

W.A.T. International GmbH

Water-Agriculture-Technology



W.A.T. International: specialized in water-agriculture-technology

- W.A.T. International GmbH, located in the middle of Germany, near Frankfurt, with its international Airport and Trade Fair, is a Trading / Import and Export Company. Due to its international supplier network, the Team of W.A.T. International is able to provide attractive offers within a short time and is especially engaged in executing all orders in a high-quality manner.
- Our characteristics:
 - numerous years of experience in the construction sector
 - network with international suppliers
 - independent
 - individual
 - focus on Africa and Asia countries

W.A.T. International GmbH: Board of Directors

Board of Directors



Mr. Christian Kociok, General Manager of the W.A.T. International GmbH, was responsible as Commercial Director for more than 20 years for a big german construction company in Libya and Asia ...



Mr. Jens Hofacker, Commercial Director of the W.A.T. International GmbH, was working as financial consultant for more than 25 years for several big international banks and investment instituts ...

our actual offers:

- 1 submersible pumps
- 2 solar pumps
- 3 solar street light
- 4 solar air condition
- 5 autarkic energy production
- 6 generating of drinking water out of air
- 7 mobile housings, cold room solution
- 8 Joint Venture

our customers:

authorities



- **water supply and water disposal**
 - ✓ professional pumps
 - ✓ generators
 - ✓ steel pipes
- **streetlight**
- **autarkic energy production**
 - ✓ Army
 - ✓ remote areas, villages
 - ✓ mobile medical station and many more
- **desalination of seawater & water treatment plant**
- **fire fighting equipment and protective clothing**

companies



- **mobile accommodation:**
 - ✓ staff, office, sites
- **100% solar power:**
 - ✓ Irrigation farming
 - ✓ cooling equipment
 - ✓ autarkic energy production
- **construction machines**
- **trucks and bus**

private households



- **100% solar power:**
 - ✓ **air condition**
(cooling and heating)
 - ✓ **generation of electricity**
 - ✓ **generation of drinking water**

W.A.T. International: water supply – water disposal

pumping stations, dams, drinking water supply, water disposal



- **submersible pumps:**

- flow rate: up to 500 liters / second (1,8 mio. liters / hour)
- discharge head: up to 30 meters



- **diesel generators:**

- up to 1.200 kVA



- **steel pipes**

- coated, stainless steel
- up to 200 cm DN

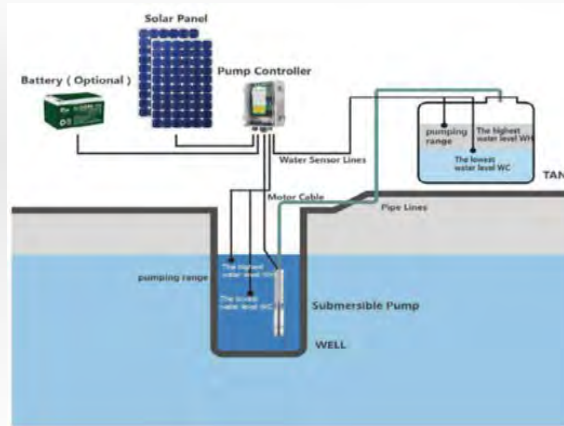
W.A.T. International: irrigated farming

pump performance



- different international supplier
- flow rate of 3,5,8,10 liters per second
- discharge head: < 150 meters

system








- 100% solar power
- independent of the power grid
- in case of using a water cistern, irrigation is assured for 24 hours per day

