

TRANSFORMADOR NO. TR-02A-03 DE SERVICIOS AUXILIARES DE 112,5 KVA	POSTE POLIESTER Y FIBRA DE VIDRIO	SECCIÓN VÍA	NÚMERO LUMINARIAS	CARGA TOTAL LUMINARIA LED (KVA)	CARGA TOTAL USUARIOS (KVA)	CARGA DEMANDADA USUARIOS (KVA)	CAPACIDAD TRANSFORMADOR (KVA)	RESERVA (KVA)	BAJANTES		CORTACIRCUITOS		CON DPS CON TESTIGO, PROGRAMADOR HORARIO DE A-P Y RELEVADOR			
									FASES		25	KACI				
									NEUTRO		BREAKERS 2X20A					
460/220-127 V				3.899		108.00		75.60		112.50		36.90				
TRAMO	LONGITUD (METROS X KG)	ANCHO (METROS)	LED (W)	CARGA LUMINARIAS (KVA)	NÚMERO DE LUMINARIAS (UNID.)	CARGAS AUXILIARES (KVA)	CARGA TOTAL (KVA)	LONGITUD DEL TRAMO (METROS)	SUMATORIA LONGITUD DEL TRAMO (METROS)	MOMENTO ELÉCTRICO (KVAXM)	CALIBRE CU	DIÁMETRO PVC	% REGULACIÓN MOMENTO X CTE	CORRIENTE (AMPERIOS)	CORRIENTE (AMPERIOS) X 1,25	
PP-02A-01	C1P1	12X510	Z-V	0.090	2	0.023	0.203	50.00	50.00	10.125	2#8, 1#12	3/4"	0.0088	0.09	1.15	1.44
C1	C1P2	10X510	9.20	0.061	1	0.015	0.077	40.00	90.00	6.891	2#8, 1#12	3/4"	0.0088	0.06	0.44	0.54
C1P2	C1P3	10X510	9.20	0.061	1	0.015	0.077	30.00	120.00	9.188	2#8, 1#12	3/4"	0.0088	0.08	0.44	0.54
C1P3	C1P4	10X510	9.20	0.061	1	0.015	0.077	40.60	160.60	12.296	2#8, 1#12	3/4"	0.0088	0.11	0.44	0.54
C1P4	C1P5	10X510	9.20	0.061	1	0.015	0.077	29.00	189.60	14.516	2#8, 1#12	3/4"	0.0088	0.13	0.44	0.54
C1P5	C1P6	10X510	9.20	0.061	1	0.015	0.077	27.00	216.60	16.583	2#8, 1#12	3/4"	0.0088	0.15	0.44	0.54
C1P6	C1P7	10X510	9.20	0.061	1	0.015	0.077	30.00	246.60	18.880	2#8, 1#12	3/4"	0.0088	0.17	0.44	0.54
C1P7	C1P8	10X510	9.20	0.061	1	0.015	0.077	30.00	276.60	21.177	2#8, 1#12	3/4"	0.0088	0.19	0.44	0.54
C1P8	C1P9	10X510	9.20	0.061	1	0.015	0.077	30.00	306.60	23.474	2#8, 1#12	3/4"	0.0088	0.21	0.44	0.54
C1P9	C1P10	10X510	9.20	0.061	1	0.015	0.077	30.00	336.60	25.771	2#8, 1#12	3/4"	0.0088	0.23	0.44	0.54
C1P10	C1P11	10X510	9.20	0.061	1	0.015	0.077	35.00	371.60	28.451	2#8, 1#12	3/4"	0.0088	0.25	0.44	0.54
C1C	C1P12	10X510	9.20	0.061	1	0.015	0.077	30.00	401.60	30.748	2#8, 1#12	3/4"	0.0088	0.27	0.44	0.54
C1P12	C1P13	10X510	9.20	0.061	1	0.015	0.077	30.00	431.60	33.044	2#8, 1#12	3/4"	0.0088	0.29	0.44	0.54
C1P13	C1P14	10X510	9.20	0.061	1	0.015	0.077	30.00	461.60	35.341	2#8, 1#12	3/4"	0.0088	0.31	0.44	0.54
C1P14	C1P15	10X510	9.20	0.061	1	0.015	0.077	30.00	491.60	37.638	2#8, 1#12	3/4"	0.0088	0.33	0.44	0.54
TOTAL TRAMO PRINCIPAL		15		758	0.948	16	0.237	1.274	491.60		2#8, 1#12	3/4"	0.0088	2.85	7.241	9.051
PP-02A-01	C1P16	10X510	9.2	0.061	1	0.015	0.077	6.00	6.00	0.459	2#8, 1#12	3/4"	0.0088	0.004	0.44	0.54
C1P16	C1P17	10X510	9.20	0.061	1	0.015	0.077	22.80	28.80	2.205	2#8, 1#12	3/4"	0.0088	0.02	0.44	0.54
