

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED
STANDARDISED GUARANTEED TECHNICAL PARTICULARS FOR
PORCELAIN DISC INSULATORS

Sl. No.	Characteristics	Type of Disc Insulators			
		70 KN		120 KN	
		Normal	Antifog	Normal	Antifog
1	Type description	B & S Type.			
2	Colour & surface of porcelain portion	BROWN GLAZED			
3	Ferrous parts	AS PER IS-2629 & 2633 with latest editions			
4	Check clip provided in the socket	R/W Type clip with Stainless Steel.			
5	Ball pin	Drop Forged Steel			
5.b	Minimum Thickness of Zinc Sleeve	N/A	5 mm	N/A	5 mm
6	Socket fitting	Malleable Cast Iron/Spherodical Graphite Iron			
7	Ball pin designation	16 mm	16 mm	20mm	20mm
8	Diameter and spacing of insulators (in mm).				
a)	Diameter	255	280	255	280
	Spacing	146	146	146	146
b)	Tolerances				
	(i) Dia +/-	(0.04 d + 1.5) mm where 'd' is the dia of shell			
	(ii) spacing +/-	(0.03 S + 0.3) mm where 'S' is the spacing of disc			
9	Minimum failing Load of the insulator	7000	7000	11500	11500
10	Minimum total creepage distance in mm.	295	435	320	435
11	Minimum protected creepage distance in mm	175	240	215	240
12	Combined Mechanical and Electrical strength in KGs.	7000	7000	11500	11500
13	One minute power Frequency withstand voltage (kV) Dry	75	80	75	80
14	One minute power Frequency withstand voltage (kV) Wet	45	45	45	50
15	Flashover Power Frequency voltage (kV)				
	Dry	80	85	80	85
	Wet	48	50	48	55
16	Visible discharge voltage (kV)	9	9	18	18

APPROVED FOR TURNKEY PROJECTS


 25/10/21
 CHIEF ENGINEER / CONSTRUCTION-1
 APTRANSCO/VIDYUTH SOUDHA/HYD.

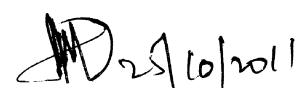
STANDARDISED GUARANTEED TECHNICAL PARTICULARS FOR PORCELAIN DISC INSULATORS

Sl. No.	Characteristics	Type of Disc Insulators			
		70 KN		120 KN	
		Normal	Antifog	Normal	Antifog
17	Puncture Voltage (kV)	120	140	120	140
18	Impulse flash over voltage (kV)				
	Positive	125	125	125	125
	Negative	130	130	130	130
19	Standard according to which the conductor will be manufactured and tested. However if any amendments are there they shall also to be taken into consideration.	IS-731-1971 with latest amendments.			
	The type tests should have been conducted not earlier than 5 years in the Standard third party laboratory. The Manufacturer shall produce the type test reports at the time of acceptance tests.				
20	No. of units for single String				
	For 132 KV	9	9	10	10
	For 220 KV	13	13	14	14
21	Rated Voltage of each insulator (kV)	12	12	12	12
22	Maximum RIV at 1 MHZ and 10kV AC uV	50	50	50	50
23	Net Weight of single Disc (approximately) in Kgs	5.7	8	7.5	9.5
22	Quality of material & standard to which conform	BIS			
	The Manufacturer shall produce the valid BIS certification at the time of acceptance tests.				
23	Packing	Packing shall be done with hard season wood as per the specification.			
24	Markings	“APTRANSCO” letters to be indented or embossed on the cap/socket of the Insulator or on the Porcelain body.			



**Standardised Guaranteed Technical Particulars for
70KN & 120KN Normal & AF Porcelain Disc Insulators**
STD/GTP-DWG/Approval No. 6 / Revision No. 0
Prepared & Approved during October - 2011

