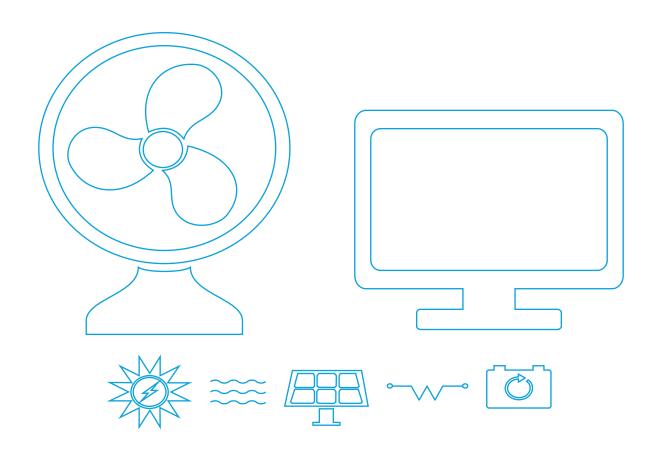
Global LEAP Awards

2017 Buyer's Guide for Off-Grid Fans and Televisions











Contents

1 The Importance of Off-Grid Appliance Quality Assurance	1	The Im	portance (of O	ff-Grid	Appliance	Ouality	Assuranc
--	---	--------	------------	------	---------	------------------	----------------	----------

Explanation of Product Specifications 2



- **NIWA Solar ELED TV 15.6"** 5 WINNER: Small Television
- 5 M-KOPA Solar TV STY 1015 FINALIST: Small Television
- 6 d.light design SV19 WINNER: Medium Television
- 6 **MAKS 22M1A** FINALIST: Medium Television
- 7 **MAKS 19M1A** FINALIST: Medium Television
- 7 Mobisol Solar Home TV 22" FINALIST: Medium Television
- 8 Rahimafrooz Powerview 22" FINALIST: Medium Television
- 9 **NIWA Solar LED TV 23.6"** WINNER: Large Television
- 9 BBOXX ACOO32 FINALIST: Large Television
- fosera DCTV 240 10 FINALIST: Large Television
- **Mobisol MSDV2335Y-34635** 10 FINALIST: Large Television
- 11 **Rahimafrooz Powerview 24"** FINALIST: Large Television **SolarNow E236ET8C** 11 FINALIST: Large Television
- 12 **NIWA Solar LED TV 32"** WINNER: Extra Large Television
- 12 Mobisol MSDV 3235Y-34635 FINALIST: Extra Large Television



- 14 **Versa Drives SUPER E11**
- 14 **Basil iBreeze Small Ceiling Fan** FINALIST: Small Ceiling Fan
- 15 **Metropolitan ME-203-42IN**
- 15 **Metropolitan ME-301**
- **Versa Drives SUPER E1** 16
- 17 **Metropolitan ME-701**
- 17 Metropolitan ME-203-48IN
- 18 **Super Star DC-12V56A1**
- 19 **Metropolitan MEUC16S**
- 19 NIWA ECO Air 16" UP
- 20 Rahimafrooz Powerwing 16" UP
- **Shenzhen Power-Solution FS-7422** 20
- 21 **Metropolitan MEB-10FD**
- 21 **Metropolitan ME6606-VP**
- 22 **Shenzhen Power-Solution FT-703**
- 23 Super Star FT35-DC02A
- 23 **Metropolitan MEU12DCT**

WINNER: Small Ceiling Fan

FINALIST: Small Ceiling Fan

FINALIST: Small Ceiling Fan

FINALIST: Small Ceiling Fan

WINNER: Large Ceiling Fan

FINALIST: Large Ceiling Fan

FINALIST: Large Ceiling Fan

WINNER: Pedestal Fan

FINALIST: Pedestal Fan

FINALIST: Pedestal Fan

FINALIST: Pedestal Fan

WINNER: Small Table Fan

FINALIST: Small Table Fan

FINALIST: Small Table Fan

WINNER: Large Table Fan

FINALIST: Large Table Fan

The Global LEAP Awards Buyer's Guide

The Global LEAP Awards Buyer's Guide is a catalog of the world's best off-grid appliances. The 2017 edition contains information about off-grid fans and televisions that were named Winners and Finalists in the 2016-17 Global LEAP Awards. It is designed to serve as a procurement tool for use by off-grid solar companies and other distributors, and to provide general market intelligence to other interested stakeholders. It includes rated product specifications, performance metrics based on laboratory testing, and sales contact information.

