



BLACK BUCK Series
'Super High Power 9-Busbar
MONO PERC Module'

420 Wp
Maximum
Power Output

18.93%
Max Module
Efficiency

12 Years
Material & Workmanship
Warranty

30 Years
Linear Power
Warranty

N420M144

380 | 385 | 390 | 395 | 400 | 405 | 410 | 415 | 420



KEY SALIENT FEATURES



Industry leading conversion efficiency



Positive tolerance up to 0 ~ +5W



Passed salt mist & ammonia corrosion
blowing sand and hail testing



Certified to withstand wind and snow load



Excellent performance under low light
conditions



Good temperature co-efficient enables
better output in high temperature regions



Triple Stage 100% EL Inspection
warranting defect-free Module



Excellent PID resistance



Certified to withstand severe environmental conditions

- Anti-reflective & Anti-soiling surface minimize power loss from dirt and dust.
- Severe salt mist & blown sand resistance for seaside, farm and desert environments.
- Excellent mechanical load 2400Pa & Snow load 5400Pa resistance.

Certifications



IS14286 : 2010/ IEC 61215,
IS/IEC 61730 (Part 1),
& IS/IEC 61730 (Part 2)



IEC 61701
IEC 62804
IEC 61853



R - 72004740

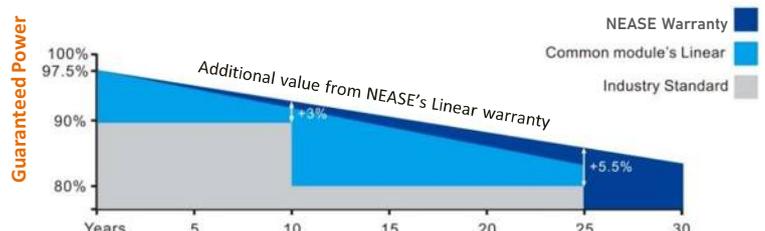
LINEAR PERFORMANCE WARRANTY

12 years Product Warranty / 30 year Linear Power Warranty

• NEASE established in 2008, is Hi-tech corporation with its core business in R&D manufacturing, and sale of high efficiency silicon based solar modules.

• As one of the leading PV enterprises in the world, NEASE has delivered more than 400MW Solar Photo Voltaic Modules to residential, commercial, utility and off-grid projects all around the world.

• Through strict selection of raw materials, stringent quality control and rigorous test in state of the art facilities in Gandhinagar and Ahmedabad, INDIA. NEASE has always committed to higher efficiency, more stable and better cost performance products.



NEASE product warranty is 12 years instead of 10 years given by many competitors.

❖The loss of output power shall not exceed 0.60% per year.

NEETY EURO-ASIA SOLAR ENERGY
E-153, GIDC, Electronics Estate, Sector - 26,
Gandhinagar - 382028. Gujarat. India.
Email: info@nease.in & neetyintl@gmail.com

Electrical characteristics at Standard Test Conditions (STC)

MODEL	N380M144	N385M144	N390M144	N395M144	N400M144	N405M144	N410M144	N415M144	N420M144
Maximum Power - Pmax	380	385	390	395	400	405	410	415	420
Open Circuit Voltage – Voc (V)	48.66	48.75	48.88	48.98	49.06	49.18	49.27	49.32	49.46
Short Circuit Current – Isc (A)	10.16	10.24	10.29	10.38	10.44	10.48	10.60	10.70	10.76
Voltage at Maximum Power – Vmp (V)	39.86	39.92	39.96	40	40.04	40.09	40.13	40.16	40.19
Current at Maximum Power – Imp (A)	9.54	9.65	9.76	9.88	10.00	10.10	10.22	10.34	10.46
Cell Efficiency (%)	19.30	19.60	19.80	20.00	20.30	20.60	20.80	21.00	21.30
Module Efficiency (%)	17.13	17.36	17.58	17.81	18.03	18.26	18.48	18.71	18.93

*Standard Test Conditions(STC) : irradiance 1000W/m²; cell temperature 25°C, AM 1.5G. The mentioned Power output is measured and determined by NEASE at its sole and absolute discretion

Electrical Characteristics at Nominal Operating Cell Temperature (NOCT)

MODEL	N380M144	N385M144	N390M144	N395M144	N400M144	N405M144	N410M144	N415M144	N420M144
Maximum Power - Pmax	282.40	286.42	290.44	293.46	299.49	303.51	307.53	310.54	314.57
Open Circuit Voltage – Voc (V)	45.16	45.45	45.77	46.05	46.28	46.35	46.54	46.68	46.76
Short Circuit Current – Isc (A)	7.95	8.05	8.08	8.10	8.12	8.14	8.16	8.24	8.30
Voltage at Maximum Power – Vmp (V)	37.35	34.62	37.90	38.23	38.64	38.86	39.06	39.18	39.26
Current at Maximum Power – Imp (A)	7.56	8.26	7.66	7.67	7.75	7.81	7.87	7.92	8.01

