LAMPIRAN

Lampiran 1 Data Inverter

Model		*ATO-OGI-30kW*
*Size (D*W*H)*		*600*700*1080mm*
Weight		*280kg*
Certificate		*CE, UL, SA, SAA, VDE*
Warranty period		*12 months*
AC Input	*Rated voltage*	*AC input voltage is the same value as the AC output*
DC Input	*Rated voltage*	*240V/ 288V/ 300V/ 480V DC (can be customized)*
	Rated current	*125A @240V DC*
AC Output	*Rated output power*	*30kW*
	Output waveform	*Pure sine wave*
	Rated voltage	*208V/ 220V/ 230V/ 240V/ 380V/ 400V/ 415V/ 460V/ 480V (optional)*
	Phase	*3 phase 4 wire+PE wire (single phase/ split phase can be customized, please contact us by email)*
	Rated phase current	*45A @380V AC*
	Frequency	*50Hz or 60Hz*
	Power factor	*>0.99*
	Overload ability	*150%, 5 seconds*
	Efficiency	*>93%*
	Waveform distortion rate	*THD<3%*
	Dynamic response (0 to 100% load)	*5%, ≤50ms*
	Display	*LCD*
	Running mode	*Working continously*
	Electrical insulation properties	*2000Vac, 1min*

	Communication interface	*RS485 (optional)*
Protection Function	*Protection*	*Input reverse polarity, under voltage, over-voltage, output over-current, short circuit, overheating*
	Colling method	*Fan-cooled*
	Short-circuit protection	*No automatic recovery, need to restart the machine*
Working Environment	*Noise (1 meter）*	*≤50dB*
	Degree of protection	*IP20 (indoor)*
	Working altitude	*≤2000m*
	Working temperature	*-25~+55℃*
	Relative humidty	*0~90%, non-condensing*
Note	*The above parameters are for reference only, can be customized according to customer's requirement!*	

Lampiran 2 Data Chage Controllet

Model		*120A*
MPPT Range	*12V system*	*18V DC~80V DC*
	24V system	*30V DC~100V DC*
	36V system	*40V DC~100V DC*
	48V system	*60V DC~150V DC*
	96V system	*120V DC~200V DC*
Max PV array opern circuit voltage	*12/24/36/48/96 V*	*12-48V DC(150V DC)/96V(200V DC)*
Max PV array power	*12V system*	*1800w*
	24V system	*3400w*
	36V system	*5400w*
	48V system	*6800w*
	96V system	*14400w*
Connect battery type		*Sealed lead acid, Gel, Nicad battery*
Rated curent		*120A*
Maximum charging current		*122A*
Maximun efficiency		*great than 96.5*
Temperature compensation		*3mV*
Charging method		*Three stages: constant current (MPPT), equalizing charge, floating charge*
PC host computer		*RS485(optional)*
Humidity		*0-90RH*
Operating Temperature		*-20~60*
Storage Temperature		*-40~70*
Altitude		*0-3500m*
Product size(mm)		*380*358*140*
Carton size(mm)		*426*400*185*
Net weight(kg)		*9.35*
Gross weight(kg)		*9.85*
Protection grade		*IP32*

Lampiran 3 Data solar panel 50 wp

Spesifikasi	Keterangan
Max. Power (Pmax)	50W
Max. Power Voltage (Vmp)	16.5V
Max. Power Current (Imp)	3.34A
Open Circuit Voltage (Voc)	21.1V
Short Circuit Current (Isc)	4.23A
Nominal Operating Cell Temp (NOCT)	45±2°C
Max. System Voltage	1000V
Max. Series Fuse	16A
Weight	6.5Kg
Dimension	775 x 680 x 28 mm

Lampiran 4 Data solar panel 100 & 150wp

Spesifikasi	Keterangan
Max. Power (Pmax)	100W
Max. Power Voltage (Vmp)	19V
Max. Power Current (Imp)	5.28A
Open Circuit Voltage (Voc)	22.29V
Short Circuit Current (Isc)	5.6A
Weight	10.3Kg
Dimension	910 x 670 x 30 mm

Spesifikasi	Keterangan
Max. Power (Pmax)	150W
Max. Power Voltage (Vmp)	19.2V
Max. Power Current (Imp)	7.81A
Open Circuit Voltage (Voc)	22.58V
Short Circuit Current (Isc)	8.28A
Weight	11.8Kg
Dimension	1280 x 670 x 30 mm

Lampiran 5 Data solar panel 200 wp

Spesifikasi	Keterangan
Max. Power (Pmax)	200W
Max. Power Voltage (Vmp)	26.9V
Max. Power Current (Imp)	7.43A
Open Circuit Voltage (Voc)	32.3V
Short Circuit Current (Isc)	8.33A
Nominal Operating Cell Temp (NOCT)	45±2°C
Max. System Voltage	1000V
Max. Series Fuse	16A
Weight	15.45Kg
Dimension	1482 x 992 x 35 mm

Lampiran 6 Data solar panel 250 & 300wp

Spesifikasi	Keterangan
Max. Power (Pmax)	250W
Max. Power Voltage (Vmp)	28.9V
Max. Power Current (Imp)	8.7A
Open Circuit Voltage (Voc)	34V
Short Circuit Current (Isc)	9.2A
Weight	16Kg
Dimension	1480 x 990 x 35 mm

Spesifikasi	Keterangan
Max. Power (Pmax)	300W
Max. Power Voltage (Vmp)	32.6V
Max. Power Current (Imp)	9.2A
Open Circuit Voltage (Voc)	38.3V
Short Circuit Current (Isc)	9.8A
Weight	25.8Kg
Dimension	1950 x 990 x 45 mm

Lampiran 7 Data solar panel 350 & 400wp

Spesifikasi	Keterangan
Max. Power (Pmax)	350W
Max. Power Voltage (Vmp)	38.9V
Max. Power Current (Imp)	9V
Open Circuit Voltage (Voc)	45.7V
Short Circuit Current (Isc)	9.5A
Weight	26Kg
Dimension	1950 x 990 x 45 mm

Modul	BSM400M-72
Rated Maximum Power at STC	400W
Open CircuitVoltage(Voc/V)	49.55
Maximum Power Voltage(Vmp/V)	40.78
Short Circuit Current(Isc/A)	10.59
Maximum Power Current(Imp/A)	9.82
Module Efficiency(%)	20.61
Power Tolerance	-0~+5W
Standard Test Condition(STC)	*Irradiance 1000W/m2,Cell Temperature 25℃,Air Mass1.5*

Lampiran 8 Data baterai 1

Nominal battery voltage	26.4 V
Nominal battery capacity	200 Ah
Nominal battery energy capacity	5500 Wh
Cycle life	3500 cycles at 80 % DOD at 25 ºC, max. C3 charge and C2 discharge
Max. charge current	200 A
Recommended charge current	≤ 60 A
Max. continuous discharge current	500 A
Continuous charge current	200 A
Peak discharge current	1800 A (10 sec.)
Battery monitoring	integrated
MasterBus communication	yes
CZone / NMEA 2000 communication	yes
Battery terminals	M8
Mounting position	upright (recommended) or either long side
Max. outer dimensions (incl. terminals/grip handles), lxwxh	622 x 197 x 355 mm 24.5 x 7.8 x 14.0 inch
Product weight	57 kg 125.7 lb
Shipping weight	60 kg 132.3 lb
Approvals	CE, E-Mark / DNV-GL scheduled for end 2021

