

SUBSTATION - 3 (KULHUDHUFFUSHI)
MAIN LV DISTRIBUTION BOARD



PURPOSE OF SUBMISSION

FIRST REVISION

REV

A

AUTHORISED BY

GKH

DATE

19/04/16

DRAWING TITLE
NETWORK DIAGRAM FOR B12 KULHUDHUFFUSHI
SUBSTATION 3

PROJECT
PREPARING OUTER ISLANDS
SUSTAINABLE DEVELOPMENT

CLIENT:
GOVERNMENT OF THE
REPUBLIC OF MALDIVES

DESIGN : ESM

DRAWN : MUM

LICENCE NO:

DATE: : 19APR16

SCALE : N.T.S

DRW NO. : J431-GOPA-032-GR-E-D-0003-RevA

ISLAND NAME : KULHUDHUFFUSHI

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KULHUDHUFFUSHI-SS3-EXISTING

From	To	No. of Runs	Cable Size (sq.mm)	Length (M)	Cable Current Capacity (A)	Cable Current Capacity After Deration (0.6) (A)	Power (kW)	Current (A)	Cable Loading (%)	Voltage (%) at DB Main Bus	Total Voltage Drop (%) in Cable Section	% Voltage Drop upto Distribution Boards	% Voltage Drop Acceptable (Less Than 5%)	Remarks
Feeder-1	DB-311	1	4C x 70	46	265	159	105.00	186.30	117.10	98.85	1.15	1.15	YES	
DB-311	DB-312	1	4C x 70	69	265	159	98.58	177.20	111.40	97.22	1.63	2.78	YES	
DB-312	DB-312x1	1	4C x 25	89	150	90	4.96	9.19	10.20	96.95	0.27	3.05	YES	
DB-312	DB-312x2	1	4C x 70	97	265	159	25.08	46.28	29.10	96.63	0.60	3.37	YES	
DB-312x2	DB-312x3	1	4C x 16	126	115	69	4.97	9.25	13.40	96.04	0.59	3.96	YES	
DB-312x2	DB-312x4	1	4C x 35	92	180	108	14.98	27.83	25.80	96.00	0.62	4.00	YES	
DB-312x4	DB-312x5	1	4C x 25	91	150	90	9.92	18.58	20.60	95.45	0.55	4.55	YES	
DB-312x5	DB-312x6	1	4C x 25	88	150	90	4.93	9.30	10.30	95.18	0.27	4.82	YES	
DB-312	DB-313	1	4C x 70	60	265	159	61.47	112.50	70.80	96.32	0.90	3.68	YES	
DB-313	DB-313x1	1	4C x 25	88	150	90	14.99	27.91	31.00	95.51	0.81	4.49	YES	
DB-313x1	DB-313x2	1	4C x 25	84	150	90	9.90	18.63	20.70	95.00	0.51	5.00	NO	
DB-313x2	DB-313x3	1	4C x 25	73	150	90	4.92	9.32	10.40	94.78	0.22	5.22	NO	
DB-313	DB-314	1	4C x 35	92	180	108	40.81	75.39	69.80	94.63	1.69	5.37	NO	
DB-314	DB-314x1	1	4C x 35	75	180	108	4.91	9.34	8.70	94.46	0.17	5.54	NO	
DB-314	DB-315	1	4C x 35	77	180	108	30.01	56.72	52.50	93.57	1.06	6.43	NO	
DB-315	DB-315x1	1	4C x 25	78	150	90	4.89	9.42	10.50	93.33	0.24	6.67	NO	
DB-315	DB-316	1	4C x 25	65	150	90	19.77	37.90	42.10	92.76	0.81	7.24	NO	
DB-316	DB-316x1	1	4C x 25	62	150	90	4.87	9.47	10.50	92.57	0.19	7.43	NO	
DB-316	DB-317	1	4C x 25	69	150	90	9.79	18.98	21.10	92.33	0.43	7.67	NO	
DB-317	DB-318	1	4C x 25	102	150	90	4.87	9.50	10.60	92.01	0.32	7.99	NO	
Feeder-2	DB-321	1	4C x 120	403	360	216	63.36	112.50	52.10	96.19	3.81	3.81	YES	
DB-321	DB-321x1	2	4C x 16	84	230	138	9.91	18.54	13.40	95.79	0.39	4.21	YES	
DB-321x1	DB-321x2	1	4C x 16	56	115	69	4.93	9.28	13.40	95.53	0.26	4.47	YES	
DB-321	DB-322	1	4C x 70	88	265	159	45.67	84.73	53.30	95.19	0.99	4.81	YES	
DB-322	DB-323	1	4C x 70	109	265	159	40.14	75.44	47.40	94.10	1.09	5.90	NO	
DB-323	DB-323x1	1	4C x 50	81	215	129	4.89	9.38	7.30	93.96	0.14	6.04	NO	
DB-323	DB-324	1	4C x 50	65	215	129	29.76	56.70	44.00	93.42	0.68	6.58	NO	
DB-324	DB-324x1	2	4C x 16	90	115	69	9.81	18.89	27.40	92.99	0.43	7.01	NO	
DB-324x1	DB-324x2	2	4C x 16	80	115	69	4.88	9.45	13.70	92.80	0.19	7.20	NO	
DB-324	DB-325	2	4C x 16	72	230	138	14.78	28.40	20.60	92.90	0.52	7.10	NO	
DB-325	DB-326	2	4C x 16	102	230	138	9.80	18.96	13.70	92.42	0.49	7.58	NO	
DB-326	DB-327	2	4C x 16	82	230	138	4.87	9.49	6.90	92.22	0.20	7.78	NO	
Feeder-3	DB-331	1	4C x 70	62	265	159	30.30	54.47	34.30	99.55	0.45	0.45	YES	
DB-331	DB-331x1	1	4C x 35	3	180	108	4.99	9.05	8.40	99.55	0.01	0.45	YES	
DB-331	DB-332	1	4C x 70	119	265	159	20.14	36.38	22.90	98.98	0.57	1.02	YES	
DB-332	DB-333	1	4C x 70	70	265	159	15.00	27.30	17.20	98.72	0.25	1.28	YES	
DB-333	DB-334	1	4C x 70	85	265	159	9.98	18.21	11.50	98.52	0.21	1.48	YES	
DB-334	DB-335	1	4C x 25	49	150	90	4.98	9.11	10.10	98.37	0.15	1.63	YES	