The Global LEAP Awards identify one Winner as the best overall product nominated for each category, with other high-quality products in that category identified as Finalists. The 2017 Buyer's Guide lists these products, and contains a total of 17 off-grid fans and 15 off-grid televisions.

The 2017 Global LEAP Awards Buyer's Guide is published by Global Lighting and Energy Access Partnership (Global LEAP), an initiative of the Clean Energy Ministerial (CEM) with support from Power Africa's Beyond the Grid Initiative.

The Global LEAP Awards

An international competition that identifies and promotes the world's best, most energy-efficient off-grid appliances

High-quality, energy-efficient appliances ensure that un- and under-electrified households and businesses can make the most out of off-grid energy. They are also essential to the growth of off-grid energy markets—they create demand for off-grid energy while reducing energy costs.

The Global LEAP Awards – a program within the framework of the Clean Energy Ministerial (CEM) and led by the U.S. Department of Energy – are intended to help accelerate the global off-grid clean energy market. They incentivize innovation and send the off-grid market clear and actionable signals about appliance quality, energy efficiency, and appropriateness of design and functionality.

All Global LEAP Awards Winners and Finalists have been tested in accredited laboratories for their energy performance, quality, and reliability, and have been evaluated by a panel of off-grid market experts. The products recognized by the Global LEAP Awards offer a strong balance of price, energy efficiency, performance, and reliability.

Off-grid market actors – from manufacturers to distributors, from investors to policymakers – are strongly encouraged to use the Buyer's Guide as a resource in their exploration of the off-grid appliance market, and to contact the manufacturers of Global LEAP Awards Winners and Finalists about the products listed here.

Global LEAP Awards Winners and Finalists are eligible to participate in an affiliated Global LEAP procurement incentives program. This program is designed to drive large-scale procurement and distribution of best-in-class off-grid appliances in key off-grid markets. Further details about this program are available at www.globalleap. org/incentives.

Acknowledgements

Global LEAP extends its thanks to the companies that participated in the 2016-17 Global LEAP Awards. Global LEAP would also like to extend a special thanks to the off-grid market and technical experts who served as Expert Judges for the competition, including: Steven Hunt (UK Department for International Development), Dr. Arne Jacobson (Schatz Energy Research Center, Humboldt State University), John Keane (GOGLA), Dr. Rezwan Khan (United International University), Charles Muchunku (former Chairman, Kenya Renewable Energy Association), Arthur Itotia Njagi (IFC Lighting Africa) Clare Boland Ross (Rockefeller Foundation), and Kate Steel (USAID/Power Africa).

The Importance of Off-Grid Appliance Quality Assurance

Confidence in product quality is essential to the development of the off-grid market. As the off-grid market grows, the threat of low-quality, inefficient products eroding confidence in the market grows with it. Experiences with inferior products are quickly spread by word of mouth in off-grid communities, leading consumers to distrust the products. Decreased consumer confidence poses significant challenges to off-grid business models and undermines efforts to build self-sustaining, robust commercial markets.

More importantly, off-grid populations are typically among the world's poorest people. A small off-grid energy system and the appliances it powers represent big improvements in an off-grid household's quality of life, but require a large investment of very limited income. It's important that the products work as promised.

The Importance of Off-Grid Appliance Super-Efficiency

By enhancing and enabling off-grid consumer demand for energy services, off-grid appliance super-efficiency is also essential to the growth of clean energy access markets.

