

Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

ETAP  
12.6.0H  
  
Study Case: ULF

Page: 1  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

### Branch Losses Summary Report

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
C.20	A	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
C56	A	0.051	0.021	-0.051	-0.021	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.051	0.021	-0.051	-0.021	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.051	0.021	-0.051	-0.021	0.0	0.0	99.9	99.9	0.00	0.00
C59	A	0.276	0.115	-0.276	-0.115	0.0	0.0	100.0	100.0	0.00	0.00
	B	0.276	0.115	-0.276	-0.115	0.0	0.0	100.0	100.0	0.00	0.00
	C	0.276	0.115	-0.276	-0.115	0.0	0.0	100.0	100.0	0.00	0.00
C60	A	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
C61	A	0.303	0.131	-0.303	-0.131	0.0	0.0	100.0	100.0	0.00	0.00
	B	0.303	0.131	-0.303	-0.131	0.0	0.0	100.0	100.0	0.00	0.00
	C	0.303	0.131	-0.303	-0.131	0.0	0.0	100.0	100.0	0.00	0.00
C80	A	0.047	0.018	-0.047	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.047	0.018	-0.047	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.047	0.018	-0.047	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
C96	A	0.517	0.215	-0.517	-0.215	0.0	0.0	100.0	100.0	0.01	0.00
	B	0.517	0.215	-0.517	-0.215	0.0	0.0	100.0	100.0	0.01	0.00
	C	0.517	0.215	-0.517	-0.215	0.0	0.0	100.0	100.0	0.01	0.00
C97	A	0.338	0.144	-0.338	-0.144	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.338	0.144	-0.338	-0.144	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.338	0.144	-0.338	-0.144	0.0	0.0	99.9	99.9	0.00	0.00
C100	A	0.023	0.008	-0.023	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.008	-0.023	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.008	-0.023	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
C107	A	0.028	0.010	-0.028	-0.010	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.028	0.010	-0.028	-0.010	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.028	0.010	-0.028	-0.010	0.0	0.0	99.9	99.9	0.00	0.00
C117	A	0.080	0.046	-0.080	-0.046	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.080	0.046	-0.080	-0.046	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.080	0.046	-0.080	-0.046	0.0	0.0	99.9	99.9	0.00	0.00
C120	A	0.286	0.118	-0.286	-0.118	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.286	0.118	-0.286	-0.118	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.286	0.118	-0.286	-0.118	0.0	0.0	99.9	99.9	0.00	0.00
C128	A	0.441	0.185	-0.441	-0.185	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.441	0.185	-0.441	-0.185	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.441	0.185	-0.441	-0.185	0.0	0.0	99.9	99.9	0.01	0.00
C160	A	0.343	0.146	-0.343	-0.146	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.343	0.146	-0.343	-0.146	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.343	0.146	-0.343	-0.146	0.0	0.0	99.9	99.9	0.01	0.00

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CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
C162	A	0.394	0.167	-0.394	-0.167	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.394	0.167	-0.394	-0.167	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.394	0.167	-0.394	-0.167	0.0	0.0	99.9	99.9	0.01	0.00
C163	A	0.147	0.063	-0.147	-0.063	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.147	0.063	-0.147	-0.063	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.147	0.063	-0.147	-0.063	0.0	0.0	99.9	99.9	0.00	0.00
C191	A	0.343	0.146	-0.343	-0.146	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.343	0.146	-0.343	-0.146	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.343	0.146	-0.343	-0.146	0.0	0.0	99.9	99.9	0.01	0.00
C193	A	0.008	0.004	-0.008	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.008	0.004	-0.008	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.008	0.004	-0.008	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
C203	A	-0.004	-0.011	0.004	0.011	0.0	0.0	99.9	99.9	0.00	0.00
	B	-0.004	-0.011	0.004	0.011	0.0	0.0	99.9	99.9	0.00	0.00
	C	-0.004	-0.011	0.004	0.011	0.0	0.0	99.9	99.9	0.00	0.00
C216	A	0.286	0.118	-0.286	-0.118	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.286	0.118	-0.286	-0.118	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.286	0.118	-0.286	-0.118	0.0	0.0	99.9	99.9	0.01	0.00
C246	A	0.460	0.191	-0.459	-0.191	0.1	0.0	100.0	99.9	0.01	0.00
	B	0.460	0.191	-0.459	-0.191	0.1	0.0	100.0	99.9	0.01	0.00
	C	0.460	0.191	-0.459	-0.191	0.1	0.0	100.0	99.9	0.01	0.00
C280	A	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
C319	A	0.023	0.026	-0.023	-0.026	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.026	-0.023	-0.026	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.026	-0.023	-0.026	0.0	0.0	99.9	99.9	0.00	0.00
C322	A	-0.004	-0.011	0.004	0.011	0.0	0.0	99.9	99.9	0.00	0.00
	B	-0.004	-0.011	0.004	0.011	0.0	0.0	99.9	99.9	0.00	0.00
	C	-0.004	-0.011	0.004	0.011	0.0	0.0	99.9	99.9	0.00	0.00
C330	A	0.005	0.002	-0.005	-0.002	0.0	0.0	100.0	100.0	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	100.0	100.0	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	100.0	100.0	0.00	0.00
C352	A	0.132	0.053	-0.132	-0.053	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.132	0.053	-0.132	-0.053	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.132	0.053	-0.132	-0.053	0.0	0.0	99.9	99.9	0.01	0.00
C361	A	0.225	0.092	-0.225	-0.092	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.225	0.092	-0.225	-0.092	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.225	0.092	-0.225	-0.092	0.0	0.0	99.9	99.9	0.01	0.00
C365	A	0.128	0.058	-0.128	-0.058	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.128	0.058	-0.128	-0.058	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.128	0.058	-0.128	-0.058	0.0	0.0	99.9	99.9	0.01	0.00
C368	A	0.038	0.018	-0.038	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.038	0.018	-0.038	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.038	0.018	-0.038	-0.018	0.0	0.0	99.9	99.9	0.00	0.00

