LAMPIRAN

LAMPIRAN 1

Data Sheet Panel 200 Wp-24 V *Monocyrstalline*

Electrical Characteristics

STC	Len 200 Wp - 24 V Monocrystalline
Optimum Operating Voltage (Vmp)	37.44 V
Optimum Operating Current (Imp)	5.35 A
Open - Circuit Voltage (Voc)	45.5 V
Short - Circuit Current (Isc)	5.80 A
Maximum Power at STC (Pmax)	200 W
Modul Efficiency	16 %
Operating Module Temperature	-40 °C to +85°C
Maximum System Voltage	1000 V DC
Maximum Series Fuse Rating	20 A
Power Tolerance	+ 0 – 3 %

STC : Irradiance 1000 W/m², module temperature 25 °C, AM=1.5;

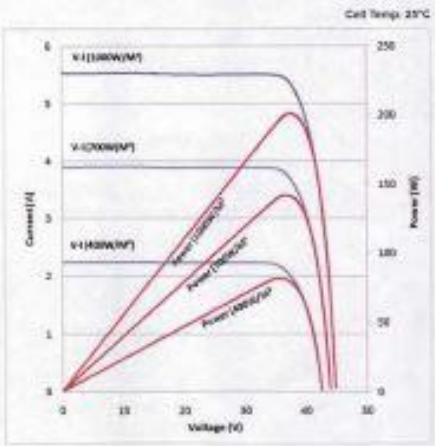
Temperature Characteristics

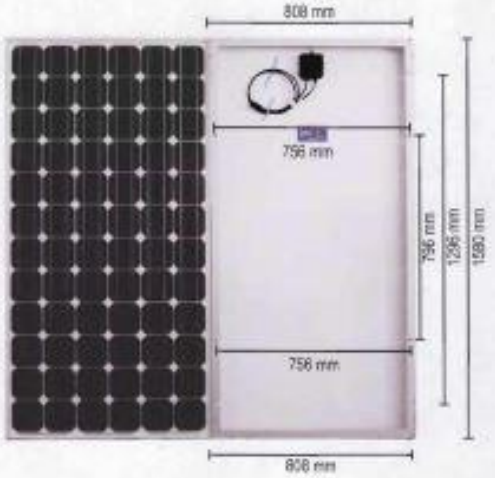
Nominal Operating Cell Temperature (NOCT)	50 ± 2 °C
Temperature Coefficient of Power	-0.44 %/°C
Temperature Coefficient of Voc	-0.32 %/°C
Temperature Coefficient of Isc	0.04 %/°C

Mechanical Characteristics

Solar Cell	Monocrystalline
No. Of Cells	72 (6 X 12)
Dimensions	1580 X 808 X 45 mm
Weight	16 Kg
Junction Box	IP65
Diodes	Schottky by-pass diodes
Output Cables	TUV (2Pfg 1169); PV1-F 1*4mm, Cable with polarized weather proof DC rated ZJRH connectors (MC3 or MC4 type) symmetrical length 1000mm (-) and 1000 mm (+)
Connectors	RADOX® SOLAR integrated twist locking connectors
Construction	Front : High-transmission low-iron,3.2 mm tempered glass; Back cover : Tedlar / TPE / TPT Encapsulant : EVA; Frame : Anodized aluminum alloy

Current-Voltage & Power-Voltage Curve (Len 200 Wp - 24 V Monocrystalline)





PT Len Industri (Persero)
Jl. Soekarno-Hatta 442 Bandung 40254 Indonesia
Phone : 62-22-5202682 Fax. : 62-22-5202695

4.1. 200Mono-16.13

Data Sheet Panel Surya Sankelux

Data Sheet Panel Surya Solarland

PANEL SURYA
Jakarta

Panel Surya Solarland

Polycrystalline & Monocrystalline

SOLARLAND®
Solar Technology and Solutions

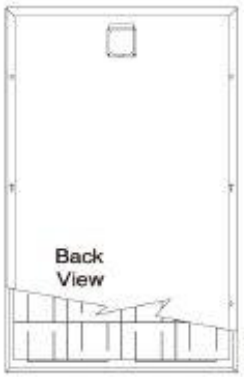
	Type	Pmax	Vmp	Imp	Voc	Isc	Size (mm)	Weight
Polycrystalline	80WP	80W	17.2V	4.65A	21.6V	5.17A	856 x 675 x 30	8.0Kg
	100WP	100W	17.2V	5.81A	21.6V	6.46A	1062 x 715 x 30	8.90Kg
	120WP	120W	17.2V	6.98A	21.6V	7.72A	1244 x 675 x 35	10.5Kg
	150WP	150W	17.2V	8.72A	21.6V	9.70A	1500 x 675 x 35	12.0Kg
	180WP	180W	34.4V	5.23A	43.2V	5.81A	1284 x 992 x 40	20.0Kg
	200WP	200W	34.4V	5.81A	43.2V	6.50A	1400 x 992 x 40	20.0Kg
Monocrystalline	100WP	100W	17.2V	5.81A	21.6V	6.46A	1195 x 541 x 30	7.8Kg
	150WP	150W	17.2V	8.72A	21.6V	9.70A	1500 x 675 x 35	12.0Kg
	200WP	200W	35.2V	5.69A	43.2V	6.09A	1580 x 808 x 40	16.5Kg
	300WP	300W	36.7V	8.17A	44.4V	8.99A	1956 x 992 x 45	24.0Kg

Applications

- Off grid residential roof-tops
- Off grid commercial/industrial roof-tops
- Rural area applications
- Solar power system
- Other off-grid/on-grid applications

Standard & Quality Assurance:

ISO IEC CE



Junction Box
Top View (Lid open)

PANEL SURYA JAKARTA
Jl. Tembok Kayu Putih
Pulogadung - Jakarta Timur
www.panelsuryajakarta.com

Lampiran 2

Data Sheet Solar Charge Controller MPPT 60 150

Conext™ MPPT 60 150 solar charge controller

MPPT multi-stage charging,
better battery life.

