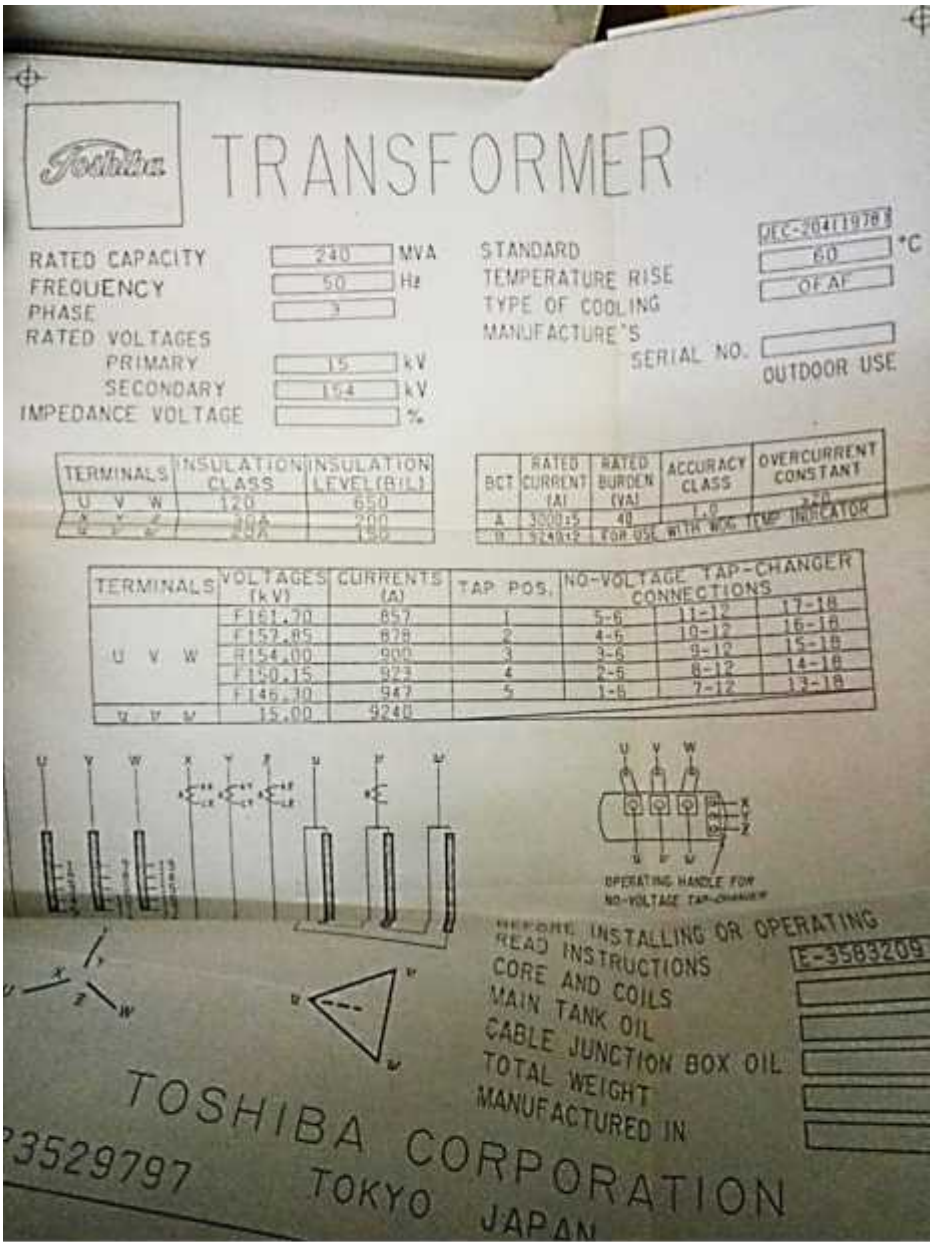
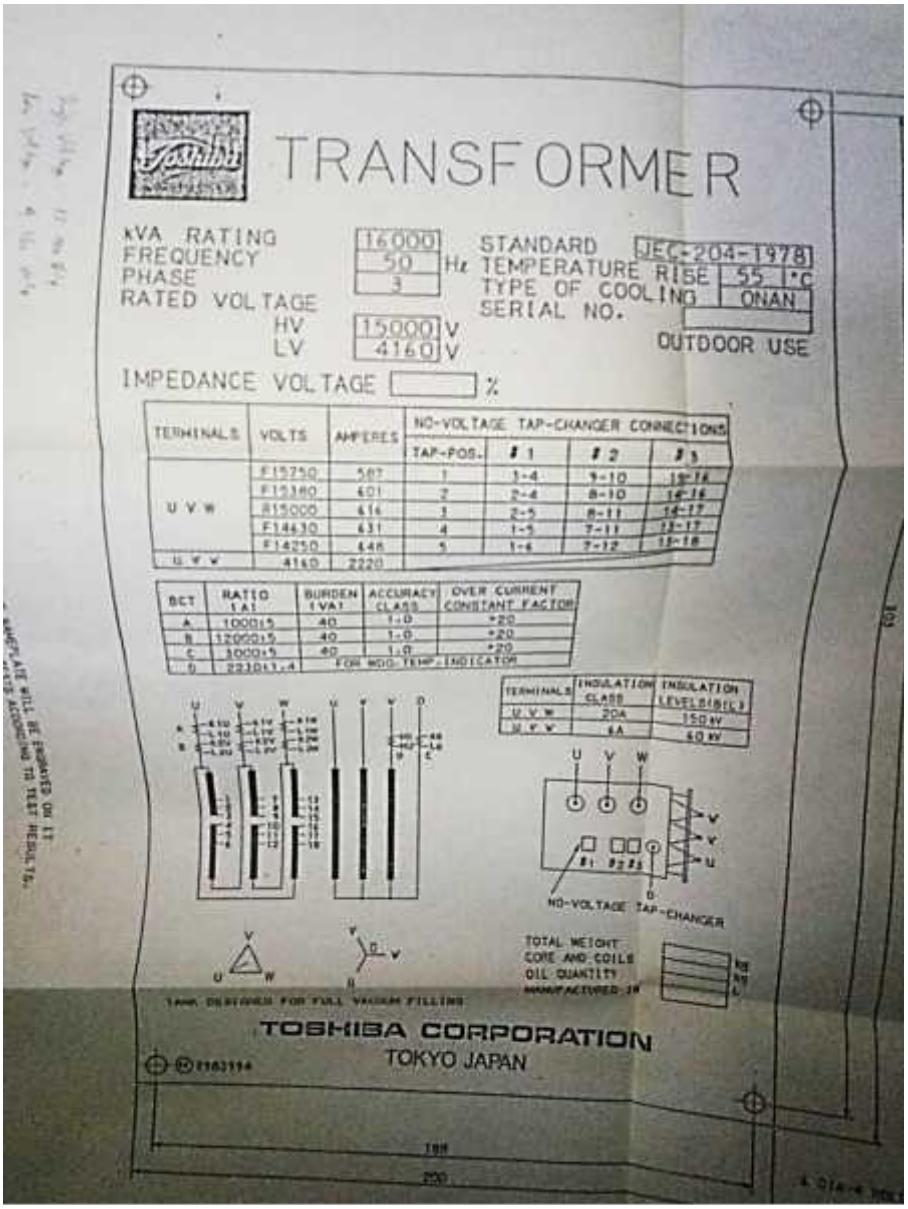
LAMPIRAN

