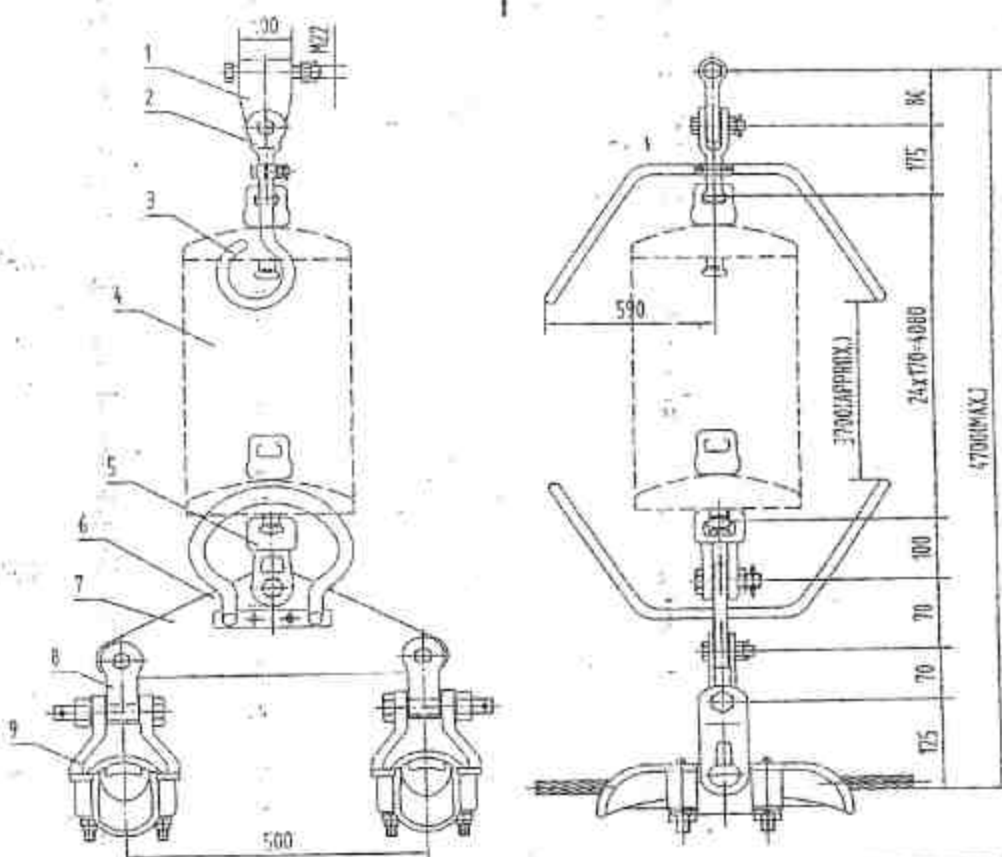


400KV S.C. (350KM)

(140)

No.	Drawing No.	Description	Cat.No.	Notes
序号	图号	名称	型号	备注
1	TR-SD-01	SINGLE SUSPENSION INSULATOR SET FOR TWIN ACSR 550/70	SD-01	
2	TR3-JLB-21	HINGE TO TOWER	JLB-21	
3	TR3-Q-21UH	BALL CLEVIS	Q-21UH	
4	TR5-HJ-53	ARCING HORN	ZHJ-53	
5	TR3-WS-21D	SOCKET CLEVIS	WS-21D	
6	TR5-FJP-400X	SHIELDING RING	FJP-400X	
7	TR3-L-2150	YOKE PLATE	L-2150	
8	TR3-UB-12T	CLEVIS HINGE	UB-12T	
9	TR1-GZ-5	SUSPENSION CLAMP	XGZ-5	
10	TR-SS-01	400KV DOUBLE SUSPENSION INSULATOR SET FOR TWIN ACSR 550/70	SS-01	
11	TR3-JLB-21	HINGE TO TOWER	JLB-21	
12	TR3-P-21A	DOUBLE STRAP	P-21A	
13	TR3-L-2150	YOKE PLATE	L-2150	
14	TR3-Q-21U	BALL CLEVIS	Q-21U	
15	TR5-HJ-51	ARCING HORN	ZHJ-51	
16	TR3-WS-21D	SOCKET CLEVIS	WS-21D	
17	TR5-FJP-400X	SHIELDING RING	FJP-400X	
18	TR3-LF-2150	YOKE PLATE	LF-2150	
19	TR3-UB-12T	CLEVIS HINGE	UB-12T	
20	TR1-GZ-5	SUSPENSION CLAMP	XGZ-5	
21	TR-ND-01	400KV DOUBLE TENSION INSULATOR SET FOR TWIN 550/70	ND-01	
22	TR3-Z-21A	CLEVIS	Z-21A	
23	TR3-PT-21	ADJUSTING PLATE	PT-21	
24	TR3-Q-21P	BALL EYE	Q-21P	
25	TR5-ZHJ-52	ARCING HORN	ZHJ-52	
26	TR5-FJP-400NA	SHIELDING RING	FJP-400NA	
27	TR3-WS-21D	SOCKET CLEVIS	WS-21D	
28	TR3-LF-4250	YOKE PLATE	LF-4250	
29	TR3-Z-21	CLEVIS	Z-21	
30	TR3-DBS-21	ADJUSTING PLATE	DBS-21	
31	TR2-Y-550/70	TENSION CLAMP	NY-550/70	