Super-efficient off-grid appliances offer greater service. A 40Wp solar module and a 70Ah battery can power a 25W incandescent bulb for 5 hours each day, but the same system can power a super-efficient 21" flat panel TV, two high-quality LED lights, a super-efficient fan, mobile phone charger, and radio. This expanded service enhances consumer demand.

Super-efficiency can also enable sales by reducing system cost. Most of the cost of off-grid energy is attributable to energy supply-related equipment like solar PV and batteries. Super-efficient off-grid appliances radically reduce the need for energy supply investment, lowering prices and opening up vast new markets of consumers who could otherwise not afford off-grid energy services. A recent analysis by experts at Lawrence Berkeley National Laboratory, Humboldt State University, and the University of California found that super-efficient appliances can reduce the total cost of providing off-grid electricity services by as much as 50%. This reduction in price greatly expands the market of consumers that can afford off-grid energy systems.

In other words, by providing greater service and greater cost-effectiveness, super-efficient appliances help off-grid clean energy companies serve more customers.

DISCLAIMER

The Clean Energy Ministerial, Global LEAP, and associated partners and agents make no claims about the quality, energy performance, or off-grid appropriateness of any product not listed here. The inclusion in this Guide of a manufacturer's product should not be construed as an endorsement of that manufacturer or of its entire product line.

Global LEAP made every effort to provide transparent and accurate testing results for the product performance metrics included in the Buyer's Guide. The performance data included here is the result of testing randomly selected product samples at ISO/IEC-accredited test laboratories. Product performance may vary based on different product configuration, test environments or other factors.

Products were tested in "as shipped" mode. Television luminance was measured, but this value was not incorporated into products' quantitative evaluation. Fans were tested at maximum speed, and their tested power consumption was compared against the rated power input on the product's nameplate.

Data used in the Buyer's Guide should only serve as an indication of product performance. Bulk purchasers considering appliance products are strongly encouraged to request detailed test results from manufacturers and/or conduct independent testing. For guidance on how to interpret the data included here, or on identifying appropriate test laboratories and test methods, please contact Global LEAP.

Explanation of Product Specifications

To help readers understand the information included for each product in the Buyer's Guide, this page provides explanations of the product details, rated specifications, and laboratory test results for both televisions and fans.



OFF-GRID TELEVISION PRODUCT SPECIFICATIONS

Product Model Number	Identifies the specific product model
Viewable Screen Size (cm²)	Surface area of screen
Aspect Ratio	Ratio of screen width to height (e.g., 16:9)
Safe Operating Voltage (V)	Voltage range within which the television can operate safely as stated by the manufacturer
Rated On Mode Power Consumption (W)	Power consumption as stated by the manufacturer
Tested On Mode Power Consumption (W)	Power consumption in as-shipped setting, based on laboratory testing
Tested Maximum On Mode Power Consumption (W)	Power consumption with volume and brightness settings at their maximums, based on laboratory testing
Tested Standby Mode Power Consumption (W)	Power consumption in standby mode, based on laboratory testing
Tested Luminance in As-Shipped Setting (Cd/m²)	Brightness of the television, based on laboratory testing (larger values are better)
Viewing Angle (Horizontal/ Vertical)	Angle at which point the luminance (brightness) drops to 1/3 of its maximum
Power Supply as Shipped	Whether the product operates with AC or DC power, or both
Customizable Power Supply (AC/DC)	Whether the product can be customized to operate with a different power supply



OFF-GRID FAN PRODUCT SPECIFICATIONS

Product Model Number	Identifies the specific product model
Fan Size (diameter, mm)	Distance between the tips of the fan blades
Number of Regulated Speeds	Number of speeds
Safe Operating Voltage (V)	Voltage range within which the fan can operate safely as stated by the manufacturer
Rated Power Input (W)	Power consumption as stated on the product's nameplate
Tested Power Input (W, at Max Speed)	Power consumption when set at the maximum speed, based on laboratory testing
Tested Air Delivery (m³/min)	Amount of air delivered by the fan when set at maximum speed, based on laboratory testing
Motor Type	Indicates whether the fan motor is brushed or brushless
Power Supply as Shipped	Whether the product operates with AC or DC power, or both
Customizable Power Supply (AC/DC)	Whether the product can be customized to operate with a different power supply

Off-Grid Television Competition Winners & Finalists



Small Televisions



Medium Televisions



Large Televisions



Extra Large Televisions

Solar ELED TV 15.6" 664 16:9 10-30 8 9.81 11.35 0.171 53 66/64

Yes

Category: Small Televisions

Niwa



Manufacturer NIWA - Next Energy

Products Ltd.