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Page: 3  
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CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
C399	A	0.088	0.051	-0.088	-0.051	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.088	0.051	-0.088	-0.051	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.088	0.051	-0.088	-0.051	0.0	0.0	99.9	99.9	0.00	0.00
C409	A	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
C419	A	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.018	0.005	-0.018	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
C422	A	0.040	0.020	-0.040	-0.020	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.040	0.020	-0.040	-0.020	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.040	0.020	-0.040	-0.020	0.0	0.0	99.9	99.9	0.00	0.00
C440	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
C450	A	0.024	0.012	-0.024	-0.012	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.024	0.012	-0.024	-0.012	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.024	0.012	-0.024	-0.012	0.0	0.0	99.9	99.9	0.00	0.00
C.450	A	-0.101	-0.044	0.101	0.044	0.0	0.0	99.9	99.9	0.01	0.00
	B	-0.101	-0.044	0.101	0.044	0.0	0.0	99.9	99.9	0.01	0.00
	C	-0.101	-0.044	0.101	0.044	0.0	0.0	99.9	99.9	0.01	0.00
C461	A	0.008	0.003	-0.008	-0.003	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.008	0.003	-0.008	-0.003	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.008	0.003	-0.008	-0.003	0.0	0.0	99.9	99.9	0.00	0.00
C462	A	0.023	0.009	-0.023	-0.009	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.009	-0.023	-0.009	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.009	-0.023	-0.009	0.0	0.0	99.9	99.9	0.00	0.00
C463	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
C473	A	0.492	0.206	-0.492	-0.206	0.1	0.1	100.0	100.0	0.03	0.00
	B	0.492	0.206	-0.492	-0.206	0.1	0.1	100.0	100.0	0.03	0.00
	C	0.492	0.206	-0.492	-0.206	0.1	0.1	100.0	100.0	0.03	0.00
C476	A	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
C514	A	0.056	0.026	-0.056	-0.026	0.0	0.0	100.0	99.9	0.00	0.00
	B	0.056	0.026	-0.056	-0.026	0.0	0.0	100.0	99.9	0.00	0.00
	C	0.056	0.026	-0.056	-0.026	0.0	0.0	100.0	99.9	0.00	0.00
C517	A	-0.076	-0.037	0.076	0.037	0.0	0.0	99.9	99.9	0.00	0.00
	B	-0.076	-0.037	0.076	0.037	0.0	0.0	99.9	99.9	0.00	0.00
	C	-0.076	-0.037	0.076	0.037	0.0	0.0	99.9	99.9	0.00	0.00
C518	A	-0.051	-0.028	0.051	0.028	0.0	0.0	99.9	99.9	0.00	0.00
	B	-0.051	-0.028	0.051	0.028	0.0	0.0	99.9	99.9	0.00	0.00
	C	-0.051	-0.028	0.051	0.028	0.0	0.0	99.9	99.9	0.00	0.00