application







- irrigation farming
- water supply
- water disposal

Example calculation: 5 liters/sec – 100 M – solar pump

No.	ITEM	Fitting & Parameter		UNIT PRICE	QTY	Amount	Picture
1	SOLAR PUMP	Model	WAT-18m3-100m		1		  
		Impeller	Centrifugal (SS)				
		Voltage (V)	AC 380V three phase				
		Pump Power (KW)	9.2KW				
		RATE Head & Flow rate	18m3/h-100M 5L/S-100M				
		Outlet (IN)	3"				
		Solar pump Inverter	540V9.2KW				
		Accessory	Water level sensor,				
2	SOALR PANEL	Solar panel power	13.5kW(Poly 300W x 45pcs)		45		
		Each panel power	poly 300W/36V				
		size/panel	1990*992*40mm,				
3	PV Array Combiner	Model: PVB 3/1;3way in, 1way out; Each PV array attached to DC fused protection and anti-reverse protection function. Maximum open-circuit voltage up to 1000V; High voltage Lightning protection (SPD) special for PV; PG cable glands connector input, convenient and safe system wiring; PV special high voltage circuit breaker control output; Protection class IP65 for outdoor use;			1		
4	SOLAR PANEL Frame	15pcs 300W solar panel in series			3		
Total cost							

Example calculation: 10 liters/sec – 100 M – solar pump

No.	ITEM	Fitting & Parameter		UNIT PRICE	QTY	Amount	Picture
1	SOLAR PUMP	Model	WAT-36m3-100m		1		
		Impeller	Centrifugal (SS)				
		Voltage (V)	AC 380V three phase				
		Pump Power (KW)	18.5KW				
		RATE Head & Flow rate	36m3/h-100M 10L/S-100M				
		Outlet (IN)	4"				
		Solar pump Inverter	640V22KW				
		Accessory	Water level sensor,				
2	SOALR PANEL	Solar panel power	29.7kW(Poly 330W x 90pcs)		90		
		Each panel power	poly 330W/36V				
		size/panel	1990*992*40mm,				
3	PV Array Combiner	Model: PVB 5/1;5way in, 1way out; Each PV array attached to DC fused protection and anti-reverse protection function. Maximum open-circuit voltage up to 1000V; High voltage Lightning protection (SPD) special for PV; PG cable glands connector input, convenient and safe system wiring; PV special high voltage circuit breaker control output; Protection class IP65 for outdoor use;			1		
4	SOLAR PANEL Frame	18pcs 330W solar panel in series			5		
Total cost							

application: solar street lighting



application: solar street lighting



click

W.A.T. International: solar street lighting

performance



- 2.000 – 4.300 lm
- lighting duration without sun: 10 – 14 hours
- charging time of the battery: 5-6 hours
- lifetime of ca. 50 – 100.000 hours

system



ALL IN ONE SOLAR STREET LIGHT



- compact system: All-in-one
- solar panel and LED light in one case
- or solar panel and LED light also separated cases
- 100% electricity by solar power

application



- street lights
- public places
- arenas
- remote areas
- etc.

Example calculation : solar street lighting

Components	Photo	Specification	Q'ty	Unit Price (FOB)
All in one solar street light 15W		<ol style="list-style-type: none"> 1. LED light: 15W, USA Bridgelux LED Chip 8pcs built-in 5050 bulbs, 180lm/watt, life span >100,000hrs 2. Solar panel: Mono 30W, life span >25years 3. Battery: Iron Phosphate(LiFeP04) lithium, 12AH/12.8V Life span >8 years; more than 3500 deep-cycle times 4. Main material: aluminum alloy 5. Lighting time: 10-14hrs/night, 3-5 days backup 6. Motion sensor: Yes (selectable) 7. Charging time: 5-8hrs depends on local solar radiation 8. Working temperature: -20°C ^+75°C 	1pcs	
Pole 5m		5m height,Q235 steel,high wind resistance,anti-rust, hot-dip galvanized and spray plastic powder coated, with foundation kit,life-span>20years		

W.A.T. International: solar air condition

performance



- **9.000 – 24.000 BTU**
(= 15 - 50 m² per 1 air condition)
- **battery banks** for air conditioning during the night for 4 to 12 hours
- **cooling and heating**
(16-30° C)

systeme



- **100% solar power**
- **hybride system** possible:
automatical switch of different use of neede electricity: during the day using the solar power, and during the nighn using grid system

application



- **living / sleeping rooms**
- **offices**
- **medical center**
- **etc.**

Example calculation: solar air condition

DC48V 100% off grid SOLAR AIR CONDITIONER (no need extra grid adaptor)