Product at a glance

The Conext™ MPPT 60 150 is a PV charge controller that tracks the maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the Conext™ MPPT 60 150 regulates battery voltage and output current based on the amount of energy available from the PV array and state-of-charge of the battery.

Product applications

Backup power

Residential grid-tie solar with backup power

Off-grid solar

Community electrification

Self-consumption

Why choose Conext™ MPPT 60 150?

Higher return on investment

- Maximum Power Point Tracking (MPPT) algorithm continually seeks the maximum power available from the PV array
- Improve battery life with selectable multi-stage temperature-compensated charging
- Five-year standard warranty

Flexible

- Stand-alone application or full integration with Conext XW and Conext SW inverter/charger system
- Compatible with any brand of PV module
- Remote monitoring available

Easy to install

- Configurable auxiliary output
- LCD screen with faceplate buttons for configuration and system monitoring
- Integrated PV ground fault protection for negative grounded arrays

Device short name	Conext™ MPPT 60 150
Electrical specifications	
Nominal battery voltage	12, 24, 36, 48, 60 V
Battery voltage operating range	0 Vdc to 80 Vdc
PV array operating voltage	140 V
Max. PV array open circuit voltage	150 V including temperature correction factor
Max. array short-circuit current	60 A (48 A @ STC)
Max. charge current	60 A (for all battery voltages except 60 V)
Max. and min. wire size in conduit	#6 AWG to #14 AWG (10 to 2.5 mm²)
Max. output power	3500 W
Charger regulation method	Three-stage (bulk, absorption, float) plus manual equalization Two-stage (bulk, absorption) plus manual equalization
Supported battery types	Flooded, GEL, AGM, Custom
Efficiency	
Max. power conversion efficiency	93% (nominal 12 V), 96% (nominal 24 V), 97% (nominal 36 V), 98% (nominal 48 V), 99% (nominal 60 V)
General specifications	
Power consumption, night time	2.5 W
Battery temperature sensor	Included
Auxiliary output	5 – 13 V, up to 200 mA
Enclosure material	Indoor, ventilated, sheet metal chassis with 2.2 cm and 2.8 cm (7/8 in and 1 in) knockouts and aluminium heat-sink
IP degree of protection	IP20
Product weight	4.8 kg (10.8 lb)
Shipping weight	8.0 kg (17.6 lb)
Product dimensions (H x W x D)	36.8 x 14.6 x 13.8 cm (14.5 × 5.8 × 5.5 in)
Shipping dimensions (H x W x D)	48.3 x 22.9 x 35 cm (19.0 × 9.0 × 9.8 in)
Device mounting	Vertical wall mount
Ambient air temperature for operation	-20 °C to 45 °C (-4 °F to 113 °F)
Storage temperature range	-40 °C to 85 °C (-40 °F to 185 °F) full power, power derating above 45 °C
Operating altitude	Sea level to 2000 m (6562 ft)
System network and remote monitoring	Available
Warranty	Five-year standard
Part number	865-1030-1
Features	
Display type	LCD, 2 lines 16 digits
Regulatory approvals	
Safety	CSA certified (UL1741, CSA 107.1) and CE marked for the Low-voltage Directive (EN50178)
EMC	FCC and Industry Canada (Class B), CE marked for the EMC Directive (EN61000-6-1, -6-3), C-Tick compliant
Compatible products	
Conext XW+ inverter/charger (230 V)	XW 7048 E product no. 865-7048-61/XW 6548 E product no. 865-6548-61
Conext XW+ inverter/charger (120/240 V)	XW 6548 NA product no. 865-6548-01/XW 6848 NA product no. 865-6848-01
Conext SW (230 V)	SW 2524 product no. 865-2524-61/SW 4024 product no. 865-4024-61/SW 4048 product no. 865-4048-61
Conext SW (120 V)	SW 2524 product no. 865-2524/SW 4024 product no. 865-4024/SW 4048 product no. 865-4048
Conext System Control Panel	Product no. 865-1050
Conext Automatic Generator Start	Product no. 865-1060
Conext ComBox	Product no. 865-1058
Conext portable installation and configuration tool	Product no. 865-1155-01

Specifications are subject to change without notice.

LAMPIRAN 3

Data Sheet Inverter Conext-XW 5548 NA -120-240V

Conext XW+ hybrid inverter/charger

One solution for global power needs

Product at a glance

Conext™ XW+ is an adaptable single-phase and three-phase inverter/charger system with grid-tie functionality and dual AC power inputs. Compatible solar charge controllers, monitoring, and automated generator control modules enable further compatibility. From a single Conext XW+ unit to clusters up to 76.5 kW, the Conext XW+ is a scalable system that allows for the integration of solar capacity as required. Adaptable and scalable, the Schneider Electric Conext XW+ system is a complete solution for grid-interactive and off-grid, residential and commercial, solar and backup power applications.