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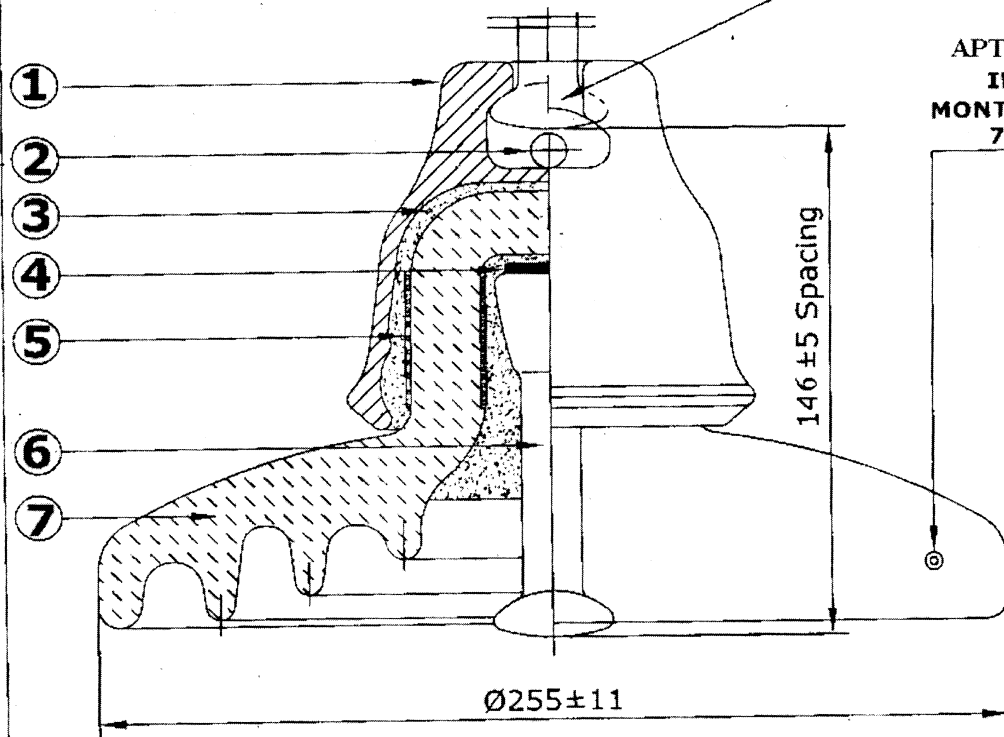

 CHIEF ENGINEER / CONSTRUCTION-1
 APTRANSCO/VIDYUTH SOUDHA/HYD.

All dimensions are in mm.

BALL & SOCKET 16 mm " B " DESIGNATION

AS PER IS : 2486 - P2 -1989.

APTRNASCO
INDIA
MONTH & YEAR
70 kN.



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CHIEF ENGINEER / CONSTRUCTION-1
APTRANSCO/VIDYUTH SOUDHA/HYD.