Sales Contact Rea Yip

Phone +852-2110-4955

Email sales@niwasolar.com

Website www.niwasolar.com



Viewable Screen Size (cm²) **Aspect Ratio** Safe Operating Voltage (V) Rated On Mode Power Consumption (W) Tested On Mode Power Consumption (W) Tested Maximum On Mode Power Consumption (W) Tested Standby Mode Power Consumption (W) Tested Luminance in As-Shipped Setting (Cd/m²) Viewing Angle (horizontal/vertical) DC Power Supply as Shipped

M-K PA SOLAR



Manufacturer M-KOPA Solar

Sales Contact Carl Theik

Phone +254-718-631-739

Email Carl.thielk@m-kopa.com

Website www.m-kopa.com



SPECIFICATIONS

Customizable Power Supply (AC/DC)

Product Model Number

Product Model Number	Solar TV STY 1015
Viewable Screen Size (cm²)	660
Aspect Ratio	4:3
Safe Operating Voltage (V)	11-12.8
Rated On Mode Power Consumption (W)	5.9
Tested On Mode Power Consumption (W)	6.54
Tested Maximum On Mode Power Consumption (W)	8.66
Tested Standby Mode Power Consumption (W)	0.076
Tested Luminance in As-Shipped Setting (Cd/m²)	160
Viewing Angle (horizontal/ vertical)	58/56
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Medium Televisions





Manufacturer d.light design Sales Contact Stephen Mutahi

Anne Ngige

Phone +254 703-896-996 Email sales@dlight.com

Website www.dlight.com



SPECIFICATIONS

Product Model Number	SV19
Viewable Screen Size (cm²)	1132
Aspect Ratio	4:3
Safe Operating Voltage (V)	10~15
Rated On Mode Power Consumption (W)	9.5
Tested On Mode Power Consumption (W)	9.48
Tested Maximum On Mode Power Consumption (W)	10.8
Tested Standby Mode Power Consumption (W)	0.172
Tested Luminance in As-Shipped Setting (Cd/m²)	36
Viewing Angle (horizontal/ vertical)	94/86
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	No





Manufacturer MAKS Powertech Ltd

Sales Contact Nessar Khan

Phone +880-255-042-097
Email nessar65@gmail.com
Website www.maksgroupbd.com



Product Model Number	22M1A
Viewable Screen Size (cm²)	1276
Aspect Ratio	16:9
Safe Operating Voltage (V)	8~18
Rated On Mode Power Consumption (W)	21
Tested On Mode Power Consumption (W)	22.13
Tested Maximum On Mode Power Consumption (W)	26.63
Tested Standby Mode Power Consumption (W)	0.27
Tested Luminance in As-Shipped Setting (Cd/m²)	249
Viewing Angle (horizontal/ vertical)	98/89
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

!017 Buyer's Guide for Off-Grid Fans and Televisions

Category: Medium Televisions





Manufacturer MAKS Powertech Ltd

Sales Contact Nessar Khan

Phone +880-255-042-097
Email nessar65@gmail.com
Website www.maksgroupbd.com



SPECIFICATIONS

Product Model Number	19M1A
Viewable Screen Size (cm²)	943
Aspect Ratio	16:9
Safe Operating Voltage (V)	8~18
Rated On Mode Power Consumption (W)	18
Tested On Mode Power Consumption (W)	20.97
Tested Maximum On Mode Power Consumption (W)	25.56
Tested Standby Mode Power Consumption (W)	0.27
Tested Luminance in As-Shipped Setting (Cd/m²)	190
Viewing Angle (horizontal/vertical)	114/100
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