	PURPOSE OF SUBMISSION		REV	AUTHORISED BY	DATE	DRAWING TITLE NETWORK DIAGRAM FOR B12 KULHUDHUFFUSHI SUBSTATION 3		DESIGN : ESM		SCALE : N.T.S	
	FIRST REVISION		A	GKH	19/04/16			DRAWN : MUM		DRW NO. : J431-GOPA-032-GR-E-D-0003-RevA	
						PROJECT PREPARING OUTER ISLANDS SUSTAINABLE DEVELOPMENT	CLIENT: GOVERNMENT OF THE REPUBLIC OF MALDIVES	LICENCE NO:		ISLAND NAME : KULHUDHUFFUSHI	
								DATE: : 19APR16		PAGE : 2/5	

KULHUDHUFFUSHI-SS3-EXISTING

From	To	No. of Runs	Cable Size (sq.mm)	Length (M)	Cable Current Capacity (A)	Cable Current Capacity After Deration (0.6) (A)	Power (kW)	Current (A)	Cable Loading (%)	Voltage (%) at DB Main Bus	Total Voltage Drop (%) in Cable Section	% Voltage Drop upto Distribution Boards	% Voltage Drop Acceptable (Less Than 5%)	Remarks
Feeder-4	DB-341	1	4C x 120	315	360	216	67.41	120.30	55.70	96.82	3.18	3.18	YES	
DB-341	DB-341x1	2	4C x 16	111	230	138	9.92	18.44	13.40	96.63	0.19	3.37	YES	
DB-341x1	DB-341x2	1	4C x 16	91	115	69	4.96	9.24	13.40	96.21	0.42	3.79	YES	
DB-341	DB-341x3	1	4C x 16	57	115	69	9.95	18.47	26.80	96.29	0.53	3.71	YES	
DB-341x3	DB-341x4	1	4C x 16	41	115	69	4.94	9.24	13.40	96.10	0.19	3.90	YES	
DB-341	DB-342	1	4C x 50	53	215	129	40.05	74.22	57.50	96.09	0.72	3.91	YES	
DB-342	DB-342x1	1	4C x 25	64	150	90	4.93	9.26	10.30	95.90	0.19	4.10	YES	
DB-342	DB-342x2	2	4C x 16	59	230	138	14.87	27.84	20.20	95.68	0.41	4.32	YES	
DB-342x2	DB-342x3	1	4C x 16	68	115	69	4.93	9.29	13.50	95.36	0.32	4.64	YES	
DB-342x2	DB-342x4	1	4C x 16	50	115	69	4.93	9.28	13.50	95.45	0.23	4.55	YES	
DB-342	DB-343	1	4C x 25	78	150	90	14.91	27.88	31.00	95.38	0.71	4.62	YES	
DB-343	DB-343x1	1	4C x 16	47	115	69	4.92	9.30	13.50	95.16	0.22	4.84	YES	
DB-343	DB-344	2	4C x 16	50	230	138	4.92	9.29	6.70	95.26	0.12	4.74	YES	
Feeder-5	DB-351	1	4C x 70	497	265	159	89.88	156.20	98.30	89.58	10.42	10.42	NO	
DB-351	DB-351x1	1	4C x 70	97	265	159	29.26	58.60	36.90	88.82	0.75	11.18	NO	
DB-351x1	DB-351x2	1	4C x 70	66	265	159	24.15	48.89	30.70	88.39	0.43	11.61	NO	
