



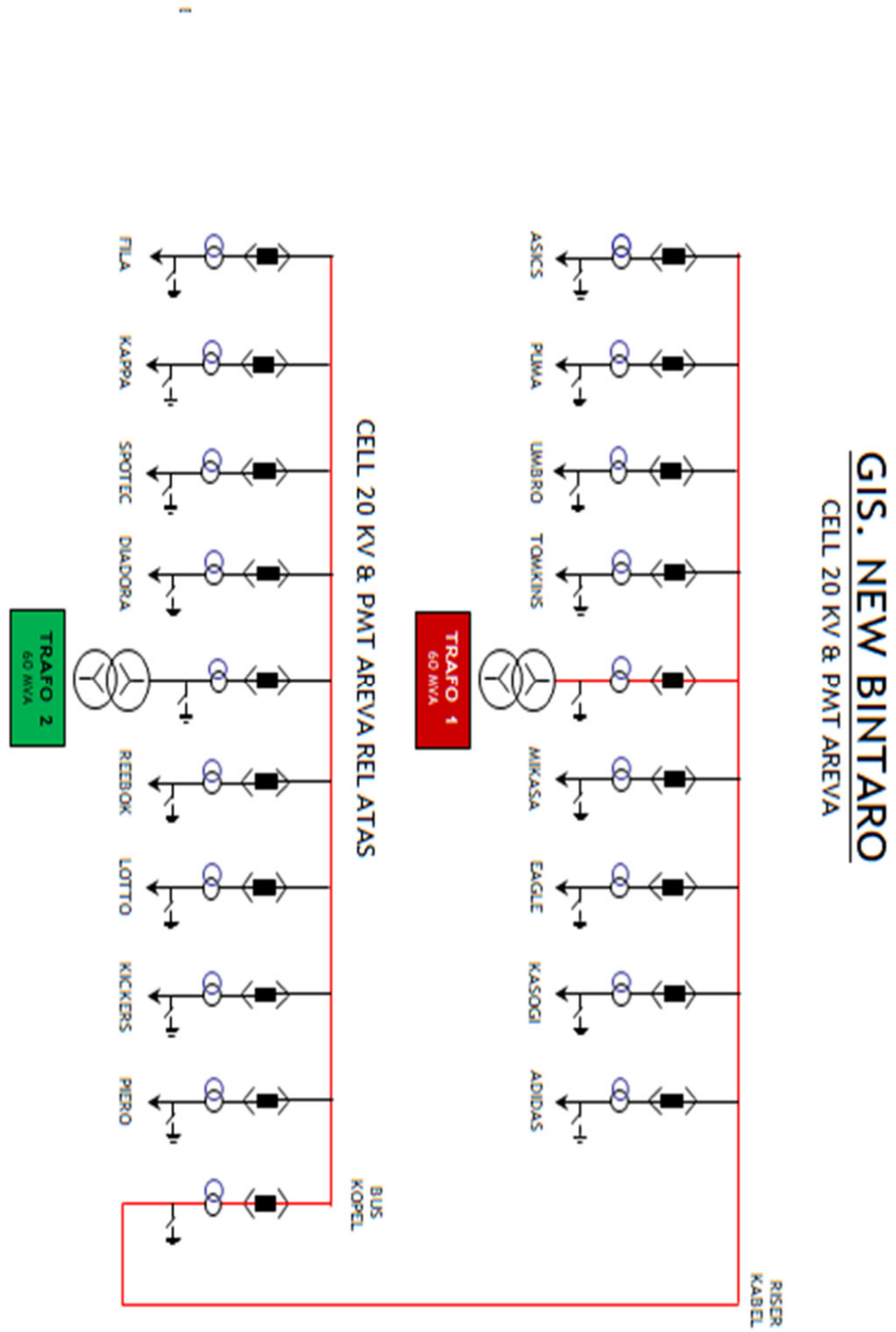
SEKOLAH TINGGI TEKNIK – PLN

LEMBAR BIMBINGAN SKRIPSI

Nama Mahasiswa : Fergya Sugandhi Hasim
NIM : 2014 11 130
Program Studi : Teknik Elektro
Jenjang : Sarjana
Pembimbing Utama : Ir. Purnomo Willy B.S, M.T.
Judul Tugas Akhir : Kajian Pemutus Tenaga (PMT) Sisi 20 KV pada Gardu Induk New Bintaro

No.	Tanggal	Materi Bimbingan	Paraf Pembimbing
1.			
2.			
3.			
4.			
5.			
6.			
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9.			
10.			
11.			
12.			
13.			
14.			