C1P17	C1P18	10X510	9.20	0.061	1	0.015	0.077	28.30	57.10	4.372	2#8, 1#12	3/4"	0.0088	0.04	0.44	0.54
C1G	C1P19	12X510	Z-V	0.090	2	0.023	0.203	23.50	80.10	16.322	2#8, 1#12	3/4"	0.0088	0.14	1.15	1.44
C1F	C1P20	12X510	Z-V	0.090	2	0.023	0.203	34.00	114.60	23.207	2#8, 1#12	3/4"	0.0088	0.20	1.15	1.44
C1E	C1P21	10X510	9.2	0.061	1	0.015	0.077	18.50	133.10	10.190	2#8, 1#12	3/4"	0.0088	0.09	0.44	0.54
C1A	C1P22	10X510	9.20	0.061	1	0.015	0.077	15.20	148.30	11.354	2#8, 1#12	3/4"	0.0088	0.10	0.44	0.54
C1P22	C1P23	12X510	Z-V	0.090	2	0.023	0.203	17.43	165.73	13.560	2#8, 1#12	3/4"	0.0088	0.30	1.15	1.44
C1F	C1P24	12X510	Z-V	0.090	2	0.023	0.203	20.00	185.73	15.610	2#8, 1#12	3/4"	0.0088	0.33	1.15	1.44
C1H	C1P25	12X510	Z-V	0.090	2	0.023	0.203	20.00	205.73	17.660	2#8, 1#12	3/4"	0.0088	0.37	1.15	1.44
TOTAL TRAMOS AUXILIARES		10		605	0.756	15	0.189	1.395	205.73		2#8, 1#12	3/4"	0.0088	1.59	7.928	9.910
TOTAL		25		1,363	1.704	31	0.426	2,670	697.33		2#8, 1#12	3/4"	0.0088	15.169	18.961	

NOTA 1: SE CALCULA CON LA REGULACIÓN DEL TRAMO PRINCIPAL = 2.85 %
 NOTA 2: LOS TRAMOS PRINCIPALES Y AUXILIARES VAN EN CALIBRE ESPECIFICADO EN LOS CUADROS DE CÁLCULOS Y LOS TRAMOS COMPLEMENTARIOS VAN EN CALIBRE 2#12, 1#12 (DE USO FINAL AL POSTE Y LUMINARIA LED)

CUADRO DE CÁLCULO DEL CIRCUITO DE ILUMINACIÓN NO. 1. QUE SALE DEL TABLERO GENERAL DE 220V PP-02A-01 DE LA SUBESTACIÓN TRATAMIENTO PRELIMINAR NO 1.

TRANSFORMADOR NO. TR-02B-03 DE SERVICIOS AUXILIARES DE 112,5 KVA	POSTE POLIESTER Y FIBRA DE VIDRIO	SECCIÓN VÍA	CARGA LUMINARIAS	CARGA TOTAL LUMINARIA LED (KVA)	CARGA TOTAL USUARIOS (KVA)	CARGA DEMANDADA USUARIOS (KVA)	CAPACIDAD TRANSFORMADOR (KVA)	RESERVA (KVA)	BAJANTES		CORTACIRCUITOS		CON DPS CON TESTIGO, PROGRAMADOR HORARIO DE A-P Y RELEVADOR			
									FASES		25	KACI				
									NEUTRO		BREAKERS 2X30 A.					
460/220-127 V				3.899		108.00		75.60		112.50		36.90				
TRAMO	LONGITUD (METROS X KG)	ANCHO (METROS)	LED (W)	CARGA LUMINARIAS (KVA)	NÚMERO DE LUMINARIAS (UNID.)	CARGAS AUXILIARES (KVA)	CARGA TOTAL (KVA)	LONGITUD DEL TRAMO (METROS)	SUMATORIA LONGITUD DEL TRAMO (METROS)	MOMENTO ELÉCTRICO (KVAXM)	CALIBRE CU	DIÁMETRO PVC	% REGULACIÓN MOMENTO X CTE	CORRIENTE (AMPERIOS)	CORRIENTE (AMPERIOS) X 1,25	
PP-02B-01	C2P1	10X510	Z-V	0.090	2	0.023	0.203	45.00	45.00	9.113	2#6, 1#10	3/4"	0.006	0.05	1.15	1.44
C2A	C2P2	10X510	9.20	0.061	1	0.015	0.077	26.80	71.80	5.497	2#6, 1#10	3/4"	0.006	0.03	0.44	0.54
C2P2	C2P3	10X510	9.20	0.061	1	0.015	0.077	30.00	101.80	7.794	2#6, 1#10	3/4"	0.006	0.05	0.44	0.54
C2P3	C2P4	10X510	9.20	0.061	1	0.015	0.077	27.00	128.80	9.861	2#6, 1#10	3/4"	0.006	0.06	0.44	0.54
