

PRECONS III

Listas de Costos de Renglones Constructivos

Hoja No.2

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
28	CABLES ELECTRICOS							
280	DESALAMBRAR O DESMONTAR							
2801	DESALAMBRAR							
280111	LINEAS	m	0.19	0.19	0.00	0.19	0.00	0.00
280121	DESALAMBRAR CABLES EN SISTEMAS DE ILUMINACION DE INSTALACIONES DEPORTIVAS	m	2.24	2.24	0.00	2.24	0.00	0.00
2803	DESMONTAR							
280311	RETIRO MECANIZADO DE POSTE DE HORMIGON O MADERA	u	708.25	708.25	0.00	112.36	595.89	0.00
280321	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO A	u	61.44	61.44	0.00	61.44	0.00	0.00
280322	RETIRAR DE CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO B	u	75.09	75.09	0.00	75.09	0.00	0.00
280323	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO C	u	56.31	56.31	0.00	56.31	0.00	0.00
280324	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO D	u	67.58	67.58	0.00	67.58	0.00	0.00
280325	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO D DOBLE REMATE	u	84.48	84.48	0.00	84.48	0.00	0.00
280326	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO E	u	96.54	96.54	0.00	96.54	0.00	0.00
280327	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO E DOBLE REMATE	u	135.17	135.17	0.00	135.17	0.00	0.00
280328	RETIRAR CRUCETAS Y HERRAJES EN ESTRUCTURA TIPO H	u	675.84	675.84	0.00	675.84	0.00	0.00
280331	RETIRAR TENSORES DE POSTE CON VARILLA DE ANCLAS	u	45.05	45.05	0.00	45.05	0.00	0.00
280332	RETIRAR TENSORES DE RETENIDA	u	33.79	33.79	0.00	33.79	0.00	0.00
280333	RETIRAR GRAPA EN CALIENTE	u	27.03	27.03	0.00	27.03	0.00	0.00
280341	RETIRAR 1 TRANSFORMADOR EN PINA EN EL POSTE HASTA 50KVA	u	1,065.04	1,065.04	0.00	168.96	896.08	0.00
280342	RETIRAR 2 TRANSFORMADORES EN PINA EN EL POSTE HTA 50KVA	u	1,420.01	1,420.01	0.00	225.27	1,194.74	0.00
280343	RETIRAR 3 TRANSFORMADORES EN PINA EN EL POSTE HTA 50KVA	u	2,130.08	2,130.08	0.00	337.92	1,792.16	0.00
280344	RETIRAR 1 TRANSFORMADOR EN PINA EN POSTE DE 63 -100 KVA	u	1,420.01	1,420.01	0.00	225.27	1,194.74	0.00
280345	RETIRAR 2 TRANSFORMADORES EN PINA EN POSTE 63 -100 KVA	u	2,130.08	2,130.08	0.00	337.92	1,792.16	0.00
280346	RETIRAR 3 TRANSFORMADORES EN PINA EN POSTE 63 -100 KVA	u	4,260.16	4,260.16	0.00	675.84	3,584.32	0.00
280347	RETIRAR TRANSFORMADOR EN BANCAZA DE 50 A 250 KVA	u	2,840.09	2,840.09	0.00	450.56	2,389.53	0.00
280348	RETIRAR 2 TRANSFORMADORES EN BANCAZA DE 50 A 250 KVA	u	4,260.16	4,260.16	0.00	675.84	3,584.32	0.00
280349	RETIRAR 3 TRANSFORMADORES EN BANCAZA DE 50 A 250 KVA	u	5,680.17	5,680.17	0.00	901.11	4,779.06	0.00
280350	RETIRAR 1 TRANSFORMADOR EN BASE EN SUELO DE 75 -160 KVA	u	608.56	608.56	0.00	96.54	512.02	0.00
280351	RETIRAR 2 TRANSFORMADORES EN BASE EN SUELO 75 -160 KVA	u	852.03	852.03	0.00	135.17	716.86	0.00
280352	RETIRAR 3 TRANSFORMADORES EN BASE EN EL SUELO 75 -160KVA	u	1,065.04	1,065.04	0.00	168.96	896.08	0.00
280353	RETIRAR 1 TRANSFORMADOR EN BASE EN EL SUELO 167 -250 KVA	u	710.01	710.01	0.00	112.64	597.37	0.00
280354	RETIRAR 2 TRANSFORMADORES EN BASE EN SUELO 167 -250 KVA	u	1,065.04	1,065.04	0.00	168.96	896.08	0.00
280355	RETIRAR 3 TRANSFORMADORES EN BASE EN SUELO 167 -250 KVA	u	1,420.01	1,420.01	0.00	225.27	1,194.74	0.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 4

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
280361	DESMONTAJE DE CONDUCTOR DE FASE EN LINEAS DE 110 KV	km	6,126.70	6,126.70	0.00	680.50	5,446.20	0.00
280362	DESMONTAJE DE CONDUCTOR DE FASE EN LINEAS DE 220 KV	km	7,352.04	7,352.04	0.00	816.60	6,535.44	0.00
280363	DESMONTAJE DE CABLE PROTECTOR EN 110 Y 220 KV	km	3,063.36	3,063.36	0.00	340.26	2,723.10	0.00
2805 REDES DE TIERRA Y PARARRAYOS								
280511	DESMONTAJE DE CABLES O DE CINTAS DE COBRE DE PARARRAYOS EN CHIMENEAS INDUSTRIALES.	m	41.68	41.68	0.00	14.34	27.34	0.00
280512	DESMONTAJE DE CABLE EXPUESTO EN CHIMENEAS INDUSTRIALES, ALTURA <= 85 M	m	27.41	27.41	0.00	9.18	18.23	0.00
280513	DESMONTAJE DE CABLE EXPUESTO EN CHIMENEAS INDUSTRIALES, ALTURA > 85 M	m	35.74	35.74	0.00	12.04	23.70	0.00
280516	DESMONTAJE DE PUNTA DE PARARRAYOS EN CHIMENEAS INDUSTRIALES	u	97.90	97.90	0.00	43.21	54.69	0.00
281 MEDIO VOLTAJE > 1 KV <= 15 KV DE COBRE O ALUMINIO								
2810 CABLE POR TUBERIA EXPUESTA Y EMPOTRADA								
281000	C/AISLAM PVC O GOMA MONOCOND DE 10-16 MM2	m	13.08	0.98	12.10	0.98	0.00	0.05
281001	C/AISLAM PVC O GOMA MONOCOND DE 25-35 MM2	m	13.33	1.23	12.10	1.23	0.00	0.05
281002	C/AISLAM PVC O GOMA MONOCOND DE 50-70 MM2	m	14.10	2.00	12.10	2.00	0.00	0.05
281003	C/AISLAM PVC O GOMA MONOCOND DE 95-120 MM2	m	16.42	4.32	12.10	4.32	0.00	0.05
281004	C/AISLAM PVC O GOMA MONOCOND DE 150-240 MM2	m	19.24	7.14	12.10	7.14	0.00	0.05
281005	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 10-16 MM2	m	14.49	2.39	12.10	2.39	0.00	0.05
281006	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 25-35 MM2	m	16.23	4.13	12.10	4.13	0.00	0.05
281007	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 50-70 MM2	m	19.15	7.05	12.10	7.05	0.00	0.05
281008	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 95-120 MM2	m	27.19	15.09	12.10	15.09	0.00	0.05
281009	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 150-240MM2	m	40.42	28.32	12.10	28.32	0.00	0.05
2811 CABLE POR BANDEJA EN SOPORTE ABIERTO								
281100	C/AISLAM PVC O GOMA MONOCOND DE 10-16 MM2	m	12.87	0.77	12.10	0.77	0.00	0.05
281101	C/AISLAM PVC O GOMA MONOCOND DE 25-35 MM2	m	13.30	1.20	12.10	1.20	0.00	0.05
281102	C/AISLAM PVC O GOMA MONOCOND DE 50-70 MM2	m	14.11	2.01	12.10	2.01	0.00	0.05
281103	C/AISLAM PVC O GOMA MONOCOND DE 95-120 MM2	m	16.16	4.06	12.10	4.06	0.00	0.05
281104	C/AISLAM PVC O GOMA MONOCOND DE 150-240 MM2	m	18.90	6.80	12.10	6.80	0.00	0.05
281105	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 16 MM2	m	14.43	2.33	12.10	2.33	0.00	0.05
281106	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 25-35 MM2	m	15.93	3.83	12.10	3.83	0.00	0.05
281107	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 50-70 MM2	m	18.56	6.46	12.10	6.46	0.00	0.05
281108	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 95-120 MM2	m	25.13	13.03	12.10	13.03	0.00	0.05
281109	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 150-240 MM2	m	34.17	22.07	12.10	22.07	0.00	0.05
281115	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 25-35 MM2	m	13.79	1.69	12.10	1.69	0.00	0.05
281116	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 50-70 MM2	m	14.92	2.82	12.10	2.82	0.00	0.05
281117	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 95-120 MM2	m	16.52	4.42	12.10	4.42	0.00	0.05
281118	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC-150-240 MM2	m	19.33	7.23	12.10	7.23	0.00	0.05
281119	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 10-16 MM2	m	16.22	4.12	12.10	4.12	0.00	0.05

