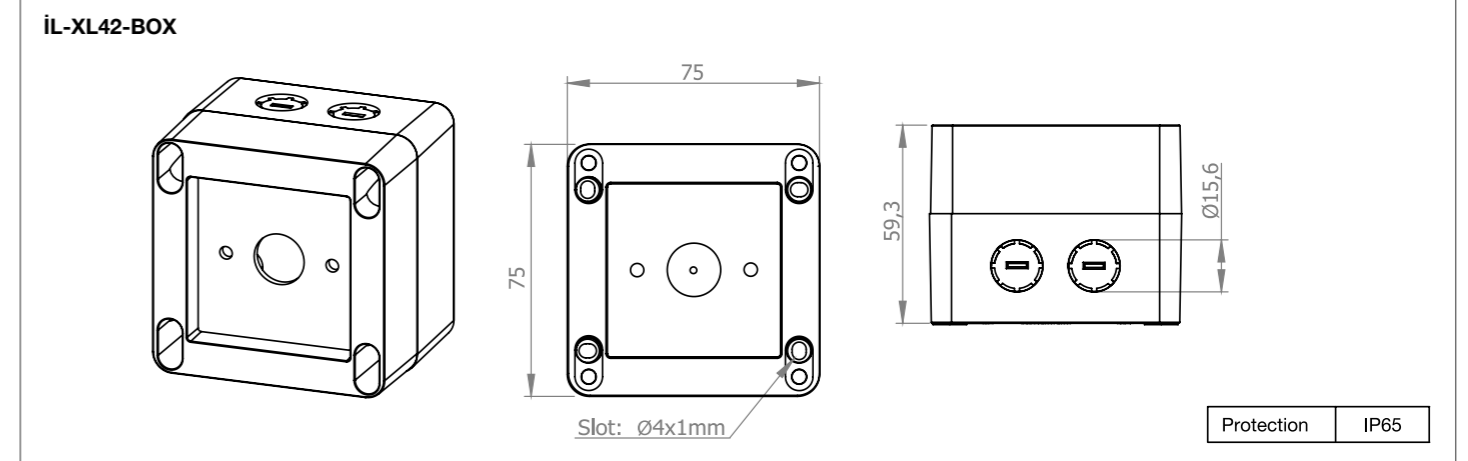
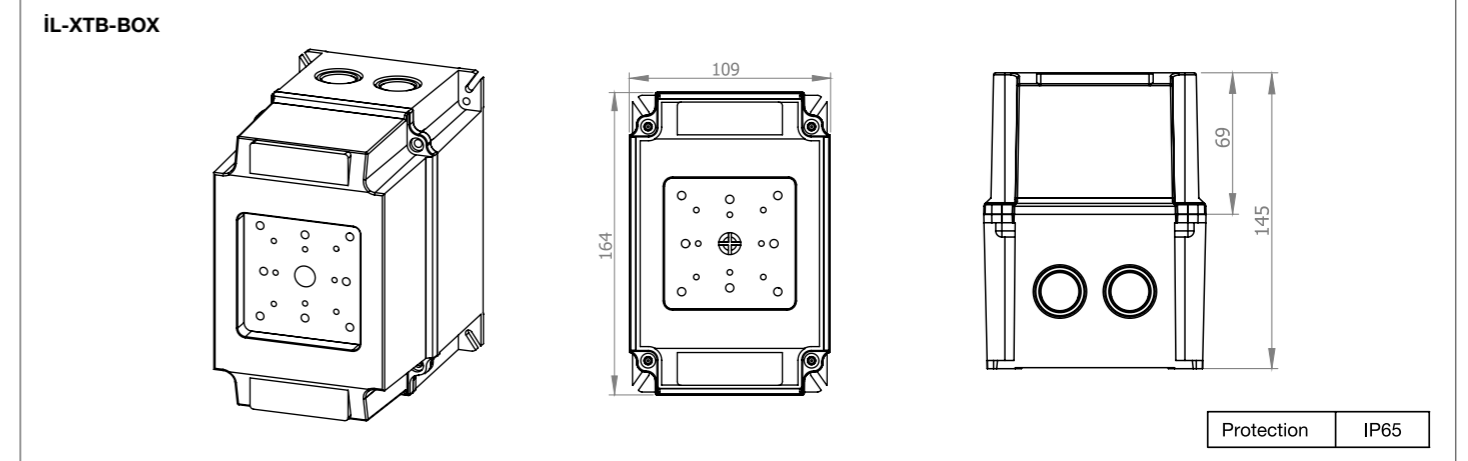