1. Data *Sheet Main Transformer*



2. Data *Sheet Main Transformer*



TRANSFORMER

kVA RATING 16000
FREQUENCY 50 Hz
PHASE 3
RATED VOLTAGE
HV 15000 V
LV 4160 V

STANDARD IEC-204-1978
TEMPERATURE RISE 55 °C
TYPE OF COOLING ONAN
SERIAL NO.

OUTDOOR USE

IMPEDANCE VOLTAGE [ ] %

TERMINALS	VOLTS	AMPERES	NO-VOLTAGE TAP-CHANGER CONNECTIONS			
			TAP-POS.	# 1	# 2	# 3
U V W	F15750	587	1	1-4	9-10	18-19
	F15360	601	2	2-4	8-10	16-16
	815000	616	3	2-5	8-11	16-17
	F14630	631	4	1-5	7-11	15-17
	F14250	648	5	1-6	7-12	15-18
U V V	4160	2220				

BCT	RATIO (A)	BURDEN (VA)	ACCURACY CLASS	OVER CURRENT CONSTANT FACTOR
A	1000/5	40	1.0	20
B	1200/5	40	1.0	20
C	3000/5	40	1.0	20
D	223013.4	FOR WDG-TEMP-INDICATOR		

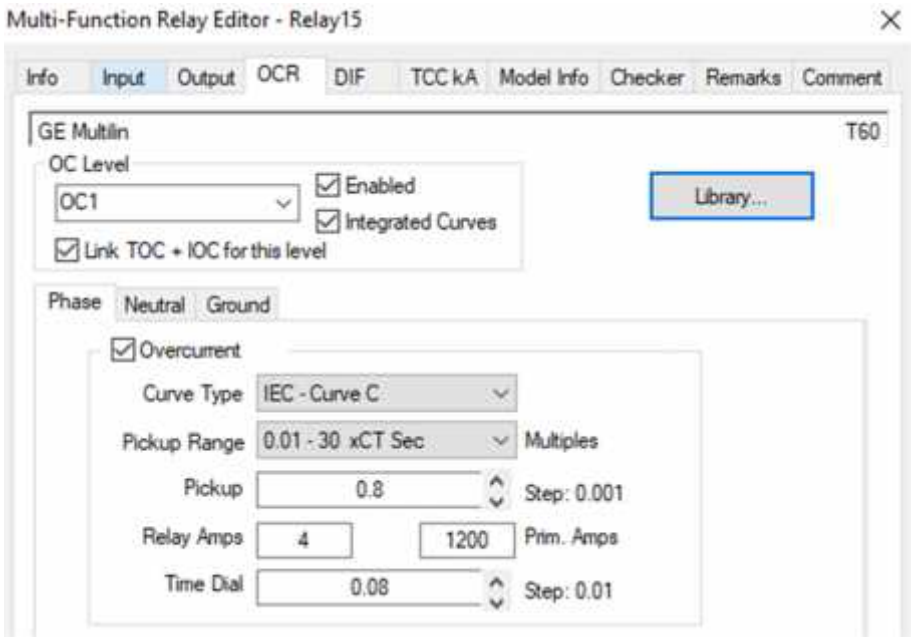
TERMINALS	INSULATION CLASS	INSULATION LEVEL(BIL)
U V W	20A	150 kV
U V V	6A	60 kV

NO-VOLTAGE TAP-CHANGER

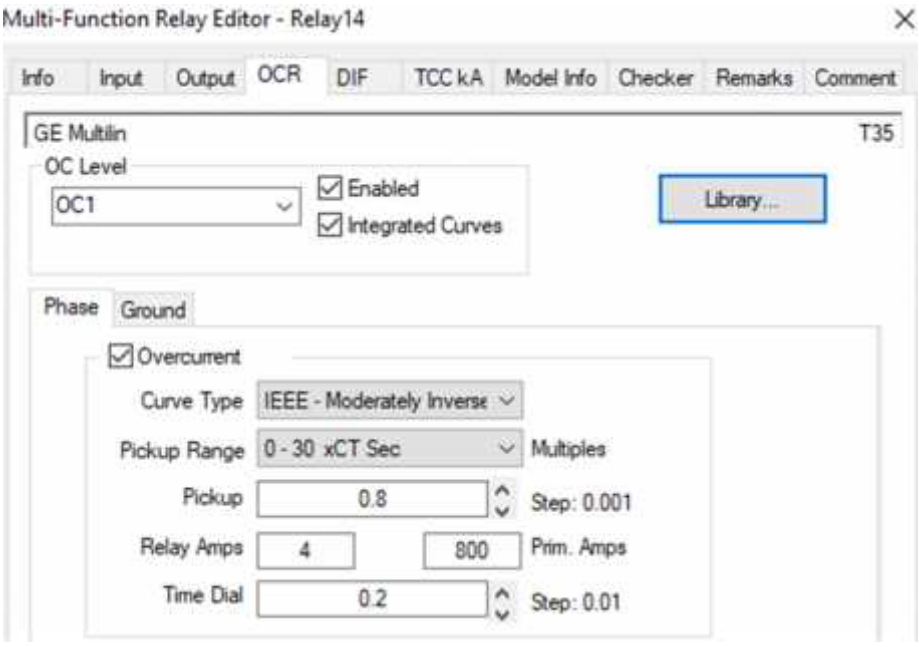
TOTAL WEIGHT
CORE AND COILS
OIL QUANTITY

