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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

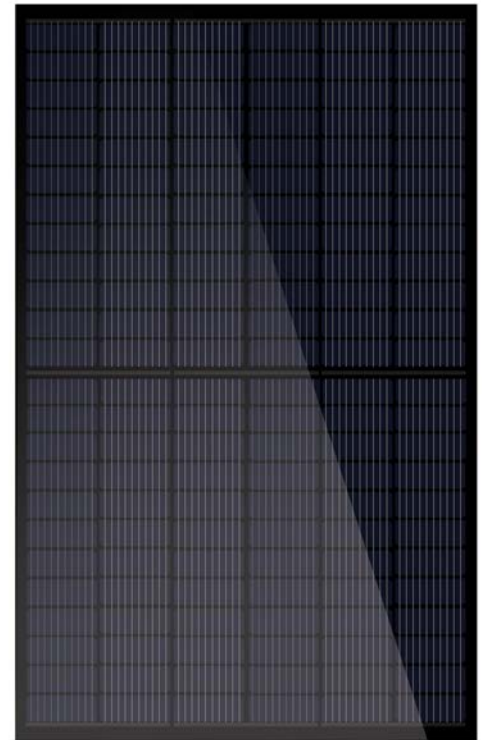
**Changzhou Hershey-Power New Energy Co., Ltd.  
HS144-M 420-445W (Black Optional)  
HS144-M- 435W**

Also available on the web at  
[EnergyPal.com/changzhou-hershey-power-new-energy-co-ltd-solar-panels/hs144-m-435w](http://EnergyPal.com/changzhou-hershey-power-new-energy-co-ltd-solar-panels/hs144-m-435w)

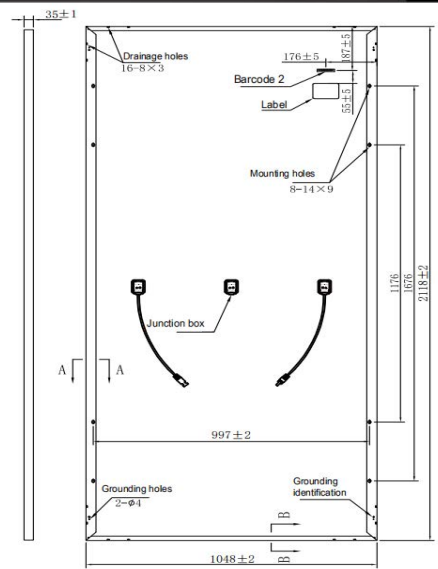
# HS144-M-[420W-445W]9BB

MONO-CRYSTALLINE MODULE  
BLACK

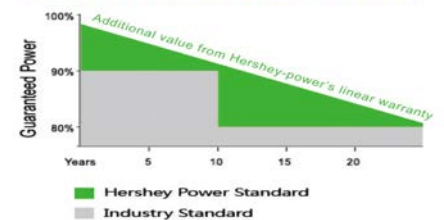
- No power loss thanks to improved temperature co-efficient caused by 9 busbar solar cell
- Limited power degradation HS module caused by PID effect is guaranteed under strict testing condition for mass production
- Certified to withstand the most challenging environmental conditions
- Graphene coating can increase about 2W of the module efficiency by rising around 0.5% of the light transmission
- Lower temperature coefficient and wide spectral response, higher power output, even under low-light settings
- Graphene coating modules can increase power generation and self-cleaning, also can save maintenance cost



ELECTRICAL PROPERTIES   STC*						
Module Type	HS144-M-420W	HS144-M-425W	HS144-M-430W	HS144-M-435W	HS144-M-440W	HS144-M-445W
Nominal Power Watt Pmax(W)	420W	425W	430W	435W	440W	445W
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	42.4	42.6	42.8	43	43.2	43.4
Maximum Power Current Imp(A)	9.96	10.03	10.10	10.17	10.24	10.31
Open Circuit Voltage Voc(V)	50.6	50.8	51	51.2	51.4	51.6
Short Circuit Current Isc(A)	10.45	10.50	10.55	10.6	10.65	10.70
Module Efficiency (%)	19.82	19.15	19.37	19.60	19.82	20.05