FRONT PLATE AND HANDLE TYPES

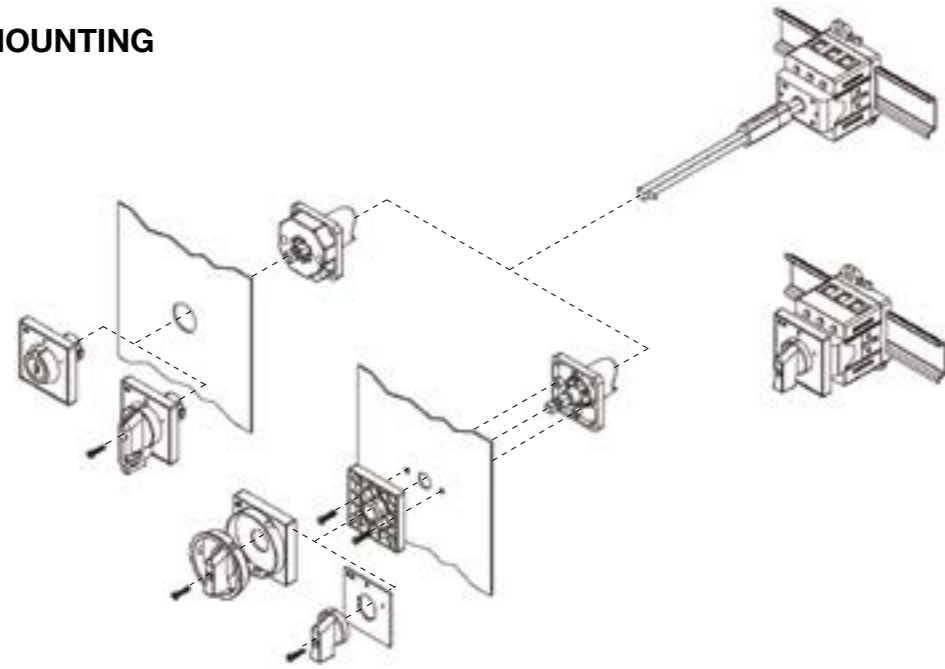
Type	Type P - Standard Handle			Type B Transparent Cover	Type K - Key Handle
Picture					
Code	PWB	PYR	PGB	BYB	KW0
Front Plate Colour	White	Yellow	Grey	Yellow	White
Handle Colour	Black	Red	Black	Black	Metallic

Type	Type L - Round Padlockable Handle		Type Y - Padlockable Handle	Type Z - Padlockable Handle - No Frame	
Picture					
Code	LGB	LYR	LYB	YYR	ZYR
Front Plate Colour	Grey	Yellow	Yellow	Yellow	Yellow
Handle Colour	Black	Red	Black	Red	Red

ENCLOSURE DETAILS



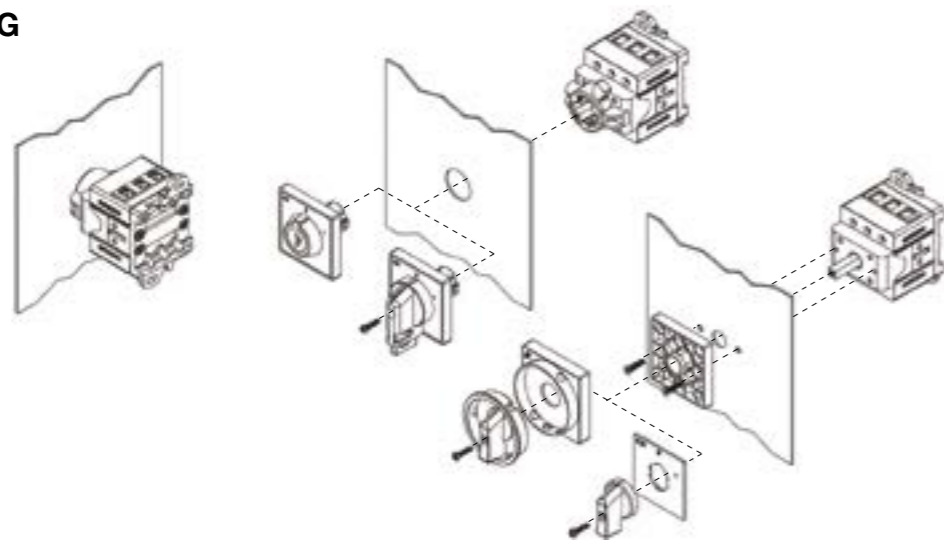
**RAIL OR BASE MOUNTING**



Panel Central Hole Dimensions		Ext. Shaft Body Dimensions	Base Mounting Dimensions
Mounting Without Screw	Mounting With Screw		

Extension Shaft Dimensions
Inquire for special dimensions.