TOSHIBA CORPORATION
TOKYO JAPAN

3. Data *Setting Main Transformer*

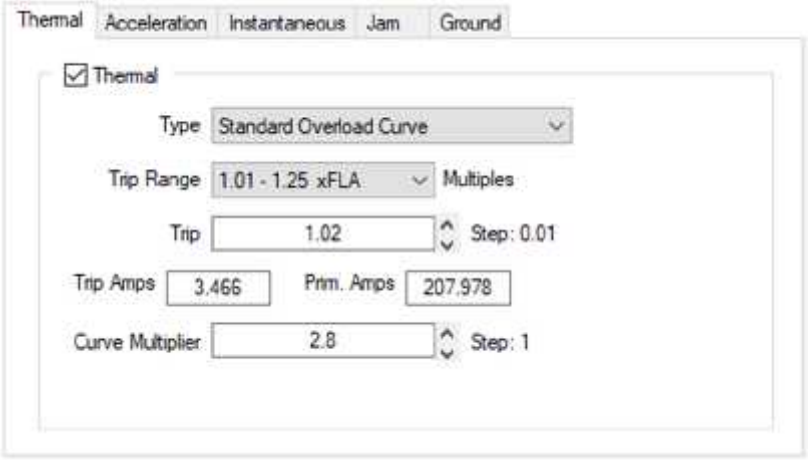


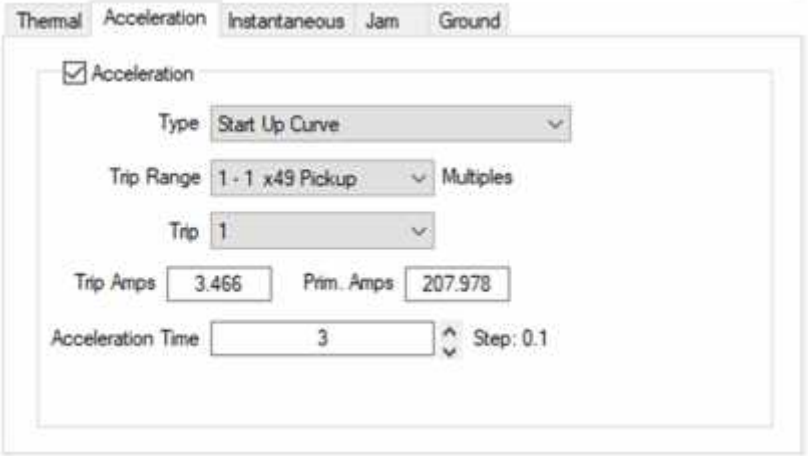
4. Data *Setting Auxiliary Transformer*



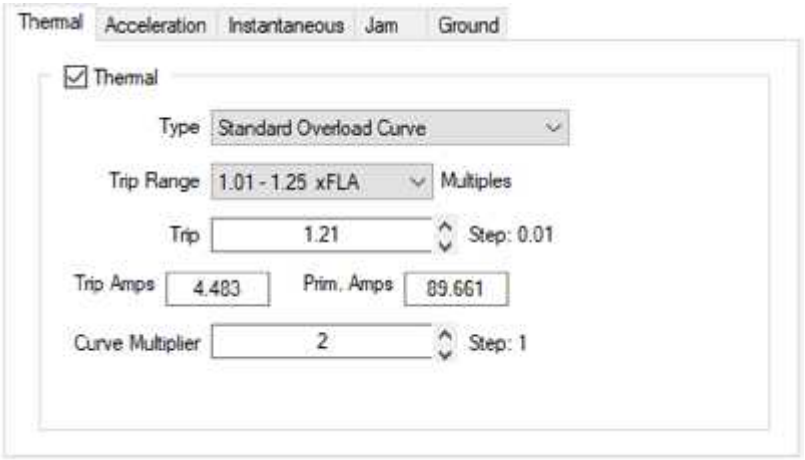
5. Data *Setting* Motor *Boiler Feed Pump*

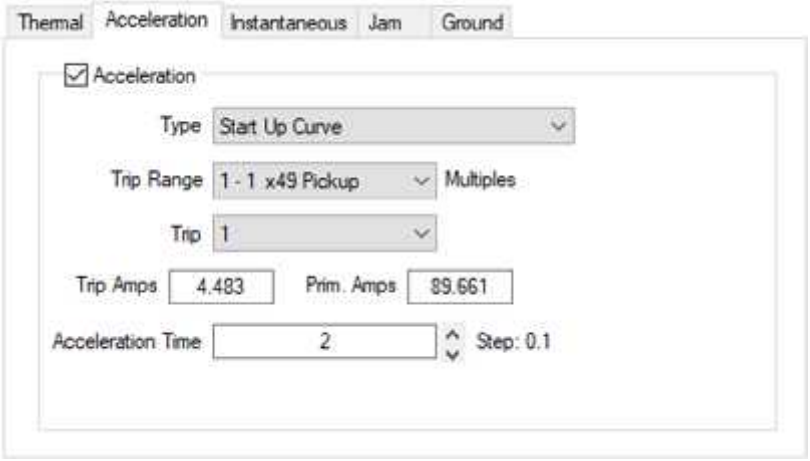
6. Data *Setting* Motor *Forced Draft Fan*



