



Wind Turbine Range

Specifications, power curves and prices — every model, side by side

Horizontal axis · Vertical axis · Charge controllers

Australian edition · prices in AUD, GST included · delivery priced to your postcode at checkout



Contents

Before you pick a turbine	3
The range at a glance	4
M Series — M-400, M-600, M-800	5
L1 Series — L1-1000, L1-1500, L1-2000	7
L2 Series — L2-2000, L2-2500, L2-3000	9
G Series — G-3000, G-5000	11
X-300	13
H Series — H1000, H2000	15
Charge controllers	17
WCMD series	18
WW series	20
Wind-solar hybrid controllers — sold separately	22
Safety, delivery and warranty	24

Every specification and price in this catalogue is taken from the live product page on bushline.com.au on 28 September 2026. Where the manufacturer has not supplied a figure the cell says so; nothing is estimated.

Before you pick a turbine

Most people who ring us about wind have a solar system that is fine all summer and goes backwards every winter night. The panels clock off at dusk; the fridge, the pump and the lights do not. A wind turbine works the hours and the weather that panels cannot — night, winter, and the grey windy fronts that flatten solar for days. For most sites it is there to assist the solar, not replace it. Here is what decides which one. Not sure where to start? The Wind Turbine Calculator on every turbine page at bushline.com.au asks twelve quick questions — where you are, your site and your power use — looks up the average wind for your postcode and shows the turbines that suit you.

1. Rated power is not what you will get most days

Every turbine here is rated at a wind speed of 10 to 14 m/s — a 36 to 50 km/h blow. A decent coastal breeze is about 7 m/s (25 km/h), and at that speed a "1 kW" turbine makes about 350 W. That is normal for the whole industry; the difference is that we print the curve so you can plan from it. Every horizontal model in this catalogue has its manufacturer-measured power curve on its family page. Size your battery bank from the curve, not from the number in the model name.

At 7 m/s (25 km/h)	M-400	M-600	M-800	L1-1000	L1-1500	L1-2000	L2-2000	L2-2500	L2-3000	G-3000	G-5000
Output	98 W	231 W	300 W	350 W	450 W	571 W	703 W	813 W	1100 W	1180 W	2150 W

2. Your battery bank voltage narrows the list fast

12 V bank: M-400, M-600 or X-300. 24 V bank: the M Series or X-300. 48 V bank: everything in the range. The L2-2500, L2-3000, G-3000 and G-5000 generate at 220 V for a long cable run to a remote mast, and their matched controller steps that down to charge a 48 V bank — they are 48 V systems at the battery end.

3. Horizontal or vertical

Horizontal-axis turbines make more power per dollar. Vertical-axis turbines take wind from every direction without hunting, which suits the swirly, gusty air around buildings, sheds and tree lines, and they are the quieter, better-looking option where that matters. Survival ratings run from 45 m/s (162 km/h) on the H1000 to 50 m/s (180 km/h) on the X-300 and H2000, so check your site's storm history. The manufacturer publishes no power curve for its vertical machines; rated output at rated wind speed is the only measured figure we have, and we say so rather than draw one.

4. Where it will actually stand

Height is output: turbulence near buildings eats the wind before the blades see it. Most of the range mounts on a 6–10 m ground mast or 3–6 m above a roofline. Three machines are ground-mast only on a 10–15 m mast and are not rooftop units — the L2-3000, G-3000 and G-5000. The H1000 and H2000 are rated for a 6 to 12 m ground mast or 1 to 5 m above the roofline — have your installer confirm any roof structure can carry them.

5. Pure-wind or hybrid — where the solar goes

The turbine makes three-phase AC. The rectifier inside the controller turns it into DC, and the DC charges the battery. The standard kit ships with a pure-wind MPPT controller that has no solar input at all: the WCMD series with the M Series and the X-300, the WW series with everything from 1 kW up. Running panels as well? Put them on their own solar charge controller onto the same battery bank — the two charge side by side. Want wind and solar on the one controller? The M Series and the X-300 also come as a kit with the Mars wind-solar hybrid controller; for every model, we also sell wind-solar hybrid controllers separately — see the hybrid controllers page near the back of this catalogue, and the Wind & Solar Controllers collection on bushline.com.au. Every kit price in this catalogue names the controller that ships in it.

6. The application classes

Every model carries one of three classes so you can shortlist by eye: SMALL (up to 500 W) for caravans, boats, sheds and a trickle charge beside the solar; MEDIUM (600 W to 1.9 kW) for off-grid homes, cabins, telecom and remote sites; HEAVY DUTY (2 kW and up) for properties, farms, workshops and working sites.

7. Straight talk on the rest

- Installation by a licensed electrician is a warranty condition, not advice. Keep the electrician's invoice with your paperwork.
- Cable, breakers, isolators and fuses are sourced locally and sized by your electrician for the run. Never size them from the wattage in a controller's name.
- The WCMD kit controllers have no published maximum charging current in amps. We print "not specified by supplier" rather than divide watts by volts. The WW series does publish its battery-side output current — it is in the appendix.
- CE is a European mark and carries no legal standing in Australia. Where a model carries it, the certification row says exactly what it covers.
- Warranty is twelve months. The manufacturer treats motor burnout after prolonged high-speed running and blade damage in consistently strong wind case by case — the two most likely failures on an exposed coastal site.
- Turbines ship in two or three cartons. Photographs are the store's own product images; where two models share a family shot it is captioned as representative.

Which one? A quick shortlist

Your situation	Start with	Class
Caravan, boat, shed, 12 V or 24 V bank	M-400 · M-600 · X-300	SMALL / MEDIUM
Cabin or small home, 24 V or 48 V bank, wants the cheapest real output	M-600 · M-800	MEDIUM
Off-grid home, 48 V bank, clean wind on a mast	L1-1000 · L1-1500 · L1-2000	MEDIUM / HEAVY DUTY
Property with a mast a long way from the shed	L2-2500 · L2-3000 (220 V generator)	HEAVY DUTY
Working property, farm or camp that eats power	G-3000 · G-5000	HEAVY DUTY
Swirly wind around buildings, wants quiet and all-direction	X-300 · H1000 · H2000	SMALL / MEDIUM / HEAVY DUTY

SMALL up to 500 W · Caravans, boats, sheds, a trickle charge beside the solar

MEDIUM 600 W – 1.9 kW · Off-grid homes, cabins, telecom and remote sites

HEAVY DUTY 2 kW and up · Properties, farms, workshops and working sites

The range at a glance

All fourteen turbines on one page. Prices are AUD including GST — turbine only (first voltage) and the cheapest kit with a matched pure-wind controller; delivery is priced to your postcode at checkout. Rated power is at the manufacturer's rated wind speed; each family page shows what the machine makes at real wind speeds.

SMALL

 up to 500 W · Caravans, boats, sheds, a trickle charge beside the solar

MEDIUM

600 W – 1.9 kW · Off-grid homes, cabins, telecom and remote sites

HEAVY DUTY

2 kW and up · Properties, farms, workshops and working sites

Model	Class	Axis	Rated	Peak	Battery bank	Rotor	Survival wind	Mounting	Net kg	Delivery	Turbine only	Kit from
M-400 (S4-400)	SMALL	Horizontal	400 W @ 14 m/s	411 W	12/24/48 V	1.35 m	45 m/s (162 km/h)	Ground 6–10 m · roof 3–6 m	7.5 kg	Sea or air, by postcode	\$575	\$925
M-600 (M4-600)	MEDIUM	Horizontal	600 W @ 12 m/s	625 W	12/24/48 V	1.85 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	20 kg	Sea or air, by postcode	\$760	\$1,110
M-800 (M5-800)	MEDIUM	Horizontal	800 W @ 12 m/s	830 W	24/48 V	2 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	26 kg	Sea or air, by postcode	\$1,110	\$1,495
L1-1000	MEDIUM	Horizontal	1000 W @ 11 m/s	1,040 W	48 V	2.6 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	48 kg	Sea or air, by postcode	\$1,325	\$2,145
L1-1500	MEDIUM	Horizontal	1500 W @ 11 m/s	1,540 W	48 V	2.9 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	53 kg	Sea or air, by postcode	\$1,585	\$2,920
L1-2000	HEAVY DUTY	Horizontal	2000 W @ 11 m/s	2,300 W	48 V	3.1 m / 3.2 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	58 kg	Sea or air, by postcode	\$1,850	\$3,185
L2-2000	HEAVY DUTY	Horizontal	2,000 W @ 10 m/s	2,275 W	48 V	3.5 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	75 kg	Sea or air, by postcode	\$2,540	\$3,870
L2-2500	HEAVY DUTY	Horizontal	2,500 W @ 11 m/s	2,685 W	220 V	3.8 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	85 kg	Sea or air, by postcode	\$2,910	\$5,140
L2-3000	HEAVY DUTY	Horizontal	3,000 W @ 11 m/s	3,070 W	220 V	4.1 m	50 m/s (180 km/h)	Ground mast only, 10–15 m	95 kg	Sea or air, by postcode	\$3,700	\$5,930
G-3000	HEAVY DUTY	Horizontal	3000 W @ 10 m/s	3,120 W	220 V	4.8 m	50 m/s (180 km/h)	Ground mast only, 10–15 m	215 kg	Sea, quoted	\$4,815	\$6,830
G-5000	HEAVY DUTY	Horizontal	5000 W @ 11 m/s	5,400 W	220 V	5.4 m	50 m/s (180 km/h)	Ground mast only, 10–15 m	230 kg	Sea, quoted	\$5,390	\$7,615
X-300 (X5-300)	SMALL	Vertical	300 W @ 12 m/s	320 W	12/24/48 V	0.65 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	20 kg	Sea or air, by postcode	\$860	\$1,210
H1000 (H510-1000)	MEDIUM	Vertical	1000 W @ 11 m/s	Not specified by supplier	48 V	1.67 m	45 m/s (162 km/h)	Ground 6–12 m · roof 1–5 m	Not specified by supplier	Sea, quoted	\$3,485	\$4,240
H2000 (H510-2000)	HEAVY DUTY	Vertical	2000 W @ 11 m/s	Not specified by supplier	48 V	2.1 m	50 m/s (180 km/h)	Ground 6–12 m · roof 1–5 m	Not specified by supplier	Sea, quoted	\$6,345	\$7,550

