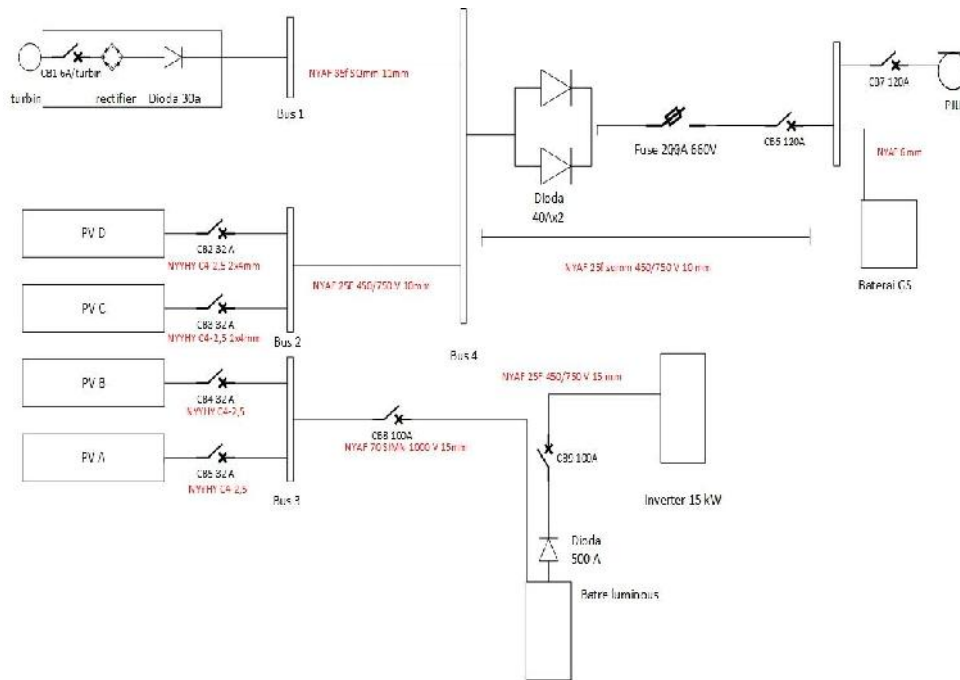
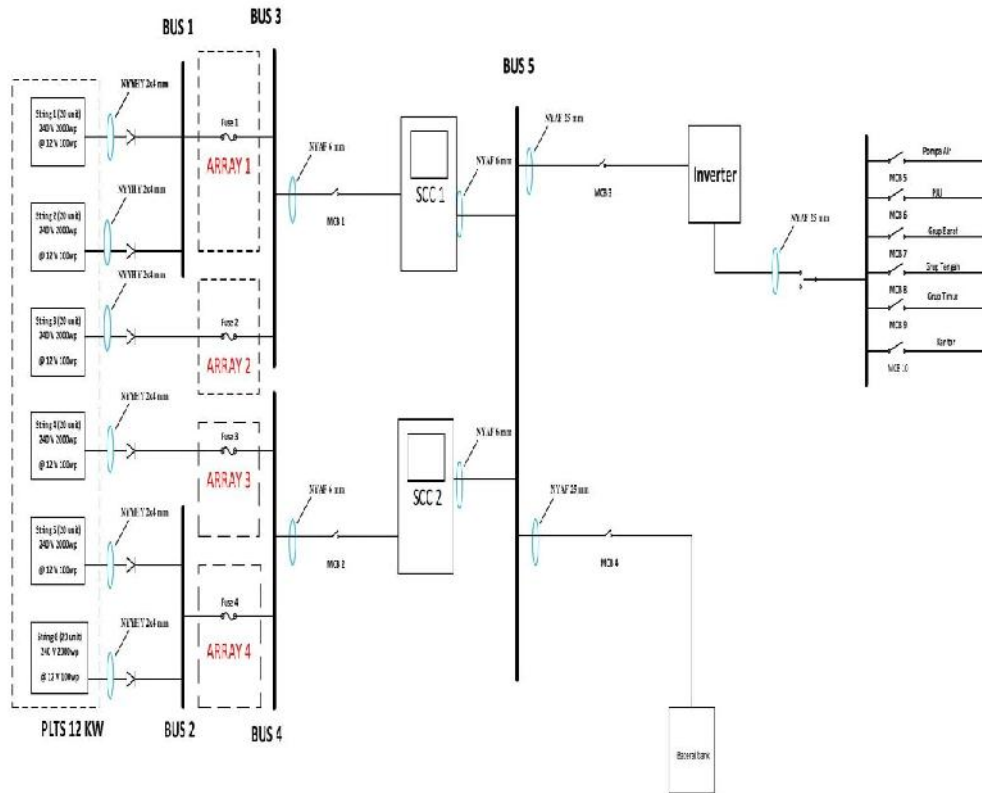