No.	Drawing No.	Description	Cat.No.	Notes
序号	图号	名称	型号	备注
32	TR-NL-02	400KV LOW DUTY TENSION INSULATOR SET FOR TWIN ACSR 550/70	NL-02	
33	TR3-Z-21A	CLEVIS	Z-21A	
34	TR3-LH-21	TURNBUCKLE	LH-21	
35	TR3-Q-21P	BALL EYE	Q-21P	
36	TR5-ZHJ-55	ARCING HORN	ZHJ-55	
37	TR5-FJP-400NA	SHIELDING RING	FJP-400NA	
38	TR3-WS-21D	SOCKET CLEVIS	WS-21D	
39	TR3-L-2150	YOKE PLATE	L-2150	
40	TR3-Z-21C	CLEVIS	Z-21C	
41	TR2-Y-550/70	TENSION CLAMP	NY-550/70	
42	TR-SDJ-01	400KV PILOT JUMPER SUSPENSION INSULATOR SET FOR TWIN ACSR 550/70	SDJ-01	
43	TR3-JLB-21	HINGE TO TOWER	JLB-21	
44	TR3-Q-21UH	BALL CLEVIS	Q-21UH	
45	TR3-WS-21D	SOCKET CLEVIS	WS-21D	
46	TR3-L-2150C	YOKE PLATE	L-2150C	
47	TR3-UB-12T	CLEVIS HINGE	UB-12T	
48	TR1-GZ-5	SUSPENSION CLAMP	XGZ-5	
49	TR7-ZC-100	WEIGHT COUNTER	ZC-100	
50	TR5-FFJQ-506	SPACER DAMPER FOR TWIN ACSR 550/70	FFJQ-506	
51	TR-SE-01	EARTH WIRE SUSPENSION SET FOR ACSR 105/75	SE-01	
52	TR3-U-7L	SHACKLE	U-7L	
53	TR3-ZH-7	EYE CHAIN LINK	ZH-7	
54	TR1-GH-3	SUSPENSION CLAMP	XGH-3	
55	TR4-B-3	PARALLEL GROOVE CLAMP	JB-3	
56	TR3-LT-3	TOWER CLAMP	LT-3	
57	TR-NE-01	EARTH WIRE TENSION SET FOR ACSR 105/75	NE-01	
58	TR3-Z-12Q	CLEVIS TONGUE	Z-12Q	
59	TR3-BD-12	LINK PLATE	BD-12	
60	TR3-U-12Q	SHACKLE	U-12Q	
61	TR2-Y-105/75	TENSION CLAMP	NY-105/75	
62	TR4-B-3	PARALLEL CLAMP	JB-3	
63	TR4-LT-3	TOWER CLAMP	LT-3	
64	TR5-FR-2	VIBRATION DAMPER FOR ACSR 105/75	FR-2	
65	TR4-Y-550/70	COMPRESSION MID-SPAN JOINT FOR ACSR 550/70	JY-550/70	
66	TR4-X-550/70	COMPRESSION REPAIR SLEEVE FOR ACSR 550/70	JX-550/70	
67	TR4-Y-105/75	COMPRESSION MID-SPAN JOINT FOR ACSR 105/75	JY-105/75	
68	TR4-X-105/75	COMPRESSION REPAIR SLEEVE FOR ACSR 105/75	JX-105/75	
69	TR7-TY-550/70	T CONNECTOR FOR ACSR 550/70	TY-550/70	
70	TR9-AWS-600R	AIRCRAFT WARNING SPHERES (RED) WITH ARMOUR RODS SUITABLE ACSR 105/75	AWS-600R	
71	TR9-AWS-600W	AIRCRAFT WARNING SPHERES (WHITE) WITH ARMOUR RODS SUITABLE ACSR 105/75	AWS-600W	
72	TR5-FJQ-506	SPACER FOR TWIN ACSR 550/70	FJQ-506	



No.	Description	Col.No.	Q'ty	Material	Drawing No.	U.T.S.
1	Hinge to tower	JLB-21	1	Steel, h.d.g.	TR3-JLB-21	210KN
2	Ball clevis	Q-25UH	1	Steel, h.d.g.	TR3-Q-25UH	210KN
3	Arising horn	ZHJ-53	2	Steel, h.d.g.	TR5-HJ-53	
4	Insulator		24			
5	Socket clevis	WS-210	1	Steel, h.d.g.	TR3-WS-210	210KN
6	Shielding ring	FAP-400X	1	Al tube	TR5-FAP-400X	
7	Yoke plate	L-2150	1	Steel, h.d.g.	TR3-L-2150	210KN
8	Clevis hinge	UB-12T	2	Steel, h.d.g.	TR3-UB-12T	120KN
9	Suspension clamp	XG2-5	2	Al alloy & Steel, h.d.g.	TR1-G2-5	120KN


Notes:

1. Min. breaking strength is 210KN.

2. All dimensions are in mm.

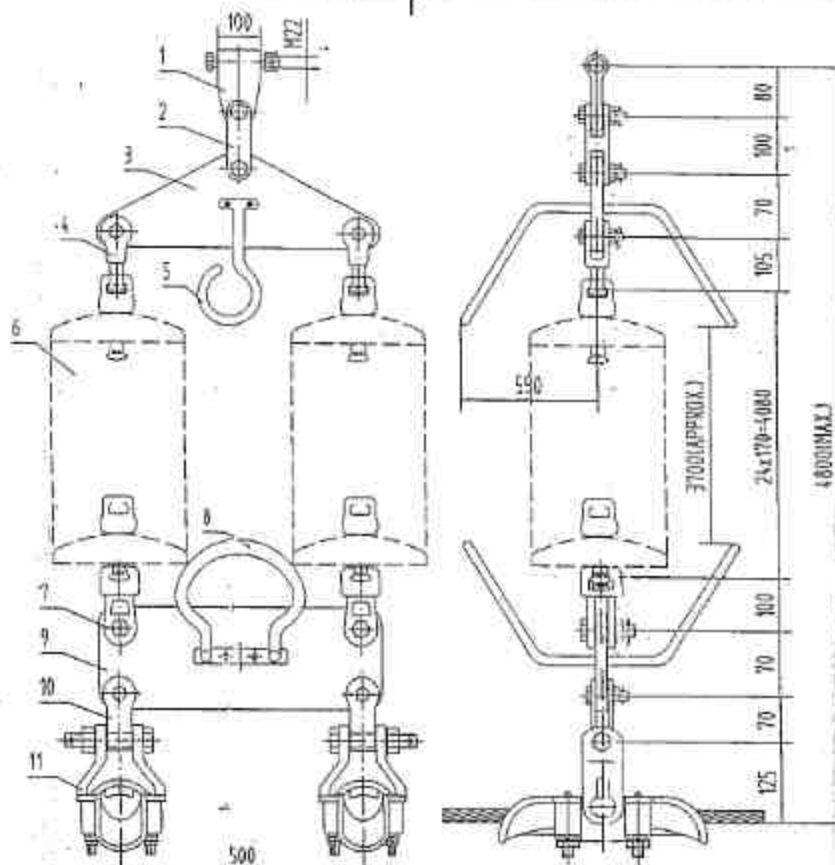
3. All hardware and fittings shall be corona free design and suitable for hot line maintenance.

4. All ferrous parts shall be hot-dip galvanized to BS 729.

 南京特瑞电力器材有限公司
NANJING TERUI POWER MATERIAL CO., LTD.

