

Earth Loop Impedance Results Project :Solutions Training

Leg No. 1 **Maximum Impedance: 3.328 Ohms / Touch Potential: 129.583 Volts**

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
4	LIGHTS 1	DIST BOARD	OFFICE LIG	2.5 mm2	10 Amps	1	Earth	2.5 mm2	1	10	75.0	3.33	137.32	20.39	0.68	240	5.0	YES
3	DIST BOARD	MAIN SWITC	DIST BOARD	70.0 mm2	200 Amps	1	Earth	25.0 mm2	1	300	75.0	3.33	2023.6	1.78	0.06	240	5.0	YES
2	SUPPLY MA	TRANSFORME	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	75.0	3.33	8238.93	.24	0.01	240	5.0	YES

Leg No. 2 **Maximum Impedance: 2.08 Ohms / Touch Potential: 155.064 Volts**

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
5	LIGHTS 2	DIST BOARD	HIGH BAY L	4.0 mm2	11 Amps	1	Earth	2.5 mm2	1	16	120.0	2.08	105.63	34.08	0.71	240	5.0	YES
3	DIST BOARD	MAIN SWITC	DIST BOARD	70.0 mm2	200 Amps	1	Earth	25.0 mm2	1	300	120.0	2.08	1264.75	2.85	0.06	240	5.0	YES
2	SUPPLY MA	TRANSFORME	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	120.0	2.08	5149.33	.39	0.01	240	5.0	YES

Leg No. 3 **Maximum Impedance: 2.08 Ohms / Touch Potential: 155.064 Volts**

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
6	POWER 1	DIST BOARD	SOUTH WALL	4.0 mm2	16 Amps	1	Earth	2.5 mm2	1	16	120.0	2.08	105.63	21.96	0.46	240	5.0	YES
3	DIST BOARD	MAIN SWITC	DIST BOARD	70.0 mm2	200 Amps	1	Earth	25.0 mm2	1	300	120.0	2.08	1264.75	2.85	0.06	240	5.0	YES
2	SUPPLY MA	TRANSFORME	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	120.0	2.08	5149.33	.39	0.01	240	5.0	YES

Leg No. 4 **Maximum Impedance: 1.664 Ohms / Touch Potential: 101.992 Volts**

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
7	POWER 2	DIST BOARD	POWER 2 D	1.5 mm2	20 Amps	1	Earth	2.5 mm2	1	20	150.0	1.66	51.49	27.97	0.47	240	5.0	YES
3	DIST BOARD	MAIN SWITC	DIST BOARD	70.0 mm2	200 Amps	1	Earth	25.0 mm2	1	300	150.0	1.66	1011.8	3.56	0.06	240	5.0	YES
2	SUPPLY MA	TRANSFORME	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	150.0	1.66	4119.47	.49	0.01	240	5.0	YES

Leg No. 5 **Maximum Impedance: 1.04 Ohms / Touch Potential: 175.051 Volts**

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
8	3 PHASE GP	DIST BOARD	32 A 3 PHA	6.0 mm2	32 Amps	1	Earth	2.5 mm2	1	32	240.0	1.04	60.58	21.13	0.22	240	5.0	YES
3	DIST BOARD	MAIN SWITC	DIST BOARD	70.0 mm2	200 Amps	1	Earth	25.0 mm2	1	300	240.0	1.04	632.37	5.69	0.06	240	5.0	YES
2	SUPPLY MA	TRANSFORME	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	240.0	1.04	2574.67	.78	0.01	240	5.0	YES

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Leg No. 6 Maximum Impedance: 1.664 Ohms / Touch Potential: 155.068 Volts

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
9	WATER PUMP	MAIN SWITC	WASTE WATER	4.0 mm2	22 Amps	1	Earth	2.5 mm2	1	25	150.0	1.66	84.5	42.6	0.71	240	5.0	YES
2	SUPPLY MAIN	TRANSFORMER	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	150.0	1.66	4119.47	.49	0.01	240	5.0	YES

Leg No. 7 Maximum Impedance: 1.643 Ohms / Touch Potential: 127.966 Volts

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
10	UPS POWER	MAIN SWITC	UPS SUPPLY	2.5 mm2	20 Amps	1	Earth	2.5 mm2	1	20	150.0	1.64	67.8	53.1	0.87	237	5.0	YES
2	SUPPLY MAIN	TRANSFORMER	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	150.0	1.64	4119.47	.49	0.01	240	5.0	YES

Leg No. 8 Maximum Impedance: 1.65 Ohms / Touch Potential: 128.499 Volts

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
11	qq	MAIN SWITC	power 16	2.5 mm2	18 Amps	1	Earth	2.5 mm2	1	20	150.0	1.65	68.09	29.37	0.48	238	5.0	YES
2	SUPPLY MAIN	TRANSFORMER	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	150.0	1.65	4119.47	.49	0.01	240	5.0	YES

Leg No. 9 Maximum Impedance: 1.664 Ohms / Touch Potential: 129.583 Volts

No.	Cable I.D.	Conected from	Load I.D.	Active Size	Load (Amps)	Cores	F.C.C.	F.C.C. Size	Cores	Fuse/CB	Min. Trip	Max. Imp.	Max. Length	V.D.(%)	Act. Imp.	Vol. (V)	Test	Compliance
12	2	MAIN SWITC	ss1	2.5 mm2	20 Amps	1	Earth	2.5 mm2	1	20	150.0	1.66	68.66	25.63	0.43	240	5.0	YES
2	SUPPLY MAIN	TRANSFORMER	MAIN SWITC	150.0 mm2	600 Amps	2	Earth	50.0 mm2	2	600	150.0	1.66	4119.47	.49	0.01	240	5.0	YES