Lampiran 9 Data baterai 2

Items		Parameters
Nominal voltage		25.6V
Typical capacity		200Ah
Discharge	Cut-off voltage	About 21V
	Standard discharge	50A
	Max. Continuous Discharge Current	100A
	Max. Instantaneous Discharge Current	200A/3S
Charge	Voltage	29.2±0.15V
	Standard Current	50A
	Max. Charge Current	≤100A
	Charge mode	CC/CV
Inner resistance	DischargingInner resistance	≤45mΩ
Operation temperature/ humidity range	Charge	0℃~+45℃
	Discharge	-20℃~+80℃
		When the environment temperature is higher than 45℃,please pay attention to ventilation and heat rejection.
	Humidity	RH≤85%, When the environment humidity is higher than 85%,please pay attention to protect
Storage temperature/ humidity range	Temperature	0℃~40℃(Capacity 80%)Recommended long-term storage temperature is 15~25℃
	Humidity	RH≤50%,Easily oxidized components note sealed
Protection function	Over charge protection,Over discharge protection,Temperature protection, Balanced function	
Shell material	Stainless steel case	
Weight	46kg	
Size(L*W*H)	420mm *340mm *235mm	
Cycle	2000 times(Cycle@RT, 1C rate, 80%DOD)	

Lampiran 10 Data baterai 3 & 4

60V 50Ah/80Ah/100Ah Model No:PF6050/80/100

Nominal voltage	60.8V
Nominal capacity	50Ah/80Ah/100Ah @0.5C Discharge
Dimension	50Ah: 170*360*360mm 80Ah: 200*250*650mm 100Ah: 192*425*630mm
Weight	50Ah: 32kg 80Ah: 65kg 100Ah: 75kg
Working voltage	38-69.35V
Discharge rate	Continuous:≤1c Max:3c/5s
Lifespan	≥2000 cycles
Charge rate	≤1c
Suggested discharge & charge rate	0.5c & 0.5c
Operating temperature	Charging: 0°C ~ 45°C Discharging: -20°C ~60°C

72V 150Ah/300Ah Model No:PN72150/300

Nominal voltage	72V
Nominal capacity	150Ah/300Ah @0.5C Discharge
Dimension	150Ah: 800*360*250 mm 300Ah: 550*620*750mm
Weight	150Ah: 100kg 300Ah: 265kg
Working voltage	60-84V
Discharge rate	Continuous:≤1c Max:3c/5s
Lifespan	≥1500 cycles
Charge rate	≤1c
Suggested discharge & charge rate	0.5c & 0.5c
Operating temperature	Charging: 0°C ~ 45°C Discharging: -20°C ~60°C

Lampiran 11 Data baterai 5

Deep cycle Rechargeable 24V 200Ah LiFePO4 Battery with BMS			
Electric Characteristics			
Nominal Voltage:	25.6V	**Energy:**	5120Wh
Rated Capacity:	200Ah	**Specifi Energy:**	124.8Wh/kg
Internal Resistance:	≤20mΩ	**Cycle Life:**	2000+
Charging and Discharging Parameters			
Charge cut-off volt:	29.2V	**Discharge cut-off volt:**	20V
Maximum Charge current:	100A	**Maximum Discharge current:**	200A
Peak Discharge current:	400A	**Suggested charge Volt:**	28.6V-29.2V
Operation Temperature Parameters		**Storage Temperature Parameters**	
Charge:	0~45℃	**Less than a year:**	0~25℃
Discharge:	-20~60℃	**Less than three months:**	-10~35℃
Recommended:	18~28℃		
Mechanical Properties			
Dimension Length:	400mm(15.7 inch)	**Housing materials:**	Metal
Dimension Width:	380mm(14.9 inch)	**Terminal size:**	M6*4
Dimension Heigth:	250mm(9.8 inch)	**Cell model:**	3.2v 100ah
Weight:	42kg(19 lbs)	**Configuration:**	8S2P
BMS function:			
Protect battery from **Overcharge**, **Overdischarge**, **Overcurrent**, **Short circuit**			
Advantage:			
High safety(no fire,no explosion)	**Light weight**	**High energy density**	**Long lifespan**
Environmentally friendly	**Waterproof**	**No memory effect**	**Easy maintenance**
Why choose us:			
High qualified : **ISO9001, CE,BIS,MSDS, UL,UN38.3**			
Strict inspection: **Every step from incoming to shipping**			
Fast lead time: **10-12 days will reach customers for samples**			
Quality assurance: **2 years warranty**			

Lampiran 12 Data baterai 6 & 7

Nominal Voltage: 51.8V
Nominal Capacity @ 1C: 192Ah
Charge Voltage: 57.7V-58.8V
Charge Current: <95A (recommended) / 100A (max continuous)
Discharge Voltage Minimum: 41.3V
Discharge Current Max Continuous: 200A
Pulse Current 5 Sec: 550A
Weight: 136 lb / 61.7 kg
Dimensions L x W x H (including terminals): 36.75"x19.75"x4"
BCI Group Number: CUSTOM
Terminals, Female-threaded: Brass M10x1.25 OR 3/8-16
DC internal resistance (max): <18.8 mΩ

Nominal Voltage: 51.8V
Nominal Capacity @ 1C: 480Ah
Charge Voltage: 57.7V-58.8V
Charge Current: <100A (recommended) / 135A (max continuous)
Discharge Voltage Minimum: 41.3V
Discharge Current Max Continuous: 250A
Pulse Current 5 Sec: 1450A
Weight: 356 lb / 161.5 kg
Dimensions L x W x H (including terminals): 36"x20.25"x12.25"
BCI Group Number: CUSTOM
Terminals, Female-threaded: Brass M10x1.25 OR 3/8-16
DC internal resistance (max): <16.8 mΩ

Lampiran 13 Data baterai 8

48V

Models		RESU3.3	RESU6.5	RESU10
Total Energy [kWh]		3.3	6.5	9.8
Usable Energy [kWh]		2.9	5.9	8.8
Capacity [Ah]		63	126	189
Nominal Voltage [V]		51.8	51.8	51.8
Voltage Range [V]		42.0~58.8	42.0~58.8	42.0~58.8
Dimension [W x H x D, mm]		452 x 401 x 120	452 x 654 x 120	452 x 483 x 227
Weight [kg]		31	52	75
Enclosure Protection Rating		IP55		
Communication		CAN 2.0 B		
Certificates	Cell	UL1642		
	Product	CE / RCM / TUV (IEC 62619) / UL1973		

Compatible Inverter Brands : SMA, SolaX, Sungrow, Schneider, Ingeteam, GoodWe, Redback, Victron Energy
(As of 3Q. 2016, More brands to be added)

Lampiran 14 Data baterai 9

Parameter

Model	DL-96v 200ah/30S8P
Nominal voltage	96V
Charge voltage	109.5V
Nominal capacity	200ah
Battery size	605*605*245mm
Net weight	180.0KG, WITH wood pallet package BOX 200.0 kgs
Battery cell type	Lithium ion pouch cell 25ah cell
Lifecycle	1500 - 2000 times
Max continuous charge current	50A
Peak discharge current BMS	100A
Max peak discharge current	100A /1C, PEAK Discharging max instantly 200Ah
Charge method	CC/CV
Charge temperature	0-65°C
Discharge temperature	-40-60°C
BMS protection	over-charge,over-discharge, over-current,short circuit
CERTIFICATES	CE, ROHS