**PANEL MOUNTING**



Panel Central Hole Dimensions		Frame Dimension	Switch Mounting Dimensions
Mounting Without Screw	Mounting With Screw		

**TECHNICAL DATA - ELECTRICAL RATINGS**

Code		iL-...-025	iL-...-032	iL-...-050
Rated operating voltage Ue	V	690		
Rated insulation voltage Ui	V	690		
Rated impulse withstand voltage Uimp (sectionable)	KV	8		
Rated thermal current Ith	A	32	40	63
Rated thermal current in enclosed Ithe	A	32	40	63
Frequency	Hz	50/60		
Temperature range	Operating	°C -20 to +60		
	Storage	°C -20 to +65		
Mechanical life time	cycles	100.000		

RATED OPERATING CURRENT						
AC-21A Switching resistive loads (p) with light overloads  AC-23A Periodic switching of motors (p)	3 phase 3 pole	690V	A	25	32	50
		230V	A	25	32	50
			kW	7,5	10	-
		400V	A	25	32	50
			kW	15	18,5	-
		500V	A	25	32	50
	kW		15	22	-	
	690V	A	16	20	25	
		kW	15	18,5	-	

Short Circuit Characteristics				
Rated short-time short circuit withstand current Icw (1s) A	A	800	800	800
Rated short circuit making capacity Icm A	A	1500	1500	2200

Dimensions							Connection Diagram			
Frame Type	Suitable For (Ampere)	a		b		c	d			
		LType	LType	LType	LType					
4	25, 32, 50*	20,6	17	7,5	9	48	48			
6		27,4	23,3	8	10	66	66			
8		27,4	23,3	8	10	80	80			
* Inquire for other ampere values.										

**ADDITIONAL POLES DETAILS**

Dimensions		Connection Diagram									
		<table border="1"> <tr> <td>Additional Pole NO</td> <td>7 — 8</td> </tr> <tr> <td>Neutral Terminal</td> <td>N — N</td> </tr> <tr> <td>Ground Terminal</td> <td>PE — PE</td> </tr> <tr> <td>Neutral (Early Make Late Break)</td> <td>N — N</td> </tr> </table>		Additional Pole NO	7 — 8	Neutral Terminal	N — N	Ground Terminal	PE — PE	Neutral (Early Make Late Break)	N — N
Additional Pole NO	7 — 8										
Neutral Terminal	N — N										
Ground Terminal	PE — PE										
Neutral (Early Make Late Break)	N — N										

# İL-XC4032-A01-PWB4D/OT

**Switch Type**

- C** Cam Switches
- D** Switch Disconnectors

**Product Body Type**

- 4** 48x48mm
- 6** 66x66mm
- 8** 80x80mm

**Rated Thermal Current**

- 010** 10A
- 016** 16A
- 020** 20A
- 025** 25A
- 032** 32A
- 040** 40A
- 050** 50A
- 063** 63A
- 080** 80A
- 100** 100A
- 125** 125A
- 160** 160A

**Switching Function**

- A** On-Off
- B** Reversing
- C** Changeover
- D** Star Delta (0-λ-Δ)
- E** Stepping
- ET** Gang
- F** Voltmeter Selector
- G** Ammeter Selector
- I** Two Speed Motor
- J** Welding Machine
- K** Bypass

\*Inquire for special requests.

\*\*Switch Disconnectors (İL-XD4) can only be made with On-Off function.

**Extra Options**

- OT** Open Terminal
- L83** L83 Type Box
- L83-TB** Repair Maintenance Switch with L83 Box
- U3** 30 cm Shaft Extension

**Mounting Type**

- D** Panel Door
- B** Panel Base
- R** DIN Rail
- S** Locknut Mounting

**Front Label Size**

- 4** 48x48mm
- 6** 66x66mm
- 8** 80x80mm

**Handle Color**

- B** Black
- R** Red
- Y** Yellow

**Front Label Color**

- W** White
- G** Gray
- Y** Yellow

**Handle Type**

Refer to page 19 for details.

**Switching Function (Cont.)**

<b>A (On-Off)</b>	<b>01-12</b>	1-12 Poles
<b>B (Reversing)</b>	<b>01</b>	1 Phase Motor
	<b>03</b>	3 Phase Motor
<b>C (Changeover)</b>	<b>01-06</b>	1-6 Poles
<b>D (Star-Delta)</b>	<b>03</b>	3 Phase
<b>F (Voltmeter Selector)</b>	<b>04</b>	Phase-Neutral
	<b>07</b>	Phase-Phase + Phase-Neutral
<b>G (Ammeter Selector)</b>	<b>03</b>	3 Phase
<b>I (Two Speed Motor)</b>	<b>03</b>	3 Phase
	<b>B03</b>	3 Phase + Reversing
<b>J (Welding Machine)</b>	<b>03-07</b>	3-7 Poles
<b>K (Bypass)</b>	<b>03</b>	3 Step Bypass
	<b>04</b>	4 Step Bypass
<b>E (Stepping)</b>	<b>abc</b>	a: 0=with 0 pos. 1=without 0 pos.
<b>ET (Gang)</b>		b: number of poles c: number of steps

- Cross rotary limit switches with 285 mm rods
- According to IEC/EN 60947-3
- Ambient temperature : Operating -25° +55° C / Storage -30° +70° C
- Cable entry with PG13.5 cable gland
- Max limit ± 180°