Conext XW+

Higher return on investment

- Excellent load starting with high 30 minute and 5 second power
- Performs in hot environments up to 70°C
- Intelligent functionality enables solar prioritization, load shifting, peak shaving, and assists small generators with heavy loads
- Backup power with grid-tie functionality converts external DC power to AC power to export to the utility grid

Designed for reliability

- Extensive quality and reliability testing
- Highly accelerated life testing
- Globally proven and recognized field performance

Flexible

- Single or three-phase off-grid systems from 7.0 kW to 76.5 kW (30 minutes rating at 25 °C)
- Supports DC-coupled and AC-coupled off-grid and grid-tie architectures
- Supports charging of lithium ion battery packs

Easy to service

- Field serviceable with replacement boards and spare parts
- Monitor, troubleshoot, or upgrade firmware with Conext ComBox*

Easy to install

- System configures quickly into compact, wall-mounted system
- Integrates both grid and generator power with dual AC inputs
- Balance-of-system components integrates battery bank, solar charge controllers, and generators
- Commission the entire system with PC software tool and Conext ComBox

Product application

Residential grid-tie solar with backup power

Self-consumption

Off-grid solar

Backup power

Community electrification

Conext XW+ series (120/240 V)

Device short name	XW+ 5548 NA	XW+ 6848 NA
Inverter AC output (standalone)		
Output power (continuous) at 25°C	5500 W	6800 W
Overload 30 min/60 sec at 25°C	7000 W/9500 W	8500 W/12000 W
Output power (continuous) at 40°C	4500 W	6000 W
Maximum output current 60 seconds (rms)	82 A (120 V); 41 A (240 V)	102 A (120 V); 52 A (240 V)
Output frequency (selectable)	50/60 Hz	50/60 Hz
Output voltage	L-N: 120 V +/- 3%; L-L: 240 V +/- 3%	L-N: 120 V +/- 3%; L-L: 240 V +/- 3%
Total harmonic distortion at rated power	< 5 %	< 5 %
Idle consumption search mode	< 8 W	< 8 W
Input DC voltage range	42 to 60 V (48 V nominal)	42 to 60 V (48 V nominal)
Maximum input DC current	150 A	180 A
Charge DC output		
Maximum output charge current	110 A	140 A
Output charge voltage range	40 – 64 V (48 V nominal)	40 – 64 V (48 V nominal)
Charge control	Three stage, two stage, boost, custom	Three stage, two stage, boost, custom
Charge temperature compensation	Battery temperature sensor included	Battery temperature sensor included
Power factor corrected charging	0.98	0.98
Compatible battery types	Flooded (default), Gel, AGM, Lithium ion, custom*	Flooded (default), Gel, AGM, Lithium ion, custom*
Battery bank range (scaled to PV array size)	440 – 10000 Ah	440 – 10000 Ah
AC input		
AC 1 (grid) input current (selectable limit)	3 – 60 A (60 A default)	3 – 60 A (60 A default)
AC 2 (generator) input current (selectable limit)	3 – 60 A (60 A default)	3 – 60 A (60 A default)
Automatic transfer relay rating/typical transfer time	60 A/8 ms	60 A/8 ms
AC input voltage limits (bypass/charge mode)	L-N: 78 - 140 V (120 V nominal); L-L: 160 - 270 V (240 V nominal)	L-N: 78 - 140 V (120 V nominal); L-L: 160 - 270 V (240 V nominal)
AC input frequency range (bypass/charge mode)	55 – 65 Hz (default) 52 – 68 Hz (allowable)	55 – 65 Hz (default) 52 – 68 Hz (allowable)
AC grid-tie output		
Grid sell current range on AC1 (selectable limit)	0 to 40 A (120 V) / 0 to 20 A (240 V)	0 to 48 A (120 V) / 0 to 27 A (240 V)
Grid sell voltage range on AC1 (auto adjusts entering sell mode)	L-N: 105.5 to 132 +/- 1.5 V; L-L: 211 to 264 +/- 3.0 V	L-N: 105.5 to 132 +/- 1.5 V; L-L: 211 to 264 +/- 3.0 V
Grid sell frequency range on AC1 (auto adjust entering sell mode)	59.4 to 60.4 +/- 0.05 Hz	59.4 to 60.4 +/- 0.05 Hz
Efficiency		
Peak	96.7%	96.7%
CEC weighted efficiency	93.0%	92.5%
General specifications		
Part number	865-5548-01	865-6848-01
Product/shipping weight	53.5 kg (118.0 lb)/75.0 kg (165.0 lb)	55.2 kg (121.7 lb)/76.7 kg (169.0 lb)
Product dimensions (H x W x D)	58 x 41 x 23 cm (23 x 16 x 9 in)	58 x 41 x 23 cm (23 x 16 x 9 in)
Shipping dimensions (H x W x D)	71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in)	71.1 x 57.2 x 39.4 cm (28.0 x 22.5 x 15.5 in)
IP degree of protection	NEMA Type 1 indoor	
Operating air temperature range	-25°C to 70°C (-13°F to 158°F) power derated above 25°C (77°F)	
Warranty (depending on the country of installation)	2 or 5 years	2 or 5 years
Features		
System monitoring and network communications	Available	
Intelligent features	Grid sell, peak load shave, generator support, prioritized consumption of battery or external DC energy	
Auxiliary port	0 to 12 V, maximum 250 mA DC output, selectable triggers	
Off-grid AC coupling	Frequency control	
Regulatory approval		
Safety	UL1741, CSA 107.1	
EMC directive	FCC and Industry Canada Class B	
Interconnect	IEEE 1547 and CSA 107.1	
Compatible products		
Conext XW + Power Distribution Panel	865-1014-01	
Conext System Control Panel	865-1050	
Conext Automatic Generator Start	865-1060	
Conext MPPT 60 150	865-1030-1	
Conext MPPT 80 600	865-1032	
Conext ComBox	865-1058	
Conext Battery Monitor	865-1060-01	
Conext Battery Fuse Combiner Box	865-1031-01	
Conext Configuration Tool	865-1155-01	