400KV SINGLE SUSPENSION INSULATOR
SET FOR TWIN ACSR 550/70

Designed by	HJG	Approved by	HJG	Category No.	SD-01	
Verified by	WJG	Date	1/11/00	Drawing No.	TR-SD-01	Weight (kg)
						40.00 (x/insulators)



No.	Description	Cat. No.	Q'ty	Material	Drawing No.	U.T.S.
1	Hinge to tower	JLB-21	1	Steel, h.d.g.	TR3-JLB-21	210kN
2	Double strap	P-21A	1	Steel, h.d.g.	TR3-P-21A	210kN
3	Yoke pin	L-2150	1	Steel, h.d.g.	TR3-L-2150	210kN
4	Ball clevis	Q-21U	2	Steel, h.d.g.	TR3-Q-21U	210kN
5	Arching horn	ZHJ-51	1	Steel, h.d.g.	TR3-ZHJ-51	
6	Insulator		2x24			
7	Socket clevis	WS-210	2	Steel, h.d.g.	TR3-WS-210	210kN
8	Shielding ring	FJP-400X	1	Al tube	TR3-FJP-400X	
9	Yoke plate	LF-2150	1	Steel, h.d.g.	TR3-LF-2150	210kN
10	Clevis hinge	UB-12T	2	Steel, h.d.g.	TR3-UB-10T	120kN
11	Suspension clamp	XGZ-5	2	Al alloy & Steel, h.d.g.	TR3-XGZ-5	120kN

Notes:

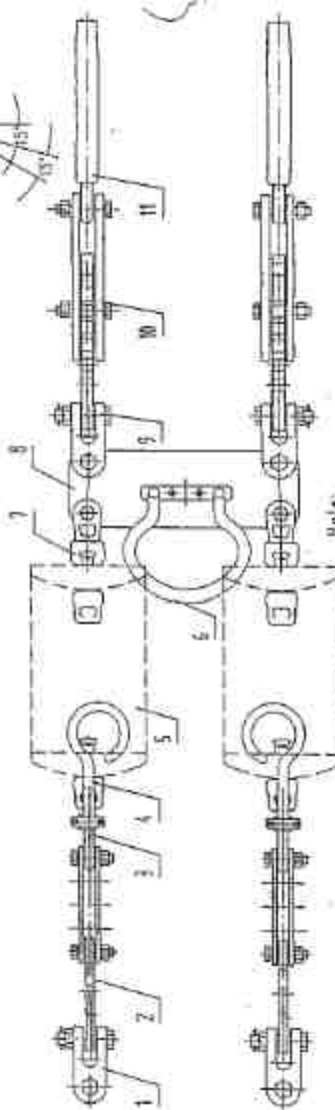
1. Min. breaking strength is 710kN.
2. All dimensions are in mm.
3. All hardware and fittings shall be corrosion free design and suitable for 1:1 line maintenance.
4. All ferrous parts shall be hot-dip galvanized to BS 729.



南京特瑞电力器材有限公司
NANJING TERDI POWER MATERIAL CO., LTD.

400KV DOUBLE SUSPENSION INSULATOR
SET FOR TWIN ACSR 550/70

Designed by	HJCN	Approved by	HJCN	Catalogue No.	SS-01
-------------	------	-------------	------	---------------	-------



breakdown strength is 270 kV/cm.

- 3.4.1 All dimensions are in mm.
- 3.4.2 All hardware and fittings shall be corona free design and suitable for hot line maintenance.
- 3.4.3 All ferrules shall be hot-dip galvanized to BS 729.

No.	Description	Est. No.	Q'ty	Material	Strong No.	U. S.
1	Gravel	T-21A	2	Gravel, h. d. g.	103-2-21A	2150H
2	Subgrading pitls	P1-21	2	Gravel, h. d. g.	103-2-P1-21	2150H
3	Ball apron	0-21F	2	Gravel, h. d. g.	103-2-21F	2150H
4	Arched berm	20F-22	2	Gravel, h. d. g.	103-2-20F	2150H
5	Landfill		hcs3		103-20F-22	
6	Shedding tank	P1-21B	1	MF tube	103-2-P1-21B	
7	Shedding elevat.	W2-21B	2	Gravel, h. d. g.	103-2-W2-21B	2150H
8	Yote pitls	17-25A	2	Gravel, h. d. g.	103-2-17-25A	4250A
9	Gravel	T-21	2	Gravel, h. d. g.	103-2-21	2150H
10	Subgrading pitls	093-2-21	2	Gravel, h. d. g.	103-2-093-2-21	2150H
	Traxion clew	07-15A/70	2	MF tube & shed. h. d. g.	103-2-07-15A/70	

南京特瑞電力器材有限公司
NANJING TERT POWER MATERIAL CO., LTD.

400KV DOUBLE TENSION INSULATOR
SFT FOR TWIN ACS 550/70

Testament of

Arbeits-	Arbeits-	Arbeits-
----------	----------	----------

10

Catalogue No.

WD-01

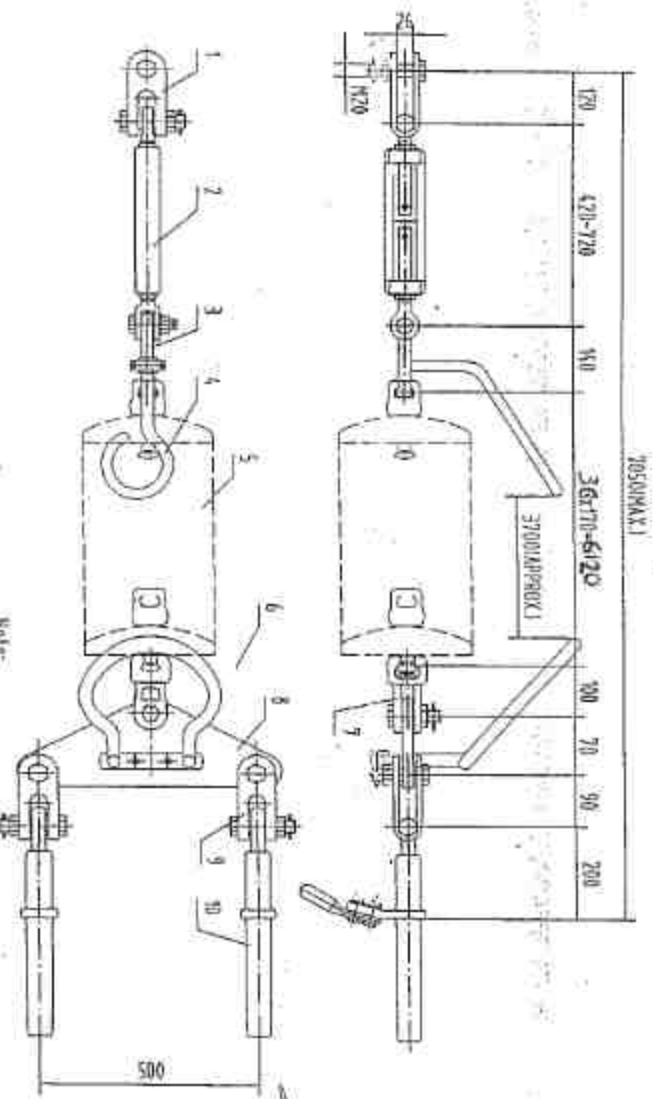
Investment

32

2007-2008

Drawing No.