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 6

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
281120	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 25-35 MM2	m	18.93	6.83	12.10	6.83	0.00	0.05
281121	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 50-70 MM2	m	23.37	11.27	12.10	11.27	0.00	0.05
281122	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 95-120 MM2	m	29.77	17.67	12.10	17.67	0.00	0.05
281123	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 150-240 MM2	m	41.09	28.99	12.10	28.99	0.00	0.05
2812 CABLE DIRECTO EN CANAL DE HORMIGON								
281200	C/AISLAM PVC O GOMA MONOCOND DE 10-16 MM2	m	13.24	1.14	12.10	1.14	0.00	0.05
281201	C/AISLAM PVC O GOMA MONOCOND DE 25-35 MM2	m	13.57	1.47	12.10	1.47	0.00	0.05
281202	C/AISLAM PVC O GOMA MONOCOND DE 50-70 MM2	m	14.87	2.77	12.10	2.77	0.00	0.05
281203	C/AISLAM PVC O GOMA MONOCOND DE 95-120 MM2	m	16.34	4.24	12.10	4.24	0.00	0.05
281204	C/AISLAM PVC O GOMA MONOCOND DE 150-240 MM2	m	19.57	7.47	12.10	7.47	0.00	0.05
281205	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 10-16 MM2	m	12.47	0.37	12.10	0.37	0.00	0.05
281206	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 25-35 MM2	m	12.50	0.40	12.10	0.40	0.00	0.05
281207	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 50-70 MM2	m	12.99	0.89	12.10	0.89	0.00	0.05
281208	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 95-120 MM2	m	13.49	1.39	12.10	1.39	0.00	0.05
281209	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) DE 150-240MM2	m	14.58	2.48	12.10	2.48	0.00	0.05
281215	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 25-35 MM2	m	13.72	1.62	12.10	1.62	0.00	0.05
281216	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 50-70 MM2	m	14.87	2.77	12.10	2.77	0.00	0.05
281217	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 95-120 MM2	m	16.47	4.37	12.10	4.37	0.00	0.05
281218	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 150-240 MM2	m	19.72	7.62	12.10	7.62	0.00	0.05
281219	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 10-16 MM2	m	12.57	0.47	12.10	0.47	0.00	0.05
281220	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 25-35 MM2	m	12.73	0.63	12.10	0.63	0.00	0.05
281221	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 50-75 MM2	m	13.21	1.11	12.10	1.11	0.00	0.05
281222	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 95-120 MM2	m	13.81	1.71	12.10	1.71	0.00	0.05
281223	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 COND) DE 150-240 MM2	m	15.13	3.03	12.10	3.03	0.00	0.05
2814 CABLE SOTERRADO DIRECTO EN ZANJA								
281400	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 25-35 MM2	m	12.37	0.27	12.10	0.27	0.00	0.05
281401	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 50-70 MM2	m	12.56	0.46	12.10	0.46	0.00	0.05
281402	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 95-120 MM2	m	13.08	0.98	12.10	0.98	0.00	0.05
281403	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 150-240 MM2	m	14.06	1.96	12.10	1.96	0.00	0.05
281404	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTIC (3 Ó 4 COND) DE 10-16 MM2	m	12.53	0.43	12.10	0.43	0.00	0.05
281405	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 25-35 MM2	m	13.20	1.10	12.10	1.10	0.00	0.05
281406	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 50-70 MM2	m	13.90	1.80	12.10	1.80	0.00	0.05

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 8

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
281407	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 95-120 MM2	m	15.99	3.89	12.10	3.89	0.00	0.05
281408	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 150-240 MM2	m	19.95	7.85	12.10	7.85	0.00	0.05
2815	CABLE POR TUBERIA SOTERRADA							
281500	C/AISLAM PVC O GOMA MONOCOND DE 10-16 MM2	m	12.64	0.54	12.10	0.54	0.00	0.05
281501	C/AISLAM PVC O GOMA MONOCOND DE 25-35 MM2	m	12.93	0.83	12.10	0.83	0.00	0.05
281502	C/AISLAM PVC O GOMA MONOCOND DE 50-70 MM2	m	13.66	1.56	12.10	1.56	0.00	0.05
281503	C/AISLAM PVC O GOMA MONOCOND DE 95-120 MM2	m	15.32	3.22	12.10	3.22	0.00	0.05
281504	C/AISLAM PVC O GOMA MONOCOND DE 150-240 MM2	m	18.62	6.52	12.10	6.52	0.00	0.05
281505	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) 10-16 MM2	m	13.67	1.57	12.10	1.57	0.00	0.05
281506	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) 25-35 MM2	m	14.72	2.62	12.10	2.62	0.00	0.05
281507	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) 50-70 MM2	m	16.45	4.35	12.10	4.35	0.00	0.05
281508	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) 95-120 MM2	m	23.76	11.66	12.10	11.66	0.00	0.05
281509	C/AISLAM PVC O GOMA MULTCOND (3 O 4 COND) 150-240 MM2	m	26.60	14.50	12.10	14.50	0.00	0.05
281515	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 25-35 MM2	m	12.85	0.75	12.10	0.75	0.00	0.05
281516	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 50-70 MM2	m	13.35	1.25	12.10	1.25	0.00	0.05
281517	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 95-120 MM2	m	15.47	3.37	12.10	3.37	0.00	0.05
281518	C/AISLAM PAPEL ACEITE CUB PB P/MET MONOC 150-240 MM2	m	16.28	4.18	12.10	4.18	0.00	0.05
281519	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 10-16 MM2	m	13.88	1.78	12.10	1.78	0.00	0.05
281520	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 COND) DE 25-35 MM2	m	15.10	3.00	12.10	3.00	0.00	0.05
281521	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 50-70 MM2	m	17.10	5.00	12.10	5.00	0.00	0.05
281522	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 95-120 MM2	m	25.61	13.51	12.10	13.51	0.00	0.05
281523	C/AISLAM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 COND) DE 150-240 MM2	m	28.83	16.73	12.10	16.73	0.00	0.05
283	BAJO VOLTAJE <=1 KV DE COBRE O ALUMINIO							
2830	CABLE POR TUBERIA EXPUESTA Y EMPOTRADA							
283000	C/AISLAM PVC O GOMA MONOCOND DE 1,5-4MM2	m	1.31	0.46	0.85	0.46	0.00	0.05
283001	C/AISLAM PVC O GOMA MONOCOND DE 5,5-16 MM2	m	5.19	0.94	4.25	0.94	0.00	0.05
283002	C/AISLAM PVC O GOMA MONOCOND DE 25-35 MM2	m	11.28	1.18	10.10	1.18	0.00	0.05
283003	C/AISLAM PVC O GOMA MONOCOND DE 50-70 MM2	m	20.95	1.92	19.03	1.92	0.00	0.05
283004	C/AISLAM PVC O GOMA MONOCOND DE 95-120 MM2	m	28.45	4.13	24.32	4.13	0.00	0.05
283005	C/AISLAM PVC O GOMA MONOCOND DE 150-240 MM2	m	55.99	6.79	49.20	6.79	0.00	0.05
283006	C/AISLAM PVC O GOMA MULTCOND (2,3 O 4 C) DE 1.5-4 MM2	m	13.35	1.25	12.10	1.25	0.00	0.05
283007	C/AISLAM PVC O GOMA MULTCOND (2,3 O 4 C) DE 5.5-16 MM2	m	14.37	2.27	12.10	2.27	0.00	0.05
283008	C/AISLAM PVC O GOMA MULTCOND (2,3 O 4 C) DE 25-35 MM2	m	16.03	3.93	12.10	3.93	0.00	0.05
283012	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 50-70 MM2	m	18.82	6.72	12.10	6.72	0.00	0.05
283013	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 95-120 MM2	m	39.55	14.38	25.17	14.38	0.00	0.50
283014	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 150-240 MM2	m	39.08	26.98	12.10	26.98	0.00	0.05
283021	C/AISLAM PVC O GOMA MULTCOND (5 O 7 C) DE 1,5-4 MM2	m	13.19	1.09	12.10	1.09	0.00	1.00
283022	C/AISLAM PVC O GOMA MULTCOND (5 O 7 C) DE 5,5-16 MM2	m	14.49	2.39	12.10	2.39	0.00	1.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 10