LAMPIRAN 4

Data sheet Baterai OPzV 2-1000Ah

NS Accelerate

NiPRESS

INDUSTRIAL BATTERY

SPECIFICATIONS

Item	OPzV 2-1000A
Nominal Voltage	2V (single cell)
Capacity	1000Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 77.0 Kg
Dimension	233(L) × 210(W) × 681(H)
Max. Discharge Current	3800 A (5 sec)
Internal Resistance	Approx. 0.27 mΩ
Operating Temperature Range	Discharge: -40°C~70°C Charge: 0°C~50°C Storage: -20°C~60°C
Optimal Operating Temperature Range	25°C±5°C
Float charging Voltage	2.25 to 2.3 VDC/unit Average at 25°C
Maximum Charging Current	200 A
Cycle Use	DOD 80% 4500 cycle
Cycle Service	2.37 to 2.40 VDC/unit Average at 25°C
Self Discharge	Self-discharge ratio less than 2% per month at 25°C. Please charge batteries before using.
Terminal	Thread insert & Bolt (F10-M8)
Container Material	A.B.S. (UL94-HB), and UL94-V0 is optional

OPzV 2-1000A
Tubular Battery

OPzV series is a Valve Regulated Lead Acid (VRLA) battery that adopts immobilized GEL and Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to DIN standards and with die-casting positive grid and patent formula of active material. OPzV series exceeds DIN standard values with more than 20 years floating design life at 35°C and is even more suitable for cyclic use under extreme operating conditions.

Constant current Discharge Characteristics: A (25°C)

F.V/Time	30min	1h	2h	3h	5h	8h	10h
10.8V	700.0	520.0	332.0	242.5	166.0	116.4	100.0

APPLICATION

- Telecom
- UPS
- Communication Equipment
- Medical Equipment
- Control Equipment

MAINTENANCE & CAUTIONS

Float Service:

- Every month, recommend inspection every battery voltage.
- Every three months, recommend equalization charge for one time.

  Equalization charge method:

  Discharge: 40~50% rate capacity discharge.

  Charge: Max. current 0.2CA, constant voltage 2.35-2.40V/Cell charge 24h.
- Effect of temperature on float charge voltage: -3mV/°C/Cell.
- Service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging method.
- Cable connector from Cu 50 mm2 & Isolation.

NS Accelerate

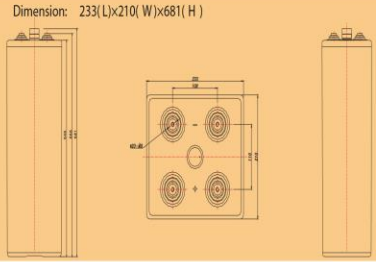
NiPRESS

INDUSTRIAL BATTERY

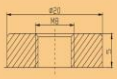
DIMENSION

Unit: mm

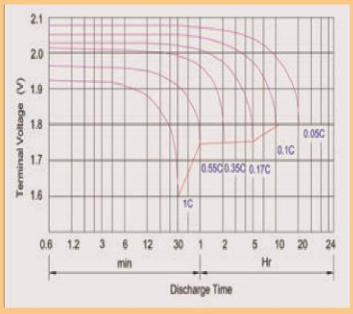
Dimension: 233(L)×210(W)×681(H)



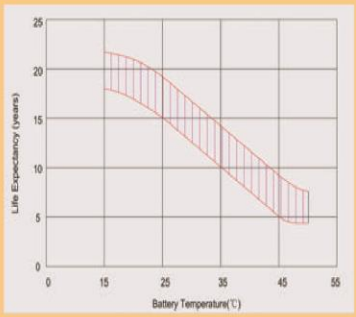
Terminal F10



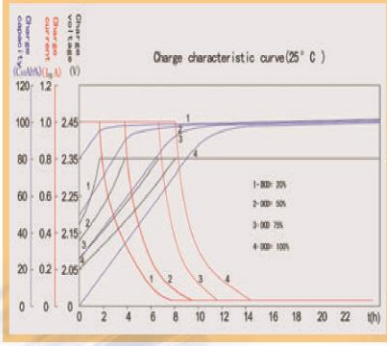
Discharge characteristic curve



Effect of temperature on long term float life



Charge characteristic Curve for cycle use



Life charcteristics of cyclic use

PT. NIPRESS, Tbk.