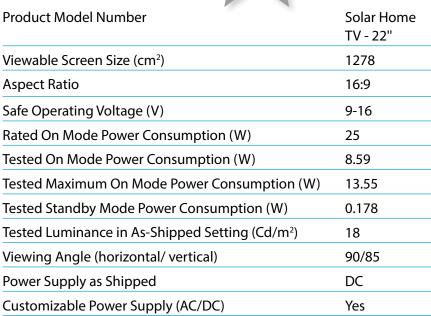
Manufacturer Mobisol GmbH Sales Contact Klaus Maier

Phone +49-307-2621-7444

Email partnerships@

plugintheworld.com

Website www.plugintheworld.com



Category: Medium Televisions







Manufacturer Rahimafrooz Renewable

Energy Ltd.

Sales Contact Fahim Mahmud

Phone +880-175-001-0475

Email fahim.mahmud@ rahimafrooz.com

Website www.rahimafrooz-solar.

com

Product Model Number	Powerview 22"
Viewable Screen Size (cm²)	1276
Aspect Ratio	16:9
Safe Operating Voltage (V)	11-23
Rated On Mode Power Consumption (W)	14
Tested On Mode Power Consumption (W)	16.51
Tested Maximum On Mode Power Consumption (W)	19.44
Tested Standby Mode Power Consumption (W)	0.31
Tested Luminance in As-Shipped Setting (Cd/m²)	105
Viewing Angle (horizontal/ vertical)	109/104
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Large Televisions

Niwa



Global

Awards

Finalist



Manufacturer NIWA - Next Energy

Products Ltd.

Sales Contact Rea Yip

Phone +852-2110-4955

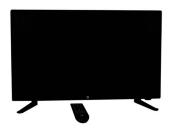
Email sales@niwasolar.com
Website www.niwasolar.com

Product Model Number

SPECIFICATIONS

Product Model Number	Solar LED TV 23.6"
Viewable Screen Size (cm²)	1527
Aspect Ratio	16:9
Safe Operating Voltage (V)	10-30
Rated On Mode Power Consumption (W)	13
Tested On Mode Power Consumption (W)	11.7
Tested Maximum On Mode Power Consumption (W)	18.46
Tested Standby Mode Power Consumption (W)	0.269
Tested Luminance in As-Shipped Setting (Cd/m²)	63
Viewing Angle (horizontal/ vertical)	106/103
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





Manufacturer BBOXX

Sales Contact Anshul Patel

Phone +44-741-928-2428

Email a.patel@bboxx.co.uk

Website www.bboxx.co.uk

SPECIFICATIONS

Product Model Number	AC0032
Viewable Screen Size (cm²)	1521
Aspect Ratio	16:9
Safe Operating Voltage (V)	11.4-14
Rated On Mode Power Consumption (W)	14
Tested On Mode Power Consumption (W)	12.11
Tested Maximum On Mode Power Consumption (W)	13.38
Tested Standby Mode Power Consumption (W)	0.14
Tested Luminance in As-Shipped Setting (Cd/m²)	65
Viewing Angle (horizontal/vertical)	129/126
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

2016-17

Category: Large Televisions





Manufacturer fosera Group Sales Contact Guzman Zotes

Phone +249-734-6924-6973
Email guzman.zotes@fosera.com

Website www.fosera.com



Awards

Finalist

SPECIFICATIONS

Product Model Number	DC TV 240
Viewable Screen Size (cm²)	1521
Aspect Ratio	16:9
Safe Operating Voltage (V)	12V +/-3V
Rated On Mode Power Consumption (W)	12
Tested On Mode Power Consumption (W)	14.4
Tested Maximum On Mode Power Consumption (W)	18.19
Tested Standby Mode Power Consumption (W)	0.1
Tested Luminance in As-Shipped Setting (Cd/m²)	79
Viewing Angle (horizontal/ vertical)	107/101
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	No