Lampiran 15 Data baterai 10

1. Product parameter		
Weight		95kg
Size		650*300*220mm
Model		YT-48200
working temperature	Charge temperature	0°C ~ 45°C
	Discharge temperature	-20°C ~ 70°C
2. Technical Data		
Rated Voltage		51.2V
Rated Capacity		200Ah
Charge	Way of charge	CC/CV(Constant Current / Constant Voltage)
	Standard Charge Current	40A
	Max Charge Voltage	56V
Discharge	Continuous Discharge Current	40A or customized
	Peak Discharge Current	200A or customized
	Discharge Cut-off Voltage	36.8V

Lampiran 16 Data baterai 11

Electrical Characteristics	**Nominal Voltage**	**51.2V**
	Nominal Capacity	**200Ah**
	Energy	**10240Wh**
	Internal Resistance(AC)	**≤20mΩ**
	Cycle Life	**>3500 cycles @ 1C 80% DOD**
	Months Self Discharge	**<3%**
	Efficiency of Charge	**100% @0.5C**
	Efficiency of Discharge	**96~99% @1C**
Standard Charge	**Charge Voltage**	**58.4±0.2V**
	Charge Mode	**0.2C to 54V, then 54V, charge current to 0.02C(CC/CV)**
	Charge Current	**60A**
	Max. Charge Current	**120A**
	Charge Cut-off Voltage	**62.4±0.2V**
Standard Discharge	**Continuous Current**	**120A**
	Max.Pulse Current	**140A(<3s)**
	Discharge Cut-off Voltage	**43.2V**
Envitonmental	**Charge Temperature**	**0℃ to 55℃ (32F to 131F) @60±25% Relative Humidity**
	Discharge Temperature	**-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity**
	Storage Temperature	**-20℃ to 45℃ (-4F to 113F) @60±25% Relative Humidity**
	IP Class	**IP65**
Mechanical	**Plastic Case**	**ABS**
	Approx.Dimensions	**442mm*484mm*400mm**
	Approx.Weight	**110kg**
	Terminal	**M**

Lampiran 17 Data baterai 12

Item	23kwh
Battery type	Lifepo4 Battery
Rated voltage	48V
Capacity	480AH
Rate energy	23KWH
Voltage range	42~54.75VDC
Standard charge current	100A
MAX.charge current	120A
Rated discharge current	100A
MAX.discharge current	120A
Cycle life	5000
(W*H*D)Dimension	600×1610×600mm
Weight	370kg
Color	Black
IP grade	IP21
Display	LCD
Communication	RS485/CAN
Heat-dissipating method	Natural
Noise	<40dB
Operatinng temperature range	Charge:0℃~60℃; Discharge:-20℃~60℃
Storage temperature rannge	-20℃~50℃
Humidity	<90[%Rh]*non condensing

Lampiran 18 Dara baterai 13

Model	DL-96100LPF-30S4P
Nominal voltage	96V
Charge voltage	109.5V
Nominal capacity	100ah
Battery size	605*395*245mm
Net weight	86.0KG, WITH wood pallet package BOX 102.0 kgs
Battery cell type	Lithium ion pouch cell 25ah cell
Lifecycle	1500 - 2000 times
Max continuous charge current	50A
Max/ Contiously discharge current BMS	150Amps
Max peak discharge current	100A /1C, PEAK Discharging max instantly 300Amps
Charge method	CC/CV
Charge temperature	0-65°C
Discharge temperature	-40-60°C
BMS protection	over-charge,over-discharge, over-current,short circuit
CERTIFICATES	CE, ROHS

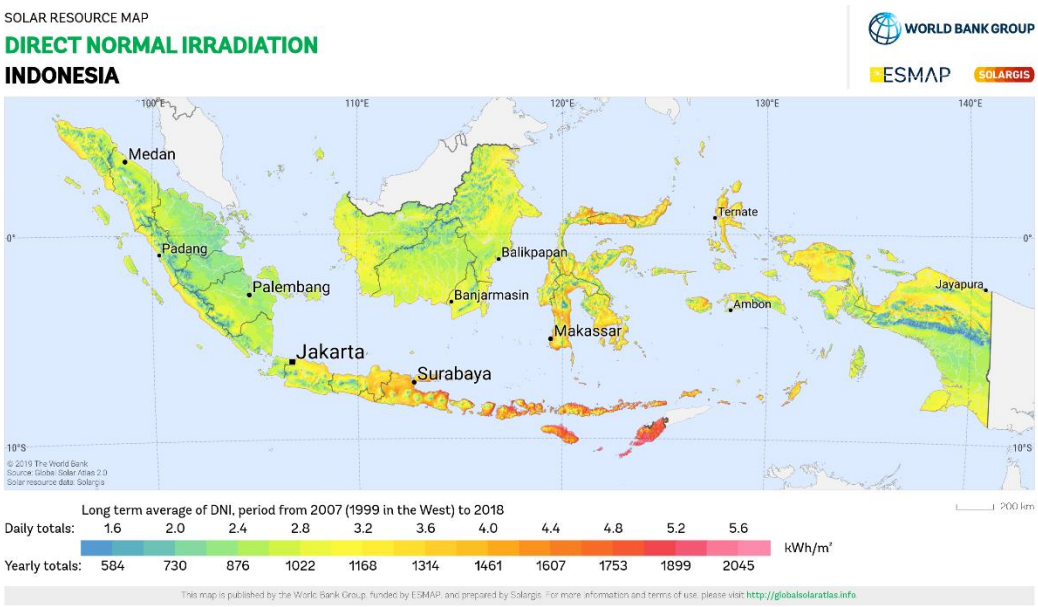
Lampiran 19 Radiasi matahari di daerah pelayaran

Year	Mon	Radiation kWh/m2/mo	Year	Mon	Radiation kWh/m2/mo	Year	Mon	Radiation kWh/m2/mo
2005	Jan	161.61	2008	Jan	128.92	2011	Jan	110.74
2005	Feb	187.3	2008	Feb	134.31	2011	Feb	130.89
2005	Mar	189.49	2008	Mar	134.51	2011	Mar	140.86
2005	Apr	177.29	2008	Apr	154.32	2011	Apr	160.76
2005	May	167.47	2008	May	154.05	2011	May	141.11
2005	Jun	145.92	2008	Jun	136.51	2011	Jun	135.58
2005	Jul	165.95	2008	Jul	139.48	2011	Jul	169.67
2005	Aug	163.03	2008	Aug	147.74	2011	Aug	157.19
2005	Sep	159.89	2008	Sep	141.8	2011	Sep	138.13
2005	Oct	158.0	2008	Oct	127.19	2011	Oct	139.44
2005	Nov	138.32	2008	Nov	116.0	2011	Nov	114.36
2005	Dec	133.16	2008	Dec	102.89	2011	Dec	99.88
2006	Jan	139.19	2009	Jan	111.37	2012	Jan	110.96
2006	Feb	143.15	2009	Feb	128.37	2012	Feb	151.24
2006	Mar	196.21	2009	Mar	154.04	2012	Mar	157.11
2006	Apr	159.28	2009	Apr	166.39	2012	Apr	163.61
2006	May	148.21	2009	May	161.14	2012	May	160.08
2006	Jun	146.26	2009	Jun	148.84	2012	Jun	142.15
2006	Jul	183.22	2009	Jul	144.58	2012	Jul	147.21
2006	Aug	177.65	2009	Aug	153.98	2012	Aug	161.88
2006	Sep	150.5	2009	Sep	155.5	2012	Sep	154.82
2006	Oct	155.34	2009	Oct	139.59	2012	Oct	140.68
2006	Nov	163.69	2009	Nov	113.94	2012	Nov	124.48
2006	Dec	123.41	2009	Dec	125.93	2012	Dec	105.06
2007	Jan	114.28	2010	Jan	143.74	2013	Jan	144.31
2007	Feb	142.22	2010	Feb	156.96	2013	Feb	109.79
2007	Mar	149.72	2010	Mar	176.66	2013	Mar	176.91
2007	Apr	173.05	2010	Apr	152.73	2013	Apr	142.83
2007	May	156.74	2010	May	150.9	2013	May	148.59
2007	Jun	116.05	2010	Jun	130.82	2013	Jun	143.35
2007	Jul	124.53	2010	Jul	129.55	2013	Jul	145.48
2007	Aug	158.18	2010	Aug	152.96	2013	Aug	154.51
2007	Sep	134.92	2010	Sep	138.23	2013	Sep	134.16
2007	Oct	132.45	2010	Oct	124.05	2013	Oct	141.53
2007	Nov	135.5	2010	Nov	131.43	2013	Nov	134.3
2007	Dec	94.29	2010	Dec	99.32	2013	Dec	92.92