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
283025	C/AISLAM PVC O GOMA MULTCOND (9,12,14 O 19 C) 1,5 MM2	m	14.49	2.39	12.10	2.39	0.00	1.00
283029	C/AISLAM PVC O GOMA MULTCOND (24 O 27 C) DE 1,5 MM2	m	14.62	2.52	12.10	2.52	0.00	1.00
283031	C/AISLAM PVC O GOMA MULTCOND (37 O 48 C) DE 1,5 MM2	m	14.75	2.65	12.10	2.65	0.00	1.00
283033	C/AISLAM PVC O GOMA CUB PB MULTCOND (2,3 O 4 COND) DE 1.5-4 MM2	m	13.41	1.31	12.10	1.31	0.00	0.05
283034	C/AISLAM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 5 .5-16 MM2	m	14.49	2.39	12.10	2.39	0.00	0.05
283035	C/AISLAM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 25-3 5 MM2	m	16.23	4.13	12.10	4.13	0.00	0.05
283039	C/AISLAM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 50-70MM2	m	19.15	7.05	12.10	7.05	0.00	0.05
283040	C/AISLAM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 95-120MM2	m	27.19	15.09	12.10	15.09	0.00	0.05
283041	C/AISLAM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 150-240MM2	m	40.42	28.32	12.10	28.32	0.00	0.05
2831	CABLE POR BANDEJA EN SOPORTE ABIERTO							
283100	C/AISLAM PVC O GOMA MONOCOND DE 1,5-4 MM2	m	1.39	0.54	0.85	0.54	0.00	0.05
283101	C/AISLAM PVC O GOMA MONOCOND DE 5,5-16 MM2	m	4.99	0.74	4.25	0.74	0.00	0.05
283102	C/AISLAM PVC O GOMA MONOCOND DE 25-35 MM2	m	11.24	1.14	10.10	1.14	0.00	0.05
283103	C/AISLAM PVC O GOMA MONOCOND DE 50-70 MM2	m	20.94	1.91	19.03	1.91	0.00	0.05
283104	C/AISLAM PVC O GOMA MONOCOND DE 95-120 MM2	m	28.18	3.86	24.32	3.86	0.00	0.05
283105	C/AISLAM PVC O GOMA MONOCOND DE 150-240 MM2	m	56.34	7.14	49.20	7.14	0.00	0.05
283106	C/AISLAM PVC O GOMA MULTCOND (2,3 O 4 C) DE 1,5-4 MM2	m	13.72	1.62	12.10	1.62	0.00	0.05
283107	C/AISLAM PVC O GOMA MULTCOND (2,3 O 4 C) DE 5,5-16 MM2	m	14.32	2.22	12.10	2.22	0.00	0.05
283108	C/AISLAM PVC O GOMA MULTCOND (2,3 O 4 C) DE 25-35 MM2	m	15.76	3.66	12.10	3.66	0.00	0.05
283112	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 50-70 MM2	m	18.26	6.16	12.10	6.16	0.00	0.05
283113	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 95-120 MM2	m	37.58	12.41	25.17	12.41	0.00	0.50
283114	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 150-240 MM2	m	33.15	21.05	12.10	21.05	0.00	0.05
283121	C/AISLAM PVC O GOMA MULTCOND (5 O 7 C) DE 1,5-4 MM2	m	13.80	1.70	12.10	1.70	0.00	1.00
283122	C/AISLAM PVC O GOMA MULTCOND (5 O 7 C) DE 5,5-16 MM2	m	14.43	2.33	12.10	2.33	0.00	1.00
283125	C/AISLAM PVC O GOMA MULTCOND (9,12,14 O 19 C) 1,5 MM2	m	14.43	2.33	12.10	2.33	0.00	1.00
283131	C/AISLAM PVC O GOMA MULTC (24, 27, 37 O 48 C) DE 1.5MM2	m	14.63	2.53	12.10	2.53	0.00	1.00
283133	C/AISLAM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 1 .5-4 MM2	m	14.42	2.32	12.10	2.32	0.00	0.05
283134	C/AISLAM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 5 .5-16 MM2	m	15.23	3.13	12.10	3.13	0.00	0.05
283135	C/AISLAM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 25-35MM2	m	17.27	5.17	12.10	5.17	0.00	0.05
283139	C/AISLAM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 50-70MM2	m	20.68	8.58	12.10	8.58	0.00	0.05
283140	C/AISLAM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 95 -120 MM2	m	26.87	14.77	12.10	14.77	0.00	0.05
283141	C/AISLAM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 150-240 MM2	m	36.38	24.28	12.10	24.28	0.00	0.05
283148	C/AISLAM PVC O GOMA CUB PB P/MET MULTC (2 C) 1.5-4 MM2	m	15.01	2.91	12.10	2.91	0.00	0.05
283149	C/AISLAM PVC O GOM CUB PB PROT MET MULTC (2/C) 5,5 -16MM2	m	16.03	3.93	12.10	3.93	0.00	0.05

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 12

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
283151	C/AISLAM PVC O GOM CUB PB PROT MET MULTC (2,3 O 4 C) DE 25-35 MM2	m	18.60	6.50	12.10	6.50	0.00	0.05
283152	C/AISLAM PVC O GOM CUB PB PROT MET MULTC (3 O 4 C) DE 50-70MM2	m	22.84	10.74	12.10	10.74	0.00	0.05
283153	C/AISLAM PVC O GOM CUB PB PROT MET MULTC (3 O 4 C) DE 95-120MM2	m	28.92	16.82	12.10	16.82	0.00	0.05
283154	C/AISLAM PVC O GOM CUB PB PROT MET MULTIC (3 O 4 C) DE 150-240MM2	m	39.72	27.62	12.10	27.62	0.00	0.05
283163	C/AISLAM PVC O GOMA CUB PVC P/MET MULTC (9,12,14,19 ,24 O 27 C) DE 1.5 MM2	m	25.88	3.45	22.43	3.45	0.00	1.00
283165	C/AISLAM PVC O GOMA CUB PVC P/MET MULTC (37 O 48 C) DE 1.5 MM2	m	27.89	3.57	24.32	3.57	0.00	1.00
283167	C/AISLAM PVC O GOMA CUB AL MULTC (4/C) DE 16 MM2	m	19.96	7.86	12.10	7.86	0.00	1.00
283168	C/AISLAM PVC O GOMA CUB AL MULTC (4/C) DE 25-35 MM2	m	25.11	13.01	12.10	13.01	0.00	1.00
283169	C/AISLAM PVC O GOMA CUB AL MULTC (4/C) DE 50-70 MM2	m	33.57	21.47	12.10	21.47	0.00	1.00
283170	C/AISLAM PVC O GOMA CUB AL MULTC (4/C) DE 95-120 MM2	m	45.74	33.64	12.10	33.64	0.00	1.00
283171	C/AISLAM PVC O GOMA CUB AL MULTC (4/C) DE 150-240 MM2	m	67.34	55.24	12.10	55.24	0.00	1.00
283172	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 C) DE 1.5-4MM2	m	15.01	2.91	12.10	2.91	0.00	1.00
283173	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 C) DE 5.5-16MM2	m	16.03	3.93	12.10	3.93	0.00	1.00
283174	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 C) DE 25-35MM2	m	18.60	6.50	12.10	6.50	0.00	1.00
283175	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 C) DE 50-70MM2	m	22.84	10.74	12.10	10.74	0.00	1.00
283176	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 C) DE 95-120MM2	m	28.92	16.82	12.10	16.82	0.00	1.00
283177	C/AISLAM PAPEL ACEITE CUB PB P/MET MULT (3 O 4 C) DE 150-240MM2	m	39.72	27.62	12.10	27.62	0.00	1.00
2832	CABLE DIRECTO EN CANAL DE HORMIGON							
283202	C/AISLAM PVC O GOMA MULTCOND (2, 3 O 4 C) DE 25 MM2	m	12.49	0.39	12.10	0.39	0.00	0.05
283206	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 50-70 MM2	m	12.94	0.84	12.10	0.84	0.00	0.05
283207	C/AISLAM PVC O GOMA MULTCOND (3 O 4 C) DE 95-120 MM2	m	26.49	1.32	25.17	1.32	0.00	0.50
283208	C/AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 150-240 MM2	m	14.46	2.36	12.10	2.36	0.00	0.05
283215	C/AISLM PVC O GOMA MULTCOND (2,3,4,5 O 7 C) DE 1.5 -4MM2	m	12.43	0.33	12.10	0.33	0.00	1.00
283216	C/AISLM PVC O GOMA MULTCOND (2,3,4,5 O 7 C) 5.5-16 MM2	m	12.46	0.36	12.10	0.36	0.00	1.00
283219	C/AISLM PVC O GOMA MULTCOND (9,12,14 O 19 C) DE 1,5 MM2	m	12.46	0.36	12.10	0.36	0.00	1.00
283225	C/AISLM PVC O GOMA MULTCOND (24,27,37 O 48 C) DE 1 ,5MM2	m	12.48	0.38	12.10	0.38	0.00	1.00
283227	C/AISLM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 1 .5-4 MM2	m	12.46	0.36	12.10	0.36	0.00	0.05
283228	C/AISLM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 5 ,5-16 MM2	m	12.50	0.40	12.10	0.40	0.00	0.05
283231	C/AISLM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 25 -35M2	m	12.55	0.45	12.10	0.45	0.00	0.05
283232	C/AISLM PVC O GOMA CUB PB MULTCOND (3 O 4 C)DE 50 -70MM2	m	13.05	0.95	12.10	0.95	0.00	0.05
283233	C/AISL PVC O GOMA CUB PB MULTCOND (3 O 4 C)DE 95 -120MM2	m	13.59	1.49	12.10	1.49	0.00	0.05