DB-351x2	DB-351x3	1	4C x 25	54	150	90	9.62	19.59	21.80	88.05	0.35	11.95	NO	
DB-351x3	DB-351x4	1	4C x 25	91	150	90	4.79	9.81	10.90	87.75	0.29	12.25	NO	
DB-351x2	DB-351x5	1	4C x 70	84	265	159	9.60	19.56	12.30	88.18	0.22	11.82	NO	
DB-351x5	DB-351x6	1	4C x 35	75	180	108	4.79	9.79	9.10	88.00	0.18	12.00	NO	
DB-351	DB-352	1	4C x 70	18	265	159	43.99	88.04	55.40	89.37	0.21	10.63	NO	
DB-352	DB-353	1	4C x 70	76	265	159	39.05	78.33	49.30	88.58	0.79	11.42	NO	
DB-353	DB-353x1	1	4C x 70	72	265	159	14.44	29.34	18.50	88.30	0.28	11.70	NO	
DB-353x1	DB-353x2	1	4C x 16	88	115	69	4.81	9.80	14.20	87.86	0.43	12.14	NO	
DB-353x1	DB-353x3	1	4C x 35	88	180	108	4.79	9.78	9.10	88.09	0.21	11.91	NO	
DB-353	DB-353x4	1	4C x 16	86	115	69	4.81	9.78	14.20	88.15	0.42	11.85	NO	
DB-353	DB-354	1	4C x 35	100	180	108	14.57	29.49	27.30	87.86	0.72	12.14	NO	
DB-354	DB-355	1	4C x 25	85	150	90	9.63	19.70	21.90	87.31	0.55	12.69	NO	
Feeder-6	DB-361	1	4C x 70	276	265	159	15.17	27.25	17.10	99.00	1.00	1.00	YES	
DB-361	DB-362	1	4C x 70	89	265	159	9.99	18.18	11.40	98.79	0.21	1.21	YES	
DB-362	DB-363	1	4C x 70	87	265	159	4.98	9.09	5.70	98.68	0.10	1.32	YES	
Feeder-7	DB-371	1	4C x 95	153	315	189	56.68	101.20	53.50	98.44	1.56	1.56	YES	
DB-371	DB-371x1	1	4C x 16	50	115	69	4.98	9.12	13.20	98.21	0.23	1.79	YES	
DB-371	DB-372	1	4C x 70	51	265	159	45.62	82.95	52.20	97.87	0.56	2.13	YES	
DB-372	DB-372x1	1	4C x 16	82	115	69	4.98	9.16	13.30	97.50	0.38	2.50	YES	
DB-372	DB-372x2	1	4C x 16	54	115	69	4.97	9.15	13.30	97.63	0.25	2.37	YES	
DB-372	DB-373	1	4C x 35	88	180	108	30.37	55.50	51.40	96.69	1.19	3.31	YES	
DB-373	DB-373x1	1	4C x 16	47	115	69	4.95	9.22	13.40	96.47	0.22	3.53	YES	
DB-373	DB-374	1	4C x 35	58	180	108	19.96	37.07	34.30	96.17	0.52	3.83	YES	
DB-374	DB-375	1	4C x 35	107	180	108	14.89	27.84	25.80	95.81	0.36	4.19	YES	
DB-375	DB-376	2	4C x 16	62	230	138	9.89	18.58	13.50	95.51	0.29	4.49	YES	
DB-376	DB-377	1	4C x 16	74	115	69	4.93	9.30	13.50	95.17	0.35	4.83	YES	
DB-355	Temp1	1	4C x 16	63	115	69	4.78	9.87	14.30	87.00	0.31	13.00	NO	