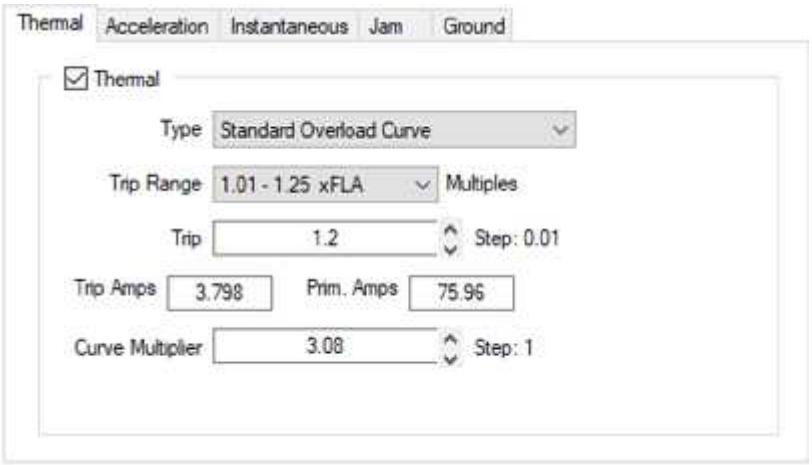


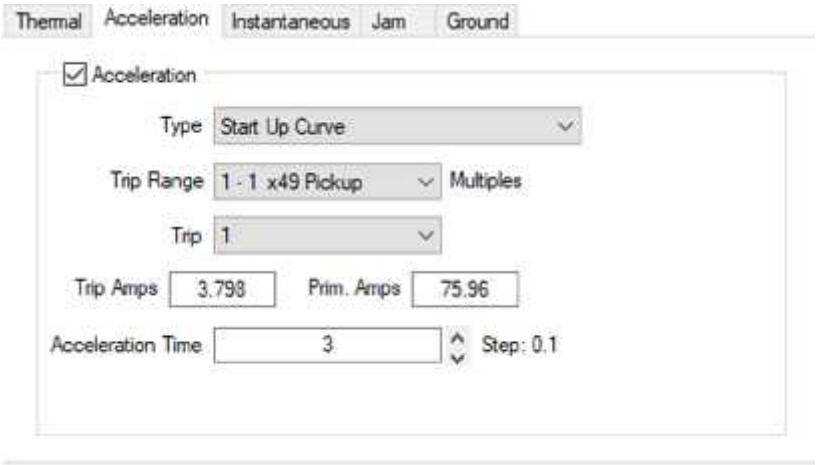
7. Data *Setting* Motor *Circulating Water Pump*

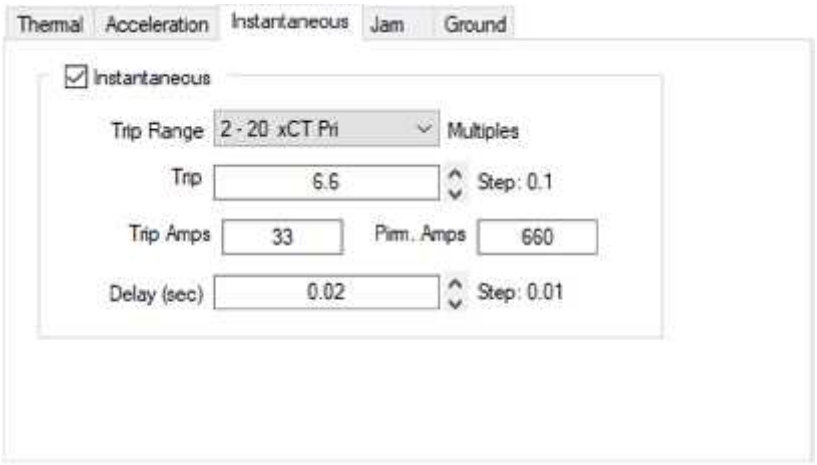




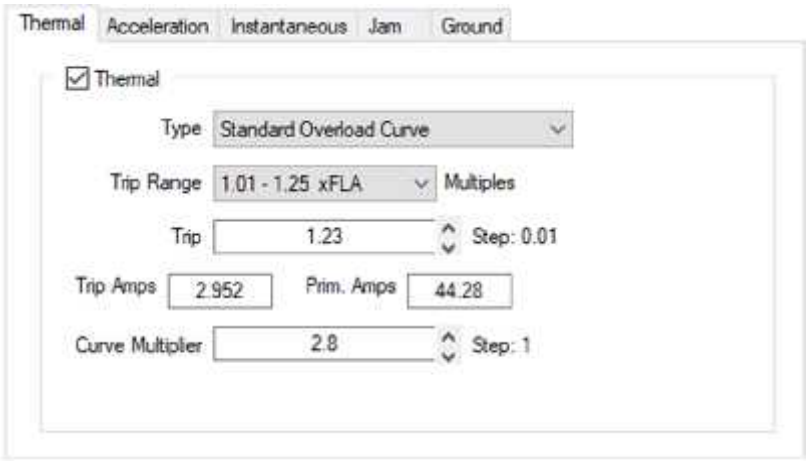
8. Data *Setting* Motor *Condensate Pump*