Rated power for the L2-2500, L2-3000, G-3000 and G-5000 is generated at 220 V and stepped down by the matched controller to charge a 48 V bank. "Sea, quoted" models have delivery quoted to your exact address before you order. Peak is the manufacturer's maximum power output.

M Series

Small horizontal turbines, 400–800 W

HORIZONTAL AXIS · 3 MODELS

Solar owns the daylight. Then the sun drops, the fridge keeps pulling, and the battery bank spends all night going backwards. The M Series are the small horizontal turbines — 7.5 to 26 kg, 1.35 to 2 m rotors — that start turning at 2 m/s and put wind into a 12, 24 or 48 V bank through the night and the grey fronts that flatten panels for days. They are trickle-charge machines that assist the solar, and we sell them that way.



M-400 · DHC S4-400 · 400 W @ 14 m/s



M-600 · DHC M4-600 · 600 W @ 12 m/s



M-800 · DHC M5-800 · 800 W @ 12 m/s

Specification	M-400 Factory code S4-400	M-600 Factory code M4-600	M-800 Factory code M5-800
Application class	SMALL	MEDIUM	MEDIUM
Rated power	400 W @ 14 m/s	600 W @ 12 m/s	800 W @ 12 m/s
Peak output	411 W	625 W	830 W
Battery bank	12/24/48 V	12/24/48 V	24/48 V
Rotor diameter	1.35 m	1.85 m	2 m
Blade length / height	0.65 m	0.9 m	0.95 m
Blades	3	3	3
Start-up · cut-in	start 2 m/s · cut-in 3 m/s	start 2 m/s · cut-in 3 m/s	start 2 m/s · cut-in 3 m/s
Rated wind speed	14 m/s	12 m/s	12 m/s
Survival wind speed	45 m/s (162 km/h)	50 m/s (180 km/h)	50 m/s (180 km/h)
Generator	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC
Generator speed	800 rpm	500 rpm	500 rpm
Over-speed brake	Electromagnetic brake	Electromagnetic brake	Electromagnetic brake
Direction control	Auto yaw	Auto yaw	Auto yaw
Mounting	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m
Blade material	Reinforced nylon fibre	Reinforced nylon fibre	Reinforced nylon fibre
Body material	Reinforced die-cast aluminium	Reinforced die-cast aluminium	Reinforced die-cast aluminium
Protection grade	IP54	IP54	IP54
Working temperature	-20 °C to +50 °C	-20 °C to +50 °C	-20 °C to +50 °C
Net · gross weight	7.5 kg · 9.5 kg	20 kg · 22 kg	26 kg · 28 kg
Packing	670 × 280 × 210 mm	1100 × 400 × 300 mm	1150 × 400 × 300 mm
Design life · warranty	20+ years · 1 year	20+ years · 1 year	20+ years · 1 year
Certification	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹

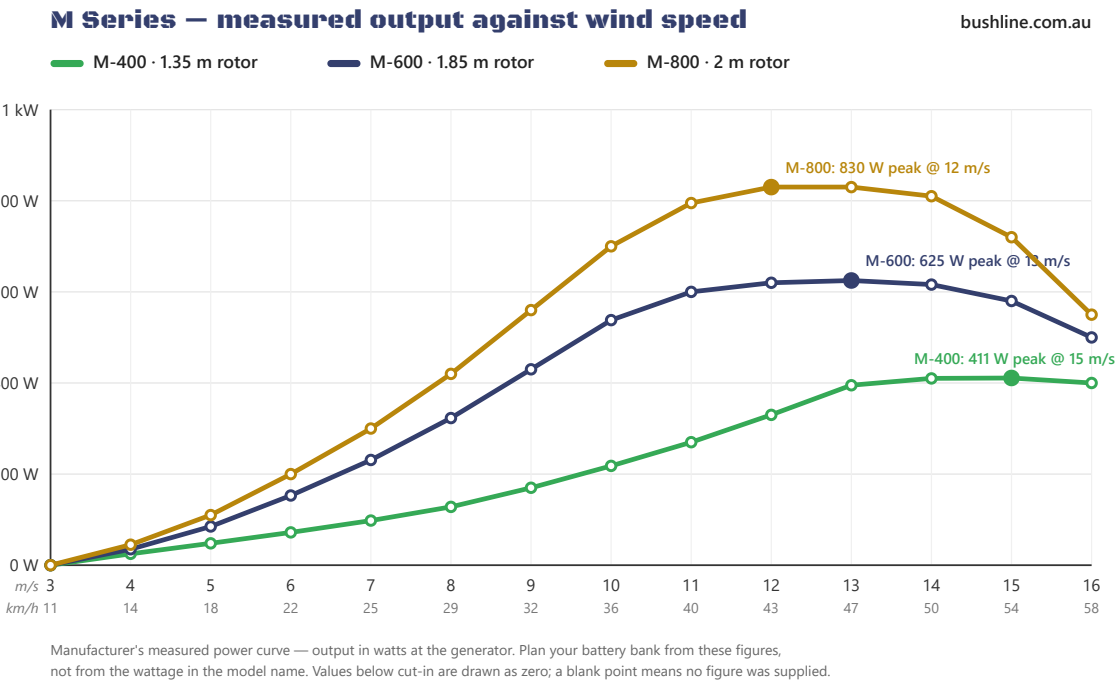
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia. Photographs are BushLine's own product images for the model shown.

M Series — prices and matched controllers

AUD incl. GST	M-400	M-600	M-800
Turbine only	\$575 12V / 24V / 48V	\$760 12V / 24V / 48V	\$1,110 24V / 48V
Kit with pure-wind controller (no solar input)	\$925 12V LWCMD400W-12V	\$1,110 12V LWCMD400W-12V	\$1,495 24V LWCMD800W-24V
	\$960 24V LWCMD800W-24V	\$1,145 24V LWCMD800W-24V	\$1,540 48V LWCMD800W-48V
	\$990 48V LWCMD800W-48V	\$1,190 48V LWCMD800W-48V	
Kit with Mars hybrid controller (wind and solar)	\$1,025 12V Mars, Wind 1000 W / Solar 1000 W	\$1,210 12V Mars, Wind 1000 W / Solar 1000 W	\$1,560 24V Mars, Wind 1000 W / Solar 1000 W
	\$1,025 24V Mars, Wind 1000 W / Solar 1000 W	\$1,210 24V Mars, Wind 1000 W / Solar 1000 W	\$1,560 48V Mars, Wind 1000 W / Solar 1000 W
	\$1,025 48V Mars, Wind 1000 W / Solar 1000 W	\$1,210 48V Mars, Wind 1000 W / Solar 1000 W	
Delivery	Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.	Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.	Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.

Kit prices name the controller that ships. The pure-wind kit controller has no solar input — panels run on their own solar charge controller onto the same bank. Where a Mars kit is listed, the Mars wind-solar hybrid controller takes the place of the kit controller and runs the turbine and the panels on one box. Full controller specifications are in the appendix.

Measured output against wind speed



What it makes	5 m/s 18 km/h	6 m/s 22 km/h	7 m/s 25 km/h	8 m/s 29 km/h	10 m/s 36 km/h	12 m/s 43 km/h
M-400	48 W	72 W	98 W	128 W	218 W	330 W
M-600	85 W	153 W	231 W	323 W	538 W	620 W
M-800	110 W	200 W	300 W	420 W	700 W	830 W

M-400: Reaches its 400 W rating at 14 m/s, not 11 — the manufacturer confirmed the curve is right (19 Aug 2026).

L1 Series

The 1–2 kW horizontal workhorses, 48 V

HORIZONTAL AXIS · 3 MODELS

Half your power problem happens after dark. An off-grid house bank does its hardest work when the panels are asleep, and a grey winter front can flatten solar for a week. The L1 Series are the 1–2 kW horizontal workhorses for a 48 V bank — 48 to 58 kg, 2.6 to 3.2 m rotors, three reinforced FRP blades — and the best freight-to-output ratio in the range.