 $\text{Sol}(\Gamma/\text{Ker}(\varphi))$



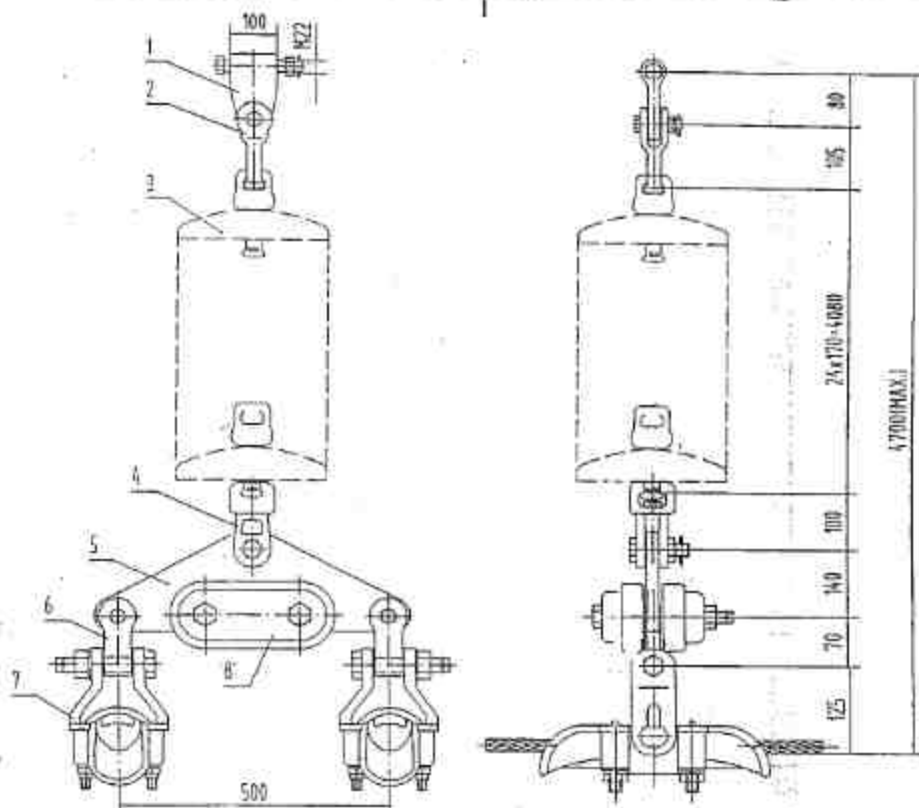
No.	Description	Qty	Material	Drawing No.	U.T.S
1	Cap	1	Steel S.S.	100-1-21A	200N
2	Insulator	1	Steel S.S.	100-1-21A	200N
3	Ball pin	1	Steel S.S.	100-1-21A	200N
4	Artery wire	1	Steel S.S.	100-1-21A	200N
5	Insulator	1	Steel S.S.	100-1-21A	200N
6	Shocking ring	1	Steel S.S.	100-1-21A	200N
7	Steel pin	1	Steel S.S.	100-1-21A	200N
8	Yoke plate	1	Steel S.S.	100-1-21A	200N
9	Circle	1	Steel S.S.	100-1-21A	200N
10	Insulator	1	Steel S.S.	100-1-21A	200N

Designed by	W. H. H.	Approved by	W. H. H.	Drawing No.	IR-10-02	Weight (kg)	Known (kg)
Verified by	W. H. H.	Checked by	W. H. H.	Weight (kg)	Known (kg)		

Note:
 1. All creaking strength is 210KN.
 2. Slip strength of tension clamp is not less than 85% of conductor's U.T.S.
 3. All dimensions are in mm.
 4. All hardware and fittings shall be corrosion free design
 and suitable for hot line maintenance.
 5. All ferrous parts shall be hot dip galvanized to BS 729.

400KV LOW DUTY TENSION INSULATOR
 SET FOR TWIN ACSR 550/70

南京特威电力器材有限公司
 NANJING TECTEC POWER EQUIPMENT CO., LTD.
 SET FOR TWIN ACSR 550/70

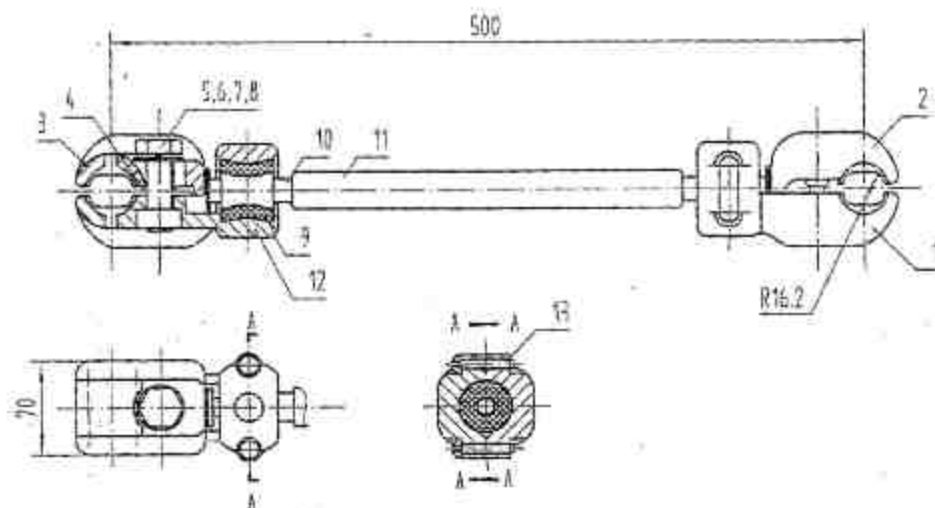


No.	Description	Cat.No.	Qty	Material	Drawing No.	U.T.S.
1	Hinge to lower	JLB-21	1	Steel, h.d.g.	TRJ-JLB-21	210kN
2	Ball clevis	O-210H	1	Steel, h.d.g.	TRJ-O-210H	210kN
3	Insulator		24			
4	Socket clevis	WS-210	1	Steel, h.d.g.	TRJ-WS-210	210kN
5	Yoke plate	L-2150C	1	Steel, h.d.g.	TRJ-L-2150C	210kN
6	Clevis hinge	UB-12T	2	Steel, h.d.g.	TRJ-UB-12T	120kN
7	Suspension clamp	XGZ-5	2	Al alloy	TR1-GZ-5	120kN
8	Weight counter	ZC-100	1	Steel, h.d.g.	TR7-ZC-100	

Notes:

1. Min. breaking strength is 210kN.
2. All dimensions are in mm.
3. All hardware and fittings shall be corona free design and suitable for hot line maintenance.
4. All ferrous parts shall be hot-dip galvanized to BS 729.