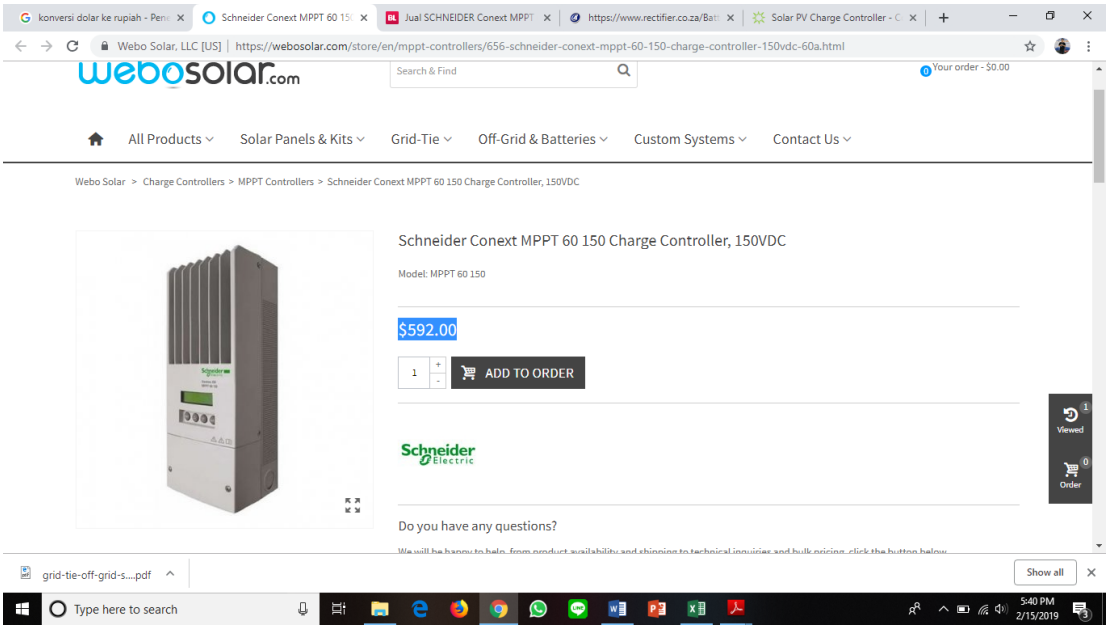
Jl. Raya Narogong Km. 26 Cileungsi Bogor 16820 Indonesia

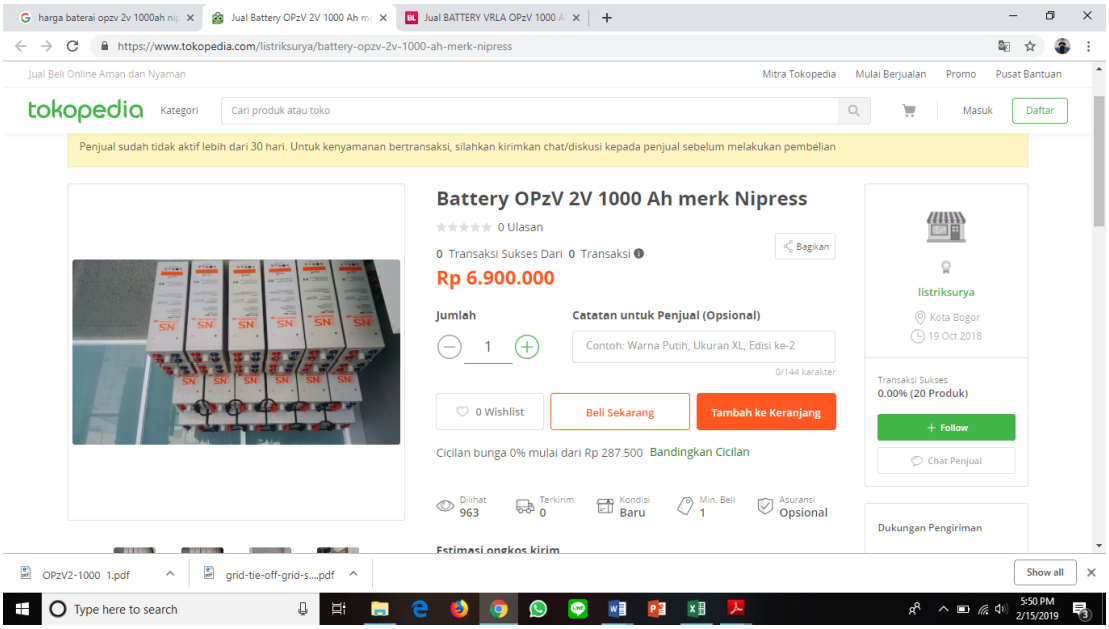
Telp. +62 21 823 0966 ; Fax +62 21 823 0935

