

Axpert V Off-Grid Inverter

OFF-GRID INVERTER



Axpert VM 1000-12 / Axpert VM 2000-24 Axpert VP 1000-12 / Axpert VP 2000-24 Axpert VP3000-24 / Axpert VM3000-24 Axpert VM 3000-24 Plus / Axpert VP 5000-48 / Axpert VM 5000-48

- Pure sine wave solar inverter
- Output power factor 1
- Selectable high power charging current
- Wide DC input range
- Selectable input voltage range for home appliances and personal computers
- Configurable AC/Solar input priority via LCD setting
- Compatible to AC mains or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance
- Cold start function
- Optional anti-dusk kit

Axpert V Off-Grid Inverter Selection Guide

MODEL	Axpert VP 1000-12	Axpert VM 1000-12	Axpert VP 2000-24	Axpert VM 2000-24	Axpert VP 3000-24	Axpert VM 3000-24	Axpert VM 3000-24 Plus	Axpert VP 5000-48	Axpert VM 5000-48	
Rated Power	1000VA/1000W		2000VA/2000W		3000VA / 3000W			5000VA / 5000W		
INPUT										
Voltage	230 VAC									
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)									
Frequency Range	50 Hz/60 Hz (Auto sensing)									
OUTPUT										
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%									
Surge Power	2000VA		4000VA		6000VA			10000VA		
Efficiency (Peak)	90% ~ 93%									
Transfer Time	10 ms (For Personal Computers) ; 20 ms (For Home Appliances)									
Waveform	Pure sine wave									
BATTERY										
Battery Voltage	12 VDC		24 VDC				48 VDC			
Floating Charge Voltage	13.5 VDC		27 VDC				54 VDC			
Overcharge Protection	16 VDC		31 VDC		33 VDC			63 VDC		
SOLAR CHARGER & AC CHARGER										
Solar Charger type	PWM	MPPT	PWM	MPPT	PWM	MPPT		PWM	MPPT	
Maximum PV Array Open Circuit Voltage	55 VDC	102 VDC	80 VDC	102 VDC	80 VDC	102 VDC	145 VDC	105 VDC	145 VDC	
Maximum PV Array Power	600 W	500 W	1200 W	1000 W	1200 W	1000 W	1500 W	2400 W	3000 W	
MPP Range @ Operating Voltage	N/A	17 ~ 80 VDC	N/A	30 ~ 80 VDC	N/A	30~80 VDC	30~115 VDC	N/A	60 ~ 115 VDC	
Maximum Solar Charge Current	50 A	40 A	50 A	40 A	50 A	40 A	60 A	50 A	60 A	
Maximum AC Charge Current	20 A	20 A	20 A	25 A	25A	25A	60 A	60 A	60 A	
Maximum Charge Current	50 A	60 A	50 A	60 A	70 A	60 A	120 A	110 A	120 A	
PHYSICAL										
Dimension, D x W x H (mm)	88 x 225 x 320				100 x 285 x 334		100 x 300 x 440	100 x 300 x 440		
Net Weight (kgs)	4.4	4.4	5	5	6.3	6.5	9.5	8.5	9.7	
Communication Interface	USB/RS232									
ENVIRONMENT										
Humidity	5% to 95% Relative Humidity (Non-condensing)									
Operating Temperature	-10°C to 50°C									
Storage Temperature	-15°C to 60°C									

Product specifications are subject to change without further notice.

BATTERIA SIGILLATA AGM DEEP-CYCLE (USO CICLICO)
DEEP-CYCLE AGM MAINTENANCE FREE BATTERY

ZL1201120



CHARACTERISTIC / CARATTERISTICHE

Volt	12V	
Capacity / Capacità	20h	200Ah
	5h	160Ah
Internal Resistance	Full Charged Battery 25°C ≤3.0mΩ	
Capacity affected by Temperature / Effetti delle temperature sulla capacità	40°C	102%
	25°C	100%
	0°C	85%
Self-Discharge 25°C Capacity / Autoscarica a 25°C	after 3 month storage	90%
	after 6 month storage	80%
	after 12 month storage	62%
Charge cycle / Ciclo di carica	IU + h	"In" max. 40Amp; "V1" 2.43V/cell
	IUIa	"In" max. 40Amp; "V1" 14.4Volt; "If" 2Amp.