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Page: 4  
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CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
C526	A	0.051	0.024	-0.051	-0.024	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.051	0.024	-0.051	-0.024	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.051	0.024	-0.051	-0.024	0.0	0.0	99.9	99.9	0.00	0.00
C558	A	0.014	0.005	-0.014	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.014	0.005	-0.014	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.014	0.005	-0.014	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
C577	A	-0.023	-0.018	0.023	0.018	0.0	0.0	99.9	99.9	0.00	0.00
	B	-0.023	-0.018	0.023	0.018	0.0	0.0	99.9	99.9	0.00	0.00
	C	-0.023	-0.018	0.023	0.018	0.0	0.0	99.9	99.9	0.00	0.00
C587	A	0.023	0.008	-0.023	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.008	-0.023	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.008	-0.023	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
C603	A	0.113	0.052	-0.113	-0.052	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.113	0.052	-0.113	-0.052	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.113	0.052	-0.113	-0.052	0.0	0.0	99.9	99.9	0.01	0.00
C622	A	0.008	0.005	-0.008	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.008	0.005	-0.008	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.008	0.005	-0.008	-0.005	0.0	0.0	99.9	99.9	0.00	0.00
C727	A	0.023	0.007	-0.023	-0.007	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.007	-0.023	-0.007	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.007	-0.023	-0.007	0.0	0.0	99.9	99.9	0.00	0.00
C728	A	0.039	0.016	-0.039	-0.016	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.039	0.016	-0.039	-0.016	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.039	0.016	-0.039	-0.016	0.0	0.0	99.9	99.9	0.00	0.00
C806	A	0.119	0.048	-0.118	-0.048	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.119	0.048	-0.118	-0.048	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.119	0.048	-0.118	-0.048	0.0	0.0	99.9	99.9	0.01	0.00
C811	A	0.036	0.012	-0.036	-0.012	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.036	0.012	-0.036	-0.012	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.036	0.012	-0.036	-0.012	0.0	0.0	99.9	99.9	0.00	0.00
C815	A	-0.088	-0.039	0.088	0.039	0.0	0.0	99.9	99.9	0.01	0.00
	B	-0.088	-0.039	0.088	0.039	0.0	0.0	99.9	99.9	0.01	0.00
	C	-0.088	-0.039	0.088	0.039	0.0	0.0	99.9	99.9	0.01	0.00
C880	A	-0.101	-0.044	0.101	0.044	0.0	0.0	99.9	99.9	0.01	0.00
	B	-0.101	-0.044	0.101	0.044	0.0	0.0	99.9	99.9	0.01	0.00
	C	-0.101	-0.044	0.101	0.044	0.0	0.0	99.9	99.9	0.01	0.00
Co14	A	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
Co57	A	0.023	0.026	-0.023	-0.026	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.026	-0.023	-0.026	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.026	-0.023	-0.026	0.0	0.0	99.9	99.9	0.00	0.00
Co58	A	0.046	0.018	-0.046	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.046	0.018	-0.046	-0.018	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.046	0.018	-0.046	-0.018	0.0	0.0	99.9	99.9	0.00	0.00

Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

**ETAP**  
**12.6.0H**  
  
Study Case: ULF

Page: 5  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
Co130	A	0.220	0.089	-0.220	-0.089	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.220	0.089	-0.220	-0.089	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.220	0.089	-0.220	-0.089	0.0	0.0	99.9	99.9	0.00	0.00
Co260	A	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
Co261	A	0.009	0.004	-0.009	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.009	0.004	-0.009	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.009	0.004	-0.009	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
Co294	A	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
Co528	A	0.004	0.002	-0.004	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.004	0.002	-0.004	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.004	0.002	-0.004	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
Co600	A	0.220	0.089	-0.220	-0.089	0.0	0.0	100.0	99.9	0.01	0.00
	B	0.220	0.089	-0.220	-0.089	0.0	0.0	100.0	99.9	0.01	0.00
	C	0.220	0.089	-0.220	-0.089	0.0	0.0	100.0	99.9	0.01	0.00
Co645	A	0.009	0.004	-0.009	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.009	0.004	-0.009	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.009	0.004	-0.009	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
Co999	A	0.043	0.016	-0.043	-0.016	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.043	0.016	-0.043	-0.016	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.043	0.016	-0.043	-0.016	0.0	0.0	99.9	99.9	0.00	0.00
Co.1032	A	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
D240	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
D256	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
D276	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
D634	A	0.015	0.006	-0.015	-0.006	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.015	0.006	-0.015	-0.006	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.015	0.006	-0.015	-0.006	0.0	0.0	99.9	99.9	0.00	0.00
D655	A	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
D711	A	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.038	0.014	-0.038	-0.014	0.0	0.0	99.9	99.9	0.00	0.00

Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

**ETAP**  
**12.6.0H**  
  
Study Case: ULF

Page: 6  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
D718	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
R10	A	0.004	0.002	-0.004	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.004	0.002	-0.004	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.004	0.002	-0.004	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
R36	A	0.820	0.345	-0.820	-0.345	0.0	0.0	100.0	100.0	0.01	0.00
	B	0.820	0.345	-0.820	-0.345	0.0	0.0	100.0	100.0	0.01	0.00
	C	0.820	0.345	-0.820	-0.345	0.0	0.0	100.0	100.0	0.01	0.00
R45	A	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
R106	A	0.303	0.131	-0.303	-0.131	0.0	0.0	100.0	100.0	0.01	0.00
	B	0.303	0.131	-0.303	-0.131	0.0	0.0	100.0	100.0	0.01	0.00
	C	0.303	0.131	-0.303	-0.131	0.0	0.0	100.0	100.0	0.01	0.00
R150	A	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.00	0.00
R164	A	0.150	0.059	-0.150	-0.059	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.150	0.059	-0.150	-0.059	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.150	0.059	-0.150	-0.059	0.0	0.0	99.9	99.9	0.00	0.00
R190	A	0.295	0.126	-0.295	-0.126	0.0	0.0	100.0	100.0	0.01	0.00
	B	0.295	0.126	-0.295	-0.126	0.0	0.0	100.0	100.0	0.01	0.00
	C	0.295	0.126	-0.295	-0.126	0.0	0.0	100.0	100.0	0.01	0.00
R380	A	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.01	0.00
	B	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.01	0.00
	C	0.074	0.030	-0.074	-0.030	0.0	0.0	99.9	99.9	0.01	0.00
R410	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
R436	A	0.295	0.126	-0.295	-0.125	0.1	0.0	100.0	100.0	0.02	0.00
	B	0.295	0.126	-0.295	-0.125	0.1	0.0	100.0	100.0	0.02	0.00
	C	0.295	0.126	-0.295	-0.125	0.1	0.0	100.0	100.0	0.02	0.00
R455	A	0.008	0.004	-0.008	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.008	0.004	-0.008	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.008	0.004	-0.008	-0.004	0.0	0.0	99.9	99.9	0.00	0.00
R560	A	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.000	0.000	0.000	0.000	0.0	0.0	99.9	99.9	0.00	0.00
R734	A	0.150	0.059	-0.150	-0.059	0.0	0.0	99.9	99.9	0.02	0.00
	B	0.150	0.059	-0.150	-0.059	0.0	0.0	99.9	99.9	0.02	0.00
	C	0.150	0.059	-0.150	-0.059	0.0	0.0	99.9	99.9	0.02	0.00
R803	A	0.024	0.008	-0.024	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.024	0.008	-0.024	-0.008	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.024	0.008	-0.024	-0.008	0.0	0.0	99.9	99.9	0.00	0.00

Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

**ETAP**  
**12.6.0H**  
  
Study Case: ULF

Page: 7  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
R844	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
R950	A	0.023	0.007	-0.023	-0.007	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.023	0.007	-0.023	-0.007	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.023	0.007	-0.023	-0.007	0.0	0.0	99.9	99.9	0.00	0.00
R1435	A	0.025	0.011	-0.025	-0.011	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.025	0.011	-0.025	-0.011	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.025	0.011	-0.025	-0.011	0.0	0.0	99.9	99.9	0.00	0.00
R1499	A	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	B	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
	C	0.005	0.002	-0.005	-0.002	0.0	0.0	99.9	99.9	0.00	0.00
T1 Al-masjid Al_kaber	A	0.027	0.014	-0.027	-0.012	0.3	1.2	99.9	99.6	0.36	0.00
	B	0.027	0.014	-0.027	-0.012	0.3	1.2	99.9	99.6	0.36	0.00
	C	0.027	0.014	-0.027	-0.012	0.3	1.2	99.9	99.6	0.36	0.00
T2 Mothalath Al_borg	A	0.027	0.014	-0.027	-0.012	0.3	1.2	100.0	99.6	0.36	0.00
	B	0.027	0.014	-0.027	-0.012	0.3	1.2	100.0	99.6	0.36	0.00
	C	0.027	0.014	-0.027	-0.012	0.3	1.2	100.0	99.6	0.36	0.00
T3 Maskaneh	A	0.027	0.014	-0.027	-0.012	0.3	1.2	99.9	99.6	0.36	0.00
	B	0.027	0.014	-0.027	-0.012	0.3	1.2	99.9	99.6	0.36	0.00
	C	0.027	0.014	-0.027	-0.012	0.3	1.2	99.9	99.6	0.36	0.00
T4 Bear mtawi'	A	0.019	0.010	-0.019	-0.009	0.3	1.1	100.0	99.7	0.26	0.00
	B	0.019	0.010	-0.019	-0.009	0.3	1.1	100.0	99.7	0.26	0.00
	C	0.019	0.010	-0.019	-0.009	0.3	1.1	100.0	99.7	0.26	0.00
T5 Wad algamary 1	A	0.032	0.015	-0.032	-0.014	0.3	1.0	99.9	99.2	0.73	0.00
	B	0.032	0.015	-0.032	-0.014	0.3	1.0	99.9	99.2	0.73	0.00
	C	0.032	0.015	-0.032	-0.014	0.3	1.0	99.9	99.2	0.73	0.00
T6 Wad algamary 2	A	0.008	0.004	-0.008	-0.004	0.1	0.4	99.9	99.6	0.36	0.00
	B	0.008	0.004	-0.008	-0.004	0.1	0.4	99.9	99.6	0.36	0.00
	C	0.008	0.004	-0.008	-0.004	0.1	0.4	99.9	99.6	0.36	0.00
T7 Al_deir 1	A	0.039	0.013	-0.039	-0.012	0.3	1.2	99.9	99.2	0.71	0.00
	B	0.039	0.013	-0.039	-0.012	0.3	1.2	99.9	99.2	0.71	0.00
	C	0.039	0.013	-0.039	-0.012	0.3	1.2	99.9	99.2	0.71	0.00
T8 Karam al_ashqar	A	0.019	0.007	-0.019	-0.006	0.2	0.8	99.9	99.5	0.36	0.00
	B	0.019	0.007	-0.019	-0.006	0.2	0.8	99.9	99.5	0.36	0.00
	C	0.019	0.007	-0.019	-0.006	0.2	0.8	99.9	99.5	0.36	0.00
T9 Abu al_humas	A	0.039	0.013	-0.039	-0.012	0.3	1.2	99.9	99.2	0.71	0.00
	B	0.039	0.013	-0.039	-0.012	0.3	1.2	99.9	99.2	0.71	0.00
	C	0.039	0.013	-0.039	-0.012	0.3	1.2	99.9	99.2	0.71	0.00
T10 Meqtaa' duma	A	0.029	0.012	-0.028	-0.011	0.2	0.9	99.9	99.3	0.59	0.00
	B	0.029	0.012	-0.028	-0.011	0.2	0.9	99.9	99.3	0.59	0.00
	C	0.029	0.012	-0.028	-0.011	0.2	0.9	99.9	99.3	0.59	0.00
T11 Wad ali	A	0.031	0.010	-0.031	-0.009	0.3	1.0	99.9	99.3	0.56	0.00
	B	0.031	0.010	-0.031	-0.009	0.3	1.0	99.9	99.3	0.56	0.00
	C	0.031	0.010	-0.031	-0.009	0.3	1.0	99.9	99.3	0.56	0.00

Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

**ETAP**  
**12.6.0H**  
  
Study Case: ULF

Page: 8  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
T12 Aqabit gharrarah	A	0.028	0.010	-0.028	-0.009	0.3	0.9	99.9	99.2	0.65	0.00
	B	0.028	0.010	-0.028	-0.009	0.3	0.9	99.9	99.2	0.65	0.00
	C	0.028	0.010	-0.028	-0.009	0.3	0.9	99.9	99.2	0.65	0.00
T13 Qata't al_jamal	A	0.016	0.007	-0.016	-0.006	0.2	0.7	99.9	99.6	0.34	0.00
	B	0.016	0.007	-0.016	-0.006	0.2	0.7	99.9	99.6	0.34	0.00
	C	0.016	0.007	-0.016	-0.006	0.2	0.7	99.9	99.6	0.34	0.00
T14 Al_markaz	A	0.023	0.008	-0.023	-0.007	0.2	0.8	99.9	99.5	0.42	0.00
	B	0.023	0.008	-0.023	-0.007	0.2	0.8	99.9	99.5	0.42	0.00
	C	0.023	0.008	-0.023	-0.007	0.2	0.8	99.9	99.5	0.42	0.00
T15 Abu hashim	A	0.038	0.018	-0.038	-0.016	0.3	1.2	99.9	99.0	0.86	0.00
	B	0.038	0.018	-0.038	-0.016	0.3	1.2	99.9	99.0	0.86	0.00
	C	0.038	0.018	-0.038	-0.016	0.3	1.2	99.9	99.0	0.86	0.00
T16 Sa'ada	A	0.019	0.006	-0.019	-0.005	0.2	0.8	99.9	99.5	0.33	0.00
	B	0.019	0.006	-0.019	-0.005	0.2	0.8	99.9	99.5	0.33	0.00
	C	0.019	0.006	-0.019	-0.005	0.2	0.8	99.9	99.5	0.33	0.00
T17 Al_baladiya	A	0.019	0.006	-0.019	-0.005	0.2	0.8	99.9	99.6	0.33	0.00
	B	0.019	0.006	-0.019	-0.005	0.2	0.8	99.9	99.6	0.33	0.00
	C	0.019	0.006	-0.019	-0.005	0.2	0.8	99.9	99.6	0.33	0.00
T18 Al_sheehk	A	0.038	0.018	-0.038	-0.016	0.3	1.2	99.9	99.1	0.86	0.00
	B	0.038	0.018	-0.038	-0.016	0.3	1.2	99.9	99.1	0.86	0.00
	C	0.038	0.018	-0.038	-0.016	0.3	1.2	99.9	99.1	0.86	0.00
T19 Kerbit alama	A	0.012	0.003	-0.012	-0.002	0.1	0.5	99.9	99.5	0.36	0.00
	B	0.012	0.003	-0.012	-0.002	0.1	0.5	99.9	99.5	0.36	0.00
	C	0.012	0.003	-0.012	-0.002	0.1	0.5	99.9	99.5	0.36	0.00
T20 Aqabit al_tarsha	A	0.024	0.008	-0.024	-0.007	0.2	0.7	100.0	99.1	0.86	0.00
	B	0.024	0.008	-0.024	-0.007	0.2	0.7	100.0	99.1	0.86	0.00
	C	0.024	0.008	-0.024	-0.007	0.2	0.7	100.0	99.1	0.86	0.00
T21 Al_mustashfah	A	0.016	0.007	-0.016	-0.006	0.2	0.5	99.9	99.2	0.63	0.00
	B	0.016	0.007	-0.016	-0.006	0.2	0.5	99.9	99.2	0.63	0.00
	C	0.016	0.007	-0.016	-0.006	0.2	0.5	99.9	99.2	0.63	0.00
T22 Da'na	A	0.008	0.005	-0.007	-0.005	0.1	0.4	99.9	99.5	0.39	0.00
	B	0.008	0.005	-0.007	-0.005	0.1	0.4	99.9	99.5	0.39	0.00
	C	0.008	0.005	-0.007	-0.005	0.1	0.4	99.9	99.5	0.39	0.00
T23 Kurza	A	0.024	0.008	-0.024	-0.007	0.2	0.7	99.9	99.0	0.86	0.00
	B	0.024	0.008	-0.024	-0.007	0.2	0.7	99.9	99.0	0.86	0.00
	C	0.024	0.008	-0.024	-0.007	0.2	0.7	99.9	99.0	0.86	0.00
T24 Al-deire 2	A	0.008	0.005	-0.007	-0.005	0.1	0.4	99.9	99.6	0.39	0.00
	B	0.008	0.005	-0.007	-0.005	0.1	0.4	99.9	99.6	0.39	0.00
	C	0.008	0.005	-0.007	-0.005	0.1	0.4	99.9	99.6	0.39	0.00
T25 Rasmi wahab	A	0.008	0.005	-0.007	-0.005	0.1	0.4	100.0	99.6	0.39	0.00
	B	0.008	0.005	-0.007	-0.005	0.1	0.4	100.0	99.6	0.39	0.00
	C	0.008	0.005	-0.007	-0.005	0.1	0.4	100.0	99.6	0.39	0.00
T26 Baten alqar'	A	0.019	0.011	-0.019	-0.010	0.2	0.6	99.9	99.1	0.88	0.00
	B	0.019	0.011	-0.019	-0.010	0.2	0.6	99.9	99.1	0.88	0.00
	C	0.019	0.011	-0.019	-0.010	0.2	0.6	99.9	99.1	0.88	0.00



Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

**ETAP**  
**12.6.0H**  
  
Study Case: ULF

Page: 9  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
T27 Al_muntazah	A	0.023	0.008	-0.023	-0.007	0.2	0.7	99.9	99.1	0.81	0.00
	B	0.023	0.008	-0.023	-0.007	0.2	0.7	99.9	99.1	0.81	0.00
	C	0.023	0.008	-0.023	-0.007	0.2	0.7	99.9	99.1	0.81	0.00
T28 Domet al_wridat	A	0.023	0.008	-0.022	-0.007	0.2	0.7	99.9	99.1	0.81	0.00
	B	0.023	0.008	-0.022	-0.007	0.2	0.7	99.9	99.1	0.81	0.00
	C	0.023	0.008	-0.022	-0.007	0.2	0.7	99.9	99.1	0.81	0.00
T29 Juret al_dama	A	0.024	0.012	-0.024	-0.012	0.2	0.8	99.9	98.9	1.06	0.00
	B	0.024	0.012	-0.024	-0.012	0.2	0.8	99.9	98.9	1.06	0.00
	C	0.024	0.012	-0.024	-0.012	0.2	0.8	99.9	98.9	1.06	0.00
T30 Kafar joul	A	0.016	0.007	-0.016	-0.006	0.2	0.5	99.9	99.3	0.63	0.00
	B	0.016	0.007	-0.016	-0.006	0.2	0.5	99.9	99.3	0.63	0.00
	C	0.016	0.007	-0.016	-0.006	0.2	0.5	99.9	99.3	0.63	0.00
T31 Sam'a	A	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.20	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.20	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.20	0.00
T32 Khalet al_ayaseh	A	0.008	0.003	-0.008	-0.003	0.1	0.4	99.9	99.6	0.30	0.00
	B	0.008	0.003	-0.008	-0.003	0.1	0.4	99.9	99.6	0.30	0.00
	C	0.008	0.003	-0.008	-0.003	0.1	0.4	99.9	99.6	0.30	0.00
T33 Al_mizrab	A	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
T34 Al_shadaqa	A	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
T35 Al_shuqfan	A	0.014	0.005	-0.013	-0.004	0.2	0.4	99.9	99.0	0.92	0.00
	B	0.014	0.005	-0.013	-0.004	0.2	0.4	99.9	99.0	0.92	0.00
	C	0.014	0.005	-0.013	-0.004	0.2	0.4	99.9	99.0	0.92	0.00
T36 Al_estad	A	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.4	99.9	99.7	0.21	0.00
T37 Eshreeteh	A	0.018	0.005	-0.017	-0.004	0.2	0.6	99.9	99.3	0.57	0.00
	B	0.018	0.005	-0.017	-0.004	0.2	0.6	99.9	99.3	0.57	0.00
	C	0.018	0.005	-0.017	-0.004	0.2	0.6	99.9	99.3	0.57	0.00
T38 Al_muhtasib	A	0.013	0.005	-0.013	-0.004	0.1	0.5	99.9	99.4	0.47	0.00
	B	0.013	0.005	-0.013	-0.004	0.1	0.5	99.9	99.4	0.47	0.00
	C	0.013	0.005	-0.013	-0.004	0.1	0.5	99.9	99.4	0.47	0.00
T39 Jammoq	A	0.018	0.005	-0.018	-0.005	0.2	0.6	99.9	99.3	0.60	0.00
	B	0.018	0.005	-0.018	-0.005	0.2	0.6	99.9	99.3	0.60	0.00
	C	0.018	0.005	-0.018	-0.005	0.2	0.6	99.9	99.3	0.60	0.00
T40 Al_helal	A	0.002	0.001	-0.002	-0.001	0.1	0.4	99.9	99.8	0.09	0.00
	B	0.002	0.001	-0.002	-0.001	0.1	0.4	99.9	99.8	0.09	0.00
	C	0.002	0.001	-0.002	-0.001	0.1	0.4	99.9	99.8	0.09	0.00
T41 Al_muntazah 2	A	0.010	0.004	-0.010	-0.004	0.1	0.5	99.9	99.5	0.40	0.00
	B	0.010	0.004	-0.010	-0.004	0.1	0.5	99.9	99.5	0.40	0.00
	C	0.010	0.004	-0.010	-0.004	0.1	0.5	99.9	99.5	0.40	0.00