SINGLE LINE DIAGRAM GI NEW BINTARO



DATA TRAF0 1 GI NEW BINTARO

NO	SPESIFIKASI		KETERANGAN
1	Nama Gardu Induk	:	New Bintaro
2	No. Trafo	:	1
3	Daya	:	60 MVA
4	Merk	:	UNINDO
5	Type	:	N Range
6	Ratio Tegangan	:	150/20 kV
7	Arus Nominal	:	230,9/1732,1 A
8	Vektor Group	:	YNyn
9	Impedansi	:	12,5%
10	Jumlah Tap	:	18
11	Sistem Tap	:	ON LOAD
12	Nomor	:	P060 LEC 597-02
13	Merk/Type OLTC	:	MR/V III 350 Y 761 0218 WR
14	Sistem Pendingin	:	ONAN/ONAF
15	Tahun Pembuatan	:	2010

DATA TRAF0 2 GI NEW BINTARO

NO	SPESIFIKASI		KETERANGAN
1	Nama Gardu Induk	:	New Bintaro
2	No. Trafo	:	1
3	Daya	:	60 MVA
4	Merk	:	UNINDO
5	Type	:	N Range
6	Ratio Tegangan	:	150/20 kV
7	Arus Nominal	:	230,9/1732,1 A
8	Vektor Group	:	YNyn
9	Impedansi	:	12,5%
10	Jumlah Tap	:	18
11	Sistem Tap	:	ON LOAD
12	Nomor	:	P060 LEC 597-03
13	Merk/Type OLTC	:	MR/V III 350 Y 761 0219 WR
14	Sistem Pendingin	:	ONAN/ONAF
15	Tahun Pembuatan	:	2010