Manufacturer Mobisol GmbH Sales Contact Klaus Maier

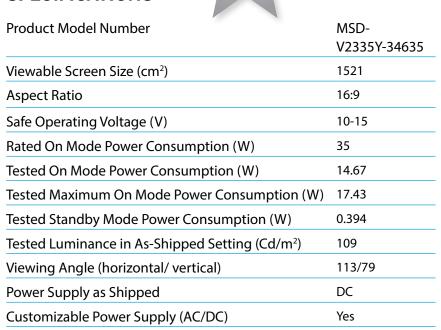
Phone +49-307-2621-7444

Email partnerships@

plugintheworld.com

Website www.plugintheworld.com

SPECIFICATIONS



2016-17

Category: Large Televisions

RAHIMAFROOZ SILA





Manufacturer Rahimafrooz Renewable

Energy Ltd.

Sales Contact Fahim Mahmud

Phone +880-175-001-0475

Email fahim.mahmud@

rahimafrooz.com

Website www.rahimafrooz-solar.

com

Product Model Number	Powerview 24"
Viewable Screen Size (cm²)	1527
Aspect Ratio	16:9
Safe Operating Voltage (V)	11-23
Rated On Mode Power Consumption (W)	15
Tested On Mode Power Consumption (W)	16.67
Tested Maximum On Mode Power Consumption (W)	19.94
Tested Standby Mode Power Consumption (W)	0.28
Tested Luminance in As-Shipped Setting (Cd/m²)	139
Viewing Angle (horizontal/ vertical)	127/112
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





Manufacturer SolarNow

Sales Contact Rose Atkinson

Phone +256-788-916-648 Email rose@solarnow.eu

Website www.solarnow.eu

SPECIFICATIONS



Product Model Number	E236ET8C
Viewable Screen Size (cm²)	1527
Aspect Ratio	16:9
Safe Operating Voltage (V)	11-15
Rated On Mode Power Consumption (W)	40
Tested On Mode Power Consumption (W)	23.41
Tested Maximum On Mode Power Consumption (W)	27.1
Tested Standby Mode Power Consumption (W)	0.203
Tested Luminance in As-Shipped Setting (Cd/m²)	242
Viewing Angle (horizontal/ vertical)	90/86
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Extra Large Televisions

Niwa



Manufacturer NIWA - Next Energy

Products Ltd.

Sales Contact Rea Yip

Phone +852 2110 4955

Email sales@niwasolar.com

Website www.niwasolar.com

Global Winner **SPECIFICATIONS**

Product Model Number	Solar LED TV 32"
Viewable Screen Size (cm²)	2725
Aspect Ratio	16:9
Safe Operating Voltage (V)	10-30
Rated On Mode Power Consumption (W)	30
Tested On Mode Power Consumption (W)	13.64
Tested Maximum On Mode Power Consumption (W)	23.22
Tested Standby Mode Power Consumption (W)	0.192
Tested Luminance in As-Shipped Setting (Cd/m²)	67
Viewing Angle (horizontal/ vertical)	84/79
Power Supply as Shipped	DC

Yes

Global

Finalist

mobisol



Manufacturer Mobisol GmbH Sales Contact Klaus Maier

> +49-307-2621-7444 Phone

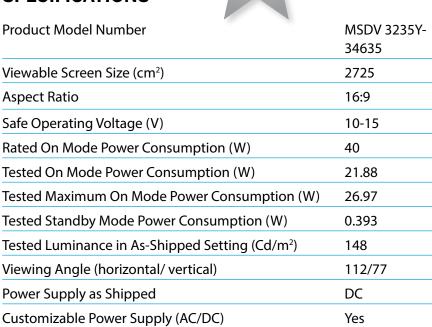
Email partnerships@

plugintheworld.com

Website www.plugintheworld.com

SPECIFICATIONS

Customizable Power Supply (AC/DC)



