



3	Revised	6.7.22.	D. Makar
2	Revised	12.4.22.	D. Makar
1	Added GAP	6.4.22.	D. Makar
0	First Submission	16.03.22.	S. Maric
REV	DESCRIPTION/	DATE	BY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROJECT NAME	Open Programme Extension of the Transmission Network II
BMZ No. 2015 68 286	
Contract Identification No. KfW/DSI/OHL-TD-Lot 2	

EMPLOYER
JSC Georgian State Electrosystem (GSE)
Baratashvili Street, Tbilisi, Georgia, 0105
info@gse.com.ge

ENGINEER
Fichtner GmbH & Co. KG
Sarweystrasse 370191 Stuttgart / Germany
info@fichtner.de

The logo consists of the word "FICHTNER" in a bold, blue, sans-serif font, enclosed within a black rectangular border.

CONTRACTOR
Mitas Energy and Metal Constuction Inc.
Eski Güvercinlik Yolu No: 113 - Gazi Ankara / Turkey
info@mitastower.com

 MITAS ENERGY

VENDOR	Proizvodnja OSO Ltd.					
	Vukomerička 9, 10410, Velika Gorica / Croatia					
	product.dal@dalekovic.hr					

VENDOR IDENTIFICATION NUMBER / TITLE
DN.110.568 / 110 kV Double Suspension Set for conductor ACSR 240/32;
Ø21.6 mm; Zone 2 (<1500 m)

APPROVAL AREA		STATUS AP ☐ AC ☐ NA ☐	STAMP
REVIEWED BY	D. Makanec		
DATE OF REVIEW	16.8.2022.		

DATE OF REVIEW	2016/02/27		
APPROVED BY	D. Makanec	TITLE	
CHECKED BY	A. Đogašević		

DESIGNED BY	D. Makanec	110 kV DOUBLE SUSPENSION SET for conductor ACSR 240/32; Ø21.6 m Zone 2 (<1500 m)
DRAWN BY	S. Marić	

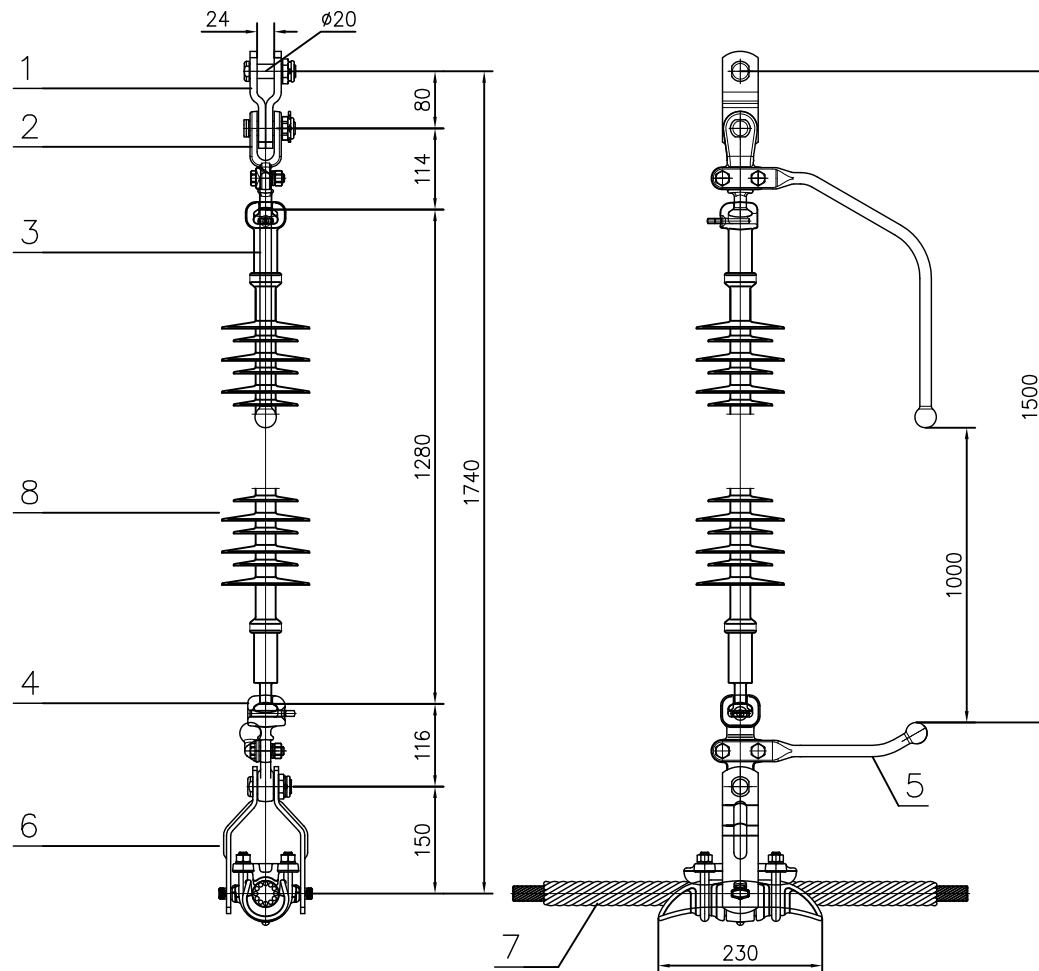
DATE OF ISSUE	16.3.2022.
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SCALE	PAGE SIZE	DOC NO.	REV.	PAGE
N.A.		7145A07-PO-HFT-DWG-2512	3	2/