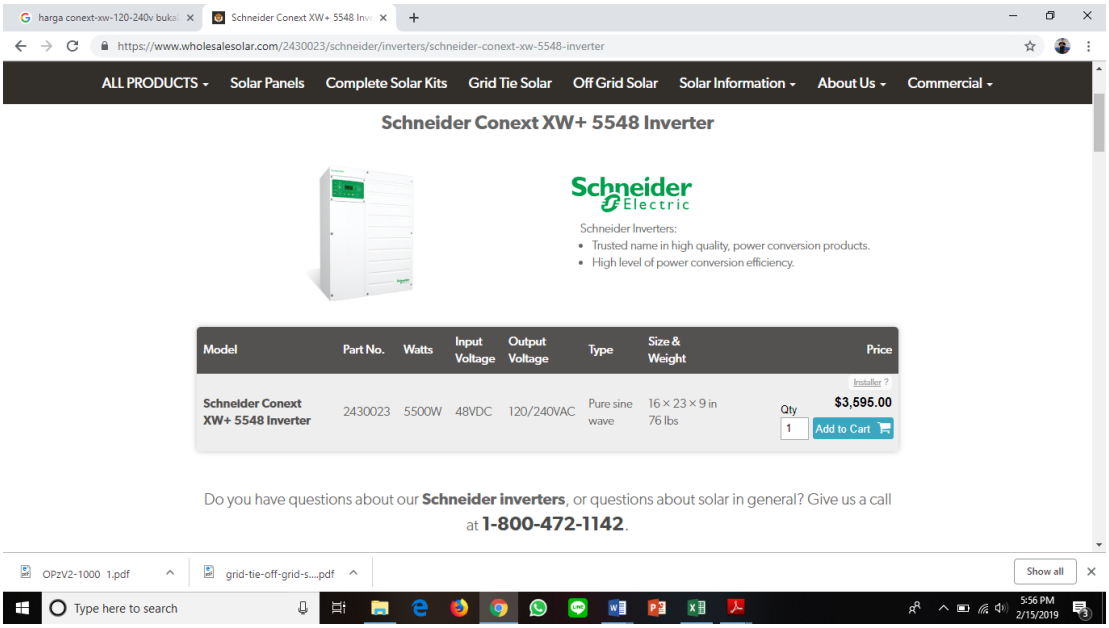
www.nipress.com

LAMPIRAN 5

Harga Komponen Utama






harga conext-xw-120-240v buka
Schneider Conext XW+ 5548 Inv
https://www.wholesalesolar.com/2430023/schneider/inverters/schneider-conext-xw-5548-inverter
ALL PRODUCTS
Solar Panels
Complete Solar Kits
Grid Tie Solar
Off Grid Solar
Solar Information
About Us
Commercial
Schneider Conext XW+ 5548 Inverter
Schneider Electric
Schneider Inverters:
Trusted name in high quality, power conversion products.
High level of power conversion efficiency.
Model
Part No.
Watts
Input Voltage
Output Voltage
Type
Size & Weight
Price
Schneider Conext XW+ 5548 Inverter
2430023
5500W
48VDC
120/240VAC
Pure sine wave
16 × 23 × 9 in 76 lbs
Qty
1
$3,595.00
Add to Cart
Do you have questions about our Schneider inverters, or questions about solar in general? Give us a call at 1-800-472-1142.
OPzV2-1000 1.pdf
grid-tie-off-grid-s....pdf
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2/15/2019

LAMPIRAN 6

Kabel NYFGbY

NYFGbY 2 x (1.5-300) mm² 0.6/1 kV

Cu / PVC / SFWA / PVC

(Copper Conductor, PVC Insulated, Galvanized Steel Flat Wire Armor, PVC Sheathed)

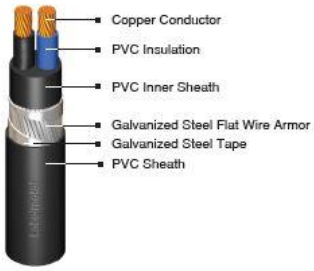
Standard Specification : IEC 60502-1

Construction Data

Nom. Cross Section Area	Overall Diameter	Cable Weight
	approx.	approx.
mm²	mm	kg/km
1.5	17.9	611
2.5	18.0	630
4	17.8	648
6	18.1	687
10	20.5	881
16	22.5	1,085
25	25.5	1,428
35	27.5	1,753
50	31.0	2,120
70	35.0	2,716
95	39.5	3,528
120	43.0	4,177
150	47.0	5,012
185	52.0	6,116
240	58.0	7,695
300	64.0	9,384

Application :
For installation in the ground, indoors, cable trunking and outdoors if increased mechanical protection is required or where high-pulling stresses may occur during installation or operation.

Special Features on Request :
- Fire Resistance
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen



Note :
Conductor Shape
1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm) conductor shape
16 sqmm supplied in non compacted circular stranded (rm) conductor shape
25 - 300 sqmm supplied in compacted circular stranded (cm) conductor shape

Standard Packing
1.5 - 95 sqmm supplied in wooden drum @ 1000 m
120 - 300 sqmm will be suplied in wooden drum on available length
Length Tolerance per drum ± 2%

ELECTRICAL DATA

Conductor			Inductance	Current - Carrying Capacity at 30°C *		Short circuit current at 1 sec
Nom. Cross Sect.	DC Resistance at 20°C	AC Resistance at 70°C		in air	in ground	
(mm²)	Max. (Ω/km)	Max. (Ω/km)	(mH/km)	Max. (A)	Max. (A)	Max. (kA)
1.5	12.1	14.478	0.351	24	27	0.17
2.5	7.41	8.866	0.315	32	36	0.29
4	4.61	5.516	0.303	42	48	0.46
6	3.08	3.685	0.288	53	61	0.69
10	1.83	2.190	0.269	73	81	1.15
16	1.15	1.376	0.255	96	106	1.84
25	0.727	0.870	0.255	126	136	2.88
35	0.524	0.627	0.246	155	164	4.03
50	0.387	0.464	0.247	186	194	5.75
70	0.268	0.321	0.238	235	239	8.05
95	0.193	0.232	0.238	286	284	10.93
120	0.153	0.184	0.233	331	324	13.80
150	0.124	0.150	0.233	377	364	17.25
185	0.0991	0.121	0.233	430	408	21.28
240	0.0754	0.093	0.232	507	472	27.60
300	0.0601	0.075	0.231	577	530	34.50