Performance

Capacity	Cooling	Btu/h	9000	12000	18000	24000
		W	2600	3500	5200	7200
	Heating	Btu/h	10000	13000	20000	27000
		W	2800	3700	6000	7900
Work Temp.		°C	-15~60	-15~60	-15~60	-15~60

Dimension

48V DC Air Conditioner Price

Cooling Only					
Cooling and Heating					

Solar Power System Price

2 hours backup for no grid power time	Solar panel : 150W*2pcs	Solar panel : 250W*2pcs	Solar panel : 150W*4pcs	Solar panel : 250W*4pcs
	Solar controller: 24V20A	Solar controller: 48V20A	Solar controller: 48V20A	Solar controller: 48V20A
	Batteries:12V60Ah*2pcs	Batteries:12V50Ah*4pcs	Batteries : 12V80Ah*4pcs	Batteries : 12V100Ah*4pcs
Solar power System Value/USD				
Complete set including 2 hours back up solar kit for cool only				

Example calculation: solar air condition (battery bank for 4 hours)

DC48V 100% off grid SOLAR AIR CONDITIONER (no need extra grid adaptor)

Performance

Capacity	Cooling	Btu/h	9000	12000	18000	24000
		W	2600	3500	5200	7200
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Work Temp.		°C	-15~60	-15~60	-15~60	-15~60

Dimension

48V DC Air Conditioner Price

Cooling Only					
Cooling and Heating					

Solar Power System Price

working time:8hours at day time,4 hours at night	Solar panel:150W*4pcs	Solar panel:150W*6pcs	Solar panel: 150W*8pcs	Solar panel: 150W*12 pcs
	Solar controller: 48V20A	Solar controller: 48V20A	Solar controller: 48V30A	Solar controller: 48V40A
	Batteries : 12V65Ah*4pcs	Batteries : 12V100Ah*4pcs	Batteries : 12V150Ah*4pcs	Batteries : 12V200Ah*4pcs
Solar power System Value/USD				
Complete set including 4 hours back up solar kit for cool only				

W.A.T. International: energy whenever and wherever

power generation by solar – off grid and movable

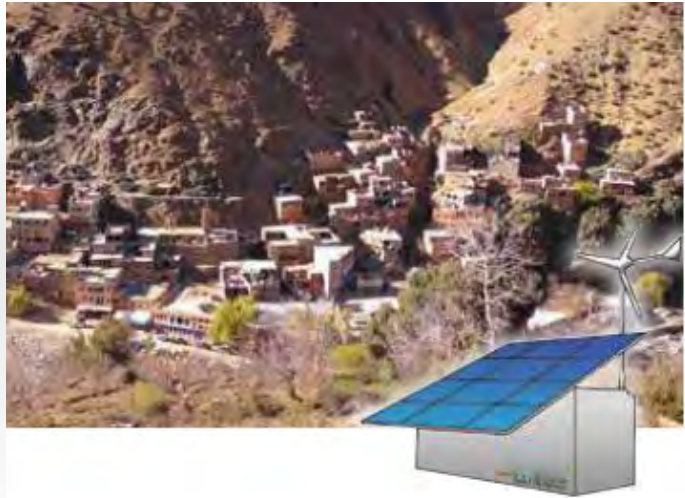


électricité régulièrement et autonome
combinaison intelligente de la puissance du soleil, du vent
et du générateur diesel, selon vos besoins

Ingenious solution:

- generation of electricity, wherever and whenever needed – only by solar, wind and diesel generator. Automatic regulation
- supply of electricity out of sockets !
In open fields and remote areas – independent of public grid
- if needed: 24 hours per day
- turnkey solution / quick and easy to install
- currents of 3 kW until 210 kW possible

application: energy whenever and wherever



application: energy whenever and wherever!

mobile electricity by solar power, wind and diesel generator

ready for use: whenever, wherever and continuous current supply

- ✓ agriculture
- ✓ irrigation
- ✓ wells
- ✓ construction machinery
- ✓ plants
- ✓ schools
- ✓ housings
- ✓ GSM / telecommunication stations
- ✓ remote villages
- ✓ remote sites
- ✓ military
- ✓ mobile medical station
- ✓ hospitals
- ✓ etc.