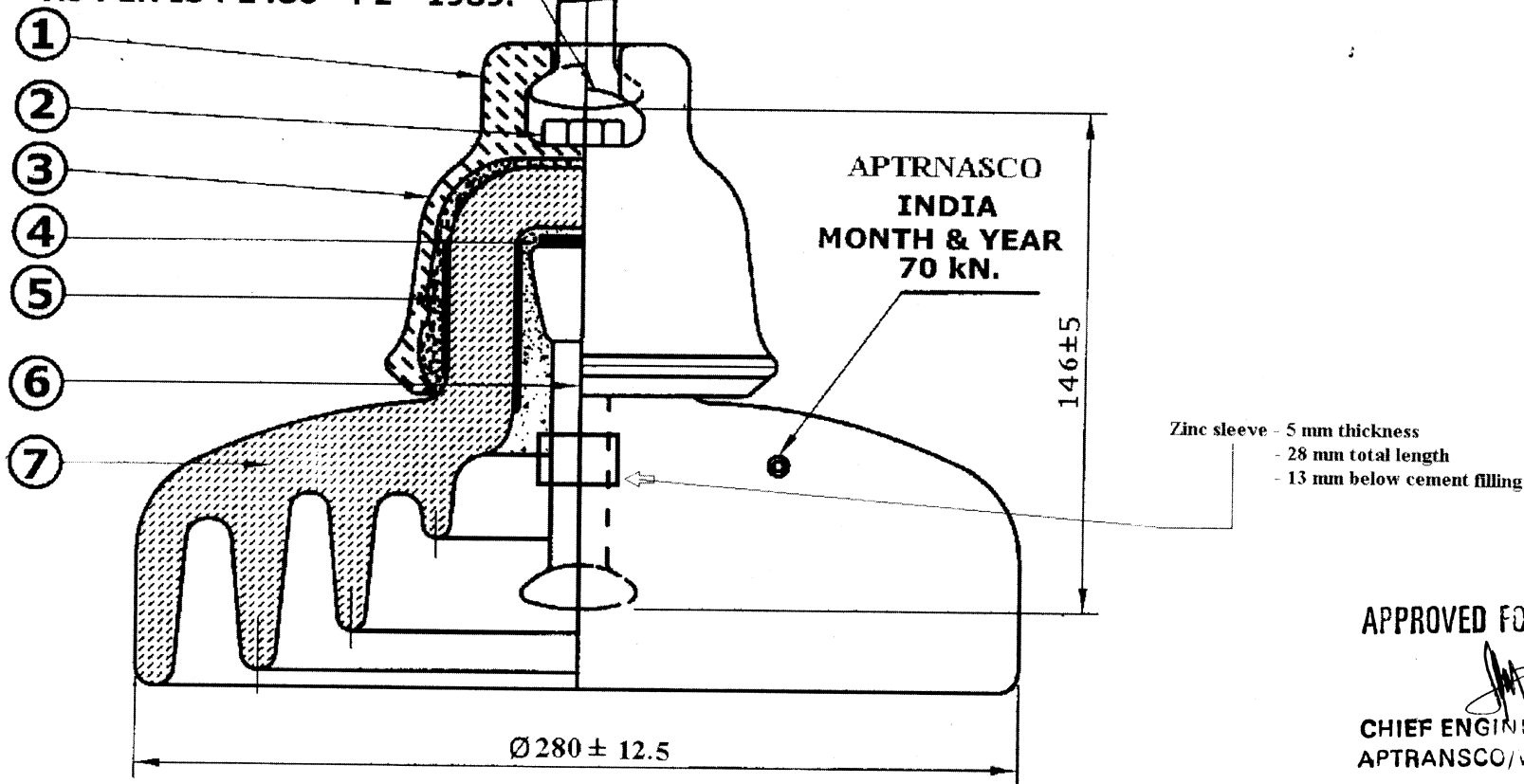
7	INSULATOR SHELL	1	—	PORCELAIN	Brown glazed
6	BALL PIN	1	—	Forged steel	Hot dip galv.
5	SAND	—	—	PORCELAIN	—
4	CUSHION	1	—	CORK	—
3	CEMENT	—	—	PORTLAND	—
2	Sec.Clip(W/R Type)	1	16mm SOCKET	S.S/Ph.Bronze	—
1	CAP	1	16mm SOCKET	M.C.I.	Hot dip galv.
SLNO.	DESCRIPTION	QTY	SIZE	MATERIAL	FINISH

	Standardised Drawing for 70KN Normal Disc Insulator	
	STD/GTP-DWG/Approval No. 7-1 / Revision No. 0	
	Prepared & Approved during October - 2011	
CUSTOMER REF.		SCALE
APTRANSCO		NTS
Title: 11 KV DISC INSULATOR - 70KN NORMAL		

BALL & SOCKET 16 mm " B " DESIGNATION.

All dimensions are in mm.

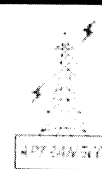
AS PER IS : 2486 - P2 -1989.



APPROVED FOR TURNKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION-1
APTRANSCO/VIDYUTH SOUDHA/HYD.

7	INSULATOR SHELL	1	—	PORCELAIN	Brown glazed
6	BALL PIN	1	—	Forged steel	Hot dip galv.
5	SAND	—	—	PORCELAIN	—
4	CUSHION	1	—	CORK	—
3	CEMENT	—	—	PORTLAND	—
2	Sec.Clip(W/R-Type)	1	16mm. SOCKET	S.S/Ph.Bronze	—
1	CAP	1	16mm. SOCKET	M.C.I.	Hot dip galv.
SLNO.	DESCRIPTION	QTY	SIZE	MATERIAL	FINISH



Standardised Drawing for 70KN A / F Disc Insulator

STD/GTP-DWG/Approval No. 7-2/ Revision No. 0

Prepared & Approved during October - 2011

CUSTOMER REF.