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 14

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
283234	C/AISL PVC O GOMA CUB PB MULTCOND(3 O 4 C)DE 150-240MM2	m	14.72	2.62	12.10	2.62	0.00	0.05
283241	C/AISLM PVC O GOMA CUB PB PROT MET MULTC (2/C) 1,5-4MM2	m	12.50	0.40	12.10	0.40	0.00	0.05
283242	C/AISLM PVC O GOMA CUB PB PROT MET MULT (2/C) 5,5-16MM2	m	12.56	0.46	12.10	0.46	0.00	0.05
283243	C/AISL PVC O GOM CUB PVC PROT MET MULT (9,12,14 O 19 C) DE 1.5 MM2	m	22.82	0.39	22.43	0.39	0.00	1.00
283244	C/AISL PVC O GOMA CUB PVC PROT MET MULTC (24 O 27 C) DE 1.5 MM2	m	18.48	0.40	18.08	0.40	0.00	1.00
283245	C/AISL PVC O GOMA CUB PVC PROT MET MULTC (37 O 48 C) DE 1.5 MM2	m	24.73	0.41	24.32	0.41	0.00	1.00
283260	C/AISL PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 C) DE 1.5-4 MM2	m	12.50	0.40	12.10	0.40	0.00	1.00
283261	C/AISLM PAPEL ACEITE CUB PB P/MET MULTC (3 O 4 C) DE 5.5-16MM2	m	12.55	0.45	12.10	0.45	0.00	1.00
283262	C/AISLM PVC, GOMA O PAPEL ACEITE CUB PB PROT MET MULTC (3 O 4 C) DE 25-35MM2	m	12.71	0.61	12.10	0.61	0.00	1.00
283263	C/AISLM PVC, GOMA O PAPEL ACEITE CUB PB PROT MET MULTC (3 O 4 C)DE 50-70 MM2	m	13.16	1.06	12.10	1.06	0.00	1.00
283264	C/AISLM PVC, GOMA O PAPEL ACEITE CUB PB PROT MET MULT (3 O 4 C) DE 95-120MM2	m	13.73	1.63	12.10	1.63	0.00	1.00
283265	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET (3 O 4 C) DE 150-240 MM2	m	14.99	2.89	12.10	2.89	0.00	1.00
283272	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 16 MM2	m	12.99	0.89	12.10	0.89	0.00	1.00
283273	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 25-35 MM2	m	13.32	1.22	12.10	1.22	0.00	1.00
283274	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 50-70 MM2	m	14.22	2.12	12.10	2.12	0.00	1.00
283275	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 95-120 MM2	m	15.38	3.28	12.10	3.28	0.00	1.00
283276	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 150-240 MM2	m	17.87	5.77	12.10	5.77	0.00	1.00
2833 CABLE EXPUESTO EN PARED CON SOPORTE								
283300	C/ AISLM PVC O GOMA MULTCOND (2,3 O 4 C) DE 1,5-4 MM2	m	309.66	9.06	300.60	9.06	0.00	0.22
283301	C/ AISLM PVC O GOMA MULTCOND (2,3 O 4 C) DE 5,5-16 MM2	m	314.42	13.82	300.60	13.82	0.00	0.22
283302	C/ AISLM PVC O GOMA MULTCOND (2,3 O 4 C) DE 25-35MM2	m	319.42	18.82	300.60	18.82	0.00	0.22
283306	C/ AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 50-70 MM2	m	329.75	29.15	300.60	29.15	0.00	0.22
283307	C/ AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 95-120 MM2	m	345.47	31.80	313.67	31.80	0.00	0.67
283308	C/ AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 150-240 MM2	m	336.11	35.51	300.60	35.51	0.00	0.22
283315	C/ AISLM PVC O GOMA MULTCOND (7/C) DE 1,5-4 MM2	m	310.14	9.54	300.60	9.54	0.00	1.17
283317	C/AISLM PVC O GOMA MULTCOND (9,12,14 O 19 C) DE 1.5 MM2	m	315.11	14.51	300.60	14.51	0.00	1.17
283321	C/AISLM PVC O GOMA MULTCOND (24 O 27 C) DE 1.5 MM2	m	315.83	15.23	300.60	15.23	0.00	1.17
283323	C/AISLM PVC O GOMA MULTCOND (37 O 48 C) DE 1.5 MM2	m	316.33	15.73	300.60	15.73	0.00	1.17
283325	C/AISLM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 1.5-4 MM2	m	310.14	9.54	300.60	9.54	0.00	0.22
283326	C/AISLM PVC O GOMA CUB PB MULTCOND (2,3, O 4 C) DE 1.5-16MM2	m	315.11	14.51	300.60	14.51	0.00	0.22
283327	C/AISLM PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 25-35MM2	m	320.36	19.76	300.60	19.76	0.00	0.22
283331	C/AISLM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 50-70 MM2	m	331.21	30.61	300.60	30.61	0.00	0.22
283332	C/AISLM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 95-120MM2	m	333.99	33.39	300.60	33.39	0.00	0.22

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 16

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
283333	C/AISLM PVC O GOMA CUB PB MULTCOND (3 O 4 C) DE 150-240MM2	m	337.88	37.28	300.60	37.28	0.00	0.22
283340	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET (2,3 O 4 C) DE 1.5-4 MM2	m	310.61	10.01	300.60	10.01	0.00	1.17
283341	C/AISL PVC, GOM, O PAPEL ACEITE CUB PB PROT MET (2,3 O 4 C)DE 5.5-16 MM2	m	315.59	14.99	300.60	14.99	0.00	1.17
283342	C/AISLAM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTIC (2,3, O 4 C) DE 25-35 MM2	m	321.34	20.74	300.60	20.74	0.00	1.17
283346	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTIC (3 O 4 C) DE 50-70 MM2	m	332.73	32.13	300.60	32.13	0.00	1.17
283347	C/AISLAM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (3 O 4 C) DE 95-120MM2	m	335.66	35.06	300.60	35.06	0.00	1.17
283348	C/AISLAM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (3 O 4 C) DE 150-240 MM2	m	339.74	39.14	300.60	39.14	0.00	1.17
283353	C/AISL PVC O GOM CUB PVC P/MET MULTC (9,12,14 O 19 C) DE 1.5 MM2	m	326.68	15.75	310.93	15.75	0.00	1.17
283359	C/AISLAM PVC O GOM CUB PVC PRO MET MULTIC (24,27,37 O 48 C) DE 1.5 MM2	m	329.33	16.51	312.82	16.51	0.00	1.17
283373	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 16 MM2	m	331.04	30.44	300.60	30.44	0.00	1.17
283374	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 25-35 MM2	m	342.08	41.48	300.60	41.48	0.00	1.17
283375	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 50-70 MM2	m	364.86	64.26	300.60	64.26	0.00	1.17
283376	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 95-120 MM2	m	370.72	70.12	300.60	70.12	0.00	1.17
283377	C/AISLM PVC O GOMA CUB AL MULTC (4/C) DE 150-240 MM2	m	378.88	78.28	300.60	78.28	0.00	1.17
283391	MONTAJE DE CABLE EXPUESTO EN CHIMENEAS INDUSTRIALES, ALTURA <= 85 M	m	959.47	959.47	0.00	412.60	546.87	0.00
283392	MONTAJE DE CABLE EXPUESTO EN CHIMENEAS INDUSTRIALES, ALTURA > 85 M	m	1,265.54	1,265.54	0.00	536.38	729.16	0.00
2834	CABLE SOTERRADO DIRECTO EN ZANJA							
283400	C/AISLM PVC O GOM CUB PB PROT MET MULTC (2/C) 1,5-4 MM2	m	12.39	0.29	12.10	0.29	0.00	0.05
283401	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (2,3 O 4 C)DE 5.5-16MM2	m	12.50	0.40	12.10	0.40	0.00	0.05
283403	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (2,3 O 4 C) DE 25-35MM2	m	13.15	1.05	12.10	1.05	0.00	0.05
283404	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (2,3 O 4 C) DE 50-70MM2	m	13.82	1.72	12.10	1.72	0.00	0.05
283405	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (2,3 O 4 C) DE 95-120MM2	m	15.81	3.71	12.10	3.71	0.00	0.05
283406	C/AISLM PVC, GOM O PAPEL ACEITE CUB PB PROT MET MULTC (2,3 O 4 C)DE 150-240MM2	m	19.57	7.47	12.10	7.47	0.00	0.05
2835	CABLE POR TUBERIA SOTERRADA							
283500	C/AISLM PVC O GOMA MONOCOND DE 1,5-4MM2	m	1.31	0.46	0.85	0.46	0.00	0.05
283501	C/AISLM PVC O GOMA MONOCOND DE 5,5-16MM2	m	4.77	0.52	4.25	0.52	0.00	0.05
283502	C/AISLM PVC O GOMA MONOCOND DE 25-35MM2	m	10.90	0.80	10.10	0.80	0.00	0.05
283503	C/AISLM PVC O GOMA MONOCOND DE 50-70MM2	m	20.52	1.49	19.03	1.49	0.00	0.05
283504	C/AISLM PVC O GOMA MONOCOND DE 95-120MM2	m	27.39	3.07	24.32	3.07	0.00	0.05
283505	C/AISLM PVC O GOMA MONOCOND DE 150-240MM2	m	55.40	6.20	49.20	6.20	0.00	0.05
283506	C/AISLM PVC O GOMA MULTCOND (2, 3 O 4 C) DE 1,5-4MM2	m	12.87	0.77	12.10	0.77	0.00	0.05
283507	C/AISLM PVC O GOMA MULTCOND (2, 3 O 4 C) DE 5,5-16MM2	m	13.59	1.49	12.10	1.49	0.00	0.05
283508	C/AISLM PVC O GOMA MULTCOND (2, 3 O 4 C) DE 25-35MM2	m	14.59	2.49	12.10	2.49	0.00	0.05
283512	C/AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 50-70MM2	m	16.25	4.15	12.10	4.15	0.00	0.05