W.A.T. International: energy container

supply of electricity whenever, wherever, continuous



whenever, wherever, continuous

- the diesel generator will only start automatically in that moment, when there will be not enough produced electricity by solar and wind
- electricity out of sockets
- automatic control

W.A.T. International: energy container

energy container: mobile



transport | installation

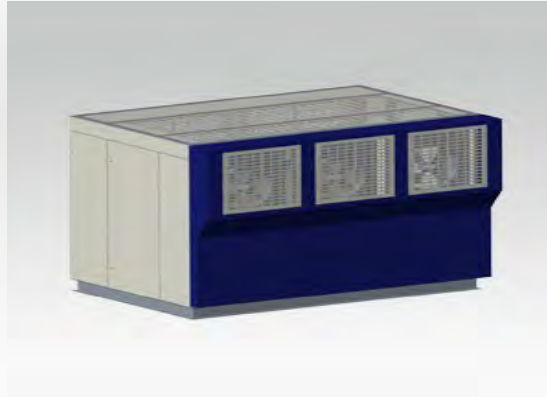
- transport in a 20" or 40" container
- easy to transport– easy to install
it takes only few hours by novices
- ready to use in short time

W.A.T. International: production of drinking water

production



system



flow rate



- easy to install
- sterilized by UV-light
- exchange of the filter:
1 x p.a.
- works as well inside the house

- existing of more than 100 Mio. Billions liters of water in the atmosphere
- starting to perform from 25% humidity in the air

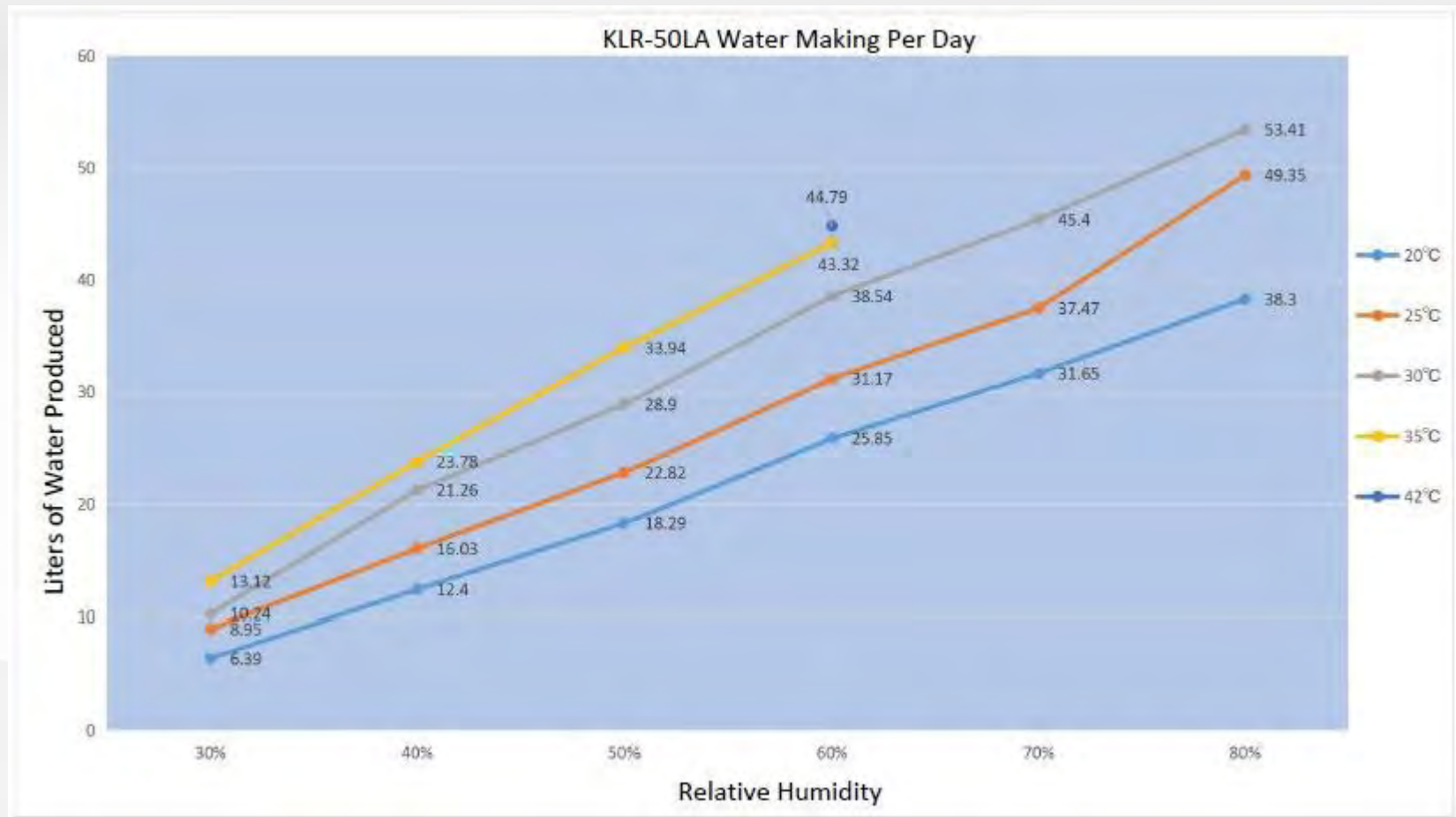
- daily flow rate:
 - 20 liters up to
 - 10.000 liters