L1-1000 · 1000 W @ 11 m/s



L1-1500 · 1500 W @ 11 m/s



L1-2000 · 2000 W @ 11 m/s

Specification	L1-1000	L1-1500	L1-2000
Application class	MEDIUM	MEDIUM	HEAVY DUTY
Rated power	1000 W @ 11 m/s	1500 W @ 11 m/s	2000 W @ 11 m/s
Peak output	1,040 W	1,540 W	2,300 W
Battery bank	48 V	48 V	48 V
Rotor diameter	2.6 m	2.9 m	3.1 m / 3.2 m
Blade length / height	1.2 m	1.4 m	1.5 m
Blades	3	3	3
Start-up · cut-in	start 2 m/s · cut-in 3 m/s	start 2 m/s · cut-in 3 m/s	start 2 m/s · cut-in 3 m/s
Rated wind speed	11 m/s	11 m/s	11 m/s
Survival wind speed	50 m/s (180 km/h)	50 m/s (180 km/h)	50 m/s (180 km/h)
Generator	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC
Generator speed	500 rpm	500 rpm	500 rpm
Over-speed brake	Electromagnetic brake	Electromagnetic brake	Electromagnetic brake
Direction control	Auto yaw	Auto yaw	Auto yaw
Mounting	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m
Blade material	Reinforced FRP	Reinforced FRP	Reinforced FRP
Body material	Reinforced die-cast aluminium	Reinforced die-cast aluminium	Reinforced die-cast aluminium
Protection grade	IP54	IP54	IP54
Working temperature	-20 °C to +50 °C	-20 °C to +50 °C	-20 °C to +50 °C
Net · gross weight	48 kg · 52 kg	53 kg · 57 kg	58 kg · 62 kg
Packing	Two boxes : 670 × 480 × 260 mm and 1300 × 270 × 270 mm	Two boxes : 670 × 480 × 260 mm and 1470 × 270 × 270 mm	Two boxes : 670 × 480 × 260 mm and 1620 × 270 × 270 mm
Design life · warranty	20+ years · 1 year	20+ years · 1 year	20+ years · 1 year
Certification	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹

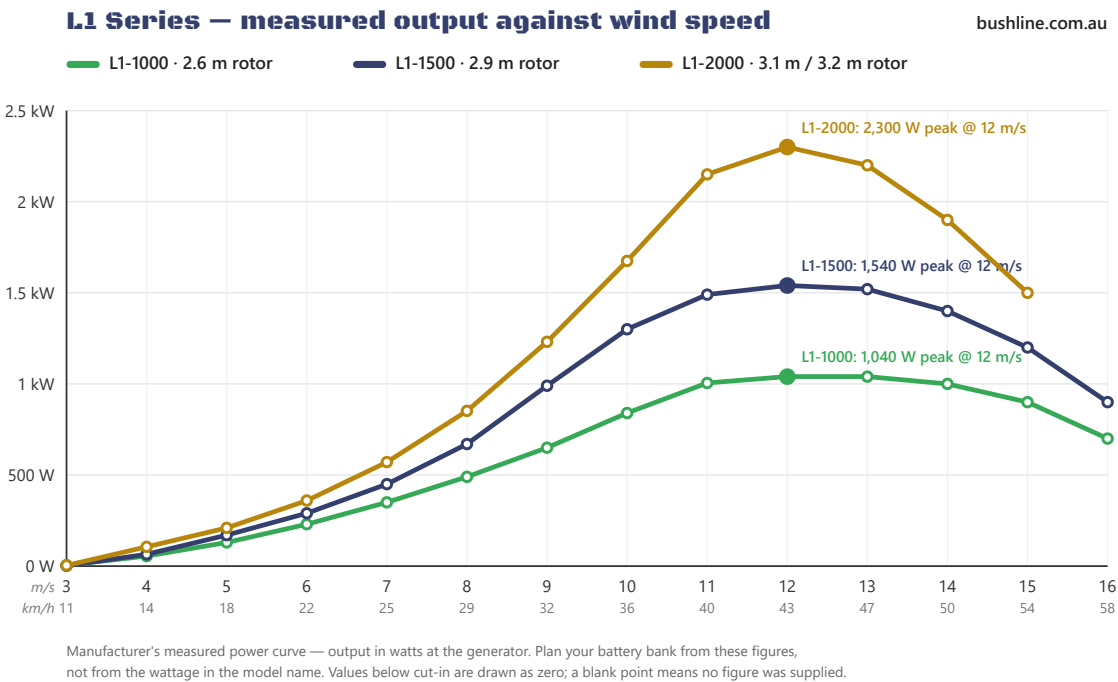
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia. Photographs are BushLine's own product images for the model shown.

L1 Series — prices and matched controllers

AUD incl. GST	L1-1000	L1-1500	L1-2000
Turbine only	\$1,325	\$1,585	\$1,850
Kit with pure-wind controller (no solar input)	\$2,145 WW10-48-48	\$2,920 WW20-48-48	\$3,185 WW20-48-48
Delivery	Built to order. Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.	Built to order. Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.	Built to order. Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.

Kit prices name the controller that ships. The pure-wind kit controller has no solar input — panels run on their own solar charge controller onto the same bank. Where a Mars kit is listed, the Mars wind-solar hybrid controller takes the place of the kit controller and runs the turbine and the panels on one box. Full controller specifications are in the appendix.

Measured output against wind speed



What it makes	5 m/s 18 km/h	6 m/s 22 km/h	7 m/s 25 km/h	8 m/s 29 km/h	10 m/s 36 km/h	12 m/s 43 km/h
L1-1000	130 W	230 W	350 W	490 W	840 W	1,040 W
L1-1500	170 W	290 W	450 W	670 W	1,300 W	1,540 W
L1-2000	210 W	360 W	571 W	852 W	1,675 W	2,300 W

L2 Series

Bigger rotors, 2–3 kW

HORIZONTAL AXIS · 3 MODELS

When solar cannot carry the property, wind takes the shift. The L2 Series swing bigger rotors — 3.5 to 4.1 m — for the pressure pump, the shed, the freezer and the fences. The L2-2000 charges a 48 V bank directly. The L2-2500 and L2-3000 generate at 220 V, which keeps the current low on a long cable run to a mast up on the rise; their matched controller steps it down to 48 V at the battery. The L2-3000 is a ground-mast machine, full stop.



L2-2000 · 2,000 W @ 10 m/s



L2-2500 · 2,500 W @ 11 m/s



L2-3000 · 3,000 W @ 11 m/s

Specification	L2-2000	L2-2500	L2-3000
Application class	HEAVY DUTY	HEAVY DUTY	HEAVY DUTY
Rated power	2,000 W @ 10 m/s	2,500 W @ 11 m/s	3,000 W @ 11 m/s
Peak output	2,275 W	2,685 W	3,070 W
Battery bank	48 V	220 V	220 V
Rotor diameter	3.5 m	3.8 m	4.1 m
Blade length / height	1.68 m	1.80 m	1.95 m
Blades	3	3	3
Start-up · cut-in	start 2 m/s · cut-in 3 m/s	start 2 m/s · cut-in 3 m/s	start 2 m/s · cut-in 3 m/s
Rated wind speed	10 m/s	11 m/s	11 m/s
Survival wind speed	50 m/s (180 km/h)	50 m/s (180 km/h)	50 m/s (180 km/h)
Generator	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC
Generator speed	333 rpm	333 rpm	333 rpm
Over-speed brake	Electromagnetic brake	Electromagnetic brake	Electromagnetic brake
Direction control	Auto yaw	Auto yaw	Auto yaw
Mounting	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m	Ground mast only, 10–15 m
Blade material	Reinforced FRP	Reinforced FRP	Reinforced FRP
Body material	Reinforced die-cast aluminium	Reinforced die-cast aluminium	Reinforced die-cast aluminium
Protection grade	IP54	IP54	IP54
Working temperature	-20 °C to +50 °C	-20 °C to +50 °C	-20 °C to +50 °C
Net · gross weight	75 kg · 90 kg	85 kg · 100 kg	95 kg · 110 kg
Packing	3 packages: 750 × 370 × 370 mm + 1750 × 230 × 320 mm + 740 × 520 × 50 mm	3 packages: 750 × 370 × 370 mm + 1850 × 230 × 320 mm + 740 × 520 × 50 mm	3 packages: 750 × 370 × 370 mm + 2000 × 230 × 320 mm + 740 × 520 × 50 mm
Design life · warranty	20+ years · 1 year	20+ years · 1 year	20+ years · 1 year
Certification	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹

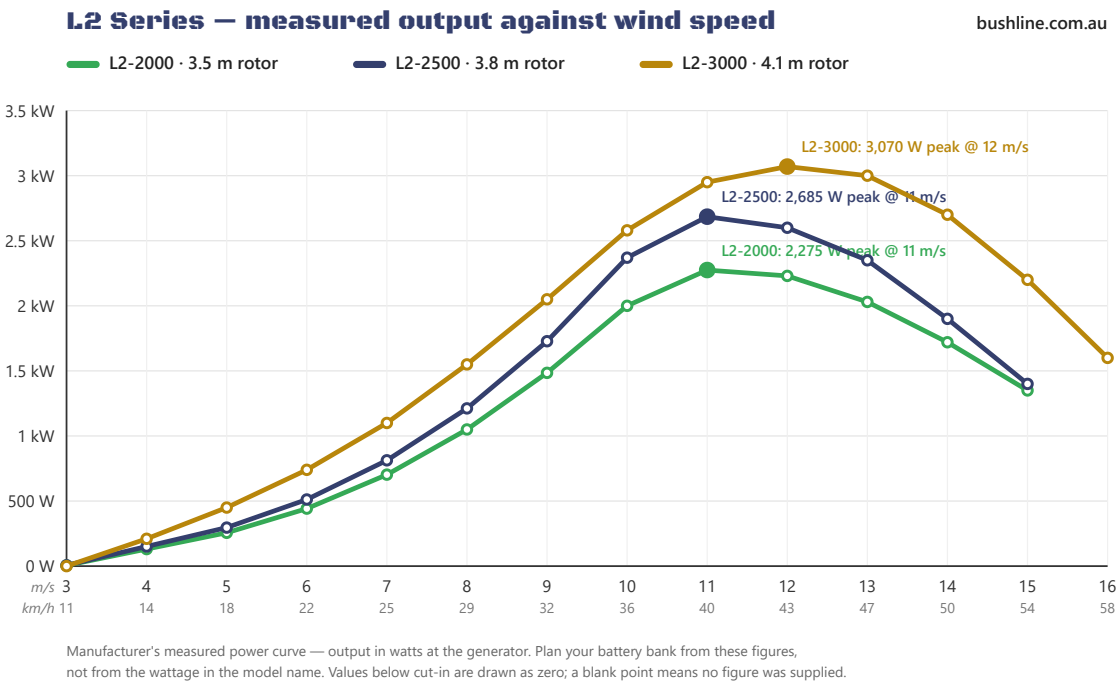
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia. Photographs are BushLine's own product images for the model shown.

L2 Series — prices and matched controllers

AUD incl. GST	L2-2000	L2-2500	L2-3000
Turbine only	\$2,540	\$2,910	\$3,700
Kit with pure-wind controller (no solar input)	\$3,870 WW20-48-48	\$5,140 WW30-48-240	\$5,930 WW30-48-240
Delivery	Built to order. Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.	Built to order. Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.	Built to order. Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.

Kit prices name the controller that ships. The pure-wind kit controller has no solar input — panels run on their own solar charge controller onto the same bank. Where a Mars kit is listed, the Mars wind-solar hybrid controller takes the place of the kit controller and runs the turbine and the panels on one box. Full controller specifications are in the appendix.

Measured output against wind speed



What it makes	5 m/s 18 km/h	6 m/s 22 km/h	7 m/s 25 km/h	8 m/s 29 km/h	10 m/s 36 km/h	12 m/s 43 km/h
L2-2000	256 W	442 W	703 W	1,050 W	2,000 W	2,230 W
L2-2500	296 W	512 W	813 W	1,212 W	2,370 W	2,600 W
L2-3000	450 W	740 W	1,100 W	1,550 W	2,580 W	3,070 W

G Series

HORIZONTAL AXIS · 2 MODELS

3–5 kW, ground mast only, mechanical brake

Some sites simply eat power: a farm with pumps and a cool room, a small off-grid plant, a camp where the generator never gets a day off. The G Series are the two biggest machines in the range — 215 and 230 kg of die-cast aluminium and steel, 4.8 and 5.4 m rotors, on a dedicated 10–15 m ground mast. Both carry a mechanical PGJ brake, specified by the manufacturer for harsh, hard-to-service sites. Delivery is quoted to your exact address before you order.



G-3000 · 3000 W @ 10 m/s



G-5000 · 5000 W @ 11 m/s

Specification	G-3000	G-5000
Application class	HEAVY DUTY	HEAVY DUTY
Rated power	3000 W @ 10 m/s	5000 W @ 11 m/s
Peak output	3,120 W	5,400 W
Battery bank	220 V	220 V
Rotor diameter	4.8 m	5.4 m
Blade length / height	2.3 m	2.6 m
Blades	3	3
Start-up · cut-in	start 2.5 m/s · cut-in 3 m/s	start 2.5 m/s · cut-in 3 m/s
Rated wind speed	10 m/s	11 m/s
Survival wind speed	50 m/s (180 km/h)	50 m/s (180 km/h)
Generator	PM synchronous, 3-phase AC	PM synchronous, 3-phase AC
Generator speed	300 rpm	300 rpm
Over-speed brake	Mechanical brake (PGJ)	Mechanical brake (PGJ)
Direction control	Auto yaw	Auto yaw
Mounting	Ground mast only, 10–15 m	Ground mast only, 10–15 m
Blade material	Reinforced FRP	Reinforced FRP
Body material	Die-cast aluminium + steel	Die-cast aluminium + steel
Protection grade	IP54	IP54
Working temperature	-20 °C to +50 °C	-20 °C to +50 °C
Net · gross weight	215 kg · 250 kg	230 kg · 265 kg
Packing	950 × 520 × 600 mm + 2600 × 300 × 380 mm (two packages)	950 × 520 × 620 mm + 2740 × 300 × 360 mm (two packages)
Design life · warranty	20+ years · 1 year	20+ years · 1 year
Certification	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹

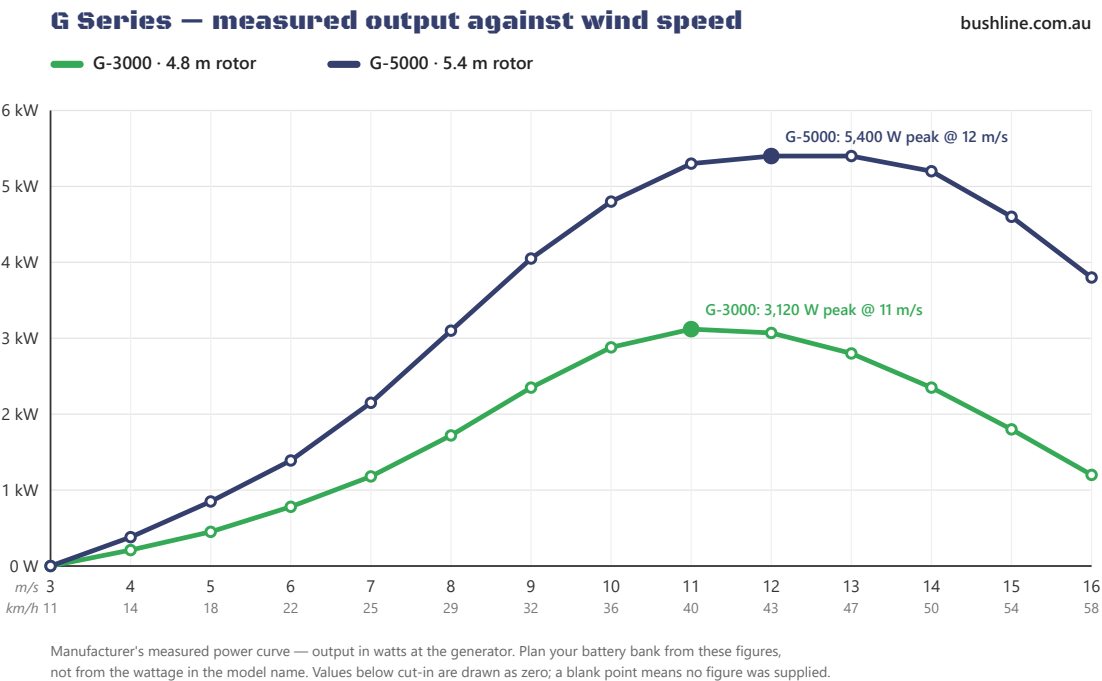
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia. Photographs are BushLine's own product images for the model shown.

G Series — prices and matched controllers

AUD incl. GST	G-3000	G-5000
Turbine only	\$4,815	\$5,390
Kit with pure-wind controller (no solar input)	\$6,830 WW30-48-240	\$7,615 WW50-48-240
Delivery	Built to order and sea-freighted, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Delivery on this model is quoted to your exact address before you order.	Built to order and sea-freighted, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Delivery on this model is quoted to your exact address before you order.

Kit prices name the controller that ships. The pure-wind kit controller has no solar input — panels run on their own solar charge controller onto the same bank. Where a Mars kit is listed, the Mars wind-solar hybrid controller takes the place of the kit controller and runs the turbine and the panels on one box. Full controller specifications are in the appendix.

Measured output against wind speed



What it makes	5 m/s 18 km/h	6 m/s 22 km/h	7 m/s 25 km/h	8 m/s 29 km/h	10 m/s 36 km/h	12 m/s 43 km/h
G-3000	450 W	780 W	1,180 W	1,720 W	2,880 W	3,070 W
G-5000	850 W	1,390 W	2,150 W	3,100 W	4,800 W	5,400 W

G-3000: Corrected curve supplied by the manufacturer 19 Aug 2026; the original file was a copy of the L2-3000.

X-300

The small helical vertical, 300 W

VERTICAL AXIS · 1 MODEL

The wind around a house, a shed or a city rooftop is a mess — it curls around walls and trees and changes direction every few seconds. A propeller turbine spends half its time hunting for it. The X-300 is a small helical vertical: three twisted blades, no tail, no yaw, taking wind from every direction on a 12, 24 or 48 V bank. It is the quiet, compact answer for the swirly site.