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 18

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
283513	C/AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 95-120MM2	m	36.27	11.10	25.17	11.10	0.00	0.50
283514	C/AISLM PVC O GOMA MULTCOND (3 O 4 C) DE 150-240MM2	m	25.91	13.81	12.10	13.81	0.00	0.05
283521	C/AISLM PVC O GOMA MULTCOND (5 O 7 C) DE 1.5-4MM2	m	12.99	0.89	12.10	0.89	0.00	1.00
283522	C/AISLM PVC O GOMA MULTCOND (5 O 7 C) DE 5,5-16 MM2	m	13.01	0.91	12.10	0.91	0.00	1.00
283529	C/AISLM PVC O GOMA MULTCOND (9,12,14,19,24 O 27 C) DE 1.5 MM2	m	13.42	1.32	12.10	1.32	0.00	1.00
283531	C/AISLM PVC O GOM MULTCOND (37 O 48 C) DE 1.5 MM2	m	13.90	1.80	12.10	1.80	0.00	1.00
283533	C/AISL PVC O GOM CUB PB MULTCOND (2,3 O 4 C)DE 1.5 -4MM2	m	12.89	0.79	12.10	0.79	0.00	0.05
283534	C/AISL PVC O GOMA CUB PB MULTCOND (2,3 O 4 C) DE 5.5 -16MM2	m	13.65	1.55	12.10	1.55	0.00	0.05
283535	C/AISLM PVC O GOMA CUB PB MULTCOND (2, 3 O 4 C) DE 25-35MM2	m	14.70	2.60	12.10	2.60	0.00	0.05
283539	C/AISL PVC O GOMA CUB PB MULTCOND(3 O 4 C) DE 50-70 MM2	m	16.44	4.34	12.10	4.34	0.00	0.05
283540	C/AISL PVC O GOMA CUB PB MULTIC (3 O 4 C) DE 95-120MM2	m	23.81	11.71	12.10	11.71	0.00	0.05
283541	C/AISL PVC O GOMA CUB PB MULTC (3 O 4 C) DE 150 -240MM2	m	26.59	14.49	12.10	14.49	0.00	0.05
283548	C/AISLAM PVC O GOMA CUB PB MULTIC (5 O 7 C)DE 1,5-4 MM2	m	13.07	0.97	12.10	0.97	0.00	1.00
283549	C/AISLAM PVC O GOMA CUB PB MULTIC(5 O 7 C)DE 5,5-16 MM2	m	13.74	1.64	12.10	1.64	0.00	1.00
283552	C/AISLM PVC O GOMA CUB PVC PROT MET MULTC (9,12,14 O 19 C) DE 1.5MM2	m	23.67	1.24	22.43	1.24	0.00	1.00
283556	C/AISL PVC O GOMA CUB PVC PROT MET MULTC (24 O 27 C) DE 1.5MM2	m	19.47	1.39	18.08	1.39	0.00	1.00
283558	C/AISLM PVC O GOMA CUB PVC PROT MET MULTC (37 O 48 C) DE 1.5MM2	m	26.19	1.87	24.32	1.87	0.00	1.00
2836	CABLE SOSTENIDO POR CABLE MENSAJERO							
283600	C/AISLM PVC O GOM MULTCOND (2, 3 O 4 C) DE 1,5-4MM2	m	55.36	5.46	49.90	5.46	0.00	0.13
283601	C/AISLM PVC O GOM MULTCOND (2, 3 O 4 C) DE 5,5-16MM2	m	58.18	8.28	49.90	8.28	0.00	0.13
283602	C/AISL PVC O GOMA MULTCOND (2/C) DE 25MM2	m	61.19	11.29	49.90	11.29	0.00	0.13
283603	C/AISL PVC O GOMA MULTCOND (3/C) DE 1.5-4 MM	m	43.26	5.46	37.80	5.46	0.00	0.08
283606	C/AISL PVC O GOMA MULTCOND (4/C) DE 1.5-4 MM	m	46.08	8.28	37.80	8.28	0.00	0.08
2837	POR CANALETA PVC							
283711	CON AISLAMIENTO PVC O GOMA MONOCOND DE 1.5-4 MM2	m	16.74	0.54	16.20	0.54	0.00	0.06
283712	CON AISLAMIENTO PVC O GOMA MONOCOND DE 5.5-16 MM2	m	22.34	0.74	21.60	0.74	0.00	0.08
283713	CON AISLAMIENTO PVC O GOMA MONOCOND DE 25-35 MM2	m	32.64	1.14	31.50	1.14	0.00	0.10
283714	CON AISLAMIENTO PVC O GOMA MONOCOND DE 50-70 MM2	m	52.31	1.91	50.40	1.91	0.00	0.16
283715	CON AISLAMIENTO PVC O GOMA MONOCOND DE 95-120 MM2	m	57.86	3.86	54.00	3.86	0.00	0.12
283716	CON AISLAMIENTO PVC O GOMA MONOCOND DE 150-240 MM2	m	82.74	7.14	75.60	7.14	0.00	0.12
283721	CON AISLAMIENTO PVC O GOMA MULTICOND DE 1.5-4 MM2	m	25.26	9.06	16.20	9.06	0.00	0.06
283722	CON AISLAMIENTO PVC O GOMA MULTICOND DE 5.5-16 MM2	m	35.42	13.82	21.60	13.82	0.00	0.08
283723	CON AISLAMIENTO PVC O GOMA MULTICOND DE 25-35 MM2	m	50.01	18.51	31.50	18.51	0.00	0.10
283724	CON AISLAMIENTO PVC O GOMA MULTICOND DE 50-70 MM2	m	79.55	29.15	50.40	29.15	0.00	0.16
283725	CON AISLAMIENTO PVC O GOMA MULTICOND DE 95-120 MM2	m	85.80	31.80	54.00	31.80	0.00	0.12
283726	CON AISLAMIENTO PVC O GOMA MULTICOND DE 150-240 MM2	m	111.11	35.51	75.60	35.51	0.00	0.12

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 20

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
283727	CABLEADO DE TELECABLES POR BANDEJAS CERRADAS.	m	2.27	2.27	0.00	2.27	0.00	0.00
285	REDES DE TIERRA Y PARARRAYOS							
2851	REDES DE TIERRA							
285100	INST CABLE CU 95MM2 EXPUESTO GRAPA Y PIN, H <= 1,5ML	m	53.72	4.45	49.27	4.45	0.00	0.34
285101	INST CABLE CU 95MM2 EXPUESTO GRAPA Y PIN H 1,6-5ML	m	56.50	7.23	49.27	7.23	0.00	0.34
285102	INST CABLE CU 95MM2 EN PISO O ZANJA	m	13.19	1.09	12.10	1.09	0.00	0.30
285110	INST PLANCHUELA CU 3X30MM EXP SOP GRAP PIN H <= 1,5 ML	m	206.72	8.90	197.82	8.90	0.00	0.91
285111	INST PLANCHUELA CU 3X30MM EXP SOP GRAP PIN H 1,6-5 ML	m	212.56	14.74	197.82	14.74	0.00	0.91
285112	INST PLANCHUELA CU 3X30MM EN PISO O ZANJA	m	123.35	1.38	121.97	1.38	0.00	0.66
285113	INST PLANCHUELA GALV 3X30MM EXP SOP GRA PIN H <= 1,5ML	m	86.72	8.90	77.82	8.90	0.00	1.23
285114	INST PLANCHUELA HO GALV 3X30MM EXP SOP GRA PIN H1,6-5ML	m	92.56	14.74	77.82	14.74	0.00	1.23
285115	INST PLANCHUELA HO GALV 3X30MM EN PISO O ZANJA	m	3.45	1.48	1.97	1.48	0.00	0.98
285120	SOLDADURA O EMPATE DE CABLES DE COBRE 95MM2	u	127.43	10.60	116.83	10.60	0.00	0.07
285121	SOLDADURA O EMPATES DE PLANCHUELA DE COBRE 95MM2	u	14.78	10.60	4.18	10.60	0.00	0.05
285122	APLICACION DE SOLDADURA CADWERD	u	96.92	7.39	89.53	7.39	0.00	1.01
285130	HINCADO DE ELECTRODO DE CU DE 2M X 5/8"	u	475.13	13.92	461.21	13.92	0.00	3.12
285131	HINCADO DE ELECTRODO DE HO GALV DE 2M X 5/8"	u	20.16	13.92	6.24	13.92	0.00	1.25
285151	COLOCACION DE ELECTRODOS QUIMICOS EN ESPIRAL	u	1,996.09	55.64	1,940.45	55.64	0.00	51.56
285152	COLOCACION DE ELECTRODO QUIMICO HORIZONTAL	u	9,105.38	111.28	8,994.10	111.28	0.00	187.60
285153	COLOCACION DE ELECTRODO QUIMICO VERTICAL	u	7,683.17	27.82	7,655.35	27.82	0.00	187.60
2852	PARARRAYOS							
285200	INST DE PUNTAS DE PARARRAYOS	u	110.54	6.91	103.63	6.91	0.00	1.68
285201	INST DE CABLE PARA PARARRAYOS	m	50.63	1.36	49.27	1.36	0.00	0.34
285202	INST DE CINTA DE CU HORIZONTAL Y VERTICAL	m	364.20	4.07	360.13	4.07	0.00	1.39
285203	INST DE CINTA DE HO GALV HORIZONTAL Y VERTICAL	m	80.05	4.07	75.98	4.07	0.00	1.22
285204	COLOCACION DE CONOS DE TIERRA Y CONEXIONES	u	485.80	24.00	461.80	24.00	0.00	210.45
285205	CONEXION DE PUNTAS DE PARARRAYO	u	43.14	10.43	32.71	10.43	0.00	0.25
285221	MONTAJE DE PUNTA DE PARARRAYOS EN CHIMENEAS INDUSTRIALES	u	23.99	23.99	0.00	10.32	13.67	0.00
285222	MONTAJE DE CABLES O CINTAS DE COBRE DE PARARRAYOS EN CHIMENEAS INDUSTRIALES	m	9.60	9.60	0.00	4.13	5.47	0.00
285251	MONTAJE EN SUBESTACIONES ELECTRICAS DE 110 KV -UNIDAD DE MEDIDA UN JUEGO=TRES PARARRAYOS.-	juego	141,415.80	20,600.80	120,815.00	6,181.92	14,418.8	761.97
285252	MONTAJE PARA SUBESTACIONES ELECTRICAS DE 220 KV. -UNIDAD DE MEDIDA UN JUEGO= TRES PARARRAYOS.-	juego	282,316.17	23,691.76	258,624.41	9,272.88	14,418.8	1139.83
286	BARRAS CONDUCTORAS							
2861	CONDUCTOS DE BARRAS PROTEGIDAS							
286100	INST Y ACOPLAM DE TRAMO RECTO DE 40KG,600V,225-880A	m	10.10	10.10	0.00	10.10	0.00	0.00
286101	INST Y ACOPLAM DE TRAMOS RECTOS DE 80KG,600V,1000-1500A	m	18.02	18.02	0.00	18.02	0.00	0.00
286102	INST Y ACOPLAM DE TRAMOS RECTOS DE 200KG,600V,4000A	m	33.12	33.12	0.00	33.12	0.00	0.00
286110	INST Y ACOPLAM INTERSECCION TIPO L,Z 25KG,600V,225-800A	u	141.44	141.44	0.00	141.44	0.00	0.00
286111	INST Y ACOPLAM INTERSEC TIPO T DE 25KG,600V,225-800A	u	181.85	181.85	0.00	181.85	0.00	0.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No.22

