

VOLTHER
hybrid collectors

VOLTHER

PowerTherm&PowerVolt



- ✓ Solar KEYMARK certified
- ✓ Electricity and usable thermal heat at the same time from one panel
- ✓ Extra electricity production of at least 25% per year with cooled PV cells
- ✓ More electricity with PowerVolt, More hot water with PowerTherm.



30 years of experience, exports in 60 countries, innovative products
One of the world's leading companies in its sector



	PowerTherm (PV-T GLAZED)	PowerVolt (PV-T UNGLAZED)
Dimensions (mm)	870x1640x105	828x1601x90
Gross Area (m²)	1.427	1.37
Aperture Area (m²)	1.42	1.36
Absorber Area (m²)	1.4	1.3
Weight (kg)	34.4	24.4
Liquid Content	1.2l	1.2l
Absorber Panel	Mono-Crystalline	Mono-Crystalline
Number of Cells	72	72
Cell Dimensions (mm)	125 x 125	125 x 125
WP (W) Nominal Power	180	200
Imp (A) Nominal Current	4.98	5.43
Isc (V) Short Circuit Current	5.4	5.67
Vmp (V) Nominal Current	36.16	36.8
Voc (V) Open Circuit Voltage	44.64	46.43
Heat Exchanger	Copper	Copper
Internal Piping	Copper	Copper
Flow (l/h)	65	65
Test Pressure (bar)	20	20
Maximum Operating Pressure (bar)	10	10
Cover Glass	4mm Module Glass	3.2mm Low Iron Tempered
Sealing	EPDM & Silicone & Aluminium Frame	EPDM & Silicone & Aluminum Frame
Maximum Temperature	<134°C	<101°C
Base Sheetting	Embossed -Finished Aluminum	Embossed -Finished Aluminum
Rear Side	Aluminum	Aluminum
Product Warranty	10 Years	10 Years
Productivity Guaranty	%90 < 10 years, %80 < 20 years	%90 < 10 years, %80 < 20 years

POWERTVOLT			
Peak power for $G'' = 1000 \text{ W/m}^2$ and $u = 0 \text{ m/s}$ [W]			629
POWER OUTPUT per collector unit			
$T_m - T_a = 2 \text{ K}$	Net irradiance G''		
	$G'' = 400 \text{ W/m}^2$	$G'' = 700 \text{ W/m}^2$	$G'' = 1000 \text{ W/m}^2$
$u = 0.0 \text{ m/s}$	238	433	629
$u = 1.0 \text{ m/s}$	234	427	622
$u = 1.5 \text{ m/s}$	232	424	619
$u = 2.0 \text{ m/s}$	230	422	615
$u = 2.5 \text{ m/s}$	229	419	612
$u = 3.0 \text{ m/s}$	227	416	608
$u = 3.5 \text{ m/s}$	225	413	605

POWERTHERM			
Peak power for $G'' = 1000 \text{ W/m}^2$ and $u = 0 \text{ m/s}$ [W]			690
POWER OUTPUT per collector unit			
$T_m - T_a$ [K]	Net irradiance G''		
	$G'' = 400 \text{ W/m}^2$	$G'' = 700 \text{ W/m}^2$	$G'' = 1000 \text{ W/m}^2$
0	276	483	690
10	219	425	633
30	104	311	518
50	<0	196	404
70	<0	82	289