Lampiran 20 Lanjutan radiasi

Year	Mon	Radiation
		kWh/m2/mo
2014	Jan	144.37
2014	Feb	159.92
2014	Mar	179.25
2014	Apr	155.01
2014	May	138.68
2014	Jun	152.25
2014	Jul	147.36
2014	Aug	144.19
2014	Sep	153.27
2014	Oct	139.68
2014	Nov	116.13
2014	Dec	129.92
2015	Jan	107.67
2015	Feb	154.03
2015	Mar	186.47
2015	Apr	168.8
2015	May	160.27
2015	Jun	144.01
2015	Jul	154.12
2015	Aug	143.94
2015	Sep	140.24
2015	Oct	140.62
2015	Nov	118.75
2015	Dec	138.29
2016	Jan	179.05
2016	Feb	160.11
2016	Mar	207.94
2016	Apr	193.7
2016	May	160.84
2016	Jun	133.66
2016	Jul	157.19
2016	Aug	153.64
2016	Sep	145.98
2016	Oct	122.51
2016	Nov	154.38
2016	Dec	129.6

Lampiran 21 Radiasi di Indonesia



Lampiran 22 Hasil Optimasi Baterai dan PV

No.	Jumlah Solar PV	Jumlah Baterai	Berat Solar PV (kg)	Berat Baterai (kg)	Total Berat (kg)	Daya Solar PV (kW)	Daya Baterai (kW)	Total Daya (kW)
	x	y	x1	y1	xx1+yy1	dx	dy	xdx+ydy
1	343	23	7	46	3459	0,05	5,12	134,91
2	295	12	10	46	3502	0,1	5,12	90,94
3	209	21	12	46	3474	0,15	5,12	138,87
4	122	33	16	46	3470	0,2	5,12	193,36
5	122	33	16	46	3470	0,25	5,12	199,46
6	110	13	26	46	3458	0,3	5,12	99,56
7	93	23	26	46	3476	0,35	5,12	150,31
8	93	23	26	46	3476	0,4	5,12	154,96
9	343	26	7	42	3493	0,05	5,2	152,35
10	295	13	10	42	3496	0,1	5,2	97,1
11	209	23	12	42	3474	0,15	5,2	150,95
12	122	37	16	42	3506	0,2	5,2	216,8
13	122	37	16	42	3506	0,25	5,2	222,9
14	110	15	26	42	3490	0,3	5,2	111
15	93	26	26	42	3510	0,35	5,2	167,75
16	93	26	26	42	3510	0,4	5,2	172,4
17	343	19	7	57	3484	0,05	5,5	121,65
18	295	9	10	57	3463	0,1	5,5	79
19	209	17	12	57	3477	0,15	5,5	124,85
20	122	26	16	57	3434	0,2	5,5	167,4
21	122	26	16	57	3434	0,25	5,5	173,5
22	110	11	26	57	3487	0,3	5,5	93,5
23	93	19	26	57	3501	0,35	5,5	137,05
24	93	19	26	57	3501	0,4	5,5	141,7
25	343	14	7	75	3451	0,05	6	101,15
26	295	7	10	75	3475	0,1	6	71,5
27	209	13	12	75	3483	0,15	6	109,35
28	122	20	16	75	3452	0,2	6	144,4
29	122	20	16	75	3452	0,25	6	150,5
30	110	8	26	75	3460	0,3	6	81
31	93	14	26	75	3468	0,35	6	116,55
32	93	14	26	75	3468	0,4	6	121,2
33	343	14	7	75	3451	0,05	9,8	154,35
34	295	7	10	75	3475	0,1	9,8	98,1
35	209	13	12	75	3483	0,15	9,8	158,75
36	122	20	16	75	3452	0,2	9,8	220,4
37	122	20	16	75	3452	0,25	9,8	226,5
38	110	8	26	75	3460	0,3	9,8	111,4

No.	Jumlah Solar PV	Jumlah Baterai	Berat Solar PV (kg)	Berat Baterai (kg)	Total Berat (kg)	Daya Solar PV (kW)	Daya Baterai (kW)	Total Daya (kW)
	x	y	x1	y1	xx1+yy1	dx	dy	xdx+ydy
39	93	14	26	75	3468	0,35	9,8	169,75
40	93	14	26	75	3468	0,4	9,8	174,4
41	343	18	7	61,7	3512	0,05	10	197,15
42	295	9	10	61,7	3505	0,1	10	119,5
43	209	16	12	61,7	3495	0,15	10	191,35
44	122	25	16	61,7	3495	0,2	10	274,4
45	122	25	16	61,7	3495	0,25	10	280,5
46	110	10	26	61,7	3477	0,3	10	133
47	93	17	26	61,7	3467	0,35	10	202,55
48	93	17	26	61,7	3467	0,4	10	207,2
49	343	11	7	95	3446	0,05	10	127,15
50	295	5	10	95	3425	0,1	10	79,5
51	209	10	12	95	3458	0,15	10	131,35
52	122	16	16	95	3472	0,2	10	184,4
53	122	16	16	95	3472	0,25	10	190,5
54	110	7	26	95	3525	0,3	10	103
55	93	11	26	95	3463	0,35	10	142,55
56	93	11	26	95	3463	0,4	10	147,2
57	343	10	7	110	3501	0,05	10,24	119,55
58	295	5	10	110	3500	0,1	10,24	80,7
59	209	9	12	110	3498	0,15	10,24	123,51
60	122	14	16	110	3492	0,2	10,24	167,76
61	122	14	16	110	3492	0,25	10,24	173,86
62	110	6	26	110	3520	0,3	10,24	94,44
63	93	10	26	110	3518	0,35	10,24	134,95
64	93	10	26	110	3518	0,4	10,24	139,6
65	343	11	7	102	3523	0,05	15	182,15
66	295	6	10	102	3562	0,1	15	119,5
67	209	10	12	102	3528	0,15	15	181,35
68	122	16	16	102	3584	0,2	15	264,4
69	122	16	16	102	3584	0,25	15	270,5
70	110	7	26	102	3574	0,3	15	138
71	93	11	26	102	3540	0,35	15	197,55
72	93	11	26	102	3540	0,4	15	202,2
73	343	6	7	180	3481	0,05	20	137,15
74	295	3	10	180	3490	0,1	20	89,5
75	209	6	12	180	3588	0,15	20	151,35
76	122	8	16	180	3392	0,2	20	184,4
77	122	8	16	180	3392	0,25	20	190,5