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								DATE: : 19APR16		PAGE : 3/5	

KULHUDHUFFUSHI-SS3-PROPOSED

From	To	No. of Runs	Cable Size (sq.mm)	Length (M)	Cable Current Capacity (A)	Cable Current Capacity After Deration (0.6) (A)	Power (kW)	Current (A)	Cable Loading (%)	Voltage (%) at DB Main Bus	Total Voltage Drop (%) in Cable Section	% Voltage Drop upto Distribution Boards	% Voltage Drop Acceptable (Less Than 5%)	Remarks
Feeder-1	DB-311	1	4C x 120	46	360	216	103.00	184.00	85.20	99.29	0.71	0.71	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-311	DB-312	1	4C x 120	69	360	216	97.02	175.00	81.00	98.28	1.01	1.72	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-312	DB-312x1	1	4C x 25	89	150	90	4.98	9.13	10.10	98.01	0.27	1.99	YES	
DB-312	DB-312x2	1	4C x 70	97	265	159	25.18	45.97	28.90	97.68	0.59	2.32	YES	
DB-312x2	DB-312x3	1	4C x 16	126	115	69	4.99	9.18	13.30	97.10	0.58	2.90	YES	
DB-312x2	DB-312x4	1	4C x 35	92	180	108	15.04	27.64	25.60	97.07	0.62	2.93	YES	
DB-312x4	DB-312x5	1	4C x 25	91	150	90	9.96	18.45	20.50	96.52	0.55	3.48	YES	
DB-312x5	DB-312x6	1	4C x 25	88	150	90	4.95	9.23	10.30	96.25	0.27	3.75	YES	
DB-312	DB-313	1	4C x 120	60	360	216	60.71	110.70	51.30	97.72	0.56	2.28	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-313	DB-313x1	1	4C x 25	88	150	90	15.07	27.66	30.70	96.92	0.80	3.08	YES	
DB-313x1	DB-313x2	1	4C x 25	84	150	90	9.95	18.46	20.50	96.41	0.51	3.59	YES	
DB-313x2	DB-313x3	1	4C x 25	73	150	90	4.94	9.24	10.30	96.19	0.22	3.81	YES	
DB-313	DB-314	1	4C x 120	92	360	216	40.27	73.94	34.20	97.15	0.57	2.85	YES	Existing 4C x 35 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-314	DB-314x1	1	4C x 35	75	180	108	4.95	9.19	8.50	96.98	0.17	3.02	YES	
DB-314	DB-315	1	4C x 70	77	265	159	30.09	55.57	34.90	96.58	0.57	3.42	YES	Existing 4C x 35 sq.mm LV Cable Replaced with New 4C x 70 sq.mm LVCable
DB-315	DB-315x1	1	4C x 25	78	150	90	4.95	9.23	10.30	96.34	0.24	3.66	YES	
DB-315	DB-316	1	4C x 25	65	150	90	19.98	37.13	41.30	95.79	0.79	4.21	YES	
DB-316	DB-316x1	1	4C x 25	62	150	90	4.93	9.27	10.30	95.60	0.19	4.40	YES	
DB-316	DB-317	1	4C x 25	69	150	90	9.90	18.59	20.70	95.37	0.42	4.63	YES	
DB-317	DB-318	1	4C x 25	102	150	90	4.93	9.31	10.30	95.05	0.31	4.95	YES	
Feeder-2	DB-321	1	4C x 240	403	540	324	61.63	110.80	34.20	97.73	2.27	2.27	YES	Existing 4C x 120 sq.mm LV Cable Replaced with New 4C x 240 sq.mm LVCable
DB-321	DB-321x1	2	4C x 16	84	230	138	9.97	18.35	13.30	97.35	0.39	2.65	YES	
DB-321x1	DB-321x2	1	4C x 16	56	115	69	4.96	9.18	13.30	97.09	0.26	2.91	YES	
DB-321	DB-322	1	4C x 120	88	360	216	45.33	83.27	38.50	97.12	0.61	2.88	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-322	DB-323	1	4C x 120	109	360	216	40.05	74.09	34.30	96.44	0.68	3.56	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-323	DB-323x1	1	4C x 50	81	215	129	4.94	9.23	7.20	96.31	0.14	3.69	YES	
DB-323	DB-324	1	4C x 120	65	360	216	29.84	55.63	25.80	96.14	0.30	3.86	YES	Existing 4C x 50 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-324	DB-324x1	2	4C x 16	90	115	69	9.91	18.54	26.90	95.72	0.42	4.28	YES	
DB-324x1	DB-324x2	2	4C x 16	80	115	69	4.93	9.28	13.40	95.53	0.19	4.47	YES	
DB-324	DB-325	1	4C x 50	72	215	129	14.90	27.85	21.60	95.77	0.37	4.23	YES	Existing 4C x 16 sq.mm LV Cable Replaced with New 4C x 50 sq.mm LVCable
DB-325	DB-326	2	4C x 16	102	230	138	9.90	18.59	13.50	95.29	0.48	4.71	YES	
DB-326	DB-327	2	4C x 16	82	230	138	4.92	9.30	6.70	95.10	0.19	4.90	YES	
Feeder-3	DB-331	1	4C x 70	62	265	159	30.30	54.47	34.30	99.55	0.45	0.45	YES	
DB-331	DB-331x1	1	4C x 35	3	180	108	4.99	9.05	8.40	99.55	0.01	0.45	YES	
DB-331	DB-332	1	4C x 70	119	265	159	20.14	36.38	22.90	98.98	0.57	1.02	YES	
DB-332	DB-333	1	4C x 70	70	265	159	15.00	27.30	17.20	98.72	0.25	1.28	YES	
DB-333	DB-334	1	4C x 70	85	265	159	9.98	18.21	11.50	98.52	0.21	1.48	YES	
DB-334	DB-335	1	4C x 25	49	150	90	4.98	9.11	10.10	98.37	0.15	1.63	YES	