* Nominal Operating Module temperature (NOCT) : irradiance 800W /m²; Wind speed 1 m/s, Ambient temperature 20°C, Module temperature 45°C

Temperature Characteristics		Maximum Ratings	
Voltage Temperature Coefficient β	- 0.360 %/°C	Maximum system voltage (VDC)	1500VDC
Current Temperature Coefficient α	+ 0.070 %/°C	Series fuse rating (A)	15 A
Power Temperature Coefficient γ	- 0.380 %/°C	Reverse Current overload (A)	20 A

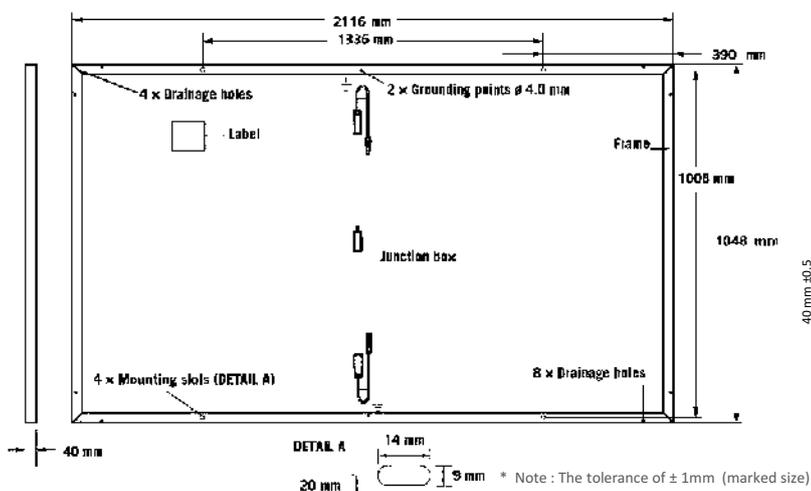
Mechanical characteristics

Dimensions (mm)	2116 X 1048 X 40 mm
Weight (Kgs)	24.4560 Kgs
Front Glass	High Transmittance , Low Iron toughened Glass – 3.2mm Thickness
Cell Encapsulation	EVA (Ethylene – Vinyl-Acetate)
Back Sheet	Composite Film Tedlar White Back sheet (Optional Transparent Back sheet / Black Back sheet)
Number of Cells	MONO PERC Solar Cells 9-BUSBAR, 83 X 166 mm, 144 Cells , (6X12 Matrix – 2 Nos)
Junction Box	IP68, 3 By Pass Diodes, IEC 62790 and Safety Class II
Cable & Connector	2 X 4mm ² , Compatible with MC4, Positive (+) / Negative (-), Protection IP67
Frame	Silver Mat Anodized aluminum, Alloy Type 6063 T5

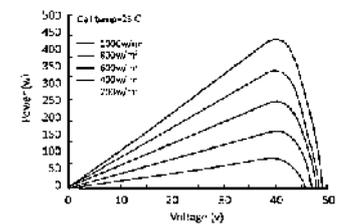
System Design		PACKING CONFIGURATION	
Temperature Range	-40°C to 85°C	Pieces per Pallet	26 No's
Wind / Snow load Capacity	2500Pa / 5400 Pa	Container 20' GP	210 No's
Application Class	Class A	Container 40' HC	572 No's
Safety Class	Class II	Packaging box dimensions (LXWXH)	2150X1140X1200mm

Note: Please refer the instruction manual in this entirely before handling, Installing and operating NEASE Solar Modules.

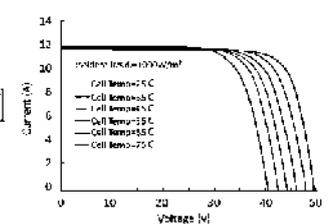
PHYSICAL CHARACTERISTICS



Power-Voltage Curve (420Wp)



Current-Voltage Curve (420Wp)



© 2020 NEASE All rights reserved. Due to continuous innovation, research and improvement the Specifications included in this datasheet are subject to change without notice.

NEETY EURO-ASIA SOLAR ENERGY
 E-153, GIDC, Electronics Estate, Sector – 26 ,
 Gandhinagar - 382028. Gujarat. India .
 Email: info@nease.in & neetyintl@gmail.com

MADE IN INDIA