78	110	3	26	180	3400	0,3	20	93
No.	Jumlah Solar PV	Jumlah Baterai	Berat Solar PV (kg)	Berat Baterai (kg)	Total Berat (kg)	Daya Solar PV (kW)	Daya Baterai (kW)	Total Daya (kW)
	x	y	x1	y1	xx1+yy1	dx	dy	xdx+ydy
79	93	6	26	180	3498	0,35	20	152,55
80	93	6	26	180	3498	0,4	20	157,2
81	343	4	7	265	3461	0,05	21,6	103,55
82	295	2	10	265	3480	0,1	21,6	72,7
83	209	4	12	265	3568	0,15	21,6	117,75
84	122	6	16	265	3542	0,2	21,6	154
85	122	6	16	265	3542	0,25	21,6	160,1
86	110	2	26	265	3390	0,3	21,6	76,2
87	93	4	26	265	3478	0,35	21,6	118,95
88	93	4	26	265	3478	0,4	21,6	123,6
89	343	3	7	370	3511	0,05	23	86,15
90	295	2	10	370	3690	0,1	23	75,5
91	209	3	12	370	3618	0,15	23	100,35
92	122	4	16	370	3432	0,2	23	116,4
93	122	4	16	370	3432	0,25	23	122,5
94	110	2	26	370	3600	0,3	23	79
95	93	3	26	370	3528	0,35	23	101,55
96	93	3	26	370	3528	0,4	23	106,2
97	343	7	7	162	3535	0,05	25	192,15
98	295	4	10	162	3598	0,1	25	129,5
99	209	6	12	162	3480	0,15	25	181,35
100	122	10	16	162	3572	0,2	25	274,4
101	122	10	16	162	3572	0,25	25	280,5
102	110	4	26	162	3508	0,3	25	133
103	93	7	26	162	3552	0,35	25	207,55
104	93	7	26	162	3552	0,4	25	212,2
105	343	7	7	162	3535	0,05	25	192,15
106	295	4	10	162	3598	0,1	25	129,5
107	209	6	12	162	3480	0,15	25	181,35
108	122	10	16	162	3572	0,2	25	274,4
109	122	10	16	162	3572	0,25	25	280,5
110	110	4	26	162	3508	0,3	25	133
111	93	7	26	162	3552	0,35	25	207,55
112	93	7	26	162	3552	0,4	25	212,2
113	343	4	7	305	3621	0,05	30	137,15
114	295	2	10	305	3560	0,1	30	89,5
115	209	3	12	305	3423	0,15	30	121,35
116	122	5	16	305	3477	0,2	30	174,4

117	122	5	16	305	3477	0,25	30	180,5
118	110	2	26	305	3470	0,3	30	93
No.	Jumlah Solar PV	Jumlah Baterai	Berat Solar PV (kg)	Berat Baterai (kg)	Total Berat (kg)	Daya Solar PV (kW)	Daya Baterai (kW)	Total Daya (kW)
	x	y	x1	y1	xx1+yy1	dx	dy	xdx+ydy
119	93	4	26	305	3638	0,35	30	152,55
120	93	4	26	305	3638	0,4	30	157,2

Lampiran 23. Waktu Penggunaan Diesel dan Baterai kondisi pengisian 5 jam

Kondisi I			Konfigurasi Hybrid	Waktu Pengisian	Diesel	PV + Baterai
18:00 - 24:00	Go To Fishing Base	18:00 - 06:00	Diesel On		336,0	
24:00 - 06:00	Setting		Diesel On		336,0	
06:00 - 12:00	Drifting					
12:00 - 24:00	Haulling	12:00 - 24:00	Battery + Diesel On	Batery Charger	611,5	60,5
24:00 - 09:00	Other Activity	24:00 - 09:00	Battery + Diesel On		458,6	45,4
Kondisi II						
09:00 - 15:00	Go To Fishing Base	09:00 - 15:00	Diesel On	Batery Charger	336,0	
15:00 - 21:00	Setting	15:00 - 21:00	Diesel + Battery On		305,8	30,2
21:00 - 03:00	Drifting	03:00 - 08:00				
03:00 - 15:00	Haulling	09:00 - 15:00	Diesel On	Batery Charger	672,0	
15:00 - 24:00	Other Activity	15:00 - 24:00	Diesel + Batery On		458,6	45,4
Kondisi III						
24:00 - 06:00	Go To Fishing Base	24:00 - 06:00	Diesel On		336,0	
06:00 - 12:00	Setting	06:00 - 12:00	Diesel On	Batery Charger	336,0	
12:00 - 18:00	Drifting	12:00 - 18:00		Batery Charger		
18:00 - 06:00	Haulling	18:00 - 06:00	Diesel + Batery On		611,5	60,5
06:00 - 15:00	Other Activity	06:00 - 15:00	Diesel + Batery On	Batery Charger	458,6	45,4
Kondisi IV						
15:00 - 21:00	Go To Fishing Base	15:00 - 21:00	Diesel + Batery On		305,8	30,2
21:00 - 03:00	Setting	21:00 - 03:00	Diesel On		336,0	
03:00 - 09:00	Drifting	03:00 - 09:00				
09:00 - 21:00	Haulling	09:00 - 21:00	Diesel On	Batery Charger	672,0	
21:00 - 06:00	Other Activity	21:00 - 06:00	Diesel + Batery On		458,6	45,4
Kondisi V						
06:00 - 12:00	Go To Fishing Base	06:00 - 12:00	Diesel On	Batery Charger	336,0	
12:00 - 18:00	Setting	12:00 - 18:00	Diesel On	Batery Charger	336,0	
18:00 - 24:00	Drifting	18:00 - 24:00				
24: 00 - 12:00	Haulling	24: 00 - 12:00	Diesel + Batery On	Batery Charger	611,5	60,5
12: 00 - 21:00	Other Activity	12: 00 - 21:00	Diesel + Batery On	Batery Charger	458,6	45,4

Kondisi VI						
21:00 - 03:00	Go To Fishing Base	21:00 - 03:00	Diesel On		336,0	
03:00 - 09:00	Setting	03:00 - 09:00	Diesel On		336,0	
09:00 - 15:00	Drifting	09:00 - 15:00		Batery Charger		
15:00 - 03:00	Haulling	15:00 - 03:00	Diesel + Batery On		611,5	60,5
03:00 - 12:00	Other Activity	03:00 - 12:00	Diesel + Batery On	Batery Charger	458,6	45,4
Kondisi VII						
12:00 - 18:00	Go To Fishing Base	12:00 - 18:00	Diesel + Batery On	Batery Charger	305,8	30,2
18:00 - 24:00	Setting	18:00 - 24:00	Diesel On		336,0	
24:00 - 06:00	Drifting	24:00 - 06:00				
06:00 - 18:00	Haulling	06:00 - 18:00	Diesel + Batery On	Batery Charger	611,5	60,5
18:00 - 03:00	Other Activity	18:00 - 03:00	Diesel On		504,0	
Kondisi VII						
03:00 - 09:00	Go To Fishing Base	03:00 - 09:00	Diesel On		336,0	
09:00 - 15:00	Setting	09:00 - 15:00	Diesel + Batery On	Batery Charger	305,8	30,2
15:00 - 21:00	Drifting	15:00 - 21:00				
21:00 - 09:00	Haulling	21:00 - 09:00	Diesel On		672,0	
09:00 - 18:00	Other Activity	09:00 - 18:00	Diesel + Batery On	Batery Charger	458,6	45,4