LAMPIRAN

Lampiran 1 single line lama PLTH Bayu Baru



Lampiran 2 Single Line Diagram Baru PLTH Bayu Baru



Lampiran 3 data beban PLTH Bayu Baru

No	Jenis Beban	Jumlah	Daya (W)
1	Lampu Penerangan Warung	200	15
2	Mesin Es Kristal	1	3000
3	Mesin Es Kristal	1	2500
4	Mesin Es Balok	1	6000
5	Pompa Air	10	125
6	Pompa Jet Pump	1	250
7	Lampu Penerangan Kantor	10	20
8	Dispenser	5	350
9	Kipas Angin	3	50
10	Televisi	2	65
11	Lampu PJU	40	23
12	Mesin Es Giling	1	750
13	Lampu Indikator Menara	1	60
Total			19960

Lampiran 4 data spesifikasi panel surya sistem PV 240 V grup barat PLTH Bayu Baru



Electrical Spesification	
Brand	ELSOL
Type	Es100236-pcm Polycrystalline
Maximum power	100 Wp
<i>shortcircuit</i> Current (Isc)	6,5 A
max current (Imp)	5,82 A
Voc	21,75 V
System Voltage	12 V
Nominal Voltage	17,24 V
Maximum system voltage	1000 V DC
Pysical Spesification	
Length	670 mm
Width	1180 mm
Depth	35 mm
Weight	9,2 KG
Temperatur	-40°C up to 50°C

Lampiran 5 spesifikasi MCB pada *combiner box* PLTS

Main

Range	Acti 9
Product name	Acti 9 C60H-DC
Product or component type	Miniature circuit-breaker
Device short name	C60H-DC
Device application	Distribution
Poles description	2P
Number of protected poles	2
[In] rated current	40 A at 25 °C
Network type	DC
Trip unit technology	Thermal-magnetic
Curve code	C
Breaking capacity	Icu 20 kA at 220 V DC conforming to GB 14048.2 Icu 10 kA at 440 V DC conforming to EN 60947-2 Icu 10 kA at 440 V DC conforming to IEC 60947-2 Icu 6 kA at 500 V DC conforming to EN 60947-2 Icu 6 kA at 500 V DC conforming to IEC 60947-2 Icu 20 kA at 220 V DC conforming to IEC 60947-2 Icu 20 kA at 250 V DC conforming to GB 14048.2 Icu 20 kA at 250 V DC conforming to IEC 60947-2
Utilisation category	Category A conforming to EN 60947-2 Category A conforming to IEC 60947-2
Suitability for isolation	Yes conforming to EN 60947-2 Yes conforming to IEC 60947-2

Complementary

Network frequency	50/60 Hz
[Ue] rated operational voltage	500 V DC
[Ics] rated service breaking capacity	15 kA 75 % x Icu at 220 V DC conforming to EN 60947-2 15 kA 75 % x Icu at 220 V DC conforming to IEC 60947-2 15 kA 75 % x Icu at 250 V DC conforming to EN 60947-2 15 kA 75 % x Icu at 250 V DC conforming to IEC 60947-2 4.5 kA 75 % x Icu at 500 V DC conforming to EN 60947-2 4.5 kA 75 % x Icu at 500 V DC conforming to IEC 60947-2 7.5 kA 75 % x Icu at 440 V DC conforming to EN 60947-2 7.5 kA 75 % x Icu at 440 V DC conforming to IEC 60947-2