CHARACTERISTIC / CARATTERISTICHE

Battery dimensions / Dimensioni batteria			
L/L	W/P	H/A	Tot - H/A
532	206	216	221
Box Dimensions / Dimensioni scatola			
L/L	W/P	H/A	
537	221	296	
USA Type			4D
Weight / Peso			69,6 Kg
Terminal / Terminali			M8
Case / Contenitore			ABS

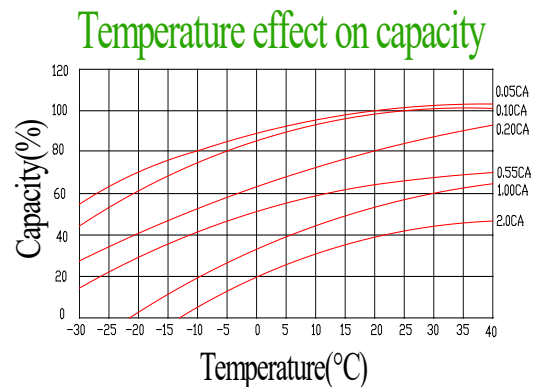
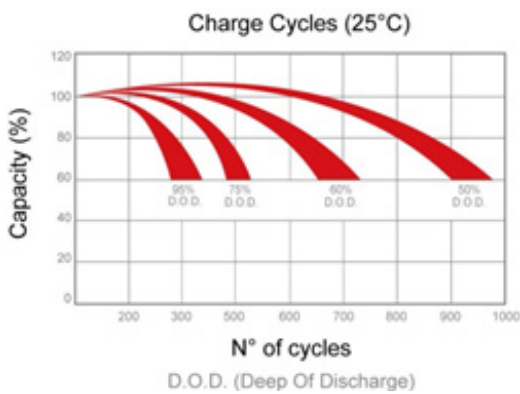
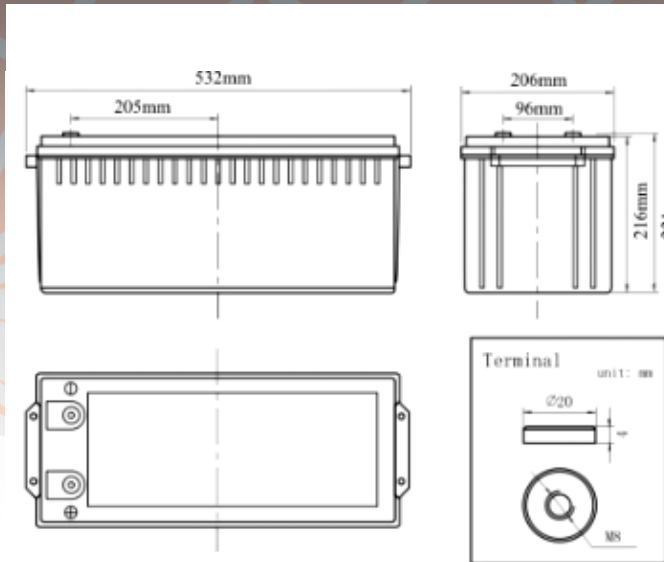
Amp. (25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	475.2	302.9	257.4	164.3	120.8	110.9	70.5	49.5	33.7	22.2	19.8	11
1.65V	466.6	297.4	252.7	161.4	118.6	108.9	69.2	48.6	33.0	21.8	19.4	10.8
1.70V	457.9	291.9	248.0	158.4	116.4	106.8	67.9	47.7	32.4	21.4	19.1	10.6
1.75V	449.3	286.4	243.4	155.4	114.2	104.8	66.6	46.8	31.8	21.0	18.7	10.4
1.80V	432.0	275.4	234.0	149.4	109.8	100.8	64.1	45.0	30.6	20.2	18.0	10.00

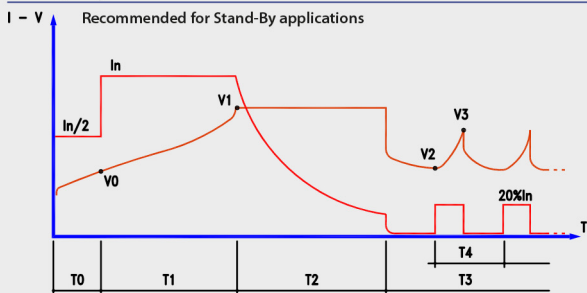
Watts (25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	914.8	583.2	495.5	316.4	232.5	213.4	135.7	95.3	64.8	42.7	38.1	21.2
1.65V	898.1	572.6	486.5	310.6	228.3	209.6	133.2	93.6	63.6	41.9	37.4	20.8
1.70V	881.5	562.0	477.5	304.9	224.0	205.7	130.8	91.8	62.4	41.1	36.7	20.4
1.75V	864.9	551.4	468.5	299.1	219.8	201.8	128.3	90.1	61.3	40.4	36.0	20.0
1.80V	831.6	530.1	450.5	287.6	211.4	194.0	123.4	86.6	58.9	38.8	34.7	19.2