Lampiran 24. Waktu Penggunaan Diesel dan Baterai kondisi pengisian 4 jam

Kondisi I			Konfigurasi Hybrid	Waktu Pengisian	Diesel	PV + Baterai
18:00 - 24:00	Go To Fishing Base	18:00 - 06:00	Diesel On		336,0	
24:00 - 06:00	Setting		Diesel On		336,0	
06:00 - 12:00	Drifting					
12:00 - 24:00	Haulling	12:00 - 24:00	Battery + Diesel On	Batery Charger	625,0	47,0
24:00 - 09:00	Other Activity	24:00 - 09:00	Battery + Diesel On		468,7	35,3
Kondisi II						
09:00 - 15:00	Go To Fishing Base	09:00 - 15:00	Diesel On	Batery Charger	336,0	
15:00 - 21:00	Setting	15:00 - 21:00	Diesel + Battery On		312,5	23,5
21:00 - 03:00	Drifting	03:00 - 08:00				
03:00 - 15:00	Haulling	09:00 - 15:00	Diesel On	Batery Charger	672,0	
15:00 - 24:00	Other Activity	15:00 - 24:00	Diesel + Batery On		468,7	35,3
Kondisi III						
24:00 - 06:00	Go To Fishing Base	24:00 - 06:00	Diesel On		336,0	
06:00 - 12:00	Setting	06:00 - 12:00	Diesel On	Batery Charger	336,0	
12:00 - 18:00	Drifting	12:00 - 18:00		Batery Charger		
18:00 - 06:00	Haulling	18:00 - 06:00	Diesel + Batery On		625,0	47,0
06:00 - 15:00	Other Activity	06:00 - 15:00	Diesel + Batery On	Batery Charger	468,7	35,3
Kondisi IV						
15:00 - 21:00	Go To Fishing Base	15:00 - 21:00	Diesel + Batery On		312,5	23,5
21:00 - 03:00	Setting	21:00 - 03:00	Diesel On		336,0	
03:00 - 09:00	Drifting	03:00 - 09:00				
09:00 - 21:00	Haulling	09:00 - 21:00	Diesel On	Batery Charger	672,0	
21:00 - 06:00	Other Activity	21:00 - 06:00	Diesel + Batery On		468,7	35,3
Kondisi V						
06:00 - 12:00	Go To Fishing Base	06:00 - 12:00	Diesel On	Batery Charger	336,0	
12:00 - 18:00	Setting	12:00 - 18:00	Diesel On	Batery Charger	336,0	
18:00 - 24:00	Drifting	18:00 - 24:00				
24: 00 - 12:00	Haulling	24: 00 - 12:00	Diesel + Batery On	Batery Charger	625,0	47,0
12: 00 - 21:00	Other Activity	12: 00 - 21:00	Diesel + Batery On	Batery Charger	468,7	35,3

Kondisi VI						
21:00 - 03:00	Go To Fishing Base	21:00 - 03:00	Diesel On		336,0	
03:00 - 09:00	Setting	03:00 - 09:00	Diesel On		336,0	
09:00 - 15:00	Drifting	09:00 - 15:00		Batery Charger		
15:00 - 03:00	Haulling	15:00 - 03:00	Diesel + Batery On		625,0	47,0
03:00 - 12:00	Other Activity	03:00 - 12:00	Diesel + Batery On	Batery Charger	468,7	35,3
Kondisi VII						
12:00 - 18:00	Go To Fishing Base	12:00 - 18:00	Diesel + Batery On	Batery Charger	312,5	23,5
18:00 - 24:00	Setting	18:00 - 24:00	Diesel On		336,0	
24:00 - 06:00	Drifting	24:00 - 06:00				
06:00 - 18:00	Haulling	06:00 - 18:00	Diesel + Batery On	Batery Charger	625,0	47,0
18:00 - 03:00	Other Activity	18:00 - 03:00	Diesel On		504,0	
Kondisi VII						
03:00 - 09:00	Go To Fishing Base	03:00 - 09:00	Diesel On		336,0	
09:00 - 15:00	Setting	09:00 - 15:00	Diesel + Batery On	Batery Charger	312,5	23,5
15:00 - 21:00	Drifting	15:00 - 21:00				
21:00 - 09:00	Haulling	21:00 - 09:00	Diesel On		672,0	
09:00 - 18:00	Other Activity	09:00 - 18:00	Diesel + Batery On	Batery Charger	468,7	35,3

Lampiran 25. Waktu Penggunaan Diesel dan Baterai kondisi pengisian 3 jam

Kondisi I			Konfigurasi Hybrid	Waktu Pengisian	Diesel	PV + Baterai
18:00 - 24:00	Go To Fishing Base	18:00 - 06:00	Diesel On		336,0	
24:00 - 06:00	Setting		Diesel On		336,0	
06:00 - 12:00	Drifting					
12:00 - 24:00	Haulling	12:00 - 24:00	Battery + Diesel On	Batery Charger	638,4	33,6
24:00 - 09:00	Other Activity	24:00 - 09:00	Battery + Diesel On		478,8	25,2
Kondisi II						
09:00 - 15:00	Go To Fishing Base	09:00 - 15:00	Diesel On	Batery Charger	336,0	
15:00 - 21:00	Setting	15:00 - 21:00	Diesel + Battery On		319,2	16,8
21:00 - 03:00	Drifting	03:00 - 08:00				
03:00 - 15:00	Haulling	09:00 - 15:00	Diesel On	Batery Charger	672,0	
15:00 - 24:00	Other Activity	15:00 - 24:00	Diesel + Batery On		478,8	25,2
Kondisi III						
24:00 - 06:00	Go To Fishing Base	24:00 - 06:00	Diesel On		336,0	
06:00 - 12:00	Setting	06:00 - 12:00	Diesel On	Batery Charger	336,0	
12:00 - 18:00	Drifting	12:00 - 18:00		Batery Charger		
18:00 - 06:00	Haulling	18:00 - 06:00	Diesel + Batery On		638,4	33,6
06:00 - 15:00	Other Activity	06:00 - 15:00	Diesel + Batery On	Batery Charger	478,8	25,2
Kondisi IV						
15:00 - 21:00	Go To Fishing Base	15:00 - 21:00	Diesel + Batery On		319,2	16,8
21:00 - 03:00	Setting	21:00 - 03:00	Diesel On		336,0	
03:00 - 09:00	Drifting	03:00 - 09:00				
09:00 - 21:00	Haulling	09:00 - 21:00	Diesel On	Batery Charger	672,0	
21:00 - 06:00	Other Activity	21:00 - 06:00	Diesel + Batery On		478,8	25,2
Kondisi V						
06:00 - 12:00	Go To Fishing Base	06:00 - 12:00	Diesel On	Batery Charger	336,0	
12:00 - 18:00	Setting	12:00 - 18:00	Diesel On	Batery Charger	336,0	
18:00 - 24:00	Drifting	18:00 - 24:00				
24: 00 - 12:00	Haulling	24: 00 - 12:00	Diesel + Batery On	Batery Charger	638,4	33,6
12: 00 - 21:00	Other Activity	12: 00 - 21:00	Diesel + Batery On	Batery Charger	478,8	25,2