!017 Buyer's Guide for Off-Grid Fans and Televisic

Off-Grid Fans Competition Winners & Finalists



Small Ceiling Fans



Large Ceiling Fans



Pedestal Fans



Large Table Fans



Small Table Fans

Category: Small Ceiling Fans







Manufacturer Versa Drives Private

Limited

Sales Contact Sundar Muruganandhan

Phone +91 94425 27999

Email sundar@versadrives.com

Website www.superfan.in

SPECIFICATIONS

Product Model Number	SUPER E11
Fan Size (diameter, mm)	1196
Number of Regulated Speeds	5
Safe Operating Voltage (V)	9-15
Rated Power Input (W)	25
Tested Power Input (W, at Max Speed)	22.6
Tested Air Delivery (m³/min)	147.85
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





Manufacturer Basil Energetics Private

Limited

Sales Contact Dr R Ramarathnam

Phone + 91 - 928 - 217 - 0292

Email Irramarathnam@

basilenergetics.com Website www.basilenergetics.com





Product Model Number	iBreez Small Ceiling Fan
Fan Size (diameter, mm)	1160
Number of Regulated Speeds	4
Safe Operating Voltage (V)	140 -375
Rated Power Input (W)	20
Tested Power Input (W, at Max Speed)	20.47
Tested Air Delivery (m³/min)	140.31
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Small Ceiling Fans





Manufacturer Metropolitan Electrical Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86-139-2491-7846

Email lotis@metropolitanfan.com

Website www.metropolitanfan.com



SPECIFICATIONS

ME-203-42IN
1050
5
24
26
28.94
152.24
Brushless
DC
Yes





Manufacturer Metropolitan Electrical Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com Website www.metropolitanfan.com



ME-301
1040
5
24
27
27.62
142.46
Brushless
DC
Yes

Category: Small Ceiling Fans





Manufacturer Versa Drives Private

Limited

Sales Contact Sundar Muruganandhan

Phone +91 94425 27999

Email sundar@versadrives.com

Website www.superfan.in



Product Model Number	SUPER E1
Fan Size (diameter, mm)	1196
Number of Regulated Speeds	5
Safe Operating Voltage (V)	160-265
Rated Power Input (W)	35
Tested Power Input (W, at Max Speed)	34.15
Tested Air Delivery (m³/min)	189.35
Motor Type	Brushless
Power Supply as Shipped	AC
Customizable Power Supply (AC/DC)	Yes

Category: Large Ceiling Fans







Manufacturer Metropolitan Electrical

Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com

Website www.metropolitanfan.com

Product Model Number	ME-701
Fan Size (diameter, mm)	1410
Number of Regulated Speeds	4
Safe Operating Voltage (V)	12
Rated Power Input (W)	25
Tested Power Input (W, at Max Speed)	29.19
Tested Air Delivery (m³/min)	193.43
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





Manufacturer Metropolitan Electrical Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com Website www.metropolitanfan.com



Product Model Number	ME-203-48IN
Fan Size (diameter, mm)	1210
Number of Regulated Speeds	5
Safe Operating Voltage (V)	220
Rated Power Input (W)	34
Tested Power Input (W, at Max Speed)	32.42
Tested Air Delivery (m³/min)	169.39
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Large Ceiling Fans







Manufacturer Super Star Renewable

Energy Ltd

Sales Contact Tofael Ahmed Phone

Email tofael@ssgbd.com

+880-175-563-3924

Website www.ssgbd.com

Product Model Number	DC-12V56A1
Fan Size (diameter, mm)	1400
Number of Regulated Speeds	5
Safe Operating Voltage (V)	10-16
Rated Power Input (W)	36
Tested Power Input (W, at Max Speed)	34.07
Tested Air Delivery (m³/min)	199.75
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Pedestal Fans







Manufacturer Metropolitan Electrical Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com Website www.metropolitanfan.com

SPECIFICATIONS

Product Model Number	MEUC16S
Fan Size (diameter, mm)	375
Number of Regulated Speeds	3
Safe Operating Voltage (V)	12
Rated Power Input (W)	19
Tested Power Input (W, at Max Speed)	6.89
Tested Power Input (W, at Max Speed) Tested Air Delivery (m³/min)	6.89 27.12
Tested Air Delivery (m³/min)	27.12

Niwa





Manufacturer NIWA - Next Energy

Products Ltd.