ZL1201120



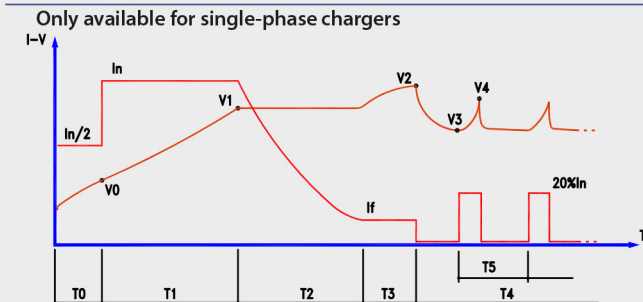
Charge cycle for sealed batteries (GEL/AGM): IU + holding



- I_n = PROGRAMMED CAPACITY/10
- V_0 = 1,90 V/CELL
- V_1 = PROGRAMMED VALUE
- V_2 = 2.10 V/CELL
- V_3 = 2.30 V/CELL
- T_0 = MAX. 1 HR
- T_1 = MAX. 12 HRS
- T_2 = T_1 (MIN. 2-MAX. 5 HRS)
- T_3 = UNLIMITED

“IUIa” charge cycle is always recommended in case of more than 2 batteries in series
Ciclo di carica “IUIa” è sempre necessario qualora ci siano più di 2 batterie collegate in serie.

IUIa charge cycle



- I_n = PROGRAMMED VALUE (CHARGE I)
- I_f = PROGRAMMED VALUE (FINAL I)
- V_0 = 1,90 V/CELL
- V_1 = PROGRAMMED VALUE (THRESHOLD V)
- V_2 = PROGRAMMED VALUE (LOCK V)
- V_3 = 2.10 V/CELL
- V_4 = 2.30 V/CELL
- T_0 = MAX. 1 HR
- T_1 = MAX. 12 HRS
- T_2 = MAX. T_1+6 HRS OR $I = I_f$
- T_3 = MAX. 4 HRS
- T_4 = UNLIMITED
- T_5 = MAX. 6 HRS

Polycrystalline 60 cells

MERCURY



5BB



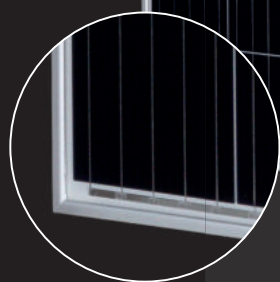
9BB



Guaranteed positive output
tolerance of 0 ~ +5 Wp
by single measuring



3.2 mm anti-reflective glass



SILVER | WHITE



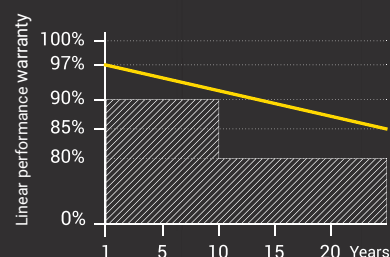
Maximum stability trough
aluminium soft grip frame



Maximum 5400 Pa snow load



15 years manufacturer's warranty
25 years linear performance guarantee



OUTPUT: 285 - 300 WATT

MERCURY high efficiency polycrystalline 60 cell modules, fits all purposes from residential and commercial installations to utility scale projects. Providing a good performance under different weather conditions, MERCURY series features a 35 mm silver anodized aluminium frame, which combines robustness to light weight and a 3.2 mm anti-reflective glass which is optimizing the panel performance to solar irradiance.