X-300 · DHC X5-300 · 300 W @ 12 m/s

Specification	X-300 Factory code X5-300
Application class	SMALL
Rated power	300 W @ 12 m/s
Peak output	320 W
Battery bank	12/24/48 V
Rotor diameter	0.65 m
Blade length / height	0.9 m
Blades	3
Start-up · cut-in	2 m/s (combined)
Rated wind speed	12 m/s
Survival wind speed	50 m/s (180 km/h)
Generator	Disc ironless-core
Generator speed	500 rpm
Over-speed brake	Electromagnetic brake
Direction control	360° auto windward
Mounting	Ground 6–10 m · roof 3–6 m
Blade material	Nylon
Body material	Aluminium alloy
Protection grade	IP54
Working temperature	-20 °C to +50 °C
Net · gross weight	20 kg · 22 kg
Packing	1060 × 270 × 470 mm
Design life · warranty	20+ years · 1 year
Certification	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹

¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia. Photographs are BushLine's own product images for the model shown.

X-300 — prices and matched controllers

AUD incl. GST	X-300
Turbine only	\$860 12V / 24V / 48V
Kit with pure-wind controller (no solar input)	\$1,210 12V LWCMD400W-12V \$1,245 24V LWCMD800W-24V \$1,330 48V LWCMD800W-48V
Kit with Mars hybrid controller (wind and solar)	\$1,310 12V Mars, Wind 1000 W / Solar 1000 W \$1,310 24V Mars, Wind 1000 W / Solar 1000 W \$1,310 48V Mars, Wind 1000 W / Solar 1000 W
Delivery	Delivery is priced to your postcode at checkout, Australia and New Zealand: sea freight 4 to 6 weeks (allow up to 7 for WA and regional addresses), or air freight 10 to 15 working days. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually.

Kit prices name the controller that ships. The pure-wind kit controller has no solar input — panels run on their own solar charge controller onto the same bank. Where a Mars kit is listed, the Mars wind-solar hybrid controller takes the place of the kit controller and runs the turbine and the panels on one box. Full controller specifications are in the appendix.

Power curve

The manufacturer publishes no power curve for its vertical-axis machines. Rated output at rated wind speed is the only measured figure supplied — we could calculate a curve and present it as measured, plenty of sellers do, and we would rather tell you it is missing.

Straight answers

Will it really make 300 watts?

At 12 m/s — a 43 km/h wind — that is the manufacturer's rating, with a 320 W maximum. In ordinary breezes expect a small fraction of it, trickling in around the clock. No measured curve exists for this model, and we will not fake one; treat it as a top-up source, not a supply.

Why buy a vertical instead of a horizontal?

Site, not watts. In clean open air a horizontal makes more power for the money. Around buildings, trees and rooflines — where the wind swirls and switches — a helical vertical keeps working while a propeller hunts. If you have clean air and a free choice, look at our horizontal range first; that is honest advice that costs us a sale.

Does the kit controller take solar panels?

No. The WCMD kit controller is wind only and has no solar input. Run your panels through their own solar charge controller onto the same battery bank, and the two charge side by side. Want wind and solar on the one controller? Choose With Mars Hybrid Controller under Package: the Mars wind-solar hybrid MPPT controller, Wind 1000 W / Solar 1000 W model, 12/24/48 V automatic, with WiFi built in. The Mars takes the place of the kit controller. See the Wind and Solar Controllers collection.

Why don't you publish a charging current in amps?

Because the supplier has not published one, and we will not calculate one by dividing watts by volts. Do not size cable or breakers from the wattage in any product title.

What is the warranty position?

Twelve months. Professional installation by a licensed electrician is a condition of it — keep the electrician's invoice. The manufacturer treats blade damage from consistently extreme wind, and motor burnout after prolonged high-speed running, as case-by-case assessments rather than automatic cover.

H Series

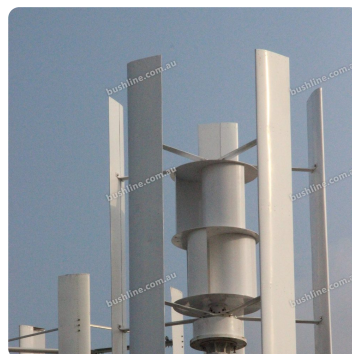
VERTICAL AXIS · 2 MODELS

Five- or three-blade H-type verticals, disc-type ironless generator, 1–2 kW

Built for wind that never blows straight. The H Series are H-type verticals for a 48 V bank — five high-speed aluminium alloy blades, or three on the lower-priced option, standing upright around a disc-type ironless generator with an assist wind wheel at the centre. They take gusts from any point of the compass with nothing to swing or hunt, start turning at 2.5 m/s and charge from 3 m/s. The manufacturer rates them for a 6 to 12 m ground mast or 1 to 5 m above the roofline. Delivery on both is quoted to your address before you order.



H1000 · DHC H510-1000 · 1000 W @ 11 m/s



H2000 · DHC H510-2000 · 2000 W @ 11 m/s

Specification	H1000 Factory code H510-1000	H2000 Factory code H510-2000
Application class	MEDIUM	HEAVY DUTY
Rated power	1000 W @ 11 m/s	2000 W @ 11 m/s
Peak output	Not specified by supplier	Not specified by supplier
Battery bank	48 V	48 V
Rotor diameter	1.67 m	2.1 m
Blade length / height	2.2 m	3.2 m
Blades	5 high-speed blades, or 3 on the three-blade option — both with an assist wind wheel at the centre	5 high-speed blades, or 3 on the three-blade option — both with an assist wind wheel at the centre
Start-up · cut-in	start 2.5 m/s · cut-in 3 m/s	start 2.5 m/s · cut-in 3 m/s
Rated wind speed	11 m/s	11 m/s
Survival wind speed	45 m/s (162 km/h)	50 m/s (180 km/h)
Generator	Disc-type ironless generator	Disc-type ironless generator
Generator speed	250 rpm	200 rpm
Over-speed brake	Electromagnetic brake	Electromagnetic brake
Direction control	360° automatic windward orientation	360° automatic windward orientation
Mounting	Ground 6–12 m · roof 1–5 m	Ground 6–12 m · roof 1–5 m
Blade material	Aluminium alloy	Aluminium alloy
Body material	Aluminium alloy	Aluminium alloy
Protection grade	IP54	IP54
Working temperature	-20 °C to +50 °C	-20 °C to +50 °C
Net · gross weight	Not specified by supplier · Not specified by supplier	Not specified by supplier · Not specified by supplier
Packing	Two boxes : 1.6 m × 700 × 800 mm and 2.25 m × 300 × 320 mm	Not specified by supplier
Design life · warranty	20+ years (manufacturer's stated service life) · 1 year	20+ years (manufacturer's stated service life) · 1 year
Certification	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹	CE: LVD, EMC, Machinery; tested to EN 61400-2 ¹

¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia. Photographs are BushLine's own product images for the model shown.

H Series — prices and matched controllers

AUD incl. GST	H1000	H2000
Turbine only	\$3,485	\$6,345
Kit with pure-wind controller (no solar input)	\$4,240 WW10-48-48	\$7,550 WW20-48-48
Options	Rotor: 3 blades at the price shown; 5 blades +\$1,180	Rotor: 3 blades at the price shown; 5 blades +\$1,340
Delivery	Built to order and sea-freighted, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Delivery on this model is quoted to your exact address before you order.	Built to order and sea-freighted, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Delivery on this model is quoted to your exact address before you order.

Kit prices name the controller that ships. The pure-wind kit controller has no solar input — panels run on their own solar charge controller onto the same bank. Where a Mars kit is listed, the Mars wind-solar hybrid controller takes the place of the kit controller and runs the turbine and the panels on one box. Full controller specifications are in the appendix.

Power curve

The manufacturer publishes no power curve for its vertical-axis machines. Rated output at rated wind speed is the only measured figure supplied — we could calculate a curve and present it as measured, plenty of sellers do, and we would rather tell you it is missing.

Straight answers

H1000

Will it really make 1000 watts?

At 11 m/s — a 40 km/h wind — that is the manufacturer's rating. On a normal usable breeze you will see a fraction of that, working day and night. The manufacturer has not published a power curve for the H series, so we will not print an output table we cannot source — size your expectations conservatively, and treat the machine as an around-the-clock assist for your solar.

Why a vertical axis turbine instead of a normal one?

A horizontal turbine must face the wind, so on a turbulent site it spends its time swinging back and forth chasing gusts. An H-type vertical rotor takes wind from any direction without moving anything — no yaw mechanism, nothing to hunt, nothing to wear. In clean, steady, open-country wind a horizontal machine of the same rating is usually the better harvester; in the chopped-up wind around buildings and obstacles, the vertical layout earns its keep. If your site is open and laminar, look at our L-series horizontals instead — honestly.

Does the kit controller take solar panels?