 南京特瑞电力器材有限公司 NANJING TERUI POWER MATERIAL CO., LTD.				400KV PILOT JUMPER SUSPENSION INSULATOR SET 5C3 TWIN ACSR 550/70		
Designed by	HLJCN	Approved by	B.D.B.	Catalogue No.	SDJ-01	
Verified by	HLJCN	Date	11/1/10	Drawing No.	TR-SDJ-01	Weight (kg) 140.0 (w/o insulators)



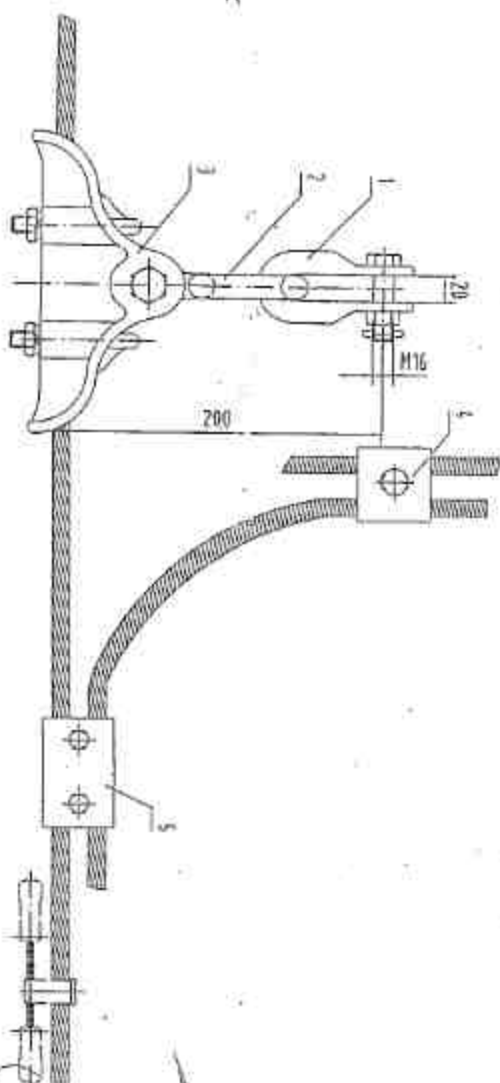
1. h.d.g.: hot-dip galvanized steel to BS 729.
 2. Bolt recommended torque is 80 N·m.
 3. Withstand force of short circuit is not less than 10kN.
 4. All dimensions are in mm.

13	Round head bolt	4	h.d.g. Steel	
12	Cover	2	Al alloy	
11	Support rod	1	h.d.g. Steel	
10	Support	2	h.d.g. Steel	
9	Damper	2	EPDM	
8	Bolt	2	h.d.g. Steel	M16x50
7	Spring washer	2	h.d.g. Steel	16
6	Washer	2	h.d.g. Steel	16
5	Nut	2	h.d.g. Steel	M16
4	Rubber ring	2	Plain rubber	
3	Rubber gasket	4	EPDM	
2	Keeper	2	Al alloy	
1	Body	1	Al alloy	
Item	Description	Q'ty	Material	Remark

南京特变电力器材有限公司
 NANJING TRT POWER MATERIAL CO., LTD.

SPACER DAMPER FOR TWIN ACSS 580/70

Designed by: [Signature] Approved by: [Signature] Catalogue No.: FFJQ-506
 Verified by: [Signature] Date: 11.10 Drawing No.: TR5-FFJQ-506 Weight(kg): 4.1



Notes:

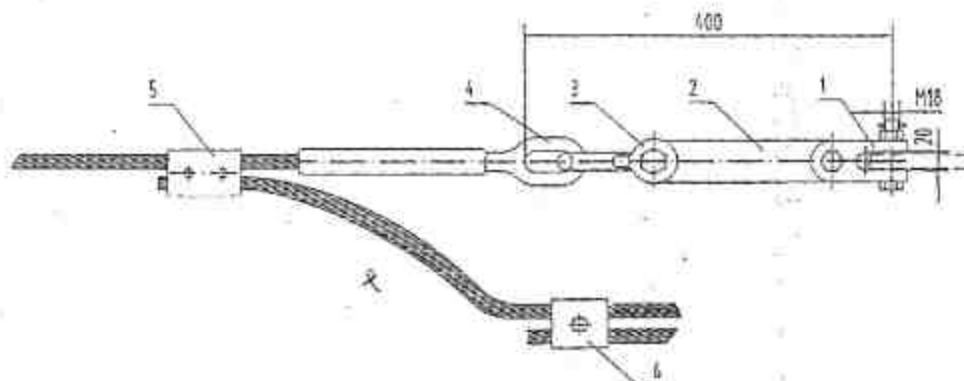
1. Suitable to earthwire ACSR-105/75.
2. Min breaking strength is 70KN.
3. All dimensions are in mm.
4. All ferrous parts shall be hot-dip galvanized to BS 729.

No.	Description	Cal.No.	Q'ty	Material	Drawing No.	Unit
1	Shackle	U-2	1	Steel, h.d.n	TH-0-0	70KN
2	Eye chain link	2H-2	1	Steel, h.d.f	TH-2-TH-2	70KN
3	Suspension clamp	XCS-3	1	Al alloy	TH-0-0-3	70KN
4	Parallel groove clamp	4B-2	1	Al alloy	TH-4-B-3	
5	Tower clamp	LT-3	1	Al alloy	TH-4-LT-3	

南京特瑞电力器材有限公司
NANJING TRENT POWER MATERIAL CO., LTD.

EARTH WIRE SUSPENSION SET FOR ACSR 105/75

Designed by	WZC	Approved by	WZC	Calculated No.	SE-01
Verified by	WZC	Checked	WZC	Drawing No.	TH-SE-01
Issue Date	1/1/07			Weight(kg)	12200 (approx)



No.	Description	Col. No.	Q'ty	Material	Drawing No.	U.T.S.
1	Clevis shackle	Z-120	1	Steel, h.d.g.	TR3-Z-120	125kN
2	Link plate	90-12	1	Steel, h.d.g.	TR3-B5-12	125kN
3	Shackle	U-120	1	Steel, h.d.g.	TR3-U-120	125kN
4	Tension clamp	HY-105/75	1	Al & Steel, h.d.g.	TR2-Y-105/75	
5	Parallel groove clamp	JB-3	1	Al alloy	TR4-B-3	
6	Tower clamp	LT-3	1	Al alloy	TR4-LT-3	