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
286112	INST Y ACOPLAM INTERSEC TIPO X DE 25KG,600V,225-800A	u	222.26	222.26	0.00	222.26	0.00	0.00
286113	INST Y ACOPLAM INTERSEC TIPO LZ 40KG,600V,1000-1500A	u	203.27	203.27	0.00	203.27	0.00	0.00
286114	INST Y ACOPLAM INTERSEC TIPO T 40KG, 600V, 1000-1500A	u	255.80	255.80	0.00	255.80	0.00	0.00
286115	INST Y ACOPLAM INTERSEC TIPO X 40KG,600V,1000-1500A	u	316.42	316.42	0.00	316.42	0.00	0.00
286116	INST Y ACOPLAM INTERSEC TIPO LZ 100KG,600V,4000A	u	282.87	282.87	0.00	282.87	0.00	0.00
286117	INST Y ACOPLAM INTERSEC TIPO T 100KG,600V,4000A	u	343.49	343.49	0.00	343.49	0.00	0.00
286118	INST Y ACOPLAM INTERSEC TIPO X 100KG,600V,4000A	u	404.10	404.10	0.00	404.10	0.00	0.00
2862 BARRAS RECTANGULARES								
286200	DE CU DE 5X25MM	m	330.76	13.92	316.84	13.92	0.00	2.35
286201	DE CU DE 5X40MM	m	331.11	13.92	317.19	13.92	0.00	2.77
286202	DE CU DE 10X50MM	m	1,468.32	20.86	1,447.46	20.86	0.00	7.66
286203	DE CU DE 10X100MM	m	2,026.42	20.86	2,005.56	20.86	0.00	10.31
286210	DE ALUMINIO DE 5X25MM	m	44.86	13.92	30.94	13.92	0.00	1.30
286211	DE ALUMINIO DE 5X40MM	m	112.63	13.92	98.71	13.92	0.00	1.50
286212	DE ALUMINIO DE 10X50MM	m	52.71	20.86	31.85	20.86	0.00	1.80
286213	DE ALUMINIO DE 10X100MM	m	92.95	20.86	72.09	20.86	0.00	3.60
286220	ACOPLAM DE CODOS Y BAYONETAS EN BARRAS DE 25-40MM2	u	120.42	48.68	71.74	48.68	0.00	1.12
286221	ACOPLAM DE CODOS Y BAYONETAS EN BARRAS DE 50-100MM2	u	127.38	55.64	71.74	55.64	0.00	1.12
2863 A LA INTEMPERIE DE 33KV 1 O 2 CONDUCTORES								
286310	1 CONDUCTOR COBRE ATORNILLADA HASTA 185MM2	u	4,822.65	4,822.65	0.00	1,165.60	3,657.05	0.00
286311	1 CONDUCTOR COBRE ATORNILLADA >185MM2<400MM2	u	6,358.56	6,358.56	0.00	1,631.84	4,726.72	0.00
286321	1 CONDUCTOR ALUMINIO PONCHADA HASTA 185MM2	u	7,643.15	7,643.15	0.00	1,398.72	6,244.43	0.00
286322	1 CONDUCTOR ALUMINIO PONCHADA >185MM2<400MM2	u	8,109.39	8,109.39	0.00	1,864.96	6,244.43	0.00
286323	1 CONDUCTOR ALUMINIO PONCHADA =400MM2	u	10,004.85	10,004.85	0.00	2,331.20	7,673.65	0.00
286331	2 CONDUCTORES ALUMINIO PONCHADA HASTA 185MM2	u	8,109.39	8,109.39	0.00	1,864.96	6,244.43	0.00
286332	2 CONDUCTORES ALUMINIO PONCHADA >185<400MM2	u	9,412.18	9,412.18	0.00	2,098.08	7,314.10	0.00
2864 A LA INTEMPERIE 110KV 1 O 2 CONDUCTORES								
286410	1 CONDUCTOR COBRE ATORNILLADA HASTA 185MM2	u	13,099.83	13,099.83	0.00	2,128.68	10,971.1	0.00
286411	1 CONDUCTOR COBRE ATORNILLADA >185<400MM2	u	13,957.98	13,957.98	0.00	2,365.20	11,592.7	0.00
286421	1 CONDUCTOR ALUMINIO PONCHADA HASTA 185MM2	u	13,437.07	13,437.07	0.00	2,465.92	10,971.1	0.00
286422	1 CONDUCTOR ALUMINIO PONCHADA >185<400MM2	u	15,208.84	15,208.84	0.00	2,719.98	12,488.8	0.00
286423	1 CONDUCTOR ALUMINIO PONCHADA =400MM2	u	18,182.36	18,182.36	0.00	3,074.76	15,107.6	0.00
286431	2 CONDUCTORES ALUMINIO PONCHADA HASTA 185MM2	u	15,327.10	15,327.10	0.00	2,838.24	12,488.8	0.00
286432	2 CONDUCTORES ALUMINIO PONCHADA >185<400MM2	u	17,702.96	17,702.96	0.00	3,074.76	14,628.2	0.00
286433	2 CONDUCTORES ALUMINIO PONCHADA =400MM2	u	20,256.22	20,256.22	0.00	3,425.96	16,830.2	0.00
2865 A LA INTEMPERIE 220KV 1 O 2 CONDUCTORES								
286510	2 CONDUCTORES ALUMINIO PONCHADA HASTA 185MM2	u	19,907.58	19,907.58	0.00	4,036.12	15,871.4	0.00
286511	2 CONDUCTORES ALUMINIO PONCHADA >185<400MM2	u	22,519.96	22,519.96	0.00	4,509.16	18,010.8	0.00
286512	2 CONDUCTORES ALUMINIO PONCHADA =400MM2	u	28,572.70	28,572.70	0.00	5,324.42	23,248.2	0.00
286521	1 CONDUCTOR ALUMINIO PONCHADA HASTA 185MM2	u	17,345.56	17,345.56	0.00	3,613.44	13,732.1	0.00
286522	1 CONDUCTOR ALUMINIO PONCHADA >185<400MM2	u	19,957.94	19,957.94	0.00	4,086.48	15,871.4	0.00
286523	1 CONDUCTOR ALUMINIO PONCHADA =400MM2	u	22,813.20	22,813.20	0.00	4,323.00	18,490.2	0.00
287 ALTO VOLTAJE								
2871 MONTAJE DE CABLES CONDUCTORES 110 A 220KV								
287110	3 COND SC TRAMO HTA 1KM CABLE <300MM2 110KV TE NORMAL	km	31,853.10	31,853.10	0.00	3,196.84	28,656.2	0.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No.24

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
287111	3 COND SC >1KM HTA 2KM CABLE <300MM2 110KV TE NORMAL	km	24,258.22	24,258.22	0.00	2,572.34	21,685.8	0.00
287112	3 COND SC >2KM CABLE <300MM2 110KV TE NORMAL	km	21,072.52	21,072.52	0.00	2,230.35	18,842.1	0.00
287113	3 COND SC <1 KM CABLE <300 MM2 110 KV TE MONTAÑOSO	km	33,976.09	33,976.09	0.00	3,613.17	30,362.9	0.00
287114	3 COND SC >1 HTA 2KM CABLE <300MM2 110KV TE MONTAÑOSO	km	31,548.71	31,548.71	0.00	3,345.53	28,203.1	0.00
287115	3 COND SC >2KM CABLE <300MM2 110KV TE MONTAÑOSO	km	29,526.10	29,526.10	0.00	3,122.49	26,403.6	0.00
287116	6 COND DC HTA 1KM CABLE <300MM2 110KV TE MONTAÑOSO	km	62,170.05	62,170.05	0.00	6,244.98	55,925.0	0.00
287117	6 COND DC >1KM HASTA 2KM CABLE <300MM2 110KV TE NORMAL	km	47,444.28	47,444.28	0.00	5,055.46	42,388.8	0.00
287118	6 COND DC >2KM CABLE <300MM2 110 KV TE NORMAL	km	41,316.34	41,316.34	0.00	4,460.70	36,855.6	0.00
287119	6 COND DC <1KM CABLE <300MM2 110 KV TE MONTAÑOSO	km	86,876.76	86,876.76	0.00	8,624.02	78,252.7	0.00
287120	6 COND DC >1 HASTA 2KM CABLE <300MM2 110KV TE MONTAÑOSO	km	66,262.92	66,262.92	0.00	7,047.90	59,215.0	0.00
287121	6 COND DC >2KM CABLE <300MM2 110KV TE MONTAÑOSO	km	57,569.74	57,569.74	0.00	6,096.29	51,473.4	0.00
287122	3 COND SC <1KM CABLE <500MM2 220KV TE NORMAL	km	34,406.96	34,406.96	0.00	3,694.46	30,712.5	0.00
287123	3 COND SC >1 HTA 2KM CABLE <500MM2 220KV TE NORMAL	km	27,494.52	27,494.52	0.00	2,973.80	24,520.7	0.00
287124	3 COND SC >2KM CABLE <500MM2 220KV TE NORMAL	km	22,609.12	22,609.12	0.00	2,527.73	20,081.3	0.00
287125	3 COND SC HTA 1KM CABLE <500MM2 220KV TE MONTAÑOSO	km	48,059.60	48,059.60	0.00	5,055.46	43,004.1	0.00
287126	3 COND SC >1 HTA 2KM CABLE <500MM2 220KV TE MONTAÑOSO	km	38,492.33	38,492.33	0.00	4,163.32	34,329.0	0.00
287127	3 COND SC >2KM CABLE <500MM2 220KV TE MONTAÑOSO	km	31,810.76	31,810.76	0.00	3,568.56	28,242.2	0.00
287128	6 COND DC HTA 1KM CABLE <500MM2 220KV TE NORMAL	km	66,883.55	66,883.55	0.00	6,988.43	59,895.1	0.00
287129	6 COND DC >1 HTA 2KM CABLE <500MM2 220KV TE NORMAL	km	53,614.51	53,614.51	0.00	5,798.91	47,815.6	0.00
287130	6 COND DC >2KM CABLE <500MM2 220KV TE NORMAL	km	45,254.95	45,254.95	0.00	4,906.77	40,348.1	0.00
287131	6 COND DC <1KM CABLE <500MM2 220KV TE MONTAÑOSO	km	93,852.78	93,852.78	0.00	9,962.23	83,890.5	0.00
287132	6 COND DC >1 HTA 2KM CABLE <500MM2 220KV TE MONTAÑOSO	km	75,120.37	75,120.37	0.00	8,177.95	66,942.4	0.00
287133	6 COND DC >2KM CABLE .500MM2 220KV TE MONTAÑOSO	km	61,817.99	61,817.99	0.00	6,711.43	55,106.5	0.00
2872	MONTAJE DE CABLE PROTECTOR DE 110 A 220KV							
287210	1 CONDUCTOR <100MM2 HASTA 1KM TERRENO NORMAL	km	3,600.51	3,600.51	0.00	565.31	3,035.20	0.00
287211	1 CONDUCTOR <100MM2 >1KM TERRENO NORMAL	km	2,936.61	2,936.61	0.00	442.72	2,493.89	0.00
287212	1 CONDUCTOR <100MM2 HASTA 1KM TERRENO MONTAÑOSO	km	6,124.49	6,124.49	0.00	964.65	5,159.84	0.00
287213	1 CONDUCTOR >100MM2 >1KM TERRENO MONTAÑOSO	km	4,985.63	4,985.63	0.00	749.21	4,236.42	0.00
287214	2 CONDUCTORES <100MM2 HASTA 1KM TERRENO NORMAL	km	7,025.42	7,025.42	0.00	1,103.39	5,922.03	0.00
287215	2 CONDUCTORES <100 MM2 >1 KM TERRENO NORMAL	km	5,729.87	5,729.87	0.00	865.00	4,864.87	0.00
287216	2 CONDUCTORES <100MM2 HASTA 1KM TERRENO MONTAÑOSO	km	11,945.90	11,945.90	0.00	1,886.65	10,059.2	0.00
287217	2 CONDUCTORES <100MM2 >1KM TERRENO MONTAÑOSO	km	9,727.73	9,727.73	0.00	1,464.37	8,263.36	0.00
287220	MONTAJE DE CABLE DE FIBRA OPTICA < 100 MM2 EN LINEAS DE 110 A 220 KV PARA 1 KM, TERRENO NORMAL.	km	20,183.42	20,183.42	0.00	729.81	19,453.6	0.00
287221	MONTAJE DE CABLE PROTECTOR EN LINEAS DE 110 A 220 KV (1 CONDUCTOR) < 100 MM2 PARA 1 KM, TERRENO NORMAL.	km	20,183.42	20,183.42	0.00	729.81	19,453.6	0.00
287222	MONTAJE DE CABLE DE FIBRA OPTICA < 100 MM2 EN LINEAS DE 110 A 220 KV PARA 1 KM, TERRENO MONTAÑOSO.	km	20,691.68	20,691.68	0.00	1,030.32	19,661.3	0.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No.26

