



Innovative Insulators Company

IIC Company Profile

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About Us

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Polymer insulators for overhead transmission purposes are cornerstone to ensure a secure and high-performance energy transfer process, we have therefore, paid particular attention to the quality of our products in terms of the quality of used raw material either design or manufacturing process led by outstanding expertise in the field and a rigorous quality system to achieve our mission.

Mission

Make first class quality of electrical polymer insulators and provide it to the international markets as well as enhancing and developing our society.

Vision

To be one of the first-class choice's companies in the field of manufacturing electrical insulators and delivering related services worldwide

IIC Material, technology & process.

Main material

We use HTV polymer material with special formulated contain a certain specific filler, and additive agents achieves excellent making resistant to UV degradation, anti-tracking, and anti-erosion performance. Also, this formulation provides excellent recovery characteristics to control leakage currents in highly polluted or coastal environments

Injection

Our Polymer insulators made through create one piece comprise housing (sheath) and Weathershed, this directly vulcanized to the fiberglass reinforced plastic (FRP) type CR-E core during injection process, providing superior bonding performance.

Crimping & Triple seal design

The metal fittings are attached through pressure-controlled uniform and monitored crimping process. All our insulators supported with triple seal design system as we apply crimping process Prior to the injection, to ensure reliable performance sealing at any harsh environments.





Testing facility

Where quality is IIC priority, testing facility either for income raw material and in-process control or for final products, we pay more attention to ensure by ourselves how is that all raw materials and final products are meet the international standards and our clients' requirements.

This through our own lab capabilities which comprise the following

For HTV

- Tracking & erosion test.
- Hardness test.
- Tensile and tear mechanical test
- Aging test

For Metal part

- Go & not go check
- Hardness test
- Galvanization layer thickness measurement
- Mechanical test

For FRP

- Water diffusion test
- Dye penetration test
- Mechanical test

For final products

- All required mechanical test either routine or for acceptance test
- Verification of dimension

Dead end insulators



Technical data sheet for dead end suspension insulators

Catalog No*		Unit	IICDE-15XX	IICDE-28XX	IICDE-35XX	IICDE-46XX
Line Voltage		Kv	15/28	28/35	35	46
ANSI class		_____	DS-15	DS-28	DS-35	DS-46
Section length [A]**		mm [in]	444 [17.5]	503 [19.8]	561 [22.1]	619 [24.4]
Shed	Ø [B]	mm [in]	107 [4.2]	107 [4.2]	107 [4.2]	107 [4.2]
	No	No	8	10	12	14
Min. Arcing distance		mm [in]	320 [12.6]	379 [15]	437 [17.2]	495 [19.5]
Min. Leakage distance		mm [in]	820 [32.3]	1000 [39.4]	1190 [46.9]	1375 [54.1]
L F wet flashover		kV	100	130	145	145
Positive critical impulse flashover		kV	190	225	250	280
RIV at 1 MHz	Test	kV	20	30	30	30
	Max	µV	10	10	10	10
Min. SML		kN [lb]	70 [15700]	70 [15700]	90 [20000]	90[20000]
Min. Torsional load		N.m	50	50	50	50

* XX code is the type of dead end, hot dip galvanized end fitting

X Could be one of the following

- B Ball dead end fitting
- T Tongue dead end fitting
- Y Y - Clevis dead end fitting

- S Socket dead end fitting
- C Clevis dead end fitting
- E Oval eyes dead end fitting

** Stated section length are specify Tongue & Clevis insulator type the values for others dead end types may vary in few mm

Line post insulators



Technical data sheet for line post category 15 kN [3370LB]

Catalog No*		Unit	IICLP15-XX-15	IICLP28-XX-15	IICLP35-XX-15	IICLP46-XX-15
Line Voltage		Kv	15/28	28/35	35	46
ANSI class			51-1F	51-2F	51-3F	51-4F
Section length [A]**		mm [in]	279[11]	362 [14.25]	400 [15.7]	482 [19]
Shed	∅ [B]	mm [in]	146 [5.7]	177 [7]	177 [7]	177 [7]
	No	No	5	5	7	9
Min. Arcing distance		mm [in]	257 [10]	311[12.2]	389[15.3]	474 [18.6]
Min. Leakage distance		mm [in]	580[22.8]	768[30.2]	1050 [41.3]	1333 [52.4]
Center hole nominal thread size		mm [in]	20 [3/4]	20 [3/4]	20 [3/4]	20 [3/4]
L F wet flashover		kV	80	100	120	145
Positive critical impulse flashover		kV	150	170	200	280
RIV at 1 MHz	Test	kV	20	30	30	30
	Max	µV	10	10	10	10
Specified cantilever load (SCL)		kN [lb]	15 [3370]	15 [3370]	15 [3370]	15 [3370]
Specified tensile load		kN [lb]	22 [5000]	23 [5000]	24 [5000]	25 [5000]



Technical data sheet for line post category 12.5 kN [2800LB] with extra anti-pollution design

Catalog No*		Unit	IIICLP15-XX-12.5	IIICLP28-XX-12.5	IIICLP35-XX-12.5	IIICLP46-XX-12.5
Line Voltage		Kv	15/28	28/35	35	46
ANSI class		—	51-1F	51-2F	51-3F	51-4F
Section length [A]**		mm [in]	279[11]	362 [14.25]	422 [16.6]	482 [19]
Shed	∅ [B]	mm [in]	150 [5.9]	156 [6]	156[6]	156 [6]
	No	No	6	8	10	12
Min. Arcing distance		mm [in]	255 [10]	329[13]	389[15.3]	449 [17.5]
Min. Leakage distance		mm [in]	716 [28.2]	970[38.2]	1200[47.2]	1444 [56.8]
Center hole nominal thread size		mm [in]	20 [3/4]	20 [3/4]	20 [3/4]	20 [3/4]
L F wet flashover		kV	100	130	145	145
Positive critical impulse flashover		kV	180	200	230	280
RIV at 1 MHz	Test	kV	20	30	30	30
	Max	μV	10	10	10	10
Specified cantilever load (SCL)		kN [lb]	12.5 [2800]	12.5 [2800]	12.5 [2800]	12.5 [2800]
Specified tensile load		kN [lb]	22 [5000]	23 [5000]	24 [5000]	25 [5000]

Section length adjustment and XX type

Line end fitting		XX type	Section length [A]	ANSI Class
Vertica tie-top C-neck Center tap base type	Tie-Top(C-neck)	TC	See technical data sheet	51- 1C / 51-2C / 51-3C / 51-4C
Vertica tie-top F-neck Center tap base type	Tie-Top(F-neck)	TF	See technical data sheet	See technical data sheet
Vertica clamp-top Center tap base type	Vertical	TV	[A] +10 mm (0.4in)	51- 11 / 51-12 / 51-13 / 51-14
Horizontal clamp-top Center tap base type	Horizontal	TH	[A] +25 mm (1 in)	51- 21 / 51-22 / 51-23 / 51-24

Approval & certification

IIC is approved by the Saudi Electricity Company SEC.

We are a QMS, ISO9001:2015 certified company and our products got the required type test certificates form accredited lab.





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