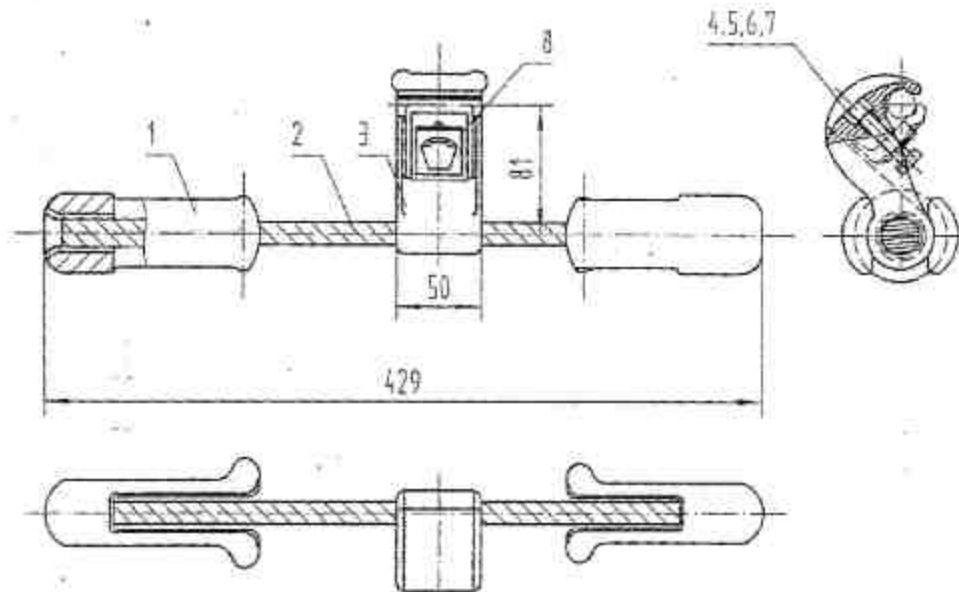
Notes:

1. Suitable to earthwire ACSR-105/75.
2. Min. breaking strength is 125kN.
3. All ferrous parts shall be hot-dip galvanized to BS 729.
4. Slip strength of tension clamp is not less than 95% of conductor's U.T.S.
5. All dimensions are in mm.

南京特瑞电力器材有限公司
NANJING TERUI POWER MATERIAL CO., LTD.

EARTH WIRE TENSION SET FOR ACSR-105/75

Designed by	WJZ	Approved by	WJZ	Calculated by	NE-01	Drawn by	TR-NE-01	Weight (kg)	11.3 (w/o insulators)
Verified by	WJZ	Date	11/10	Drawing No.					



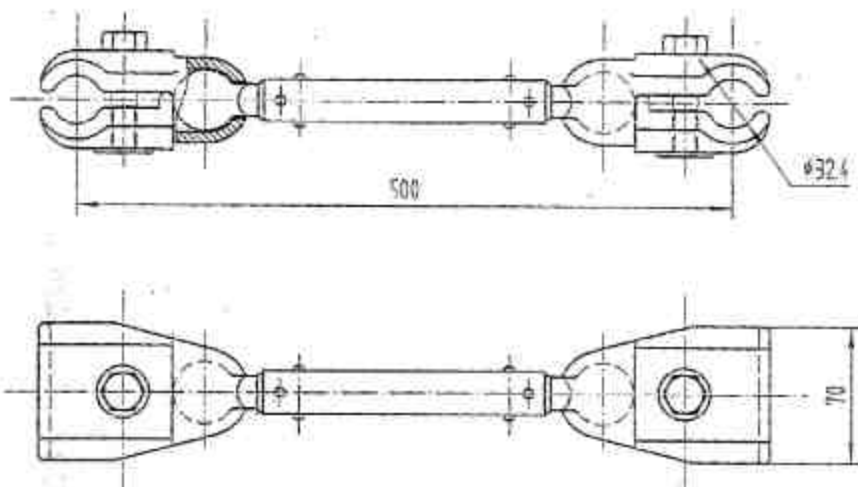
1. The slipping strength is not less than 2000N.
2. Recommended bolt torque is 35Nm.
3. Suitable conductor AGC-105/75.
4. Tolerance of the weight: $\pm 3\%$.
5. All dimensions are in mm.
6. Tolerances: $\pm 0.7\text{mm}$ for dimension up to and including 35mm; $\pm 2\%$ for dimension over 35mm.
7. h.d.g.-hot dip galvanized to ASTM A-153.
8. The messenger's number of strands is 16.

8	Pod	1	Al alloy	
7	Washer	1	Steel	h.d.g.
6	Nut	1	Steel	h.d.g.
5	Clamp keeper	1	Al alloy	
4	Bolt M10	1	Steel	h.d.g.
3	Clamp body	1	Al alloy	
2	Messenger	1	Steel	h.d.g.
1	Coaxial weight	2	Cast iron	h.d.g.
Item	Description	Qty	Material	Remark

南京特瑞电力器材有限公司
NANJING TERUI POWER MATERIAL CO., LTD.

VIBRATION DAMPER

Designed by	H.C.H.	Approved by	H.C.H.	Coloque No.	FR-2
Verified by	H.C.H.	Date	2002/4/15	Drawing No.	TR5-FR-2
				Weight (kg)	2.7




Note:

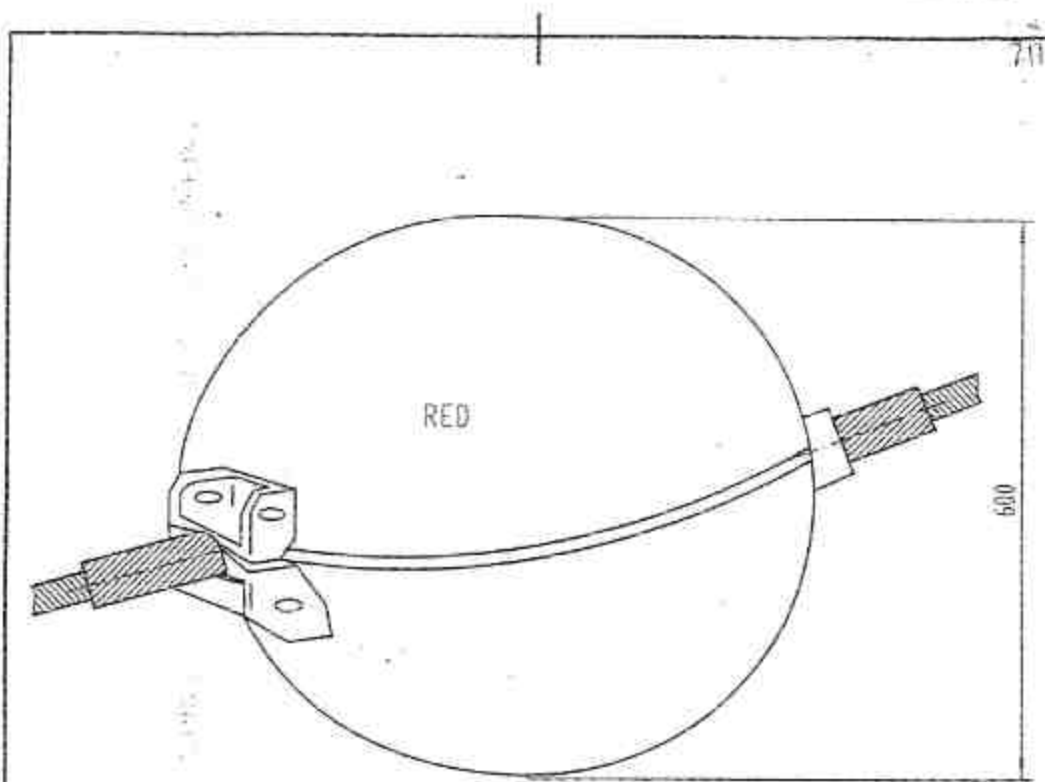
1. The clamp body and keeper are made of aluminium alloy.
2. Other parts are hot dip galvanized steel to BS729.
3. All dimensions are in mm.