No. The WW10-48-48 kit controller is pure-wind and has no PV input at all. Run your panels through their own solar charge controller onto the same battery bank — the two charge side by side. Want them on the one box? Pick Turbine only and add one of our separately sold hybrid controllers — our pick is the Mars 1 kW–3 kW wind-solar hybrid MPPT with a 1 kW wind rating. See the Wind and Solar Controllers collection.

H2000

Will it really make 2000 watts?

At 11 m/s — a 40 km/h wind — that is the manufacturer's rating. On a normal usable breeze you will see a fraction of that, working day and night. The manufacturer has not published a power curve for the H series, so we will not print an output table we cannot source — size your expectations conservatively, and treat the machine as an around-the-clock assist for your solar.

Why a vertical axis turbine instead of a normal one?

A horizontal turbine must face the wind, so on a turbulent site it spends its time swinging back and forth chasing gusts. An H-type vertical rotor takes wind from any direction without moving anything — no yaw mechanism, nothing to hunt, nothing to wear. In clean, steady, open-country wind a horizontal machine of the same rating is usually the better harvester; in the chopped-up wind around buildings and obstacles, the vertical layout earns its keep. If your site is open and laminar, look at our L-series horizontals instead — honestly.

Does the kit controller take solar panels?

No. The WW20-48-48 kit controller is pure-wind and has no PV input at all. Run your panels through their own solar charge controller onto the same battery bank — the two charge side by side. Want them on the one box? Pick Turbine only and add one of our separately sold hybrid controllers — our pick is the Mars 1 kW–3 kW wind-solar hybrid MPPT with a 2 kW wind rating. See the Wind and Solar Controllers collection.

Charge controllers

The turbine generates three-phase AC. The rectifier built into the controller converts it to DC, and the DC charges the battery. "48 V" describes the battery bank the machine suits, not the voltage on the tower cable — a generator's voltage rises with rotor speed, which is why the matched controller is built to take 80 to 320 V on its input.

Two series, both pure-wind MPPT with no solar input at all: WCMD for the M Series and the X-300, the WW series (WW10 to WW50) for everything from 1 kW up. A pure-wind kit takes no solar array — panels go on their own solar charge controller onto the same battery bank, and the two charge side by side. Want wind and solar on the one controller? The M Series and the X-300 also come as a kit with the Mars wind-solar hybrid controller, and hybrid controllers are sold separately too — the next pages show the ones we stock, and they are in the Wind & Solar Controllers collection on bushline.com.au.

The wattage in a controller's name is the turbine size it matches, not its throughput. Never size cable or breakers from it. Where the manufacturer has not published a maximum battery charging current in amps, the row says so.

The two series

Series	Family	Takes solar?	Turbines it ships with	Sold on its own
WCMD WCMD pure-wind MPPT	W — pure-wind MPPT	No — turbine only	M-400, M-600, M-800, X-300	Kits only — adds to the turbine price
WW WW pure-wind MPPT	W — pure-wind MPPT	No — turbine only	L1-1000, L1-1500, L1-2000, L2-2000, L2-2500, L2-3000, G-3000, G-5000, H1000, H2000	WW10-48-48 — WW20-48-48 — WW30-48-240 — WW50-48-240 —

Kit-only controllers — what they add to the turbine price

Controller	Series	Battery	In a kit	On these turbines
LWCMD400W-12V	WCMD · pure-wind	12 V	adds \$350	M-400, M-600, X-300
LWCMD800W-24V	WCMD · pure-wind	24 V	adds \$385	M-400, M-600, M-800, X-300
LWCMD800W-48V	WCMD · pure-wind	48 V	adds \$415 to \$470	M-400, M-600, M-800, X-300

WCMD — Pure-wind MPPT with boost, buck and boost-buck charging, built-in LCD and dump-load braking. No solar input at all. The kit controller for the M Series and X-300.

WW — The heavy-duty pure-wind series, 1–5 kW. RS485 built in, adjustable over-current, over-voltage and over-speed braking, lightning protection and a separate dump-load box. No solar input. The kit controller for everything from 1 kW up.

WCMD series

PURE-WIND

WCMD pure-wind MPPT — no solar input at all

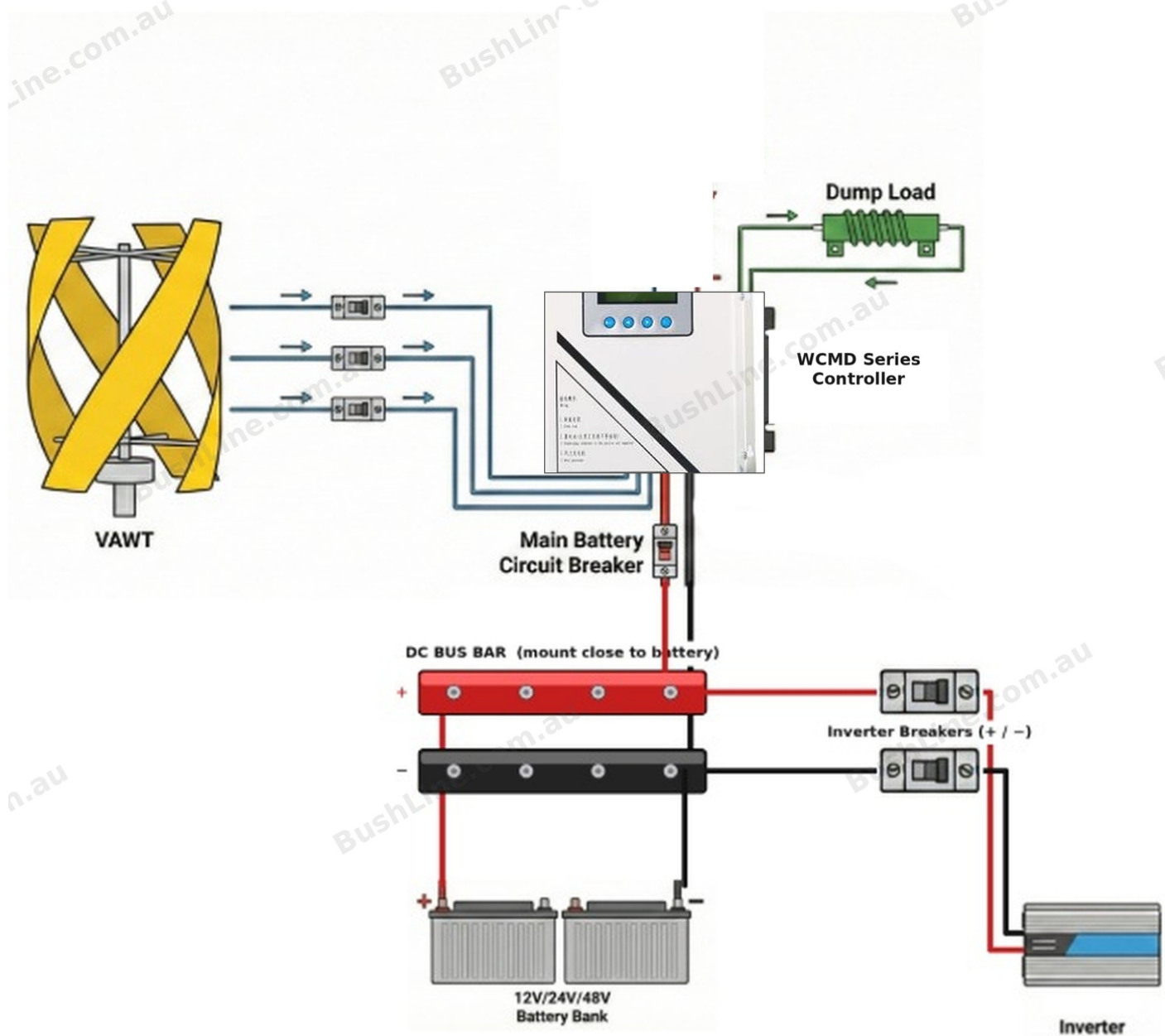
Pure-wind MPPT with boost, buck and boost-buck charging, built-in LCD and dump-load braking. No solar input at all. The kit controller for the M Series and X-300.

Specification	LWCMD400W-12V	LWCMD800W-24V	LWCMD800W-48V
Controller type	Pure-wind MPPT (no PV input at all)		
Battery voltage	12 V	24 V	48 V
Max wind power	400 W	800 W	800 W
Max wind input voltage	80 V	180 V	180 V
Wind charging method	Boost / buck / boost-buck MPPT		
Unloading	External unloading — dump-load resistor included with the controller; an enclosed resistance box is available as an optional extra		
Load output	None		
Protection	Over-voltage, over-current, reverse connection, over-speed and dump-load protection		
Display	Built-in LCD		
Working temperature	-20°C to +55°C		
Static loss	1.8 W or less		
Warranty	1 year		
Maximum battery charging current	Not specified by supplier — do not size cable or breakers from the wattage in the product title		

Source: <https://bushline.com.au/products/m-400w-wind-turbine-kit>

WCMD series — system connection

Indicative only. It shows how the parts relate; it is not a compliant electrical design for any site. No solar array is shown because this series has no PV input. Cable, breakers, isolator and dump load are sourced locally and sized by your electrician.