Kondisi VI						
21:00 - 03:00	Go To Fishing Base	21:00 - 03:00	Diesel On		336,0	
03:00 - 09:00	Setting	03:00 - 09:00	Diesel On		336,0	
09:00 - 15:00	Drifting	09:00 - 15:00		Batery Charger		
15:00 - 03:00	Haulling	15:00 - 03:00	Diesel + Batery On		638,4	33,6
03:00 - 12:00	Other Activity	03:00 - 12:00	Diesel + Batery On	Batery Charger	478,8	25,2
Kondisi VII						
12:00 - 18:00	Go To Fishing Base	12:00 - 18:00	Diesel + Batery On	Batery Charger	319,2	16,8
18:00 - 24:00	Setting	18:00 - 24:00	Diesel On		336,0	
24:00 - 06:00	Drifting	24:00 - 06:00				
06:00 - 18:00	Haulling	06:00 - 18:00	Diesel + Batery On	Batery Charger	638,4	33,6
18:00 - 03:00	Other Activity	18:00 - 03:00	Diesel On		504,0	
Kondisi VII						
03:00 - 09:00	Go To Fishing Base	03:00 - 09:00	Diesel On		336,0	
09:00 - 15:00	Setting	09:00 - 15:00	Diesel + Batery On	Batery Charger	319,2	16,8
15:00 - 21:00	Drifting	15:00 - 21:00				
21:00 - 09:00	Haulling	21:00 - 09:00	Diesel On		672,0	
09:00 - 18:00	Other Activity	09:00 - 18:00	Diesel + Batery On	Batery Charger	478,8	25,2

Lampiran 26. Waktu Penggunaan Diesel dan Baterai kondisi pengisian 5 jam pada kecepatan 6 knot

Kondisi I			Konfigurasi Hybrid	Waktu Pengisian	Diesel	PV + Baterai
18:00 - 24:00	Go To Fishing Base	18:00 - 06:00	Diesel On		109,4	
24:00 - 06:00	Setting		Diesel On		109,4	
06:00 - 12:00	Drifting					
12:00 - 24:00	Haulling	12:00 - 24:00	Battery + Diesel On	Batery Charger	199,1	19,7
24:00 - 09:00	Other Activity	24:00 - 09:00	Battery + Diesel On		149,3	14,8
Kondisi II						
09:00 - 15:00	Go To Fishing Base	09:00 - 15:00	Diesel On	Batery Charger	109,4	
15:00 - 21:00	Setting	15:00 - 21:00	Diesel + Battery On		99,5	9,8
21:00 - 03:00	Drifting	03:00 - 08:00				
03:00 - 15:00	Haulling	09:00 - 15:00	Diesel On	Batery Charger	218,8	
15:00 - 24:00	Other Activity	15:00 - 24:00	Diesel + Batery On		149,3	14,8
Kondisi III						
24:00 - 06:00	Go To Fishing Base	24:00 - 06:00	Diesel On		109,4	
06:00 - 12:00	Setting	06:00 - 12:00	Diesel On	Batery Charger	109,4	
12:00 - 18:00	Drifting	12:00 - 18:00		Batery Charger		
18:00 - 06:00	Haulling	18:00 - 06:00	Diesel + Batery On		199,1	19,7
06:00 - 15:00	Other Activity	06:00 - 15:00	Diesel + Batery On	Batery Charger	149,3	14,8
Kondisi IV						
15:00 - 21:00	Go To Fishing Base	15:00 - 21:00	Diesel + Batery On		99,5	9,8
21:00 - 03:00	Setting	21:00 - 03:00	Diesel On		109,4	
03:00 - 09:00	Drifting	03:00 - 09:00				
09:00 - 21:00	Haulling	09:00 - 21:00	Diesel On	Batery Charger	218,8	
21:00 - 06:00	Other Activity	21:00 - 06:00	Diesel + Batery On		149,3	14,8
Kondisi V						
06:00 - 12:00	Go To Fishing Base	06:00 - 12:00	Diesel On	Batery Charger	109,4	
12:00 - 18:00	Setting	12:00 - 18:00	Diesel On	Batery Charger	109,4	
18:00 - 24:00	Drifting	18:00 - 24:00				
24: 00 - 12:00	Haulling	24: 00 - 12:00	Diesel + Batery On	Batery Charger	199,1	19,7

12: 00 - 21:00	Other Activity	12: 00 - 21:00	Diesel + Batery On	Batery Charger	149,3	14,8
Kondisi VI						
21:00 - 03:00	Go To Fishing Base	21:00 - 03:00	Diesel On		109,4	
03:00 - 09:00	Setting	03:00 - 09:00	Diesel On		109,4	
09:00 - 15:00	Drifting	09:00 - 15:00		Batery Charger		
15:00 - 03:00	Haulling	15:00 - 03:00	Diesel + Batery On		199,1	19,7
03:00 - 12:00	Other Activity	03:00 - 12:00	Diesel + Batery On	Batery Charger	149,3	14,8
Kondisi VII						
12:00 - 18:00	Go To Fishing Base	12:00 - 18:00	Diesel + Batery On	Batery Charger	99,5	9,8
18:00 - 24:00	Setting	18:00 - 24:00	Diesel On		109,4	
24:00 - 06:00	Drifting	24:00 - 06:00				
06:00 - 18:00	Haulling	06:00 - 18:00	Diesel + Batery On	Batery Charger	199,1	19,7
18:00 - 03:00	Other Activity	18:00 - 03:00	Diesel On		164,1	
Kondisi VII						
03:00 - 09:00	Go To Fishing Base	03:00 - 09:00	Diesel On		109,4	
09:00 - 15:00	Setting	09:00 - 15:00	Diesel + Batery On	Batery Charger	99,5	9,8
15:00 - 21:00	Drifting	15:00 - 21:00				
21:00 - 09:00	Haulling	21:00 - 09:00	Diesel On		218,8	
09:00 - 18:00	Other Activity	09:00 - 18:00	Diesel + Batery On	Batery Charger	149,3	14,8

Lampiran 27. Waktu Penggunaan Diesel dan Baterai kondisi pengisian 4 jam pada kecepatan 6 knot