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KULHUDHUFFUSHI-SS3-PROPOSED

From	To	No. of Runs	Cable Size (sq.mm)	Length (M)	Cable Current Capacity (A)	Cable Current Capacity After Deration (0.6) (A)	Power (kW)	Current (A)	Cable Loading (%)	Voltage (%) at DB Main Bus	Total Voltage Drop (%) in Cable Section	% Voltage Drop upto Distribution Boards	% Voltage Drop Acceptable (Less Than 5%)	Remarks
Feeder-4	DB-341	1	4C x 120	315	360	216	67.41	120.30	55.70	96.82	3.18	3.18	YES	
DB-341	DB-341x1	2	4C x 16	111	230	138	9.92	18.44	13.40	96.63	0.19	3.37	YES	
DB-341x1	DB-341x2	1	4C x 16	91	115	69	4.96	9.24	13.40	96.21	0.42	3.79	YES	
DB-341	DB-341x3	1	4C x 16	57	115	69	9.95	18.47	26.80	96.29	0.53	3.71	YES	
DB-341x3	DB-341x4	1	4C x 16	41	115	69	4.94	9.24	13.40	96.10	0.19	3.90	YES	
DB-341	DB-342	1	4C x 50	53	215	129	40.05	74.22	57.50	96.09	0.72	3.91	YES	
DB-342	DB-342x1	1	4C x 25	64	150	90	4.93	9.26	10.30	95.90	0.19	4.10	YES	
DB-342	DB-342x2	2	4C x 16	59	230	138	14.87	27.84	20.20	95.68	0.41	4.32	YES	
DB-342x2	DB-342x3	1	4C x 16	68	115	69	4.93	9.29	13.50	95.36	0.32	4.64	YES	
DB-342x2	DB-342x4	1	4C x 16	50	115	69	4.93	9.28	13.50	95.45	0.23	4.55	YES	
DB-342	DB-343	1	4C x 25	78	150	90	14.91	27.88	31.00	95.38	0.71	4.62	YES	
DB-343	DB-343x1	1	4C x 16	47	115	69	4.92	9.30	13.50	95.16	0.22	4.84	YES	
DB-343	DB-344	2	4C x 16	50	230	138	4.92	9.29	6.70	95.26	0.12	4.74	YES	
Feeder-5	DB-351	1	4C x 300	497	590	354	82.21	148.20	41.90	96.69	3.31	3.31	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 300 sq.mm LVCable
DB-351	DB-351x1	1	4C x 95	97	315	189	29.94	55.65	29.40	96.15	0.54	3.85	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 95 sq.mm LVCable
DB-351x1	DB-351x2	1	4C x 70	66	265	159	24.81	46.41	29.20	95.74	0.41	4.26	YES	
DB-351x2	DB-351x3	1	4C x 25	54	150	90	9.89	18.59	20.70	95.41	0.33	4.59	YES	
DB-351x3	DB-351x4	1	4C x 25	91	150	90	4.93	9.30	10.30	95.14	0.28	4.86	YES	
DB-351x2	DB-351x5	1	4C x 70	84	265	159	9.86	18.56	11.70	95.54	0.21	4.46	YES	