C2P4	C2P5	10X510	9.20	0.061	1	0.015	0.077	21.00	149.80	11.469	2#6, 1#10	3/4"	0.006	0.07	0.44	0.54
C2P5	C2P6	10X510	9.20	0.061	1	0.015	0.077	26.90	176.70	13.529	2#6, 1#10	3/4"	0.006	0.08	0.44	0.54
C2P6	C2P7	10X510	9.20	0.061	1	0.015	0.077	30.00	206.70	15.825	2#6, 1#10	3/4"	0.006	0.09	0.44	0.54
C2P7	C2P8	10X510	9.20	0.061	1	0.015	0.077	34.00	240.70	18.429	2#6, 1#10	3/4"	0.006	0.11	0.44	0.54
C2P8	C2P9	10X510	9.20	0.061	2	0.015	0.138	30.00	270.70	37.306	2#6, 1#10	3/4"	0.006	0.22	0.78	0.98
C2P9	C2P10	10X510	9.20	0.061	1	0.015	0.077	30.00	300.70	23.022	2#6, 1#10	3/4"	0.006	0.14	0.44	0.54
C2P10	C2P11	12X510	Z-V	0.090	2	0.023	0.203	25.49	326.19	66.053	2#6, 1#10	3/4"	0.006	0.40	1.15	1.44
C2P11	C2P12	12X510	Z-V	0.090	2	0.023	0.203	33.00	359.19	72.736	2#6, 1#10	3/4"	0.006	0.44	1.15	1.44
TOTAL TRAMO PRINCIPAL		12		657	0.821	16	0.205	1.358	359.19		2#6, 1#10	3/4"	0.006	1.74	7.715	9.644
C2P10	C2P13	12X510	Z-V	0.090	2	0.023	0.203	9.50	9.50	1.924	2#6, 1#10	3/4"	0.006	0.01	1.15	1.44
C2D	C2P14	12X510	Z-V	0.090	2	0.023	0.203	21.27	30.77	6.231	2#6, 1#10	3/4"	0.006	0.04	1.15	1.44
C2D	C2P15	12X510	Z-V	0.090	2	0.023	0.203	11.00	41.77	8.458	2#6, 1#10	3/4"	0.006	0.05	1.15	1.44
C2A	C2P16	10X510	9.20	0.061	1	0.015	0.077	3.31	45.08	3.451	2#6, 1#10	3/4"	0.006	0.02	0.44	0.54
C2P16	C2P17	10X510	9.20	0.061	1	0.015	0.077	29.00	74.08	5.672	2#6, 1#10	3/4"	0.006	0.03	0.44	0.54
C2P17	C2P18	10X510	9.20	0.061	1	0.015	0.077	30.00	104.08	7.969	2#6, 1#10	3/4"	0.006	0.05	0.44	0.54
C2P18	C2P19	10X510	9.20	0.061	1	0.015	0.077	30.00	134.08	10.266	2#6, 1#10	3/4"	0.006	0.06	0.44	0.54
C2P19	C2P20	10X510	9.20	0.061	1	0.015	0.077	30.00	164.08	12.562	2#6, 1#10	3/4"	0.006	0.08	0.44	0.54
C2P20	C2P21	10X510	9.20	0.061	1	0.015	0.077	30.00	194.08	14.859	2#6, 1#10	3/4"	0.006	0.09	0.44	0.54
C2P21	C2P22	10X510	9.20	0.061	1	0.015	0.077	28.26	222.34	17.023	2#6, 1#10	3/4"	0.006	0.10	0.44	0.54
C2P22	C2P23	10X510	Z-V	0.090	2	0.023	0.203	11.30	233.64	47.312	2#6, 1#10	3/4"	0.006	0.28	1.15	1.44
CF	C2P24	12X510	Z-V	0.090	2	0.023	0.203	20.80	254.44	51.524	2#6, 1#10	3/4"	0.006	0.31	1.15	1.44
C2P19	C2P25	12X510	Z-V	0.090	2	0.023	0.203	21.90	276.34	55.959	2#6, 1#10	3/4"	0.006	0.34	1.15	1.44
C2B	C2P26	12X510	Z-V	0.090	2	0.023	0.203	16.50	292.84	59.300	2#6, 1#10	3/4"	0.006	0.36	1.15	1.44
C2P2	C2P27	12X510	Z-V	0.090	2	0.023	0.203	24.50	317.34	64.261	2#6, 1#10	3/4"	0.006	0.39	1.15	1.44
C2C	C2P28	12X510	Z-V	0.090	2	0.023	0.203	34.00	351.34	71.146	2#6, 1#10	3/4"	0.006	0.43	1.15	1.44
C2G	C2P29	10X510	6	0.049	1	0.012	0.061	30.00	381.34	23.238	2#6, 1#10	3/4"	0.006	0.14	0.35	0.43