Arus Hubung Singkat GI/GITET P2B Semester 2 Tahun 2017

No.	Bus	GI/GITET	APB	TGG	Impedansi Unsur Positif	Impedansi Unsur Negatif	Impedansi Unsur Nol	Arus Hubung Singkat				
				kV	R1(pu)	X1(pu)	R2(pu)	X2(pu)	R0(pu)	X0(pu)	I _{ph} (kA)	I _{ph} (kA)
1	I-5	ABADI GUNA PAPAN	APB DKI Jakarta & Banten	150	0.00878142	0.02712711	0.00875047	0.02702908	0.02138028	0.05531671	10.886	14.755
2	I-5	ABADI GUNA PAPAN	APB DKI Jakarta & Banten	150	0.00768311	0.00270358	0.00276831	0.01772864	0.00569497	0.0202738	22.262	21.668
3	I-5	ALAM SUTRA	APB DKI Jakarta & Banten	150	0.00286444	0.03162373	0.00285444	0.03191049	0.01503129	0.0694487	9.422	13.316
4	I-5	ALAM SUTRA	APB DKI Jakarta & Banten	150	0.00286444	0.03162373	0.00285444	0.03191049	0.01503129	0.0694487	9.422	13.316
5	I-5	ALUNGO	APB DKI Jakarta & Banten	150	0.00159996	0.02113432	0.00157898	0.02131209	0.00313513	0.01602618	21.539	19.840
6	I-5	ANCOX	APB DKI Jakarta & Banten	150	0.00160667	0.01307888	0.00156207	0.0139957	0.00426227	0.01923797	26.947	31.979
7	I-5	ANCOX	APB DKI Jakarta & Banten	150	0.00160667	0.01307888	0.00156207	0.0139957	0.00426227	0.01923797	26.947	31.979
8	I-5	ANGKE	APB DKI Jakarta & Banten	150	0.00108667	0.01132568	0.00085874	0.01022288	0.00208179	0.00928334	40.588	37.046
9	I-5	ANGKE	APB DKI Jakarta & Banten	150	0.00192494	0.013251	0.00188034	0.01416682	0.00516499	0.01852118	26.979	31.453
10	I-5	ANTASARI	APB DKI Jakarta & Banten	150	0.00156514	0.03130899	0.00154192	0.031314297	0.00634329	0.02199724	14.287	12.764
11	I-5	ANTASARI	APB DKI Jakarta & Banten	150	0.00156514	0.03130899	0.00154192	0.031314297	0.00634329	0.02199724	14.287	12.764
12	I-5	ASAHIMAS	APB DKI Jakarta & Banten	150	0.00146789	0.01594113	0.00139571	0.0163571	0.00519124	0.02581757	21.576	26.371
16	I-5	ASAHIMAS 2	APB DKI Jakarta & Banten	150	0.00284142	0.01950377	0.00235455	0.01995909	0.00778148	0.03435591	16.910	21.479
17	I-5	ASAHIMAS 2	APB DKI Jakarta & Banten	150	0.00284142	0.01950377	0.00235455	0.01995909	0.00778148	0.03435591	16.910	21.479
18	I-5	ASAHIMAS MRS	APB DKI Jakarta & Banten	150	0.00147379	0.01605741	0.00140162	0.01647338	0.00526581	0.0261664	21.363	26.181
19	I-5	ASAHIMAS MRS	APB DKI Jakarta & Banten	150	0.00147379	0.01605741	0.00140162	0.01647338	0.00526581	0.0261664	21.363	26.181
20	I-5	ASPEC	APB DKI Jakarta & Banten	70	0.0153984	0.1635697	0.01546432	0.1632615	3.69679	0.20552568	0.722	5.515
21	I-5	BALABAN	APB DKI Jakarta & Banten	150	0.00141347	0.0150635	0.001393	0.01526854	0.0039217	0.01756286	26.152	27.896
22	I-5	BALABAN	APB DKI Jakarta & Banten	150	0.00433513	0.03171248	0.00426703	0.03113474	0.01739207	0.07291464	9.107	13.202
23	I-5	BAYANIS	APB DKI Jakarta & Banten	150	0.01174299	0.07839736	0.0110465	0.07307597	0.06156769	0.2451134	3.131	5.336
24	I-5	BAYANIS	APB DKI Jakarta & Banten	150	0.01174299	0.07839736	0.0110465	0.07307597	0.06156769	0.2451134	3.131	5.336
25	I-5	BEKASI	APB DKI Jakarta & Banten	150	0.00079396	0.00916009	0.00079135	0.00948166	0.00071089	0.00815021	46.964	45.760
26	I-5	BEKASI	APB DKI Jakarta & Banten	150	0.00083752	0.00949982	0.00083502	0.00980355	0.00070767	0.00840395	45.436	44.168
27	II	BEKASI	APB DKI Jakarta & Banten	150	0.00090595	0.01733521	0.0008875	0.01728396	0.00049758	0.01069757	28.001	24.990
