

## ABOUT BOREAL LIGHT

Boreal Light GmbH is a Berlin based company specialized on renewable energy solution for water treatment facilities. The company designs and manufactures affordable solar water desalination and cooling systems for off-grid communities around the globe.

Systems manufactured by Boreal Light are capable of delivering high quality hygiene drinking, irrigation, fish farm and sanitation water from any kind of high saline and polluted water resources. Powered fully by solar, simplicity of the design and affordability of the cost of the systems manufactured by Boreal Light are the three great competences the company is proud of.

### NOTES:



### GET IN TOUCH!



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# Solar Liquid Cooling System

W W W . W I N T U R E . D E



BOREAL LIGHT



## TECHNICAL SPECIFICATIONS

### Process characteristics

Flow, l/h	2000 - 50 000
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Cooling capacity, kW	22.22
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Coefficient of performance	3.73
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### Electrical specifications

El. Supply, grid, V / Ph / Hz	~400 / 3 / 50
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El. Supply solar, VDC	550
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Power consumption, kW	5.96
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Operating current, A	19.7
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Fuse, chiller unit, A	25
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Fuse, pumps, A	4
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Remote monitoring	Weidmüller IOT system
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Display	8"
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### Equipment

Tank drinking water, l	400
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Tank transfer water, l	500
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Refrigerant, Kg	7
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Oil BSE32, Kg	2
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Chiller unit	Bitzer LH124E/4CES-6Y
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Pumps	Ebara CVM/I A/4 IE3
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Heat exchanger chiller cycle	EWT WP-52
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Heat exchanger water cycle	EWT-B3-12A
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Safety valve	Danfoss PS65
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Thermostatic expansion valve	Danfoss TE5
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Pressure switch	Johnson controls P78
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Solenoid valve	Danfoss EVU8
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Piping	PVC or Stainless steel
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Disinfection	UV light
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Battery	50 Ah 24 V Li-Battery
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Frame	Aluminium
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### Dimensions and weight and materials

HxWxD, mm	1945x1820x1800
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Net weight, Kg	900
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Gross weight, Kg	1800
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## USE CASES

Solar-Powered Liquid Cooling System by Boreal Light is designed to revolutionise liquid cooling in remote areas by utilising the abundant and renewable energy of the sun. This advanced system provides a sustainable solution for cooling lukewarm water, milk or other liquids to a lower required temperature.



### DRINKING WATER COOLING



### MILK & DAIRY COOLING



### LIQUID COOLING FOR FOOD & BEVERAGE INDUSTRY



### COOLING WATER FOR AIR CONDITIONING / CLIMATE CONTROL



### COOLING WATER FOR AIR CONDITIONING / CLIMATE CONTROL



## KEY BENEFITS

Cools liquids using solar power, even in cloudy weather

Ideal for off-grid locations, reducing reliance on traditional electricity

Maintains freshness and quality of milk and liquids

Hybrid mode: solar by day, grid power at night

No need for batteries, lowering investment and maintenance costs

Revolutionising Cooling  
in Remote Areas with  
Renewable Solar Energy