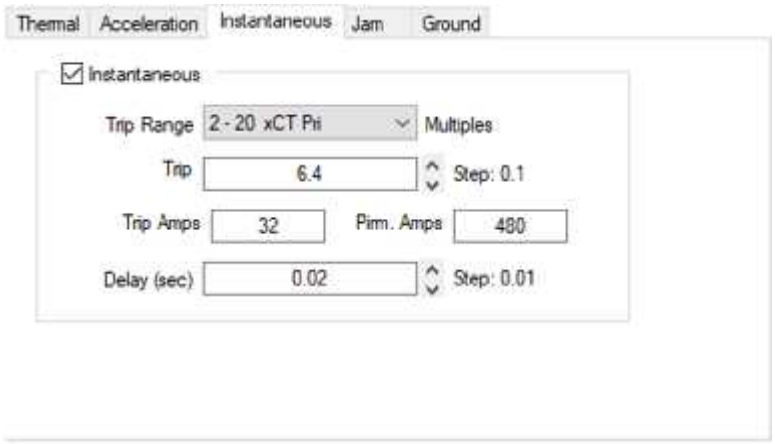




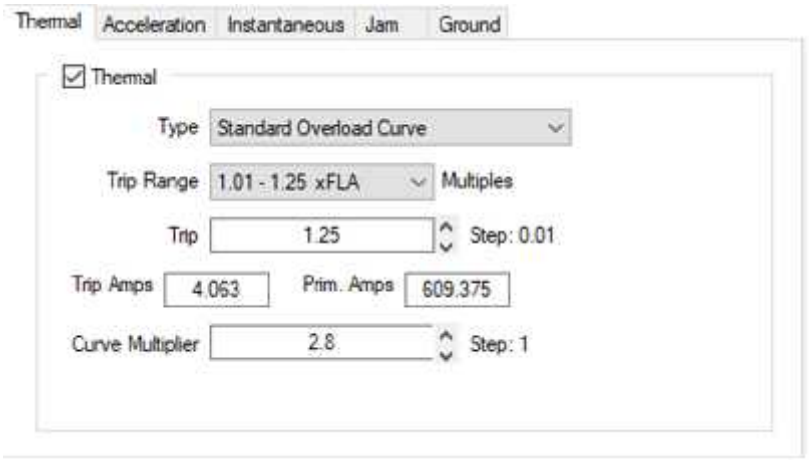


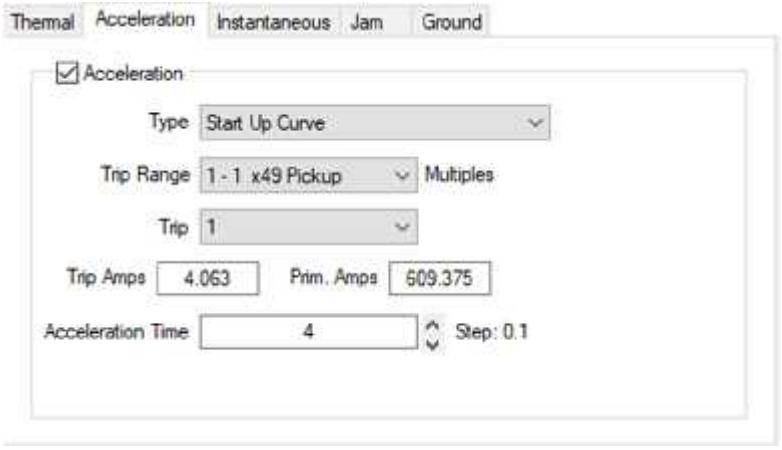
9. Data *Setting* Motor *Auxiliary Oil Pump*