W.A.T. International: production of drinking water



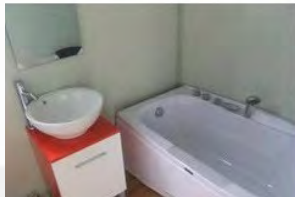
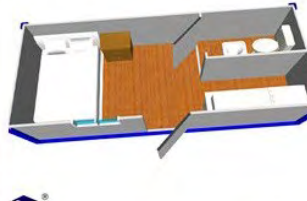
W.A.T. International: production of drinking water

relation of the flow rate and humidity



W.A.T. International: container housing

mobile and comfortable container-housing



container housing

- attractive price performance ration
- mobil
- on request incl. kitchen, bathroom, toilets, light, air condition, insulation etc.
- different versions:
 - one or multi familiy houses, villa
 - offices
 - staff housing
 - infirmary
 - retail shop
 - etc.

Cold room Solutions

Solar Cold Room for Frozen Meat Vegetables

Solar Cold Room is a chamber with adjusted temperature, if you store meat and seafoods, temperature will be around -20 degrees celsius. With freezer room, fruit and vegetables can be kept fresh for long time.



W.A.T. International: Joint Venture Partner

Let's achieve new heights together ...



W.A.T. International: Join Venture

the situation

- To open new markets and gain new clients is one of the most important objectives of each company.
- In order to meet this objective, there is usually a lengthy and extensive work indispensable.
- To enable cost savings, avoid costly mistakes and save a lot of time, W.A.T. International offers a Joint Venture for several African countries to qualified companies.

the key for JV Partners

- W.A.T. International and its partner maintain direct contacts to municipal authorities and decision makers in several African countries.
- The observing of all statutory requirements, the receiving of orders will be undertaken by W.A.T. International GmbH.
- The supply of the needed products and installation will be undertaken by a Joint Venture Partner.

actual offer

- Actually, W.A.T. International and its partners are able to offer Joint Ventures in the following sectors:
 - ✓ **photovoltaic systems**
 - ✓ **solar street lights**

Your advantages that accrued from a cooperation with W.A.T. International and their Partners:

Our management is of the firm opinion that long-term survival in the business can only be achieved and maintained through a close relationship to our customers, filled with trust and confidence and a reliable quality management.

We strengthen the relation to our customer with:

- ✓ **Trustworthiness**
- ✓ **Full engagement of the staff**
- ✓ **Punctuality with given dates**
- ✓ **Reliable and precise suppliers**
- ✓ **Customer suited products**

Please contact us for an individual offer by email:

info@wat-international.de

Thank you



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