28	IV	BEKASI	APB DKI Jakarta & Banten	150	0.00090595	0.01733521	0.0008875	0.01728396	0.00049758	0.01069757	28.001	24.990
29	I-5	BINTARO	APB DKI Jakarta & Banten	150	0.01130267	0.04554848	0.01132815	0.04547927	0.02380124	0.104104	6.323	9.001
30	I-5	BINTARO	APB DKI Jakarta & Banten	150	0.00235387	0.07304578	0.00232392	0.07303735	0.07699656	0.03513721	16.529	20.517
31	I-5	BINTARO2	APB DKI Jakarta & Banten	150	0.01160311	0.04652355	0.01158259	0.04645488	0.02543502	0.1070294	6.161	8.810
32	I-5	BINTARO2	APB DKI Jakarta & Banten	150	0.01160311	0.04652355	0.01158259	0.04645488	0.02543502	0.1070294	6.161	8.810
34	I-4	BOGORBARU4	APB DKI Jakarta & Banten	70	0.0026406	0.05279008	0.00228438	0.056071346	0.627452	0.08130729	4.096	17.281
35	I-5	BOGORBARUS	APB DKI Jakarta & Banten	150	0.00173061	0.01394804	0.00134058	0.0111895	0.00940664	0.02981516	22.416	29.992
36	I-5	BOGORBARUS	APB DKI Jakarta & Banten	150	0.00173061	0.01394804	0.00134058	0.0111895	0.00940664	0.02981516	22.416	29.992
37	I-5	BOGORROTAS	APB DKI Jakarta & Banten	150	0.00378984	0.0364117	0.00374611	0.03632682	0.0236718	0.09898265	7.267	11.550
38	I-5	BOGORROTAS	APB DKI Jakarta & Banten	150	0.00378984	0.0364117	0.00374611	0.03632682	0.0236718	0.09898265	7.267	11.550
39	I-5	BUDI KEMULIAAN	APB DKI Jakarta & Banten	150	0.00151411	0.01287534	0.00128618	0.01177255	0.00580924	0.01393234	31.881	32.510
40	I-5	BUDI KEMULIAAN	APB DKI Jakarta & Banten	150	0.00151411	0.01287534	0.00128618	0.01177255	0.00580924	0.01393234	31.881	32.510
41	I-4	BUNAR	APB DKI Jakarta & Banten	70	0.1538428	0.3754938	0.1537684	0.3759059	1.192096	0.9720869	1.189	2.232
42	I-4	BUNAR	APB DKI Jakarta & Banten	70	0.09477203	0.2024932	0.09413043	0.2031296	0.7530487	0.4224857	2.163	4.042
43	I-5	CANDRA ASRI 5	APB DKI Jakarta & Banten	150	0.00148999	0.0160266	0.00141786	0.01644266	0.00526522	0.02607489	21.415	26.728
44	I-5	CANDRA ASRI 5	APB DKI Jakarta & Banten	150	0.00148999	0.0160266	0.00141786	0.01644266	0.00526522	0.02607489	21.415	26.728
45	I-4	CAWANG4	APB DKI Jakarta & Banten	70	0.00157824	0.1319043	0.00156023	0.1319447	2.449088	0.1226735	1.094	6.876
46	I-4	CAWANG4	APB DKI Jakarta & Banten	70	0.00157824	0.1319043	0.00156023	0.1319447	2.449088	0.1226735	1.094	6.876
47	I-5	CAWANG5	APB DKI Jakarta & Banten	150	0.00065972	0.01217849	0.00058171	0.01221902	0.00003977	0.00375993	44.925	34.538
48	I-5	CAWANG5	APB DKI Jakarta & Banten	150	0.00065972	0.01217849	0.00058171	0.01221902	0.00003977	0.00375993	44.925	34.538
49	I-5	CAWANG5	APB DKI Jakarta & Banten	150	0.00090071	0.01100786	0.00089166	0.01130394	0.00027063	0.00645603	43.848	38.179
50	IV-5	CAWANG5	APB DKI Jakarta & Banten	150	0.00065972	0.01217849	0.00058171	0.01221902	0.00003977	0.00375993	44.925	34.538

**NAMEPLATE PMT TERPASANG PADA INPUT
TRANSFORMATOR DAYA**



NAMEPLATE PMT TERPASANG PADA BUSBAR 20 KV

+EJT1
INCOMING 1

Schneider Electric

TYPE STANDARD PIX **24**
EC 62271-200

DIAGRAM No **515752 5188**

Order **C2030-402324** YEAR **2018**

Mark **BUSBAR CURRENT 2000 A**

FUNCTION **INCOMING**

RATED VOLTAGE **24** kV

IMPULSE WITHSTAND VOLTAGE **125** kV

RATED FREQUENCY **50** Hz

RATED PEAK CURRENT **65** kAp

RATED SHORT TIME CURRENT **25** kA **3** s

RATED CURRENT **2000** A

No. 01-2018-W34-3-900

NAMEPLATE PMT TERPASANG PADA PENYULANG