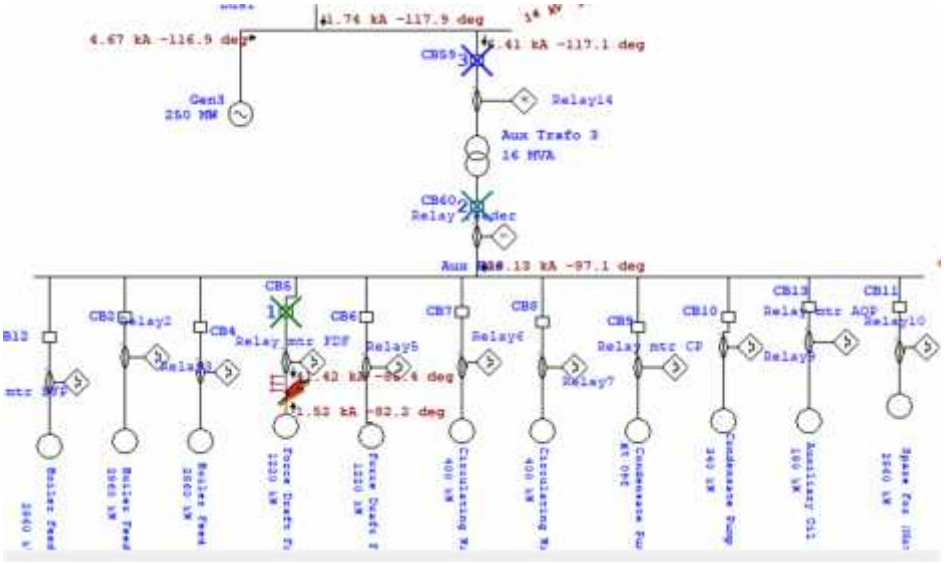


10. Data *Setting* Motor *Spare for (Motor)*





11. Simulasi Gangguan pada Daerah *Forced Draft Fan* dan Waktu Kerja *Relay*



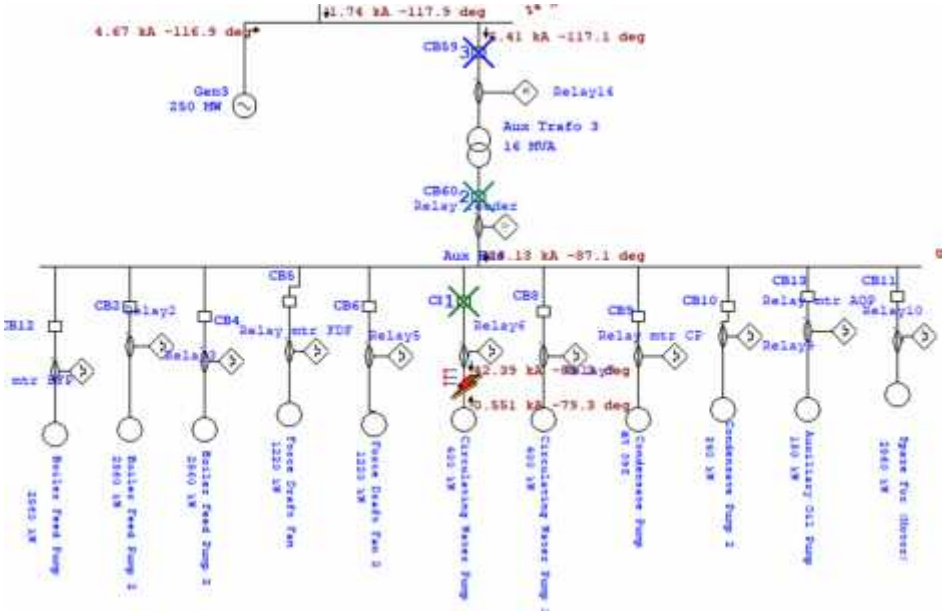
Sequence-of-Operation Events - Output Report: Untitled

3-Phase (Symmetrical) fault on connector between CT5 & Force Draft Fan. Adjacent bus: Aux Bus

Data Rev.: Base Config: Normal Date: 05-02-2018

Time (ms)	ID	If (kA)	T1 (ms)	T2 (ms)	Condition
20.0	Relay mtr FDF	41.425	20.0		Overload Phase - Instantaneous
30.0	CB5		10.0		Tripped by Relay mtr FDF Overload Phase - Insta...
220	Relay Feeder	23.131	220		Phase - OC1 - 50
230	CB60		10.0		Tripped by Relay Feeder Phase - OC1 - 50
265	Relay14	6.415	265		Phase - OC1 - 51
275	CB59		10.0		Tripped by Relay14 Phase - OC1 - 51
2000	Relay6	0.551	2000		Overload Acceleration - Accel
2000	Relay7	0.551	2000		Overload Acceleration - Accel
2010	CB7		10.0		Tripped by Relay6 Overload Acceleration - Accel
2010	CB8		10.0		Tripped by Relay7 Overload Acceleration - Accel
3000	Relay mtr CP	0.47	3000		Overload Acceleration - Accel
3000	Relay mtr FDF	41.425	3000		Overload Acceleration - Accel
3000	Relay5	1.516	3000		Overload Acceleration - Accel
3000	Relay9	0.47	3000		Overload Acceleration - Accel
3010	CB5		10.0		Tripped by Relay mtr FDF Overload Acceleration -...

12. Simulasi Gangguan pada Daerah *Circulating Water Pump* dan Waktu Kerja *Relay*



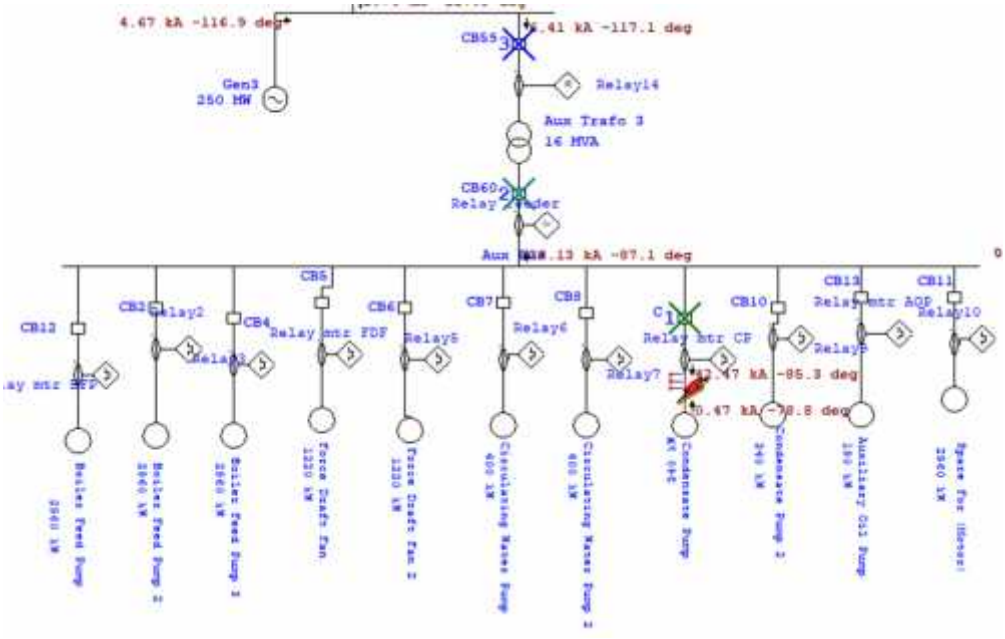
Sequence-of-Operation Events - Output Report: Untitled

3-Phase (Symmetrical) fault on connector between CT7 & Circulating Water Pump. Adjacent bus: Aux Bus

Data Rev.: Base Config: Normal Date: 05-02-2018

Time (ms)	ID	If (kA)	T1 (ms)	T2 (ms)	Condition
20.0	Relay6	42.391	20.0		Overload Phase - Instantaneous
30.0	CB7		10.0		Tripped by Relay6 Overload Phase - Instantaneous
220	Relay Feeder	23.131	220		Phase - OC1 - 50
230	CB60		10.0		Tripped by Relay Feeder Phase - OC1 - 50
265	Relay14	6.415	265		Phase - OC1 - 51
275	CB59		10.0		Tripped by Relay14 Phase - OC1 - 51
2000	Relay6	42.391	2000		Overload Acceleration - Accel
2000	Relay7	0.551	2000		Overload Acceleration - Accel
2010	CB7		10.0		Tripped by Relay6 Overload Acceleration - Accel
2010	CB8		10.0		Tripped by Relay7 Overload Acceleration - Accel
3000	Relay mtr CP	0.47	3000		Overload Acceleration - Accel
3000	Relay mtr FDF	1.516	3000		Overload Acceleration - Accel
3000	Relay5	1.516	3000		Overload Acceleration - Accel
3000	Relay9	0.47	3000		Overload Acceleration - Accel
3010	CB5		10.0		Tripped by Relay mtr FDF Overload Acceleration -...