DB-351x5	DB-351x6	1	4C x 35	75	180	108	4.92	9.29	8.60	95.37	0.17	4.63	YES	
DB-351	DB-352	1	4C x 120	18	360	216	44.84	83.40	38.60	96.57	0.13	3.43	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-352	DB-353	1	4C x 120	76	360	216	39.83	74.18	34.30	96.10	0.47	3.90	YES	Existing 4C x 70 sq.mm LV Cable Replaced with New 4C x 120 sq.mm LVCable
DB-353	DB-353x1	1	4C x 70	72	265	159	14.84	27.81	17.50	95.83	0.27	4.17	YES	
DB-353x1	DB-353x2	1	4C x 16	88	115	69	4.94	9.28	13.50	95.42	0.41	4.58	YES	
DB-353x1	DB-353x3	1	4C x 35	88	180	108	4.93	9.27	8.60	95.63	0.20	4.37	YES	
DB-353	DB-353x4	1	4C x 16	86	115	69	4.95	9.27	13.40	95.69	0.40	4.31	YES	
DB-353	DB-354	1	4C x 95	100	315	189	14.88	27.86	14.70	95.82	0.28	4.18	YES	Existing 4C x 35 sq.mm LV Cable Replaced with New 4C x 95 sq.mm LVCable
DB-354	DB-355	1	4C x 25	85	150	90	9.91	18.60	20.70	95.30	0.52	4.70	YES	
Feeder-6	DB-361	1	4C x 70	276	265	159	15.17	27.25	17.10	99.00	1.00	1.00	YES	
DB-361	DB-362	1	4C x 70	89	265	159	9.99	18.18	11.40	98.79	0.21	1.21	YES	
DB-362	DB-363	1	4C x 70	87	265	159	4.98	9.09	5.70	98.68	0.10	1.32	YES	
Feeder-7	DB-371	1	4C x 95	153	315	189	56.68	101.20	53.50	98.44	1.56	1.56	YES	
DB-371	DB-371x1	1	4C x 16	50	115	69	4.98	9.12	13.20	98.21	0.23	1.79	YES	
DB-371	DB-372	1	4C x 70	51	265	159	45.62	82.95	52.20	97.87	0.56	2.13	YES	
DB-372	DB-372x1	1	4C x 16	82	115	69	4.98	9.16	13.30	97.50	0.38	2.50	YES	
DB-372	DB-372x2	1	4C x 16	54	115	69	4.97	9.15	13.30	97.63	0.25	2.37	YES	
DB-372	DB-373	1	4C x 35	88	180	108	30.37	55.50	51.40	96.69	1.19	3.31	YES	
DB-373	DB-373x1	1	4C x 16	47	115	69	4.95	9.22	13.40	96.47	0.22	3.53	YES	
DB-373	DB-374	1	4C x 35	58	180	108	19.96	37.07	34.30	96.17	0.52	3.83	YES	
DB-374	DB-375	1	4C x 35	107	180	108	14.89	27.84	25.80	95.81	0.36	4.19	YES	
DB-375	DB-376	2	4C x 16	62	230	138	9.89	18.58	13.50	95.51	0.29	4.49	YES	
DB-376	DB-377	1	4C x 16	74	115	69	4.93	9.30	13.50	95.17	0.35	4.83	YES	
DB-355	Temp1	1	4C x 16	63	115	69	4.93	9.31	13.50	95.01	0.30	4.99	YES	