Sales Contact Rea Yip

Phone +852 2110 4955

Email sales@niwasolar.com Website www.niwasolar.com

Product Model Number	ECO Air 16" UP
Fan Size (diameter, mm)	385
Number of Regulated Speeds	3
Safe Operating Voltage (V)	10-15
Rated Power Input (W)	9
Tested Power Input (W, at Max Speed)	9.86
Tested Air Delivery (m³/min)	34.09
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Pedestal Fans







Manufacturer Rahimafrooz Renewable

Energy Ltd.

Sales Contact Fahim Mahmud

Phone +880-175-001-0475

Email fahim.mahmud@

rahimafrooz.com

Website www.rahimafrooz-solar.com

SPECIFICATIONS

Powerwing 16" UP
380
3
9-16
10.5
9.87
28.26
Brushed
OC .
res es
ו ו



POWER-SOLUTION



Manufacturer Shenzhen Power-Solution

Ind. Co., Ltd

Sales Contact Susan Lee

Phone +86-135-0285-6753

Email susan@power-solution.

net.cn

Website www.power-solution.net.cn



FS-7422
352
0
11-13
30
21.75
41.58
Brushless
DC
Yes

Category: Small Table Fans





Manufacturer Metropolitan Electrical

Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com

Website www.metropolitanfan.com



SPECIFICATIONS

Product Model Number	MEB-10FD
Fan Size (diameter, mm)	245
Number of Regulated Speeds	2
Safe Operating Voltage (V)	12
Rated Power Input (W)	3
Tested Power Input (W, at Max Speed)	4.74
Tested Air Delivery (m³/min)	12.93
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





Manufacturer Metropolitan Electrical

Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com Website www.metropolitanfan.com



Product Model Number	ME6606-VP
Fan Size (diameter, mm)	140
Number of Regulated Speeds	2
Safe Operating Voltage (V)	5
Rated Power Input (W)	3
Tested Power Input (W, at Max Speed)	8.11
Tested Air Delivery (m³/min)	7.07
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Small Table Fans



POWER-SOLUTION





Manufacturer Shenzhen Power-Solution

Ind. Co., Ltd

Sales Contact Susan Lee

Phone +86-135-0285-6753

Email susan@power-solution.

net.cn

Website www.power-solution.net.cn

Product Model Number	FT-703
Fan Size (diameter, mm)	180
Number of Regulated Speeds	3
Safe Operating Voltage (V)	11-13
Rated Power Input (W)	16
Tested Power Input (W, at Max Speed)	9
Tested Air Delivery (m³/min)	9.9
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes

Category: Large Table Fans







Manufacturer Super Star Renewable

Energy Ltd

Sales Contact Tofael Ahmed

Phone +880-175-563-3924

Email tofael@ssgbd.com

Website www.ssgbd.com

SPECIFICATIONS

Product Model Number	FT35-DC02A
Fan Size (diameter, mm)	350
Number of Regulated Speeds	3
Safe Operating Voltage (V)	10-16
Rated Power Input (W)	12
Tested Power Input (W, at Max Speed)	10.47
Tested Air Delivery (m³/min)	35.56
Motor Type	Brushed
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes





Manufacturer Metropolitan Electrical

Appliance Mfg Co. Ltd

Sales Contact Lotis Lau

Phone +86 139 2491 7846

Email lotis@metropolitanfan.com

Website www.metropolitanfan.com



Product Model Number	MEU12DCT
Fan Size (diameter, mm)	286
Number of Regulated Speeds	3
Safe Operating Voltage (V)	34
Rated Power Input (W)	19
Tested Power Input (W, at Max Speed)	9.62
Tested Air Delivery (m³/min)	30.72
Motor Type	Brushless
Power Supply as Shipped	DC
Customizable Power Supply (AC/DC)	Yes