Kondisi I			Konfigurasi Hybrid	Waktu Pengisian	Diesel	PV + Baterai
18:00 - 24:00	Go To Fishing Base	18:00 - 06:00	Diesel On		109,4	
24:00 - 06:00	Setting		Diesel On		109,4	
06:00 - 12:00	Drifting					
12:00 - 24:00	Haulling	12:00 - 24:00	Battery + Diesel On	Batery Charger	203,5	15,3
24:00 - 09:00	Other Activity	24:00 - 09:00	Battery + Diesel On		152,6	11,5
Kondisi II						
09:00 - 15:00	Go To Fishing Base	09:00 - 15:00	Diesel On	Batery Charger	109,4	
15:00 - 21:00	Setting	15:00 - 21:00	Diesel + Battery On		101,7	7,7
21:00 - 03:00	Drifting	03:00 - 08:00				
03:00 - 15:00	Haulling	09:00 - 15:00	Diesel On	Batery Charger	218,8	
15:00 - 24:00	Other Activity	15:00 - 24:00	Diesel + Batery On		152,6	11,5
Kondisi III						
24:00 - 06:00	Go To Fishing Base	24:00 - 06:00	Diesel On		109,4	
06:00 - 12:00	Setting	06:00 - 12:00	Diesel On	Batery Charger	109,4	
12:00 - 18:00	Drifting	12:00 - 18:00		Batery Charger		
18:00 - 06:00	Haulling	18:00 - 06:00	Diesel + Batery On		203,5	15,3
06:00 - 15:00	Other Activity	06:00 - 15:00	Diesel + Batery On	Batery Charger	152,6	11,5
Kondisi IV						
15:00 - 21:00	Go To Fishing Base	15:00 - 21:00	Diesel + Batery On		101,7	7,7
21:00 - 03:00	Setting	21:00 - 03:00	Diesel On		109,4	
03:00 - 09:00	Drifting	03:00 - 09:00				
09:00 - 21:00	Haulling	09:00 - 21:00	Diesel On	Batery Charger	218,8	
21:00 - 06:00	Other Activity	21:00 - 06:00	Diesel + Batery On		152,6	11,5
Kondisi V						
06:00 - 12:00	Go To Fishing Base	06:00 - 12:00	Diesel On	Batery Charger	109,4	
12:00 - 18:00	Setting	12:00 - 18:00	Diesel On	Batery Charger	109,4	
18:00 - 24:00	Drifting	18:00 - 24:00				
24: 00 - 12:00	Haulling	24: 00 - 12:00	Diesel + Batery On	Batery Charger	203,5	15,3

12: 00 - 21:00	Other Activity	12: 00 - 21:00	Diesel + Batery On	Batery Charger	152,6	11,5
Kondisi VI						
21:00 - 03:00	Go To Fishing Base	21:00 - 03:00	Diesel On		109,4	
03:00 - 09:00	Setting	03:00 - 09:00	Diesel On		109,4	
09:00 - 15:00	Drifting	09:00 - 15:00		Batery Charger		
15:00 - 03:00	Haulling	15:00 - 03:00	Diesel + Batery On		203,5	15,3
03:00 - 12:00	Other Activity	03:00 - 12:00	Diesel + Batery On	Batery Charger	152,6	11,5
Kondisi VII						
12:00 - 18:00	Go To Fishing Base	12:00 - 18:00	Diesel + Batery On	Batery Charger	101,7	7,7
18:00 - 24:00	Setting	18:00 - 24:00	Diesel On		109,4	
24:00 - 06:00	Drifting	24:00 - 06:00				
06:00 - 18:00	Haulling	06:00 - 18:00	Diesel + Batery On	Batery Charger	203,5	15,3
18:00 - 03:00	Other Activity	18:00 - 03:00	Diesel On		164,1	
Kondisi VII						
03:00 - 09:00	Go To Fishing Base	03:00 - 09:00	Diesel On		109,4	
09:00 - 15:00	Setting	09:00 - 15:00	Diesel + Batery On	Batery Charger	101,7	7,7
15:00 - 21:00	Drifting	15:00 - 21:00				
21:00 - 09:00	Haulling	21:00 - 09:00	Diesel On		218,8	
09:00 - 18:00	Other Activity	09:00 - 18:00	Diesel + Batery On	Batery Charger	152,6	11,5

Lampiran 28. Waktu Penggunaan Diesel dan Baterai kondisi pengisian 3 jam pada kecepatan 6 knot

Kondisi I			Konfigurasi Hybrid	Waktu Pengisian	Diesel	PV + Baterai
18:00 - 24:00	Go To Fishing Base	18:00 - 06:00	Diesel On		109,4	
24:00 - 06:00	Setting		Diesel On		109,4	
06:00 - 12:00	Drifting					
12:00 - 24:00	Haulling	12:00 - 24:00	Battery + Diesel On	Batery Charger	207,8	10,9392
24:00 - 09:00	Other Activity	24:00 - 09:00	Battery + Diesel On		155,9	8,2044
Kondisi II						
09:00 - 15:00	Go To Fishing Base	09:00 - 15:00	Diesel On	Batery Charger	109,4	
15:00 - 21:00	Setting	15:00 - 21:00	Diesel + Battery On		103,9	5,4696
21:00 - 03:00	Drifting	03:00 - 08:00				
03:00 - 15:00	Haulling	09:00 - 15:00	Diesel On	Batery Charger	218,8	
15:00 - 24:00	Other Activity	15:00 - 24:00	Diesel + Batery On		155,9	8,2044
Kondisi III						
24:00 - 06:00	Go To Fishing Base	24:00 - 06:00	Diesel On		109,4	
06:00 - 12:00	Setting	06:00 - 12:00	Diesel On	Batery Charger	109,4	
12:00 - 18:00	Drifting	12:00 - 18:00		Batery Charger		
18:00 - 06:00	Haulling	18:00 - 06:00	Diesel + Batery On		207,8	10,9392
06:00 - 15:00	Other Activity	06:00 - 15:00	Diesel + Batery On	Batery Charger	155,9	8,2044
Kondisi IV						
15:00 - 21:00	Go To Fishing Base	15:00 - 21:00	Diesel + Batery On		103,9	5,4696
21:00 - 03:00	Setting	21:00 - 03:00	Diesel On		109,4	
03:00 - 09:00	Drifting	03:00 - 09:00				
09:00 - 21:00	Haulling	09:00 - 21:00	Diesel On	Batery Charger	218,8	
21:00 - 06:00	Other Activity	21:00 - 06:00	Diesel + Batery On		155,9	8,2044
Kondisi V						
06:00 - 12:00	Go To Fishing Base	06:00 - 12:00	Diesel On	Batery Charger	109,4	
12:00 - 18:00	Setting	12:00 - 18:00	Diesel On	Batery Charger	109,4	
18:00 - 24:00	Drifting	18:00 - 24:00				
24: 00 - 12:00	Haulling	24: 00 - 12:00	Diesel + Batery On	Batery Charger	207,8	10,9392

12: 00 - 21:00	Other Activity	12: 00 - 21:00	Diesel + Batery On	Batery Charger	155,9	8,2044
Kondisi VI						
21:00 - 03:00	Go To Fishing Base	21:00 - 03:00	Diesel On		109,4	
03:00 - 09:00	Setting	03:00 - 09:00	Diesel On		109,4	
09:00 - 15:00	Drifting	09:00 - 15:00		Batery Charger		
15:00 - 03:00	Haulling	15:00 - 03:00	Diesel + Batery On		207,8	10,9392
03:00 - 12:00	Other Activity	03:00 - 12:00	Diesel + Batery On	Batery Charger	155,9	8,2044
Kondisi VII						
12:00 - 18:00	Go To Fishing Base	12:00 - 18:00	Diesel + Batery On	Batery Charger	103,9	5,4696
18:00 - 24:00	Setting	18:00 - 24:00	Diesel On		109,4	
24:00 - 06:00	Drifting	24:00 - 06:00				
06:00 - 18:00	Haulling	06:00 - 18:00	Diesel + Batery On	Batery Charger	207,8	10,9392
18:00 - 03:00	Other Activity	18:00 - 03:00	Diesel On		164,1	
Kondisi VII						
03:00 - 09:00	Go To Fishing Base	03:00 - 09:00	Diesel On		109,4	
09:00 - 15:00	Setting	09:00 - 15:00	Diesel + Batery On	Batery Charger	103,9	155,8836
15:00 - 21:00	Drifting	15:00 - 21:00				
21:00 - 09:00	Haulling	21:00 - 09:00	Diesel On		218,8	
09:00 - 18:00	Other Activity	09:00 - 18:00	Diesel + Batery On	Batery Charger	155,9	8,2044