[Handwritten signature]

[Handwritten signature]



 南京特瑞电力器材有限公司 NANJING TERBIT POWER MATERIAL CO., LTD.				SPACER FOR TWIN ACSR 500/70			
Designed by	PLCN	Approved by	PLCN	Catalogue No.	FJQ-506		
Verified by	SSONG	2002-05-10		Drawing No.	TRS-FJQ-506	Weight(kg)	2.8




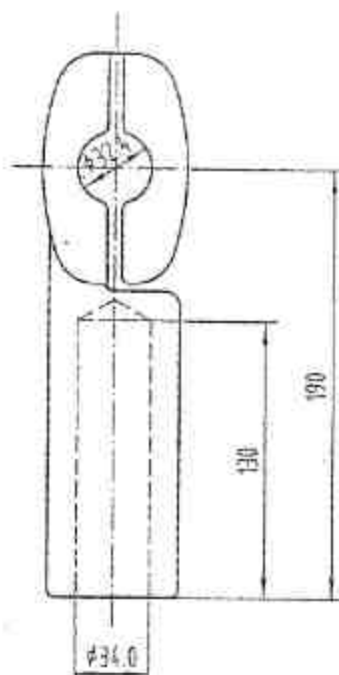
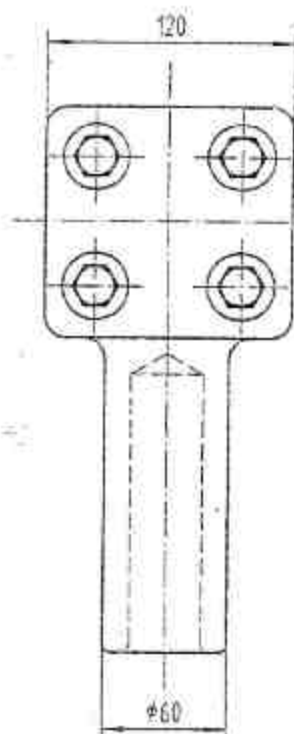
1. The clamp is made of aluminum alloy.
2. The sphere body is of glass fibre reinforced plastic.
3. The color of aircraft warning spheres is red.
4. Preformed armor rod is made of aluminum alloy.

[Handwritten signature]

[Handwritten signature]




 南京特瑞电力器材有限公司 NANJING TEREPI POWER MATERIAL CO., LTD.				AIRCRAFT WARNING SPHERES (RED) WITH ARMOR RODS SUITABLE ACSR 105/75			
Designed by	HLDR	Approved by	HLDR	Catalogue No.	AWS-600R		
Verified by	HLDR	Date	11.10	Drawing No.	TRB-AWS-600R	Weint/ent	a n



The body is made of aluminum.
 Keeper is made of aluminum alloy.
 The other parts are hot-dip galvanized steel to BS 729.
 All dimensions are in mm.

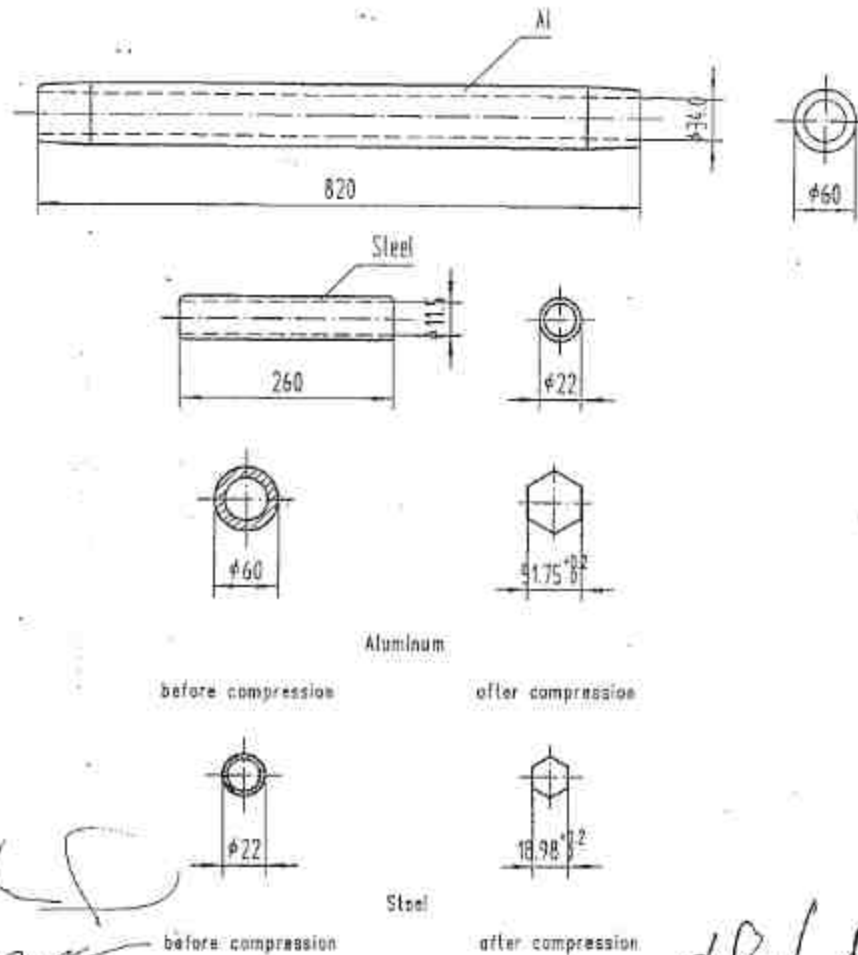
[Handwritten signature]



 南京特瑞电力器材有限公司
 NANJING TERUI POWER MATERIAL CO., LTD.