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
287223	MONTAJE DE CABLE PROTECTOR EN LINEAS DE 110 A 220 KV (1 CONDUCTOR) < 100 MM2 PARA 1 KM, TERRENO MONTAÑOSO.	km	20,691.68	20,691.68	0.00	1,030.32	19,661.3	0.00
287225	MONTAJE DE CABLE PROTECTOR EN LINEAS DE 110 A 220 KV (2 CONDUCTORES) < 100 MM2 PARA 1 KM, TERRENO NORMAL.	km	40,366.84	40,366.84	0.00	1,459.62	38,907.2	0.00
287227	MONTAJE DE CABLE PROTECTOR EN LINEAS DE 110 A 220 KV (2 CONDUCTORES) < 100 MM2 PARA 1 KM, TERRENO MONTAÑOSO.	km	40,878.82	40,878.82	0.00	2,060.64	38,818.1	0.00
2873	AMORTIGUADORES							
287310	MONTAJE DE AMORTIGUADORES TIPO PP	u	20.10	20.10	0.00	20.10	0.00	0.00
2875	FIJACION DE CABLES CONDUCTORES							
287510	3 COND HASTA 300 MM2 TANGENTE 110 KV SIMPLE CIRCUITO	u	1,524.30	1,524.30	0.00	180.18	1,344.12	0.00
287511	COND HASTA 300 MM2 TANGENTE 110KV DOBLE CIRCUITO	u	2,450.88	2,450.88	0.00	300.29	2,150.59	0.00
287512	3 COND HASTA 500MM2 TANGENTE SIMPLE CIRCUITO 220KV	u	1,129.64	1,129.64	0.00	233.56	896.08	0.00
287513	COND HASTA 500 MM2 TANGENTE DOBLE CIRCUITO 220 KV	u	1,446.13	1,446.13	0.00	460.44	985.69	0.00
2876	FIJACION DE CABLES PROTECTORES							
287610	CABLE PROTECTOR <100MM2 TANGENTE 1 CONDUCTOR 110KV	u	499.14	499.14	0.00	60.06	439.08	0.00
287611	CABLE PROTECTOR <100MM2 TANGENTE 2 CONDUCTORES 110KV	u	993.79	993.79	0.00	120.11	873.68	0.00
287612	CABLE PROTECTOR HTA 100MM2 1 CONDUCTOR 220KV	u	82.08	82.08	0.00	82.08	0.00	0.00
287613	CABLE PROTECTOR HTA 100MM2 2 CONDUCTORES 220KV	u	160.15	160.15	0.00	160.15	0.00	0.00
2879	CRUZAMIENTOS ESPECIALES							
287910	1COND PROTECTOR <100MM2 CRUZAMIENTO I-II 33KV	u	3,376.48	3,376.48	0.00	349.12	3,027.36	0.00
287911	1COND PROTECTOR <100MM2 CRUZAMIENTO III 33KV	u	2,416.79	2,416.79	0.00	281.01	2,135.78	0.00
287912	2COND PROTECTORES <100MM2 CRUZAMIENTO I-II 33KV	u	5,402.37	5,402.37	0.00	558.59	4,843.78	0.00
287913	2COND PROTECTORES <100MM2 CRUZAMIENTO III 33KV	u	3,866.87	3,866.87	0.00	449.62	3,417.25	0.00
287914	3COND <300MM2 CRUZAMIENTO I 110KV	u	10,536.56	10,536.56	0.00	2,860.71	7,675.85	0.00
287915	3 COND <300 MM2 CRUZAMIENTO II 110 KV	u	10,942.93	10,942.93	0.00	2,730.67	8,212.26	0.00
287916	3 COND <300 MM2 CRUZAMIENTO III 110 KV	u	9,010.82	9,010.82	0.00	2,481.96	6,528.86	0.00
287917	6 COND <300 MM2 CRUZAMIENTO I 110 KV	u	20,196.41	20,196.41	0.00	5,591.37	14,605.0	0.00
287918	6 COND <300 MM2 CRUZAMIENTO II 110 KV	u	18,746.82	18,746.82	0.00	5,324.80	13,422.0	0.00
287919	6 COND <300 MM2 CRUZAMIENTO III 110 KV	u	16,600.66	16,600.66	0.00	4,882.70	11,717.9	0.00
287920	3 COND <500 MM2 CRUZAMIENTO I 220 KV	u	14,939.43	14,939.43	0.00	4,170.78	10,768.6	0.00
287921	3 COND <500 MM2 CRUZAMIENTO II 220 KV	u	12,689.35	12,689.35	0.00	3,120.77	9,568.58	0.00
287922	3 COND <500 MM2 CRUZAMIENTO III 220 KV	u	9,666.89	9,666.89	0.00	2,665.65	7,001.24	0.00
287923	6 COND <500 MM2 CRUZAMIENTO I 220 KV	u	29,571.99	29,571.99	0.00	8,140.01	21,431.9	0.00
287924	6 COND <500 MM2 CRUZAMIENTO II 220 KV	u	23,454.75	23,454.75	0.00	6,078.99	17,375.7	0.00
287925	6 COND <500 MM2 CRUZAMIENTO III 220 KV	u	17,767.98	17,767.98	0.00	5,201.28	12,566.7	0.00
288	TRABAJOS VARIOS							
2881	COLOCACION DE POSTES, ACCESORIOS Y EQUIPOS ELECTRICOS							
288111	ERECCION MECANIZADA DE POSTES DE HORMIGON O MADERA SIN ARBOLAR EN ZONA LLANA	u	416.38	416.38	0.00	66.06	350.32	0.00
288112	ERECCION MECANIZADA DE POSTES DE HORMIGON O MADERA ARBO LADO EN ZONA LLANA	u	475.98	475.98	0.00	75.52	400.46	0.00
288113	ERECCION MECANIZADA DE POSTES DE HORMIGON O MADERA SIN ARBOLAR EN ZONA MONTAÑOSA	u	514.74	514.74	0.00	81.66	433.08	0.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No.28