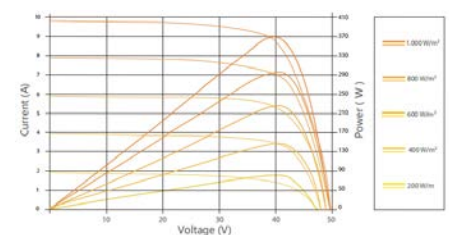
**LINEAR PERFORMANCE WARRANTY**  
12year Product Warranty/25year Linear Power Warranty



MECHANICAL DATA	
Solar cells	Monocrystalline, 166mm/9bb, 144Pcs
Module size	2115 × 1052 × 40mm
Weight	25kgs
Superstrate	High transparency, low iron, tempered
Substrate	Glass 3.2 mm (AR-coating)
Frame	Anodized aluminum alloy, Black
J-Box	Potted, IP68, 1500VDC
Cables	4.0mm (12AWG), 1000mm length
Connector	IP67/IP68
Pc/container	240pcs/20" container, 594pcs/40" HQ

TEMPERATURE & MAXIMUM RATINGS	
Nominal Module Operating Temperature	44 °C ± 2 °C
Temperature coefficient of Voc	-0.29%/ °C
Temperature coefficient of Isc	0.05%/ °C
Temperature coefficient of Pmax	-0.36%/ °C
Operational temperature	-40 °C ~ +85 °C
Maximum system voltage	1000 / 1500 V DC
Max series fuse rating	20 A
Maximum load (snow/wind)	5400 Pa / 2400 Pa
Limiting reverse current	20A

### I-V CURVES OF THE PV MODULE



CHANGZHOU HERSHEY-POWER NEW ENERGY CO.,LTD

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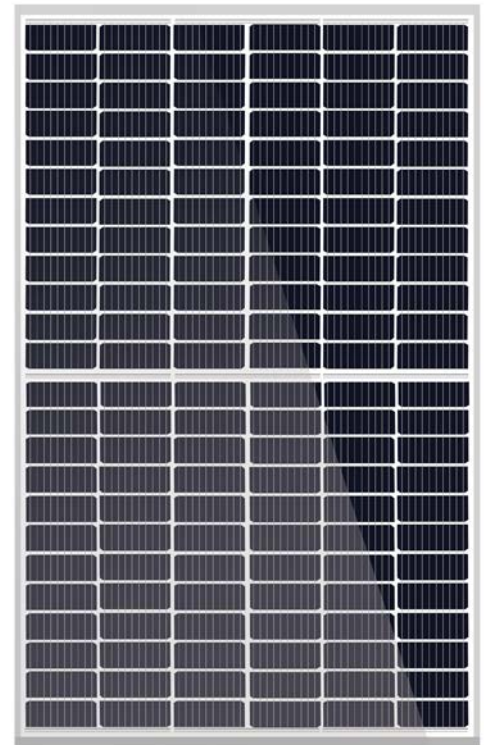
Web site: www.hershey-power.com

Email: sales@hershey-power.com

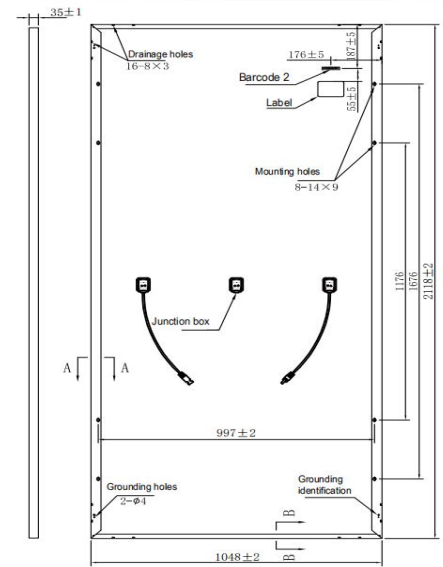
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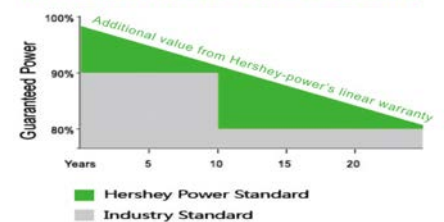
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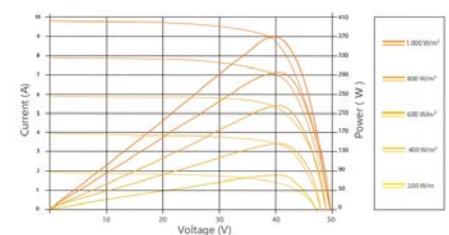
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