Test uncertainty for Pmax: ±3 %
Voc and Isc Tolerance: ±3 %

STC	A-P285/60 [5BB]	A-P290/60 [5BB]	A-P295/60 [5BB]	A-PH30060 [9BB]
Maximum Power (Pmax) (W)	285	290	295	300
Open Circuit Voltage (Voc) (V)	38.69	38.95	39.33	39.62
Short Circuit Current (Isc) (A)	9.53	9.62	9.75	9.92
Voltage at Maximum Power (Vmpp) (V)	31.43	31.70	32.24	32.69
Current at Maximum Power (Impp) (A)	9.07	9.15	9.21	9.31
Modul Efficiency (%)	17.25	17.56	17.86	18.16

STC (Standard Testing Condition): Irradiance 1000 W/m², Cell Temperature 25 °C, Spectra at AM 1.5

Electrical Parameters at NOCT	A-P285/60 [5BB]	A-P290/60 [5BB]	A-P295/60 [5BB]	A-PH30060 [9BB]
Maximum Power (Pmax) (W)	212	216	219	225
Open Circuit Voltage (Voc) (V)	37.05	37.26	37.48	37.64
Short Circuit Current (Isc) (A)	7.56	7.64	7.71	7.82
Voltage at Maximum Power (Vmpp) (V)	29.88	30.09	30.30	30.70
Current at Maximum Power (Impp) (A)	7.10	7.18	7.25	7.36

NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², Ambient Temperature 20 °C, Spectra at AM 1.5, Wind at 1 m/s

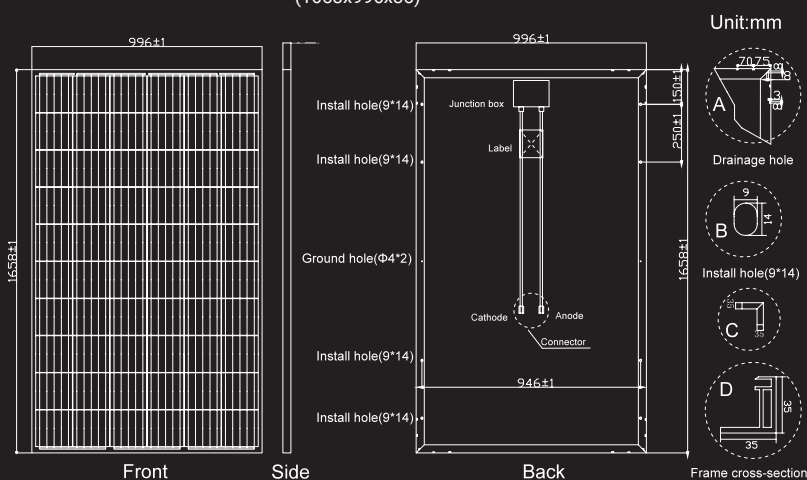
Temperature Characteristics	
Pmax Temperature Coefficients (W / °C)	-0.40 % / °C
Voc Temperature Coefficients (V / °C)	-0.33 % / °C
Isc Temperature Coefficients (A / °C)	+0.05 % / °C
Noct Nominal Operating Cell Temperature (°C)	45 ±2 °C

Operating Conditions	
Operating Module Temperature:	-40 °C ~ +85 °C
Maximum System Voltage:	1500 V
Maximum Series Fuse Rating:	20 A
Power Tolerance:	0 ~ +5 W
Maximum Static Load Front	5400 Pa tested 8000 Pa
Maximum Static Load Back	2400 Pa
Application Class	Class A

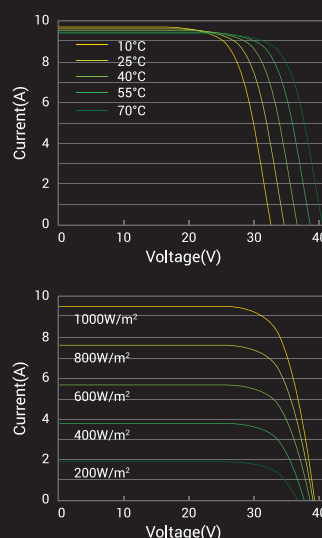
Specifications	
Cell Type	Poly G1 158.75 5BB 9BB
Weight	17.7 kg ±3 %
Dimensions	1658x996x35 mm (±2 mm)
Cable Cross Section Size	4 mm ² , cable approx 110 cm, QC4 compatible
No. of cells	60 (6x10)
Junction Box	IP67, 3 diodes
Frame	Silver anodized aluminium
Front glass	3.2 mm high transmission, low iron, tempered glass

Packing Details	
Container Type	40'HC
No. of Pallets	28
Pieces per Pallet	30
Total quantity of modules	840

(1658x996x35)



I-V Curve: (A-P290)



V3/06.2020
Due to continuous innovation and improvement, technical data are subject to change without prior notice.
Measurement tolerances: ±3 %