13. Simulasi Gangguan pada Daerah *Condensate Pump* dan Waktu Kerja *Relay*



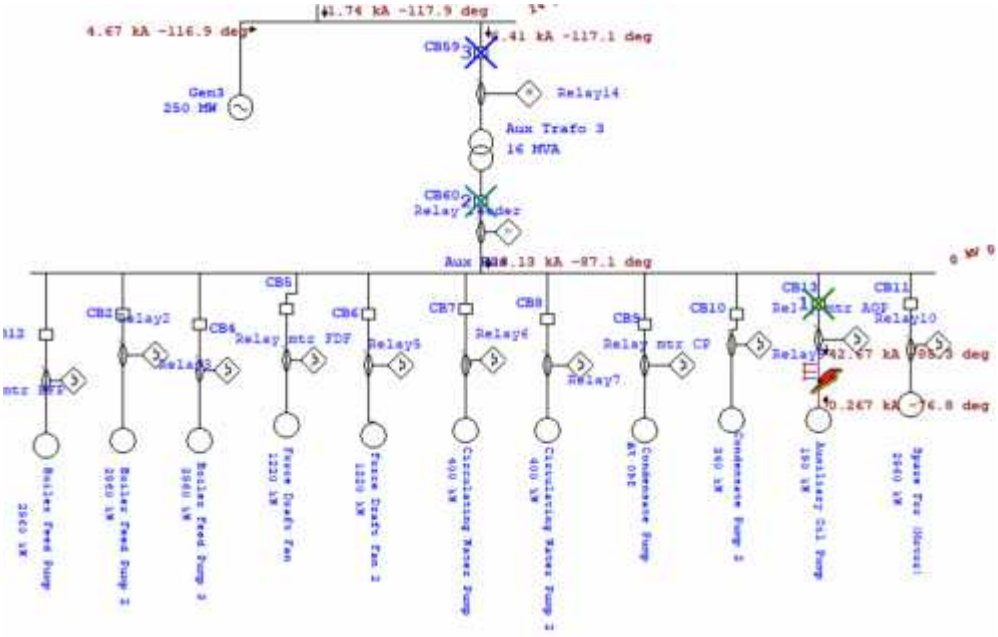
Sequence-of-Operation Events - Output Report: Untitled

3-Phase (Symmetrical) fault on connector between CT9 & Condensate Pump. Adjacent bus: Aux Bus

Data Rev.: Base Config: Normal Date: 05-02-2018

Time (ms)	ID	If (kA)	T1 (ms)	T2 (ms)	Condition
20.0	Relay mtr CP	42.471	20.0		Overload Phase - Instantaneous
30.0	CB9		10.0		Tripped by Relay mtr CP Overload Phase - Instant...
220	Relay Feeder	23.131	220		Phase - OC1 - 50
230	CB60		10.0		Tripped by Relay Feeder Phase - OC1 - 50
265	Relay14	6.415	265		Phase - OC1 - 51
275	CB59		10.0		Tripped by Relay14 Phase - OC1 - 51
2000	Relay6	0.551	2000		Overload Acceleration - Accel
2000	Relay7	0.551	2000		Overload Acceleration - Accel
2010	CB7		10.0		Tripped by Relay6 Overload Acceleration - Accel
2010	CB8		10.0		Tripped by Relay7 Overload Acceleration - Accel
3000	Relay mtr CP	42.471	3000		Overload Acceleration - Accel
3000	Relay mtr FDF	1.516	3000		Overload Acceleration - Accel
3000	Relay5	1.516	3000		Overload Acceleration - Accel
3000	Relay9	0.47	3000		Overload Acceleration - Accel
3010	CB5		10.0		Tripped by Relay mtr FDF Overload Acceleration -...

14. Simulasi Gangguan pada Daerah *Auxiliary Oil Pump* dan Waktu Kerja *Relay*



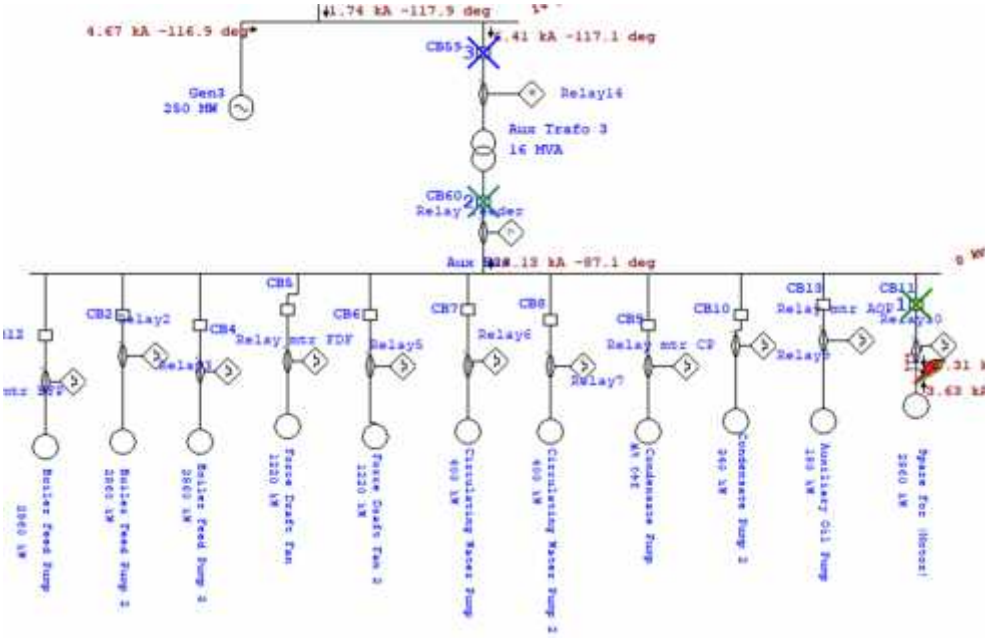
Sequence-of-Operation Events - Output Report: Untitled