** Further information about rating factor for certain cable arrangement can be found on supplementary technical information*

KMI Wire and Cable | kab Imetal INDONESIA | SMK3 | ISO 9001 | ISO 14001 | OHSAS 18001

www.kmi.co.id

PT KMI Wire and Cable Tbk reserves the right to change the data content without prior notification

16233-02 Rev. 2.0 / 2009

Kabel NYAF

NYAF 450/750 Volt

SNI 04-6629.3/SPLN 42-3 / IEC 60227-3

SINGLE CORE , FLEXIBLE COPPER CONDUCTOR AND PVC INSULATED CABLE

Applications:

- Fixed internal wiring with low mechanical stress for electrical equipments, machineries, distribution panels, luminaires and other electrical appliances used in dry indoor premises, substitutes NYA.
- Permanent installation in conduit, inherently flame retardant in compliance with IEC 60332-1.

DIMENSIONAL & MECHANICAL DATA 1 core

Nominal cross-sectional area	Maximum diameter of wire	Nominal Thickness	Approximately		Minimum Bending Radius	Standard delivery Length *)
		Insulation	Overall diameter	Net Weight		
mm²	mm	mm	mm	kg/km	mm	m
1.5	0.25	0.7	2.9	19	70	100
2.5	0.25	0.8	3.6	31	90	100
4	0.30	0.8	4.1	46	100	100
6	0.30	0.8	4.7	64	110	100
10	0.40	1.0	6.1	110	150	100
16	0.40	1.0	8.0	180	210	2000
25	0.40	1.2	10.1	280	270	1000
35	0.40	1.2	11.2	367	300	1000
50	0.40	1.4	13.8	538	360	1000
70	0.50	1.4	15.1	916	420	1000
95	0.50	1.6	17.9	1,210	500	1000
120	0.50	1.6	19.6	1,525	540	1000
150	0.50	1.8	21.5	1,899	610	1000
185	0.50	2.0	24.6	2,345	690	1000
240	0.50	2.2	26.5	3,066	740	1000
300	0.50	2.4	29.6	3,109	890	1000
400	0.50	2.6	35.6	3,890	990	500

*) Standard delivery length: 100 m in coil and +100 m in drum.

ELECTRICAL DATA

Nominal cross-sectional area	Resistance at 20 °C		Current Carrying Capacity at 30°C max		Short circuit current of conductor at 1.0 sec max
	DC conductor max	Insulation min	In Pipe	In Air	
mm²	Ω/Km	MΩ.Km	A		kA
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 : 1500 VAC / 5 minutes.

Other sizes, core identification and packing lengths are available upon request.

Kabel NYY

NYY 1 x (1.5-800) mm² 0.6/1 kV

Cu / PVC / PVC

(Copper Conductor, PVC Insulated, PVC Sheathed)

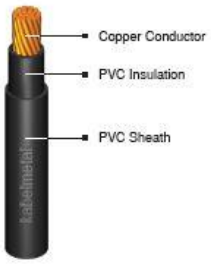
Standard Specification : IEC 60502-1

Construction Data

Nom. Cross Section Area	Overall Diameter	Cable Weight
	approx.	approx.
mm²	mm	kg/km
1.5	6.1	53
2.5	6.6	67
4	7.6	94
6	8.1	117
10	9.1	166
16	10.1	229
25	11.9	345
35	13.0	444
50	15.0	600
70	16.9	815
95	19.1	1,079
120	21.0	1,325
150	23.0	1,604
185	25.5	2,020
240	29.0	2,636
300	32.0	3,219
400	35.5	4,087
500	39.5	5,213
630	44.0	6,712
800	48.5	8,368

Application :
Power cable : Indoors, cable trunking, outdoors and burried in the ground, for power stations, industry and switchgear as well as for urban supply networks, if mechanical damage is unlikely.

Special Features on Request :
- Fire Resistance
- Oil Resistance
- UV Resistance
- Flame Retardant Cat. A, B, C
- Flame Retardant Non Category
- Heat Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen
- Nylon Coated



Note :
Conductor Shape
1.5 - 10 sqmm supplied in solid (re) or non compacted circular stranded (rm)
16 sqmm supplied in non compacted circular stranded (rm) conductor shape
25 - 800 sqmm supplied in non compacted circular stranded (rm) or compacted circular stranded (cm) conductor shape

Standard Packing
1.5 - 10 sqmm supplied in coil @ 100 m
16 - 300 sqmm supplied in wooden drum @ 1000 m
400 - 800 sqmm supplied in wooden drum on available length
Length Tolerance per drum ± 2%