WW series

WW pure-wind MPPT — no solar input at all

PURE-WIND

The heavy-duty pure-wind series, 1–5 kW. RS485 built in, adjustable over-current, over-voltage and over-speed braking, lightning protection and a separate dump-load box. No solar input. The kit controller for everything from 1 kW up.

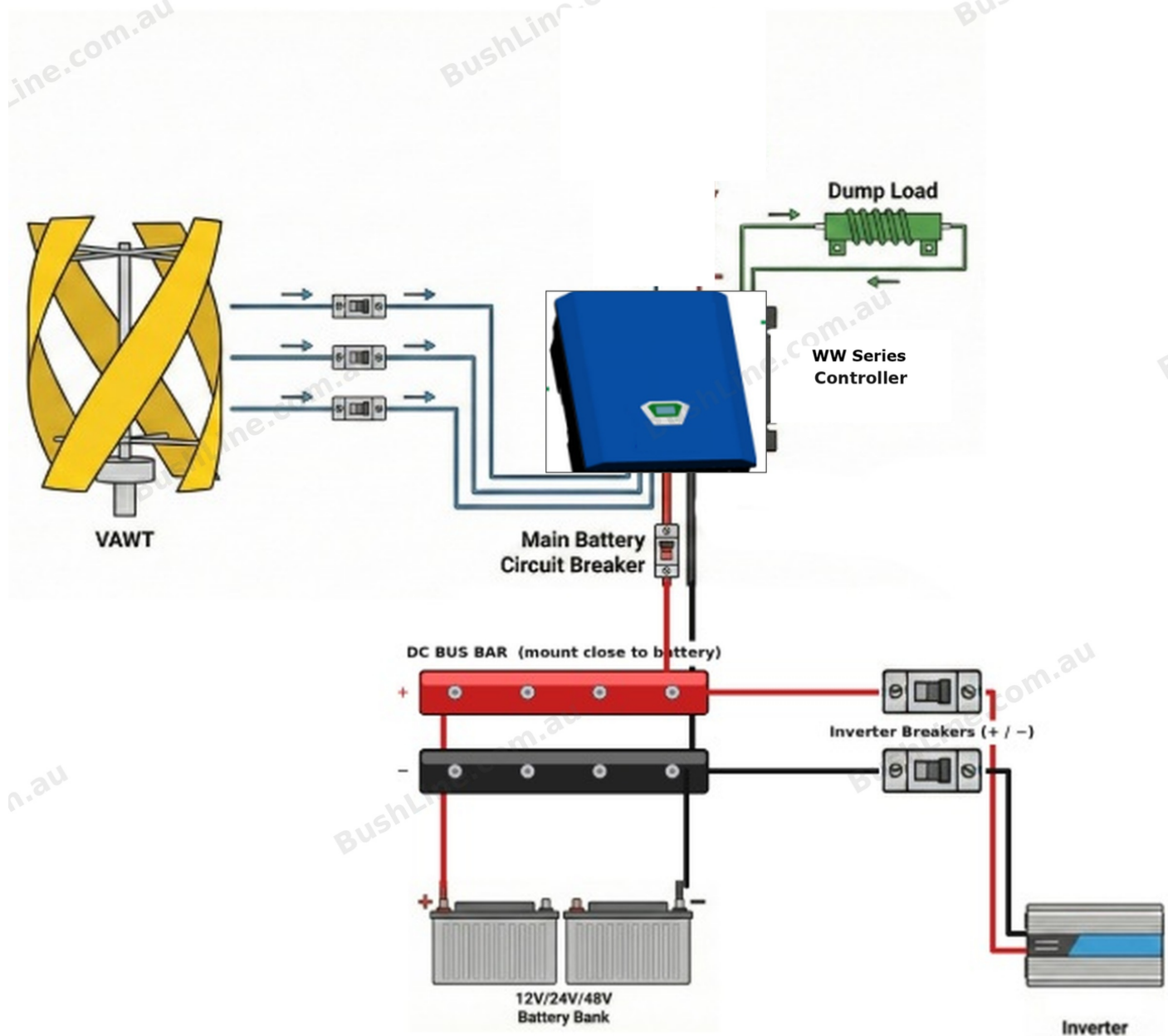


Specification	WW10-48-48	WW20-48-48	WW30-48-240	WW50-48-240
Controller type	Pure-wind MPPT (no PV input at all)			
Topology	Step-up	Step-up	Step-down	Step-down
Rated input power (matched turbine size)	1 kW	2 kW	3 kW	5 kW
Rated input voltage	48 Vdc	48 Vdc	280 Vdc	280 Vdc
Wind input voltage range	0–64 Vdc; 12 V default start-charge voltage (settable 8–64 V)	12–64 Vdc (model page); the series table prints 0–64 Vdc with a 12 V default start-charge voltage (settable 8–64 V) — both as printed	60–320 Vdc; cut-in 60 Vdc factory setting, adjustable	60–320 Vdc; cut-in 60 Vdc factory setting, adjustable
Rated input current	21 A	42 A	13 A	21 A
Maximum output current (battery side)	21 A	42 A	63 A	105 A
Battery voltage	48 Vdc			
Rated output voltage	48 Vdc			
Output over-voltage protection	Lower limit 56 Vdc factory setting (adjustable 44–64 Vdc); upper limit 60 Vdc factory setting (lower limit +4 V)			
Temperature compensation	–3 mV/°C/2V			
Manual brake	Press and hold button for 5 s to fully dump; manual recovery required; three-phase AC short circuit when air switch is closed			
Over-current brake	25 A factory setting; adjustable 0–25 A; full dump and recovery after 10 min	50 A factory setting; adjustable 0–50 A; full dump and recovery after 10 min	15 A factory setting; adjustable 0–15 A; full dump and recovery after 10 min	25 A factory setting
Over-voltage brake	Controlled by output over-voltage protection	Controlled by output over-voltage protection	320 Vdc factory setting; adjustable 220–320 Vdc	320 Vdc factory setting; PWM step-down dump
Optional over-wind-speed brake	18 m/s (64.8 km/h) factory setting; adjustable 0–30 m/s (0–108 km/h); recovery below 15 m/s (54 km/h) after 10 min			
Optional over-speed brake	500 rpm factory setting; adjustable 0–1000 rpm; recovery after 10 min			
Rectification	Uncontrolled rectification			
Display	LCD			
Communications	RS485 built in (supplier-confirmed); optional WiFi or RJ45 Ethernet, factory-fitted — one or the other, cannot be added later (manufacturer)			
Lightning protection	Yes			
Efficiency	≥92%	≥92%	≥92%	≥95%
Static loss	Less than 2 W	Less than 5 W	Less than 5 W	Less than 6 W (model page); the series continuation prints less than 8 W — both as printed
Working temperature	–20°C to +40°C			
Working humidity	0–90% RH (non-condensing)			
Noise	65 dB or less			
Cooling	Forced air cooling	Forced air cooling	Forced air cooling	The manufacturer prints both "fan cooling" (model page) and "natural cooling" (series table); we publish as printed. Allow ventilation either way.
Installation	Wall-mounted			
Protection level	IP42 — indoor or sheltered mounting, not weather-exposed			
Controller size	300 × 375 × 145 mm	300 × 375 × 145 mm	360 × 440 × 195 mm	360 × 440 × 195 mm
Controller net weight	10 kg	10 kg	15.5 kg	15.5 kg
Dump-load box (included)	360 × 80 × 120 mm, 2.8 kg	300 × 400 × 210 mm, 9 kg	400 × 390 × 210 mm, 13 kg	680 × 390 × 182 mm, 19 kg
Shipping	Not specified by supplier	2 cardboard boxes, 495 × 380 × 255 mm each; 23 kg gross	1 wooden crate, 540 × 490 × 565 mm; 38.6 kg gross	1 wooden crate, 820 × 495 × 550 mm; 46.5 kg gross
Warranty	1 year			

Source: <https://bushline.com.au/products/ww-pure-wind-mppt-controller-1kw-5kw>

WW series — system connection

Indicative only. It shows how the parts relate; it is not a compliant electrical design for any site. No solar array is shown because this series has no PV input. Cable, breakers, isolator and dump load are sourced locally and sized by your electrician.



Wind-solar hybrid controllers — sold separately

Some sites want the turbine and the panels on one controller: one box, one battery bank, one display. The M Series and the X-300 can be bought as a kit with the Mars hybrid (its price is on each family page); otherwise a hybrid is bought separately and takes the place of the kit controller. Match its wind rating to the turbine's rated power (never below it) and its solar rating to your array. The specifications below are the live product pages, word for word; the full tables, manuals and question-and-answer sections are on those pages.

Our pick is the Mars: MPPT on both wind and solar, one unit for a 12 V, 24 V or 48 V bank, app monitoring, and the widest range — twelve wind-and-solar combinations from 1 kW to 3 kW. It is also the reason we rank it first: the unit we bought for our own testing came with a dump load resistor rated well above the turbine power it is paired with. A dump load has to absorb the turbine's peak output in a gust, not its average; a resistor with headroom keeps absorbing through the gust, while an undersized one overheats and leaves the controller to latch its over-voltage brake — on controllers of this type, for around ten minutes at a time. We have not printed the resistor's rating because the manufacturer does not publish one. The two blue units are the budget option and do the same basic job.