APTRANSCO

SCALE
NTS

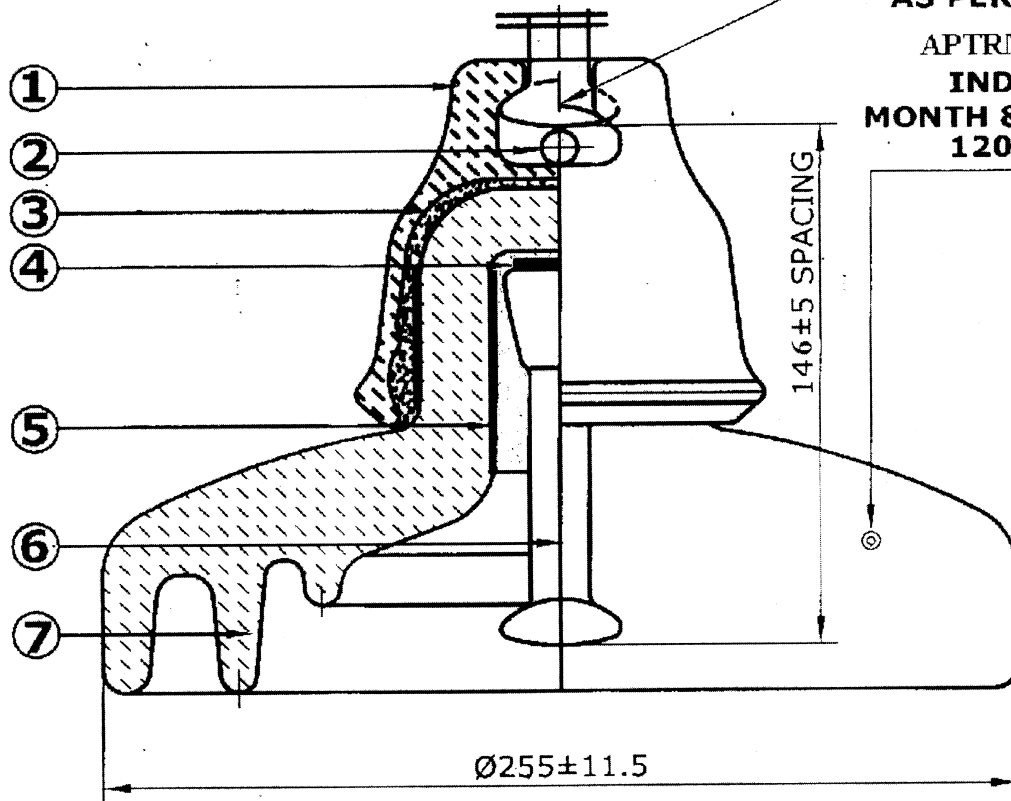
Title: 11 KV DISC INSULATOR - 70KN A / F

BALL & SOCKET 20 mm DESIGNATION

All dimensions are in mm.

AS PER IS : 2486 - P2 -1989.

APTRNASCO
INDIA
MONTH & YEAR
120 kN.



APPROVED FOR TURNKEY PROJECTS

[Signature]
CHIEF ENGINEER / CONSTRUCTION-1
APTRANSO/VIDYUTH SOUDHA/HYD.

7	INSULATOR SHELL	1	—	PORCELAIN	Brown glazed
6	BALL PIN	1	—	Forged steel	Hot dip galv.
5	SAND	—	—	PORCELAIN	—
4	CUSHION	1	—	CORK	—
3	CEMENT	—	—	PORTLAND	—
2	Sec.Clip(W/R-Type)	1	20mm SOCKET	S.S/Ph.Bronze	—
1	CAP	1	20 mm. SOCKET	M.C.I.	Hot dip galv.
SLNO.	DESCRIPTION	QTY	SIZE	MATERIAL	FINISH