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
288114	ERECCION MECANIZADA DE POSTES DE HORMIGON O MADERA ARBO LADO EN ZONA MONTAÑOSA	u	621.24	621.24	0.00	98.56	522.68	0.00
288121	ARBOLAR POSTES DE HORMIGON O MADERA HASTA 33 KV EN EL SUELO PARA LINEAS SECUNDARIAS (NO INCLUYE MATERIALES)	u	27.03	27.03	0.00	27.03	0.00	0.00
288122	ARBOLAR POSTE DE HORMIGON O MADERA HASTA 33 KV EN EL SUELO P/ESTRUCTURA TIPO A (NO INCLUYE MATERIAL)	u	37.54	37.54	0.00	37.54	0.00	0.00
288123	ARBOLAR POSTE DE HORMIGON O MADERA HASTA 33 KV EN EL SUELO P/ESTRUCTURA TIPO B (NO INCLUYE MATERIALES)	u	45.05	45.05	0.00	45.05	0.00	0.00
288124	ARBOLAR POSTE DE HORMIGON O MADERA HTA 33 KV EN SUELO P/ESTRUCT TIPO A C/CRUCETA EXCENTRICA (NO INCL. MAT.)	u	42.25	42.25	0.00	42.25	0.00	0.00
288125	ARBOLAR POSTE DE HORMIGON O MADERA HTA 33 KV EN SUELO P/ESTRUCT. TIPO B C/CRUCETA EXCENTRICA (NO INCL. MAT.)	u	51.98	51.98	0.00	51.98	0.00	0.00
288131	ARBOLAR POSTE DE HORMIGON O MADERA HASTA 33 KV ERECTO EN ESTRUCTURA TIPO C (NO INCLUYE MATERIALES)	u	56.31	56.31	0.00	56.31	0.00	0.00
288132	ARBOLAR POSTE DE HORMIGON O MADERA HASTA 33 KV ERECTO EN ESTRUCTURA TIPO E (NO INCLUYE MATERIALES)	u	94.88	94.88	0.00	94.88	0.00	0.00
288133	ARBOLAR POSTE DE HORMIGON O MADERA HASTA 33 KV ERECTO EN ESTRUCTURA TIPO E DOBLE REMATE (NO INCLUYE MATERIAL)	u	135.17	135.17	0.00	135.17	0.00	0.00
288134	ARBOLAR POSTE DE HORMIGON O MADERA HASTA 33 KV ERECTO EN ESTRUCTURA TIPO H (NO INCLUYE MATERIALES)	u	675.84	675.84	0.00	675.84	0.00	0.00
288141	INSTALACION DE TENSORES Y ANCLAS	u	146.43	146.43	0.00	146.43	0.00	0.00
2882	CABLES							
288201	DESPLIEGUE, CONEXION Y FIJACION PARA VOLTAJES DE 110, 220 Y 440 (MEDIANTE TECNICAS DEL ACCESO CON CUERDA)	m	144.85	16.94	127.91	16.94	0.00	1.43
288211	AMARRAR CONDUCTORES EN ESTRUCTURA TIPO A HASTA 33 KV (NO INCLUYE MATERIALES)	u	8.45	8.45	0.00	8.45	0.00	0.00
288212	AMARRAR CONDUCTORES EN ESTRUCTURA TIPO B HASTA 33 KV (NO INCLUYE MATERIALES)	u	9.65	9.65	0.00	9.65	0.00	0.00
288213	AMARRAR CONDUCTORES EN ESTRUCTURA TIPO SECUNDARIO (NO INCLUYE MATERIALES)	u	6.83	6.83	0.00	6.83	0.00	0.00
288221	PARA VOLTAJES DE 110,220, Y 440	m	151.09	8.47	142.62	8.47	0.00	1.38
288251	ALAMBRAR TORRES (50 METROS DE ALTURA) CON CABLE NO. 10 EN SISTEMAS DE ILUMINACION DE INSTALACIONES DEPORTIVAS	m	3.79	3.79	0.00	3.79	0.00	0.00
289	REPARACIONES							
2893	CABLE POR TUBERIA EXPUESTA O EMPOTRADA EXISTENTE							
289302	CON AISLAMIENTO PVC O GOMA MONOCONDUCTOR DE 5.5 -16 MM2 ,BAJO VOLTAJE <= KV DE COBRE O ALUMINIO	m	1.87	1.87	0.00	1.87	0.00	0.00
2897	ALTO VOLTAJE							
289701	CAMBIO DE RISTRA DE SUSPENSION DE FASE DE 110 KV EN DESENERGIZADA	u	522.00	522.00	0.00	92.22	429.78	0.00
289702	CAMBIO DE RISTRA DE SUSPENSION DE FASE DE 110 KV EN LINEA ENERGIZADA	u	1,229.34	1,229.34	0.00	113.66	1,115.68	0.00

PRECONS III

Lista de Costos de Renglones Constructivos

Hoja No. 32

Código	Descripción	Unidad de Medida	Costos Directos					Peso Total (Kg)
			Total	Sin MAT	MAT	MO	EQ	
289703	CAMBIO DE AISLAMIENTO DE SUSPENSION DE FASE DE 110 KV EN LINEA DESENERGIZADA	u	462.73	462.73	0.00	82.71	380.02	0.00
289704	CAMBIO DE AISLAMIENTO DE SUSPENSION DE FASE DE 110 KV EN LINEA ENERGIZADA.	u	1,126.88	1,126.88	0.00	104.18	1,022.70	0.00
289705	CAMBIO DE RISTRA DE SUSPENSION DE FASE DE 220 KV EN LINEA DESENERGIZADA.	u	642.75	642.75	0.00	99.87	542.88	0.00
289706	CAMBIO DE RISTRA DE SUSPENSION DE FASE DE 220 KV EN LINEA ENERGIZADA.	u	1,598.11	1,598.11	0.00	147.74	1,450.37	0.00
289707	CAMBIO DE AISLAMIENTO DE SUSPENSION DEFASE DE 220 KV EN LINEA DESENERGIZADA	u	589.18	589.18	0.00	91.54	497.64	0.00
289708	CAMBIO DE AISLAMIENTO DE SUSPENSION DEFASE DE 220 KV EN LINEA ENERGIZADA.	u	1,460.73	1,460.73	0.00	121.91	1,338.82	0.00
289709	CAMBIO DE HERRAJES CABLE PROTECTOR SUSPENSION LINEA 110 KV EN LINEA DESENERGIZADA.	u	160.69	160.69	0.00	24.97	135.72	0.00
289710	CAMBIO DE HERRAJES EN CABLE PROTECTOR DE SUSPENSION LINEA 110 KV EN LINEA ENERGIZADA.	u	491.73	491.73	0.00	45.46	446.27	0.00
289711	CAMBIO DE RISTRA CABLE PROTECTOR SUSPENSION LINEA 220 KV EN LINEA DESENERGIZADA.	u	203.53	203.53	0.00	31.62	171.91	0.00
289712	CAMBIO DE RISTRA EN CABLE PROTECTOR DE SUSPENSION LINEA 220 KV EN LINEA ENERGIZADA.	u	461.01	461.01	0.00	42.63	418.38	0.00
289713	CAMBIO DE RISTRA DE TENSION DE 110 KV EN LINEA DESENERGIZADA.	u	856.99	856.99	0.00	133.15	723.84	0.00
289714	CAMBIO DE RISTRA DE TENSION DE 110 KV EN LINEA ENERGIZADA.	u	1,946.44	1,946.44	0.00	179.95	1,766.49	0.00
289715	CAMBIO DE AISLAMIENTO DE TENSION DE 110 KV EN LINEA DESENERGIZADA.	u	803.44	803.44	0.00	124.84	678.60	0.00
289716	CAMBIO DE AISLAMIENTO DE TENSION DE 110 KV EN LINEA ENERGIZADA.	u	1,843.98	1,843.98	0.00	170.47	1,673.51	0.00
289717	CAMBIO DE RISTRA DE TENSION DE 220 KV EN LINEA DESENERGIZADA.	u	1,178.37	1,178.37	0.00	183.09	995.28	0.00
289718	CAMBIO DE RISTRA DE TENSION DE 220 KV EN LINEA ENERGIZADA.	u	4,097.76	4,097.76	0.00	378.84	3,718.92	0.00
289719	CAMBIO DE AISLAMIENTO DE TENSION DE 220 KV EN LINEA DESENERGIZADA.	u	1,071.24	1,071.24	0.00	166.44	904.80	0.00
289720	CAMBIO DE AISLAMIENTO DE TENSION DE 220 KV EN LINEA ENERGIZADA.	u	3,892.86	3,892.86	0.00	359.89	3,532.97	0.00
289721	CAMBIO DE HERRAJES DE TENSION EN CABLE PROTECTOR 110 KV EN LINEA DESENERGIZADA.	u	428.49	428.49	0.00	66.57	361.92	0.00
289722	CAMBIO DE HERRAJES CABLE PROTECTOR DE TENSION DE 110 KV EN LINEA ENERGIZADA.	u	1,536.67	1,536.67	0.00	142.07	1,394.60	0.00
289723	CAMBIO DE RISTRA DE TENSION EN CABLE PROTECTOR DE 220 KV EN LINEA DESENERGIZADA.	u	535.62	535.62	0.00	83.22	452.40	0.00
289724	CAMBIO DE RISTRA DE TENSION EN CABLE PROTECTOR DE 220 KV EN LINEA ENERGIZADA.	u	1,434.22	1,434.22	0.00	132.60	1,301.62	0.00
289725	CAMBIO DE AMORTIGUADOR EN LINEA DESENERGIZADA.	u	96.41	96.41	0.00	14.98	81.43	0.00
289726	CAMBIO DE AMORTIGUADOR EN LINEA ENERGIZADA.	u	403.01	403.01	0.00	31.12	371.89	0.00
289727	MONTAJE DE PUENTES DE FASE DE 110 KV	u	160.69	160.69	0.00	24.97	135.72	0.00
289728	CAMBIO DE PUENTES DE FASE DE 110 KV	u	224.97	224.97	0.00	34.96	190.01	0.00
289729	MONTAJE DE PUENTES DE FASE DE 220 KV	u	257.09	257.09	0.00	39.94	217.15	0.00
289730	CAMBIO DE PUENTES DE FASE DE 220 KV	u	321.37	321.37	0.00	49.93	271.44	0.00
289731	MONTAJE DE PUENTES CABLE PROTECTOR 110 Y 220 KV	u	128.56	128.56	0.00	19.98	108.58	0.00
289732	CAMBIO DE PUENTES CABLE PROTECTOR DE 110 Y 220 KV	u	160.69	160.69	0.00	24.97	135.72	0.00