Which wind rating for which turbine

Turbine	Hybrid controller to look for
M-400 · M-600 · M-800 · X-300	600 W to 1 kW wind rating
L1-1000 · H1000	1 kW wind rating
L1-1500	1.5 kW wind rating
L1-2000 · L2-2000 · H2000	2 kW wind rating
L2-2500 · L2-3000 · G-3000	2.5 kW to 3 kW wind rating
G-5000	No hybrid in our range is rated for 5 kW — the WW50-48-240 pure-wind kit controller is the match

Mars 1 kW — 3 kW wind-solar hybrid MPPT — Our pick

Mars 1kW-3kW Wind & Solar Hybrid MPPT Controller Lifepo4 Full Battery Display

<https://bushline.com.au/products/hybrid-wind-solar-controller-1kw-3kw>

\$450 to \$740 AUD incl. GST · 12 options · **Suits:** Any turbine in this catalogue rated up to 3 kW — choose the wind rating that matches the turbine's rated power, never below it



Specification	As printed on the product page
Wind and solar ratings	Wind 1000W–3000W paired with solar 1000W–3000W, twelve combinations
Battery bank	12V / 24V / 48V, auto-recognised from the battery bank
Charging	MPPT (maximum power point tracking), wind and solar independent
Dump load	Included. Connects to the D+ and D– terminals. Resistance and wattage rating: Not specified by supplier — read the plate on the resistor you receive
Monitoring	Wi-Fi / GPRS module for app and cloud monitoring, plus RS485
Weather rating	IP30 — dust protected, no water rating. Indoor or enclosure mounting only
Certification	CE, FCC, RoHS
In the box	Controller · Wi-Fi module · dump load resistor · cable, screws and nuts · one pair of MC4 connectors · MC4 spanner · manual
Options sold	Wind1000W Solar1000W · 12V 24V 48V AUTO · With Wi-Fi, Wind1200W Solar1200W · 12V 24V 48V AUTO · With Wi-Fi, Wind1500W Solar1500W · 12V 24V 48V AUTO · With Wi-Fi, Wind2000W Solar1500W · 12V 24V 48V AUTO · With Wi-Fi, Wind2000W Solar2000W · 12V 24V 48V AUTO · With Wi-Fi, Wind2500W Solar1500W · 12V 24V 48V AUTO · With Wi-Fi, Wind2500W Solar2000W · 12V 24V 48V AUTO · With Wi-Fi, Wind3000W Solar1500W · 12V 24V 48V AUTO · With Wi-Fi, Wind3000W Solar2000W · 12V 24V 48V AUTO · With Wi-Fi, Wind3000W Solar2500W · 12V 24V 48V AUTO · With Wi-Fi, Wind3000W Solar3000W · 12V 24V 48V AUTO · With Wi-Fi

600 W, 800 W and 1.2 kW wind-solar hybrid — Budget option

600W, 800W & 1.2kW Wind & Solar Hybrid Controller & Load Dump

<https://bushline.com.au/products/wind-solar-hybrid-controller-dump-load>

\$360 to \$479 AUD incl. GST · 8 options · Suits: The small four: M-400, M-600, M-800 and X-300



Specification	As printed on the product page
Wind and solar ratings	600W, 800W, 1000W or 1200W — set by the version you select
Solar rating	600W with the 600W and 800W wind ratings; 1000W with the 1000W and 1200W wind ratings
Battery bank	Two versions, selected at checkout: 12V / 24V auto-detect (also lockable to 12V or 24V in the menu), or 24V / 48V auto-detect
Wind input limit	Wind turbine $\leq$ 80V · Solar panel $\leq$ 55V. Do not exceed these. Size your panel string on its open-circuit voltage in the cold, not on its rated figure
Charging	Wind generator MPPT boost charge, PWM dump load, PWM over-current limiting
Dump load	External resistor, supplied, wires to terminals D+ and D-. The plate on the resistor shown in the supplier's images and on the manual cover reads 800W 1RJ — 800W, 1 ohm — and the supplier lists no larger resistor for the higher power ratings, so the same 800W unit ships with every option including the 1200W one. An 800W resistor cannot absorb 1200W. On the 1000W and 1200W options, have your electrician size the dump load for the turbine you are fitting
Monitoring	Bluetooth and a GreenPower Android app are shown in the supplier's images and listing. The supplied user manual does not mention Bluetooth or an app anywhere — not in its functions and features list, not in its controller parameter table, not in the settings menu or the display pages. Unconfirmed by us, so do not buy this unit for the app alone. No iOS app is stated by the supplier
Weather rating	Not specified by supplier. Treat it as indoor or sealed-enclosure only
Certification	A CE mark is printed on the case. No certificate number or issuing body has been sighted, and no RCM mark or AS/NZS listing is stated by the supplier
In the box	Controller, external dump load resistor, battery leads with lugs, cable tie, user manual
Options sold	Wind 600W Solar 600W · 12V 24V Auto, Wind 600W Solar 600W · 24V 48V Auto, Wind 800W Solar 600W · 12V 24V Auto, Wind1000W Solar1000W · 12V 24V Auto, Wind 800W Solar 600W · 24V 48V Auto, Wind1200W Solar1000W · 12V 24V Auto, Wind1000W Solar1000W · 24V 48V Auto, Wind1200W Solar1000W · 24V 48V Auto

Meteor 1 kW, 2 kW and 3 kW wind-solar hybrid MPPT — Budget option

MPPT Hybrid Controller Wind & Solar 1kw 2kw 3kw & Dump Load Resistor

<https://bushline.com.au/products/mppt-hybrid-controller-wind-solar-1000w-2000w-3000w-dump-load-resistor>

\$439 to \$479 AUD incl. GST · 6 options · Suits: Turbines rated 1 kW to 3 kW



Specification	As printed on the product page
Wind and solar ratings	Matched pairs — Wind 1000W + Solar 1000W · Wind 2000W + Solar 2000W · Wind 3000W + Solar 3000W. Selected at checkout
Battery bank	12V/24V auto-detect, or 24V/48V auto-detect — selected at checkout. The menu can also lock the controller to 12V, 24V or 48V instead of auto
Wind input limit	Wind turbine $\leq$ 80V, stated on the supplier spec image for both system options
Charging	MPPT boost charging
Dump load	PWM control to an external dump load resistor. Resistor supplied in the box
Monitoring	Bluetooth to the supplier's GreenPower phone app. The manual states the app is Android only. Every option sold here is the Bluetooth version
Weather rating	Not specified by supplier. Treat it as indoor-only
Certification	A CE mark is printed on the housing and is visible in the product photographs. No certificate has been sighted. An ISO logo also appears on one supplier marketing image with no standard number against it — treat that one as marketing, not evidence
In the box	Controller, external dump load resistor on its mounting brackets, one pair of red and black leads with ring terminals, and a cable tie
Options sold	Wind1000W Solar1000W · 12V 24V Auto · With Bluetooth, Wind1000W Solar1000W · 24V 48V Auto · With Bluetooth, Wind2000W Solar2000W · 12V 24V Auto · With Bluetooth, Wind2000W Solar2000W · 24V 48V Auto · With Bluetooth, Wind3000W Solar3000W · 12V 24V Auto · With Bluetooth, Wind3000W Solar3000W · 24V 48V Auto · With Bluetooth

Buy on bushline.com.au — Wind & Solar Controllers collection. Free delivery to Australia and New Zealand on these controllers; allow up to three weeks from the day you order. Installation by a licensed electrician, who sizes the cable, the fusing and the dump load for your bank. <https://bushline.com.au/collections/wind-turbine-controllers>

Safety, delivery and warranty

Electrical safety

Installation must be carried out by a licensed electrician, and that is a condition of the warranty — keep the invoice. The connection diagrams in this catalogue show how the parts relate to each other; they are not a compliant electrical design for any particular site. Wiring, circuit breakers, fuses, isolators and every other protective device are sourced locally and selected to the standards in force in your state.

Delivery

Turbine delivery is priced to your postcode at checkout, in Australia and New Zealand. Sea freight: 4 to 6 weeks from the day you order, allow up to 7 for WA and regional addresses. Air freight: 10 to 15 working days, where offered. One \$80 export declaration is added per order, not per item. Remote areas, the Northern Territory and Tasmania are quoted individually. The G-3000, G-5000, H1000 and H2000 are quoted to your exact address before you order. Never faster than these; regional and remote addresses take longer again.

Warranty

Twelve months on turbines and controllers. Professional installation is a condition. The manufacturer treats motor burnout after prolonged high-speed operation and blade damage in consistently strong wind case by case, not as blanket cover.

Certification

Thirteen of the fourteen turbines are CE marked to the Low Voltage, EMC and Machinery Directives and tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. The M-400 is CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing in Australia; nothing in this range carries the Australian RCM.

Prices

All prices are in Australian dollars, GST included, and match bushline.com.au on the date printed on the cover. Delivery is not included: it is worked out for your postcode on the product page and at checkout. The site is the source of truth — if this page and the site ever disagree, the site wins.



BushLine Outdoor Equipment Pty Ltd
Swan View, Perth WA 6056
bushline.com.au
support@bushline.com.au
0400 333 898