Project:  
Location:  
Contract:  
Engineer:  
Filename: unbalance~

**ETAP**  
**12.6.0H**  
  
Study Case: ULF

Page: 10  
Date: 11-04-2017  
SN:  
Revision: Base  
Config.: Normal

CKT / Branch		From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag	Amperes in Buried Winding
ID	Phase	MW	Mvar	MW	Mvar	kW	kvar	From	To		
T42 Abu njeem 2	A	0.010	0.004	-0.010	-0.004	0.1	0.5	99.9	99.5	0.40	0.00
	B	0.010	0.004	-0.010	-0.004	0.1	0.5	99.9	99.5	0.40	0.00
	C	0.010	0.004	-0.010	-0.004	0.1	0.5	99.9	99.5	0.40	0.00
T43 Al jame'a	A	0.011	0.005	-0.011	-0.004	0.1	0.5	99.9	99.4	0.43	0.00
	B	0.011	0.005	-0.011	-0.004	0.1	0.5	99.9	99.4	0.43	0.00
	C	0.011	0.005	-0.011	-0.004	0.1	0.5	99.9	99.4	0.43	0.00
T44 Alghwla	A	0.004	0.002	-0.004	-0.001	0.1	0.4	99.9	99.7	0.16	0.00
	B	0.004	0.002	-0.004	-0.001	0.1	0.4	99.9	99.7	0.16	0.00
	C	0.004	0.002	-0.004	-0.001	0.1	0.4	99.9	99.7	0.16	0.00
T45 Masafi	A	0.016	0.006	-0.015	-0.005	0.2	0.5	99.9	99.3	0.58	0.00
	B	0.016	0.006	-0.015	-0.005	0.2	0.5	99.9	99.3	0.58	0.00
	C	0.016	0.006	-0.015	-0.005	0.2	0.5	99.9	99.3	0.58	0.00
T46 Al_jebreni	A	0.024	0.013	-0.024	-0.012	0.2	0.8	99.9	98.8	1.09	0.00
	B	0.024	0.013	-0.024	-0.012	0.2	0.8	99.9	98.8	1.09	0.00
	C	0.024	0.013	-0.024	-0.012	0.2	0.8	99.9	98.8	1.09	0.00
T47 Abu_njeem 1	A	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.37	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.37	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.37	0.00
T48 Inab al_kabeer	A	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.35	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.35	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.35	0.00
T49 Shweki	A	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.35	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.35	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.6	0.35	0.00
T50 Al-baha	A	0.018	0.005	-0.018	-0.004	0.2	0.5	99.9	98.8	1.14	0.00
	B	0.018	0.005	-0.018	-0.004	0.2	0.5	99.9	98.8	1.14	0.00
	C	0.018	0.005	-0.018	-0.004	0.2	0.5	99.9	98.8	1.14	0.00
T51 Inab al_sagher	A	0.018	0.006	-0.018	-0.006	0.2	0.5	99.9	98.7	1.22	0.00
	B	0.018	0.006	-0.018	-0.006	0.2	0.5	99.9	98.7	1.22	0.00
	C	0.018	0.006	-0.018	-0.006	0.2	0.5	99.9	98.7	1.22	0.00
T52 Bank al_eskan	A	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.5	0.37	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.5	0.37	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.3	99.9	99.5	0.37	0.00
T53 Al_tork	A	0.023	0.026	-0.023	-0.025	0.3	1.3	99.9	99.3	0.60	0.00
	B	0.023	0.026	-0.023	-0.025	0.3	1.3	99.9	99.3	0.60	0.00
	C	0.023	0.026	-0.023	-0.025	0.3	1.3	99.9	99.3	0.60	0.00
T54 Wad algamary 3	A	0.005	0.002	-0.005	-0.002	0.1	0.3	100.0	99.6	0.37	0.00
	B	0.005	0.002	-0.005	-0.002	0.1	0.3	100.0	99.6	0.37	0.00
	C	0.005	0.002	-0.005	-0.002	0.1	0.3	100.0	99.6	0.37	0.00
T55 Mana'	A	0.005	0.004	-0.005	-0.004	0.1	0.4	99.9	99.6	0.32	0.00
	B	0.005	0.004	-0.005	-0.004	0.1	0.4	99.9	99.6	0.32	0.00
	C	0.005	0.004	-0.005	-0.004	0.1	0.4	99.9	99.6	0.32	0.00
T56 Al jebreny step up	A	0.127	0.061	-0.124	-0.057	2.3	4.1	99.8	99.9	0.14	0.00
	B	0.127	0.061	-0.124	-0.057	2.3	4.1	99.8	99.9	0.14	0.00
	C	0.127	0.061	-0.124	-0.057	2.3	4.1	99.8	99.9	0.14	0.00

Project:

**ETAP**

Page: 11

Location:

**12.6.0H**

Date: 11-04-2017

Contract:

SN:

Engineer:

Revision: Base

Filename: unbalance~

Study Case: ULF

Config.: Normal

---

39.4 123.1

For branches below center-tap transformers, Phases A, B, and C correspond to (1), (2), and (N) respectively.

Project:

**ETAP**

Page: 12

Location:

12.6.0H

Date: 11-04-2017

Contract:

SN:

Engineer:

Revision: Base

Filename: unbalance~

Study Case: ULF

Config.: Normal

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