Standardised Drawing for 120KN Normal Disc Insulator

STD/GTP-DWG/Approval No. 7-3 / Revision No. 0

Prepared & Approved during October - 2011

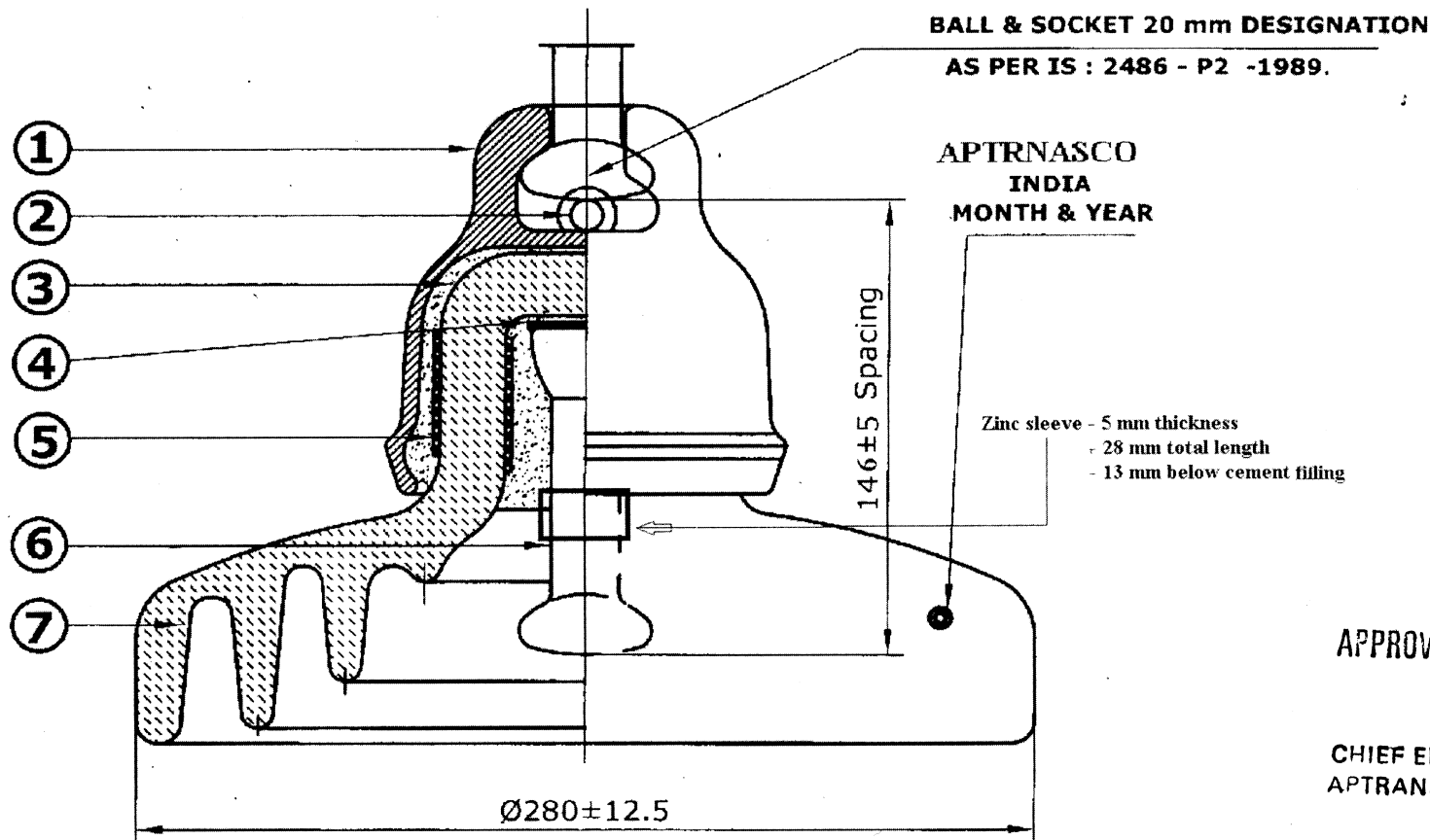
CUSTOMER REF.

APTRANSO

SCALE
NTS

Title: 11 KV DISC INSULATOR - 120KN NORMAL

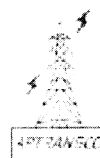
All dimensions are in mm.



APPROVED FOR TURNKEY PROJECTS

CHIEF ENGINEER / CONSTRUCTION-1
APTRANSCO/VIDYUTH SOUDHA/HYD.

7	INSULATOR SHELL	1	—	PORCELAIN	Brown glazed
6	BALL PIN	1	—	Forged steel	Hot dip galv.
5	SAND	—	—	PORCELAIN	—
4	CUSHION	1	—	CORK	—
3	CEMENT	—	—	PORTLAND	—
2	Sec.Clip(W/R-Type)	1	20mm. SOCKET	S.S/Ph.Bronze	—
1	CAP	1	20mm. SOCKET	M.C.I.	Hot dip galv.
SLNO.	DESCRIPTION	QTY	SIZE	MATERIAL	FINISH



Standardised Drawing for 120KN A / F Disc Insulator

STD/GTP-DWG/Approval No. 7-4/ Revision No. 0

Prepared & Approved during October - 2011

CUSTOMER REF.

APTRANSCO

SCALE
NTS

Title: 11 KV DISC INSULATOR - 120KN A / F