Minimum breaking strength (without suspension clamp) 2x120 kN
Line voltage 110 kV
Conductor ACSR 240/32 mm², Ø1.60 mm
Standard coupling according to IEC 120/16A
d. f. s. – drop forged steel
h. d. q. – hot dip galvanised

Dry lightning impulse withstand voltage: 660 kV
Wet power frequency withstand voltage: 245 kV
Creepage distance: 3630 mm
Short-circuit current level: 25 kA/s

4	Insulator	2	SC6388			
7	Armour rod	1	62.21.50	N. A.	al. alloy	
6	Suspension clamp	1	12.37.90.10	120 kN	al. alloy	
5	Arcing horn	2	41.16.26	N. A.	steel	h. d. g.
4	Yoke	1	29.24.40.40	240 kN	steel	h. d. g.
3	Socket clevis	2	24.60.30	120 kN	d. f. s.	h. d. g.
2	Arcing horn	2	41.16.26.7A	N. A.	steel	h. d. g.
1	Ball clevis	2	22.56.10	120 kN	d. f. s.	h. d. g.
Item	Description	Pcs.	Catalogue no.	M.B.S.	Material :	Note
Mass : 29.0 kg (without insulators)		11.01.2022.	Signature	Substitute for :		
 DALEKOVOD ZAGREB CROATIA		Design by :	D. Makanec		Catalogue number : DN.110.568	
		Checked by :	A.Dogosevic			
		Approved by:	D. Makanec			
Title :		DOUBLE SUSPENSION SET				Revision 3



Minimum breaking strength (without suspension clamp) 120 kN
 Line voltage 110 kV
 Conductor ACSR 240/32 mm², ø21.60 mm
 Standard coupling according to IEC 120/16A
 d. f. s. – drop forged steel
 h. d. g. – hot dip galvanised

Dry lightning impulse withstand voltage: 660 kV
 Wet power frequency withstand voltage: 245 kV
 Creepage distance: 3630 mm
 Short-circuit current level: 25 kA/s

8	Insulator	1	SC6388			
7	Armour rod	1	62.21.50	N. A.	al. alloy	
6	Suspension clamp	1	12.37.90.10	120 kN	al. alloy	
5	Arcing horn	1	41.16.26C	N. A.	steel	h. d. g.
4	Socket tongue	1	24.33.20A	120 kN	d. f. s.	h. d. g.
3	Arcing horn	1	41.16.15	N. A.	steel	h. d. g.
2	Ball clevis	1	22.56.10	120 kN	d. f. s.	h. d. g.
1	Extension link	1	43.26.01EA	120 kN	steel	h. d. g.
Item	Description	Pcs.	Catalogue no.	M.B.S.	Material :	Note
Mass : 10.65 kg (without insulators)			11.01.2022.	Signature	Substitute for :	
			Design by :	D. Mikanec	Catalogue number : JN.110.568	
			Checked by :	A. Dogasevic		
			Approved by :	D. Mikanec		
Title :			SINGLE SUSPENSION SET			Revision 3

Notes:

-All dimensions are in millimetres.

3	Revised		12.4.22.	D. Mikanec
2	Added GAP		6.4.22.	D. Mikanec
1	Replaced Item 4		22.03.22.	D. Mikanec
0	First Submission		16.03.22.	S. Maric
REV	DESCRIPTION/		DATE	BY
PROJECT NAME				
Open Programme Extension of the Transmission Network II				
BMZ No. 2015 68 286				
Contract Identification No. KIW/DSI/OHL-TD-Lot 2				
EMPLOYER				
JSC Georgian State Electrosystem (GSE)				
Baratskhvili Street, Tbilisi, Georgia, 0105				
info@gse.com.ge				
				
ENGINEER				
Fichtner GmbH & Co. KG				
Sarneysstrasse 370191 Stuttgart / Germany				
info@fichtner.de				
				
CONTRACTOR				
Mitas Energy and Metal Constuction Inc.				
Eski Güvercinlik Yolu No: 113 - Gazi / Ankara / Turkey				
info@mitastower.com				
				
VENDOR				
Proizvodnja OSO Ltd.				
Vukomerička 9, 10410, Veljka Gorica / Croatia				
product.dal@dalekovod.hr				
				
VENDOR IDENTIFICATION NUMBER / TITLE				
JN.110.568 / 110 kV Single Suspension Set for conductor ACSR 240/32;				
ø21.6 mm; Zone 2 (<1500 m)				
APPROVAL AREA		STATUS	STAMP	
REVIEWED BY	D. Mikanec	AP ☐		
DATE OF REVIEW	16.8.2022.	AC ☐		
		NA ☐		
APPROVED BY	D. Mikanec	TITLE		
CHECKED BY	A. Dogasević	110 kV - Zone 2 - Suspension Sets - Drawing		
DESIGNED BY	D. Mikanec			
DRAWN BY	S. Marić			
DATE OF ISSUE	16.3.2022.			
SCALE	PAGE SIZE	DOC NO.	REV.	PAGE
N.A.		7145A07-PO-HFT-DWG-2512	3	1/2