



Falcon Energy Worldwide Inc.
2 Robert Speck Parkway, 7th Floor.
Mississauga, Ontario. L4Z 1H8
Phone 905 361 9823
Toll Free 1 800 378-9885
Fax 905 306-7542
www.falconenergyworldwide.com

SOLAR PV CUBE



SOLAR PV CUBE

Mobile Energy

SOLAR PV CUBE is a ready to use mobile solar generator able to guarantee up to 3 kW power supply. Designed to provide electricity in all areas of the globe not covered by a distribution grid and for all uses that require to be able to move their energy source. **SOLAR CUBE** can work even in the absence of sunshine offering the advantage of compactness, low noise, no fumes and fuel costs.

The batteries contained in the base of only 1 m³ are recharged by the photovoltaic generator which, with its surface of 9 m², develops a power of 1.5 kW. Free yourself from the cost of fuel, Bring energy with you, Help the environment return clean: with **SOLAR CUBE ENERGY ... where YOU want it!**



Falcon Energy Worldwide Inc.
2 Robert Speck Parkway, 7th Floor.
Mississauga, Ontario. L4Z 1H8
Phone 905 361 9823
Toll Free 1 800 378-9885
Fax 905 306-7542
www.falconenergyworldwide.com



Closed

Opened



1



2



5



4



3



Falcon Energy Worldwide Inc.
 2 Robert Speck Parkway, 7th Floor.
 Mississauga, Ontario. L4Z 1H8
 Phone 905 361 9823
 Toll Free 1 800 378-9885
 Fax 905 306-7542
 www.falconenergyworldwide.com

Here below are described two load configurations of a typical home environment:
Comparing the average kWh/day consumption with the daily Productivity, the Solar PV Cube is able to satisfy the energy needs of a house.

Lighting	n. Hours	Q.ty	Wh/day
Lamp 15 W	4	6	460
Lamp 40 W	1	1	
Lamp 60 W	1	1	
Fridge	n. Hours	Q. ty	Wh/ day
Fridge 40 L	8	1	640
Television	n. Hours	Q. ty	Wh/ day
Television 22 inch	6	1	720
Computer	n. Hours	Q. ty	Wh/ day
Monitor 17 inch	4	1	680
Microwave	n. minutes	Q. ty	Wh/ day
Microwave 500 W	25	1	208
Washing Machine	n. minutes	Q. ty	Wh/ day
Small Washing Machine	25	1	500
Tot Wh/day			3208
kWh/day		kWh/month	kWh/year
3.208		96.24	1170.92

Lighting	n. Hours	Q.ty	Wh/day
Lamp 15 W	6	6	780
Lamp 40 W	6	1	
Lamp 60 W	6	0	
Fridge	n. Hours	Q. ty	Wh/ day
Fridge 80 L	8	1	800
Television	n. Hours	Q. ty	Wh/ day
Television 31 inch	6	1	900
Computer	n. Hours	Q. ty	Wh/ day
Monitor 19 inch	4	1	720
Microwave	n. minutes	Q. ty	Wh/ day
Microwave 800 W	25	1	333
Washing Machine	n. minutes	Q. ty	Wh/ day
Small Washing Machine	25	1	500
Tot Wh/day			4033
kWh/day		kWh/month	kWh/year
4.03		121.00	1472.04

<i>Power (W)</i>	<i>Electricity (A)</i>	<i>Remaining Hours</i>
100	1,48	115,55
500	7,39	16,75
1000	14,78	7,29
1500	22,16	4,48
2000	29,55	3,17
2500	36,94	2,43
3000	44,33	1,95



Falcon Energy Worldwide Inc.
 2 Robert Speck Parkway, 7th Floor.
 Mississauga, Ontario. L4Z 1H8
 Phone 905 361 9823
 Toll Free 1 800 378-9885
 Fax 905 306-7542
 www.falconenergyworldwide.com

Available Kits

Inverter Power	2 KWp	2 KWp	3 KWp	3 KWp
Dimensions	0,95x0,95x0,85 m	0,95x0,95x0,85 m	1,27x1,27x1,21 m	1,27x1,27x1,21 m
Weight	350 Kg	350 Kg	600 Kg	650 Kg
Charging Time	10 h	8 h	6 h	6 h
Autonomy (1 Kw load)	6 h	6 h	7 h	9 h
Battery Pack	600 Ah	600 Ah	720 Ah	900 Ah
Generator Power	0,75 KWp	1,0 KWp	1,5 KWp	2,0 KWp
Photovoltaic surface	5 m ²	5 m ²	9 m ²	9 m ²

Our typical solar generator consists of 9 panels of 155 Wp each for a total of 1395 Wp, a charge controller, an inverter and 6 batteries 120 Ah C20 12 V according to the chart below. Productivity of the photovoltaic system is strongly influenced by the place of installation.

Photovoltaic Modules

Vpanel

Battery Pack

Inverter

Load

Vbat

Ibat

Iload

Charge Controller



Falcon Energy Worldwide Inc.
 2 Robert Speck Parkway, 7th Floor.
 Mississauga, Ontario. L4Z 1H8
 Phone 905 361 9823
 Toll Free 1 800 378-9885
 Fax 905 306-7542
 www.falconenergyworldwide.com

Productivity/Autonomy

These results were obtained assuming an inclination angle of 30 degrees and an azimuth angle of 0°



Irradiation values calculated considering the average monthly rainfall

MONTH	ROMA		CASABLANCA	
	Monthly Production (kWh)	Daily Average (kWh)	Monthly Production (kWh)	Daily Average (kWh)
January	90	2,9	153	4,9
February	108	3,9	156	5,6
March	141	4,5	208	6,7
April	176	5,9	201	6,7
May	201	6,5	214	6,9
June	199	6,4	210	7,0
July	219	7,1	215	6,9
August	213	6,9	215	6,9
September	180	6,0	198	6,6
October	151	5,0	178	5,9
November	103	3,3	155	5,0
December	84	2,7	139	4,5
Yearly Production (kWh)	1865		2242	



Irradiation values calculated considering the presence of total sun

MONTH	ROMA		CASABLANCA	
	Monthly Production (kWh)	Daily Average (kWh)	Monthly Production (kWh)	Daily Average (kWh)
January	172	5,5	216	7,0
February	193	6,9	224	8,0
March	257	8,3	277	8,9
April	274	9,1	285	9,5
May	294	9,5	298	9,9
June	288	9,6	295	9,8
July	294	9,5	305	9,8
August	280	9,0	290	9,4
September	258	8,6	263	8,8
October	220	7,3	250	8,1
November	177	5,7	220	7,3
December	155	5,0	203	6,5
Yearly Production (kWh)	2862		3126	