Lampiran 6 spesifikasi perangkat proteksi dalam box panel baterai

Komponen	Spesifikasi	
<i>Fuse</i>	660 V – 120kA (200A)	
Terminal <i>Fuse</i>	600V- (250A-300A)	
Busbar DC	4*20*0,4 CM	
MCCB Baterai	Ui=690V ~ 50/60Hz Uimp=6Kv Cat.A 40°C	
	Ue (V)	Icu/Ics (kA)
	230/240	25/13
	400/415	18/9
	440	15/8
	550	05/3
	250	05/3
MCCB Inverter	Iu=160A Ue=690V IEC60947-2 GB14048.2	
	Ue (V)	Icu/Ics (kA)
	220/240	65/65
	380/440	36/36
	500	30/30
	525	20/20
	690	10/10

Lampiran 7 spesifikasi kabel

ELECTRICAL DATA

Nominal cross-sectional area mm ²	Resistance at 20 °C		Current Carrying Capacity at 30°C in AIR max A	Short circuit current of conductor at 1.0 sec max kA
	DC conductor max Ω/Km	Insulation min MΩ.Km		
0.75	26.0	50	6	0.09
1	19.5	50	10	0.12
1.5	13.3	50	15	0.17
2.5	7.98	50	20	0.29
4	4.95	50	26	0.46
6	3.30	50	33	0.69
10	1.91	50	45	1.16
16	1.21	40	61	1.84
25	0.780	40	83	2.87
35	0.554	40	103	4.03
50	0.386	30	132	5.75

Core identification : 2 cores by colours : either light blue, brown or light blue, black;

3 cores by colours : either green-and yellow, light blue, brown, or light blue, black, brown;

ELECTRICAL DATA

Nominal cross-sectional area mm ²	Resistance at 20 °C		Current Carrying Capacity at 30°C max A		Short circuit current of conductor at 1.0 sec max kA
	DC conductor max Ω/Km	Insulation min MΩ.Km	In Pipe	In Air	
			A		
1.5	13.3	50	15	24	0.17
2.5	7.98	50	20	32	0.29
4	4.95	50	25	42	0.46
6	3.30	50	33	54	0.69
10	1.91	50	45	73	1.16
16	1.21	40	61	98	1.84
25	0.780	40	83	128	2.88
35	0.554	40	103	158	4.03
50	0.386	30	132	197	5.75
70	0.272	30	165	245	8.05
95	0.206	30	197	290	10.93
120	0.161	30	235	345	13.80
150	0.129	20	-	390	17.25
185	0.106	20	-	445	21.28
240	0.0801	20	-	525	27.60
300	0.0641	20	-	605	34.50
400	0.0486	20	-	725	46.34

Core Identification : green-and-yellow, blue, black, yellow, red, green, white or brown.
Test Voltage : 2500 VAC / 5 minutes.

Lampiran 8 spesifikasi *inverter* PLTH Bayu Baru

ITEM		SPEISIFICATION
Main system	Main circuit	One phase full bridge inverter
	Main Component	IGBT
	Voltage waveform control	Digital sinusodal-PWM
	Cooling	Forced cooling using fan
DC input	Nominal	240 Vdc
	Operation	190-310 Vdc
AC input	Rated Power	15 kW
	Voltage	220 V +/- 15% (L-N)
	Voltage Regulation	+/- 1% (steady state)
		< 4% (transient at 100% step load within 0,1 sec)
	Nummber of phase	One phaase
	Frequency	50Hz
	Voltage wavefrom	Pure sin wave
	harmonic distortion	<3 %
	Peak Surge Current	200%
Overload capacity	150% duration at < 1 minute	
Isolation	Galvanic Isolation	yes
Efficiency	Inverter peak Efficiency	93%
Protection	Over current, over load, short circuit, over temperature, over voltage, under voltage, over frequency, under frequency	
Indicator	LED	standby run
		Over load
		Charging
		Inverter running
		Low battery
		Hight Temperature
		Load on Inverter
		Fault
		External Charging
		generator running
		Generator Failure
	Bypass	
LCD display	3,5 " chipon glass LCD, 128x128 pixels, monochrome	
Audible alarm	Inveter Fault	

Environment	Temperature	0-45°C
	Humidity	0-95%
Power Suply	Nominal Input	240 Vdc
	input range	200 - 300 Vdc
	output control	24 Vdc
	output sensor	15 Vdc
	output board	5 Vdc
Physical size	Dimention, W x H x D	60 x 60 x 160 cm
	Weight	275 kg