KULHUDHUFFUSHI-SS3-PROPOSED PV FEEDER

From	To	No. of Runs	Cable Size (sq.mm)	Length (M)	Cable Current Capacity (A)	Cable Current Capacity After Deration (0.6) (A)	Power (kW)	Current (A)	Cable Loading (%)	Voltage (%) at DB Main Bus	Total Voltage Drop (%) in Cable Section	% Voltage Drop upto Distribution Boards	% Voltage Drop Acceptable (Less Than 5%)	Losses (%)	Remarks
MOSQUE-PV	KULHUDHUFFUSHI-SUBSTATION -3	1	4C x 70	220	265	159	32	45.54	28.6	101.41	1.41	1.41	YES	1.00%	Proposed 4C x 70 sq.mm LVCable

	PURPOSE OF SUBMISSION	REV	AUTHORISED BY	DATE	DRAWING TITLE NETWORK DIAGRAM FOR B12 KULHUDHUFFUSHI SUBSTATION 3		DESIGN : ESM	SCALE : N.T.S
	FIRST REVISION	A	GKH	19/04/16			DRAWN : MUM	DRW NO. : J431-GOPA-032-GR-E-D-0003-RevA
					PROJECT PREPARING OUTER ISLANDS SUSTAINABLE DEVELOPMENT	CLIENT: GOVERNMENT OF THE REPUBLIC OF MALDIVES	LICENCE NO:	ISLAND NAME : KULHUDHUFFUSHI
							DATE: : 19APR16	PAGE : 5/5