T CONNECTOR FOR ACSR 550/70

Designed by	HLCH	Approved by	HLCH	Catalogue No.	TY-550/70
Verified by	HLCH			Drawing No.	TR7-TY-550-70



1. The outer sleeve is made of aluminum.
2. The inner sleeve is made of hot-dip galvanized steel to BS729.
3. Slip strength is not less than 95% of the ultimate tensile strength of conductor.
4. All dimensions are in mm.

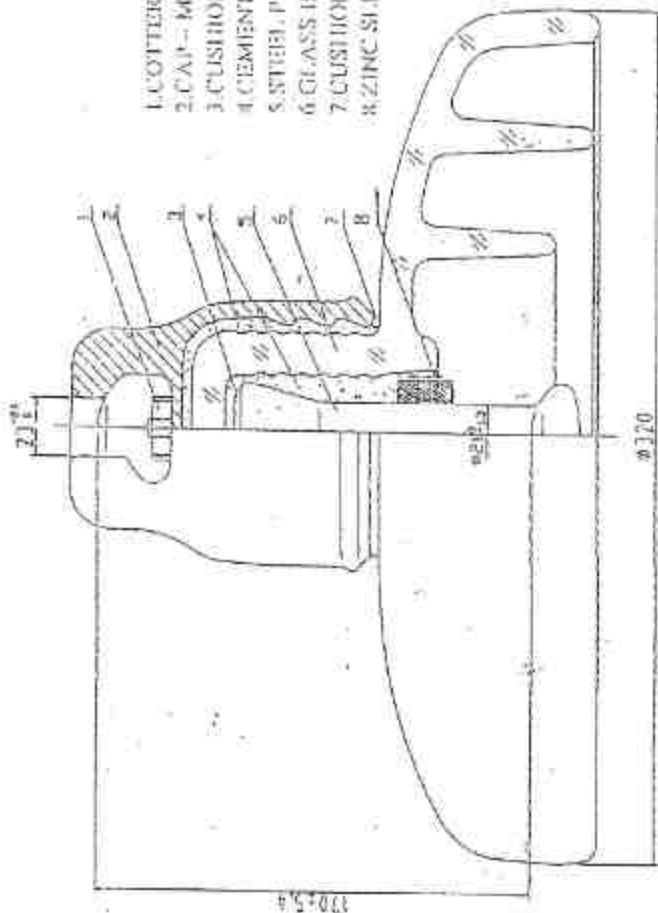


南京特瑞电力器材有限公司
NANJING TERECE POWER MATERIAL CO., LTD.

COMPRESSION MID-DPAN JOINT FOR ACSR 550/70

Designed by	H. J. CH	Approved by	B. L. CH	Catalogue No.	JY-550/70
Verified by	B. L. CH	Date	2002-08-18	Drawing No.	TR4-Y-550/70
				Weight (kg)	4.73

012-5A107



1. COTTER KEY - STAINLESS STEEL
2. CAP - MALLEABLE CAST IRON
3. CUSHION - ASPHALT FELT
4. CEMENT - PORTLAND CEMENT
5. STEEL PIN - FORGED STEEL
6. GLASS BODY - TOUGHENED GLASS
7. CUSHION - LOW DENSITY POLYTHENE
8. ZINC SLEEVE - HOT DIP GALVANIZING



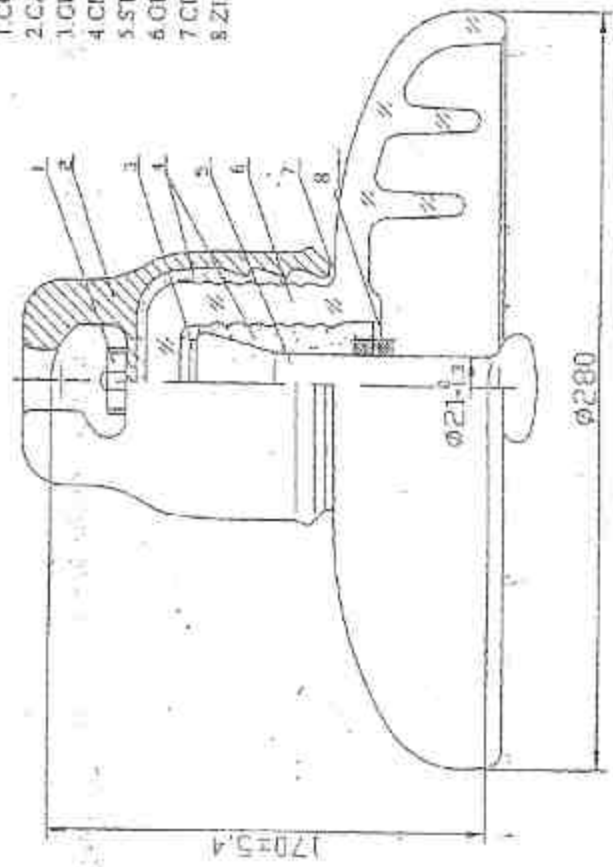
12100P-FOG TYPE TOUGHENED GLASS
INSULATOR

PRODUCED BY: NANJING ELECTRIC (GROUP) CO., LTD.
(NANJING ELECTRIC - 600000)

1. Mechanical falling load	210KN
2. Standard coupling (IEC120)	20
3. Minimum creepage distance	54±0.4
4. Power frequency withstand voltage	Dry 0.08KV
5. Dry impulse withstand voltage	Wet 30KV
6. Pollution voltage in air	100KV
7. Approx net weight	9.0Kg

117107

1. COTTER KEY - STAINLESS STEEL
2. CAP - MALLEABLE CAST IRON
3. CUSHION - ASPHALT FELT
4. CEMENT - PORTLAND CEMENT
5. STEEL PIN - FORGED STEEL
6. GLASS BODY - TOUGHENED GLASS
7. CUSHION - LOW DENSITY POLYTHENE
8. ZINC SLEEVE - HOT DIP GALVANIZING



CF



1. Mechanical failing load	210KN
2. Standard coupling, IEC120	20
3. Minimum creepage distance	140mm
4. Power frequency withstand voltage	Dry 75KV Wet 45KV
5. Dry impulse withstand voltage	110KV
6. Pollution voltage in oil	130KV
7. Approx net weight	7.0Kg

U2100 - STANDARD TYPE TOUGHENED GLASS INSULATOR

PRODUCED BY: NANJING ELECTRIC (GROUP) CO., LTD.
(NANJING ELECTRO - CERAMIC FACTORY)