Electrical Data

Conductor			Inductance		Current - Carrying Capacity at 30° C *				Short circuit current at 1 sec
Nom. Cross Sect.	DC Resistance at 20°C	AC Resistance at 70°C	Trefoil formation	Flat formation	in air	in ground	in air	in ground	
(mm²)	Max. (Ω/km)	Max. (Ω/km)	(mH/km)	(mH/km)	Max. (A)	Max. (A)	Max. (A)	Max. (A)	Max. (kA)
1.5	12.1	14.478	0.459	0.505	21	27	21	27	0.17
2.5	7.41	8.866	0.423	0.470	27	35	28	35	0.29
4	4.61	5.516	0.404	0.450	37	46	38	45	0.46
6	3.08	3.685	0.380	0.426	46	57	48	57	0.69
10	1.83	2.190	0.350	0.396	64	76	65	76	1.15
16	1.15	1.376	0.327	0.374	84	98	87	97	1.84
25	0.727	0.870	0.312	0.358	114	127	117	125	2.88
35	0.524	0.627	0.299	0.345	140	152	144	150	4.03
50	0.387	0.464	0.290	0.336	172	180	177	178	5.75
70	0.268	0.321	0.280	0.326	218	220	225	218	8.05
95	0.193	0.232	0.274	0.321	270	264	278	260	10.93
120	0.153	0.184	0.269	0.315	315	300	325	296	13.80
150	0.124	0.150	0.266	0.313	362	336	373	331	17.25
185	0.0991	0.121	0.264	0.310	420	379	433	374	21.28
240	0.0754	0.093	0.261	0.307	503	439	518	432	27.60
300	0.0601	0.075	0.258	0.305	580	494	598	486	34.50
400	0.0470	0.061	0.256	0.302	674	558	695	549	41.20
500	0.0366	0.049	0.252	0.299	781	629	806	618	51.50
630	0.0283	0.041	0.247	0.293	901	704	930	692	64.89
800	0.0221	0.035	0.242	0.289	1018	775	1052	762	82.40

** Further information about rating factor for certain cable arrangement can be found on supplementary technical information*

14233-01 Rev. 2.0 / 2009

LAMPIRAN 7

Tarif Dasar Listrik PLN

PT PLN (Persero)

Jalan Trunojoyo Blok M I/135 Kebayoran Baru – Jakarta 12160

Telepon : (021) 7261875, 7261122, 7262234 Facsimile : (021) 7221330 Website : www.pln.co.id

(021) 7251234, 7250550

PENETAPAN

PENYESUAIAN TARIF TENAGA LISTRIK *(TARIFF ADJUSTMENT)*

BULAN JANUARI - MARET 2019

NO.	GOL. TARIF	BATAS DAYA	REGULER		PRA BAYAR (Rp/kWh)
			BIAYA BEBAN (Rp/kVA/bulan)	BIAYA PEMAKAIAN (Rp/kWh) DAN BIAYA kVArh (Rp/kVArh)	
1.	R-1/TR	1.300 VA	*)	1.467,28	1.467,28
2.	R-1/TR	2.200 VA	*)	1.467,28	1.467,28
3.	R-2/TR	3.500 VA s.d. 5.500 VA	*)	1.467,28	1.467,28
4.	R-3/TR	6.600 VA ke atas	*)	1.467,28	1.467,28
5.	B-2/TR	6.600 VA s.d. 200 kVA	*)	1.467,28	1.467,28
6.	B-3/TM	di atas 200 kVA	**)	Blok WBP = K x 1.035,78 Blok LWBP = 1.035,78 kVArh = 1.114,74 ****)	-
7.	I-3/TM	di atas 200 kVA	**)	Blok WBP = K x 1.035,78 Blok LWBP = 1.035,78 kVArh = 1.114,74 ****)	-
8.	I-4/TT	30.000 kVA ke atas	***)	Blok WBP dan Blok LWBP = 996,74 kVArh = 996,74 ****)	-
9.	P-1/TR	6.600 VA s.d. 200 kVA	*)	1.467,28	1.467,28
10.	P-2/TM	di atas 200 kVA	**)	Blok WBP = K x 1.035,78 Blok LWBP = 1.035,78 kVArh = 1.114,74 ****)	-
11.	P-3/TR		*)	1.467,28	1.467,28
12.	U/TR, TM, TT		-	1.644,52	-

Catatan :

*) Diterapkan Rekening Minimum (RM):
RM1 = 40 (Jam Nyala) x Daya tersambung (kVA) x Biaya Pemakaian.

**) Diterapkan Rekening Minimum (RM):
RM2 = 40 (Jam Nyala) x Daya tersambung (kVA) x Biaya Pemakaian LWBP.
Jam nyala : kWh per bulan dibagi dengan kVA tersambung.

***) Diterapkan Rekening Minimum (RM):
RM3 = 40 (Jam Nyala) x Daya tersambung (kVA) x Biaya Pemakaian WBP dan LWBP.
Jam nyala : kWh per bulan dibagi dengan kVA tersambung.

****) Biaya kelebihan pemakaian daya reaktif (kVArh) dikenakan dalam hal faktor daya rata-rata setiap bulan kurang dari 0,85 (delapan puluh lima per seratus).

K : Faktor perbandingan antara harga WBP dan LWBP sesuai dengan karakteristik beban sistem kelistrikan setempat (1,4 ≤ K ≤ 2), ditetapkan oleh Direksi Perusahaan Perseroan (Persero) PT Perusahaan Listrik Negara.

WBP : Waktu Beban Puncak.
LWBP : Luar Waktu Beban Puncak.