3-Phase (Symmetrical) fault on connector between CT13 & Auxiliary Oil Pump. Adjacent bus: Aux Bus

Data Rev.: Base Config: Normal Date: 05-02-2018

Time (ms)	ID	If (kA)	T1 (ms)	T2 (ms)	Condition
20.0	Relay mtr A...	42.674	20.0		Overload Phase - Instantaneous
30.0	CB13		10.0		Tripped by Relay mtr AOP Overload Phase - Insta...
220	Relay Feeder	23.131	220		Phase - OC1 - 50
230	CB60		10.0		Tripped by Relay Feeder Phase - OC1 - 50
265	Relay14	6.415	265		Phase - OC1 - 51
275	CB59		10.0		Tripped by Relay14 Phase - OC1 - 51
2000	Relay6	0.551	2000		Overload Acceleration - Accel
2000	Relay7	0.551	2000		Overload Acceleration - Accel
2010	CB7		10.0		Tripped by Relay6 Overload Acceleration - Accel
2010	CB8		10.0		Tripped by Relay7 Overload Acceleration - Accel
3000	Relay mtr CP	0.47	3000		Overload Acceleration - Accel
3000	Relay mtr FDF	1.516	3000		Overload Acceleration - Accel
3000	Relay5	1.516	3000		Overload Acceleration - Accel
3000	Relay9	0.47	3000		Overload Acceleration - Accel
3010	CB5		10.0		Tripped by Relay mtr FDF Overload Acceleration -...

15. Simulasi Gangguan pada Daerah *Spare for (Motor)* dan Waktu Kerja *Relay*



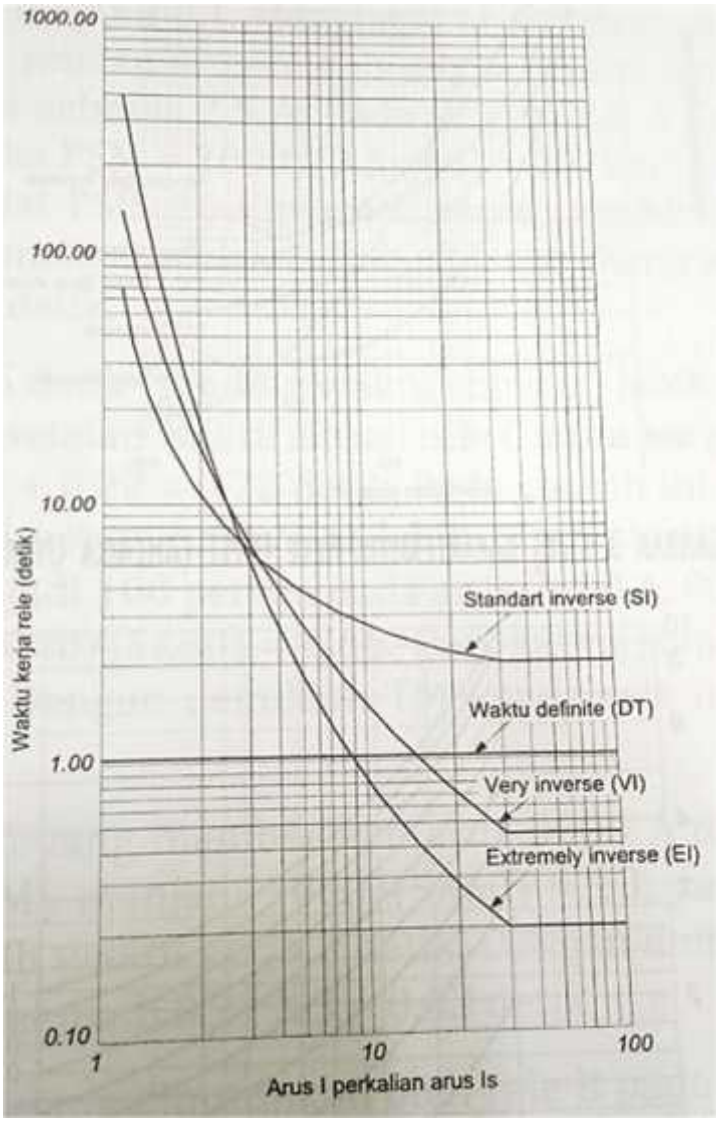
Sequence-of-Operation Events - Output Report: Untitled

3-Phase (Symmetrical) fault on connector between CT11 & Spare For (Motor). Adjacent bus: Aux Bus

Data Rev.: Base Config: Normal Date: 05-02-2018

Time (ms)	ID	If (kA)	T1 (ms)	T2 (ms)	Condition
20.0	Relay10	39.314	20.0		Overload Phase - Instantaneous
30.0	CB11		10.0		Tripped by Relay10 Overload Phase - Instantane...
220	Relay Feeder	23.131	220		Phase - OC1 - 50
230	CB60		10.0		Tripped by Relay Feeder Phase - OC1 - 50
265	Relay14	6.415	265		Phase - OC1 - 51
275	CB59		10.0		Tripped by Relay14 Phase - OC1 - 51
2000	Relay6	0.551	2000		Overload Acceleration - Accel
2000	Relay7	0.551	2000		Overload Acceleration - Accel
2010	CB7		10.0		Tripped by Relay6 Overload Acceleration - Accel
2010	CB8		10.0		Tripped by Relay7 Overload Acceleration - Accel
3000	Relay mtr CP	0.47	3000		Overload Acceleration - Accel
3000	Relay mtr FDF	1.516	3000		Overload Acceleration - Accel
3000	Relay5	1.516	3000		Overload Acceleration - Accel
3000	Relay9	0.47	3000		Overload Acceleration - Accel
3010	CB5		10.0		Tripped by Relay mtr FDF Overload Acceleration -...

16. Karakteristik Kurva *Relay* Arus Lebih



17. *Overload Motor Curve*