



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



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Every specification and price in this catalogue is taken from the live product page on bushline.com.au on 10 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.

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-400W	M-600W	M-800W	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-400W 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 and survive stronger wind (rated to 45–50 m/s, 162–180 km/h). 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. Their survival ratings are lower — 35 m/s (126 km/h) on the HPRO, 45 m/s on the X-300 and H12 — 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 rooftop. 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 HPRO-2000 is 200 kg; the manufacturer's own words are "check roof structure before mounting".

5. Hybrid or pure-wind controller

The turbine makes three-phase AC. The rectifier inside the controller turns it into DC, and the DC charges the battery. The H-series controllers (HECR, HCM) are wind-solar hybrids: wind on MPPT, solar on PWM, one box runs both. The W-series (WCMD, MWM) are pure-wind MPPT units with no solar input at all. Buy a W-series expecting to plug panels into it and you have bought the wrong box. 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 HECR, HCM and WCMD controllers have no published maximum charging current in amps. We print "not specified by supplier" rather than divide watts by volts.
- 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-400W · X-300	SMALL
Cabin or small home, 24 V or 48 V bank, wants the cheapest real output	M-600W · M-800W	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 · HPRO · H12	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 sixteen turbines on one page. Prices are AUD including GST — turbine only (sea freight where offered, first voltage) and the cheapest kit with a matched controller. 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-400W (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	Air, 10–14 days	\$575	\$770
M-600W (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	Air, 10–14 days	\$760	\$955
M-800W (M5-800)	MEDIUM	Horizontal	800 W @ 12 m/s	830 W	12/24/48 V	2 m	50 m/s (180 km/h)	Ground 6–10 m · roof 3–6 m	26 kg	Air, 10–14 days	\$1,110	\$1,305
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 4–6 wks · air option	\$1,395	\$2,150
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 4–6 wks · air option	\$1,725	\$2,930
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 4–6 wks · air option	\$1,980	\$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 4–6 wks · air option	\$3,445	\$4,465
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 4–6 wks · air option	\$3,235	\$5,250
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 4–6 wks · air option	\$3,985	\$6,000
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	Air, 10–14 days	\$860	\$1,055
HPRO-1000	MEDIUM	Vertical	1000 W @ 12 m/s	1,100 W	48 V	2.5 m / 1.6 m	35 m/s (126 km/h)	Ground 6–10 m · roof 3–6 m	95 kg	Sea, quoted	\$4,170	\$4,925
HPRO-2000	HEAVY DUTY	Vertical	2000 W @ 12 m/s	2,200 W	48 V	2 m / 3 m	35 m/s (126 km/h)	Ground 6–10 m · roof 3–6 m	200 kg	Sea, quoted	\$5,925	\$6,945
H12-1000	MEDIUM	Vertical	1000 W @ 12 m/s	1,100 W	48 V	1.28 m / 2 m	45 m/s (162 km/h)	Ground 6–10 m · roof 3–6 m	75 kg	Sea 4–6 wks · air option	\$2,770	\$3,525
H12-2000	HEAVY DUTY	Vertical	2000 W @ 12 m/s	2,100 W	48 V	1.55 m / 2.4 m	45 m/s (162 km/h)	Ground 6–10 m · roof 3–6 m	Not specified by supplier	Sea, quoted	\$3,435	\$4,455

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-400W · DHC S4-400 · 400 W @ 14 m/s



M-600W · DHC M4-600 · 600 W @ 12 m/s



M-800W · DHC M5-800 · 800 W @ 12 m/s

Specification	M-400W Factory code S4-400	M-600W Factory code M4-600	M-800W 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	12/24/48 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

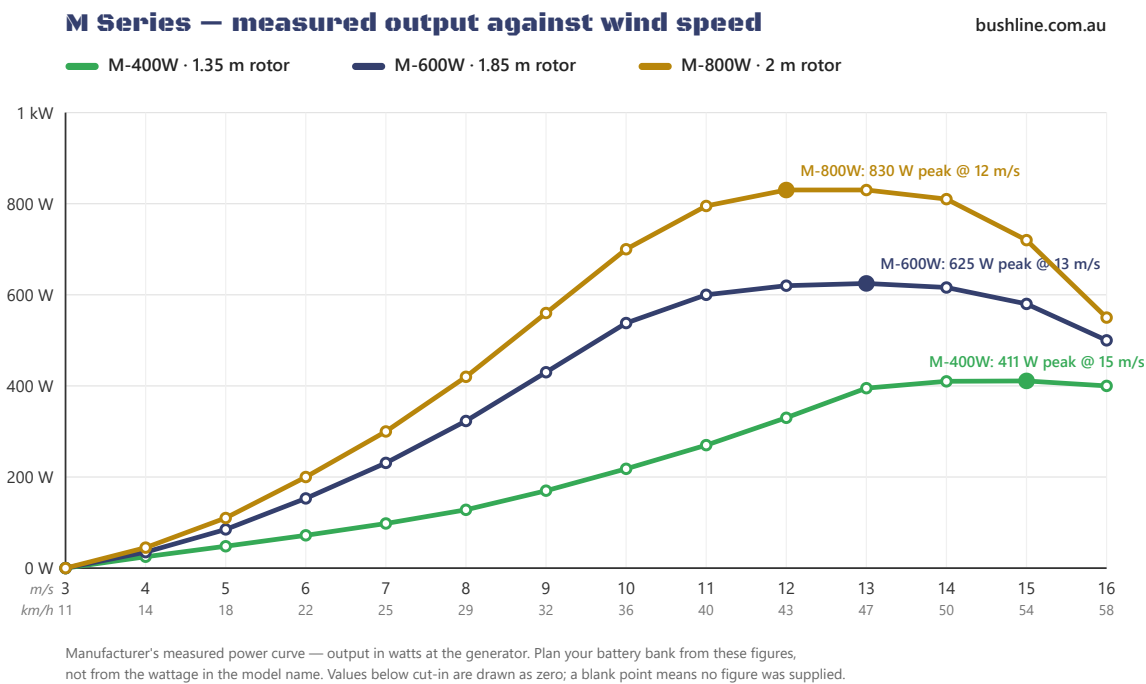
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing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

M Series — prices and matched controllers

AUD incl. GST	M-400W	M-600W	M-800W
Turbine only	\$575 12V / 24V / 48V	\$760 12V / 24V / 48V	\$1,110 12V / 24V / 48V
Kit with hybrid controller (takes solar)	\$770 12V LHECR0512	\$955 12V LHECR0512	\$1,305 12V LHECR0512
	\$770 24V LHECR0824	\$955 24V LHECR0824	\$1,305 24V LHECR0824
	\$795 48V LHECR1248	\$980 48V LHECR1248	\$1,330 48V LHECR1248
Kit with pure-wind controller (no solar input)	\$925 12V LWCMD400W-12V	\$1,110 12V LWCMD400W-12V	\$1,460 12V LWCMD400W-12V
	\$960 24V LWCMD800W-24V	\$1,145 24V LWCMD800W-24V	\$1,495 24V LWCMD800W-24V
	\$990 48V LWCMD1000W-48V	\$1,190 48V LWCMD800W-48V	\$1,540 48V LWCMD800W-48V
Delivery	Free delivery, Australia and New Zealand. 10 to 14 days from the day you order — allow up to 3 weeks.	Free delivery, Australia and New Zealand. 10 to 14 days from the day you order — allow up to 3 weeks.	Free delivery, Australia and New Zealand. 10 to 14 days from the day you order — allow up to 3 weeks.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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-400W	48 W	72 W	98 W	128 W	218 W	330 W
M-600W	85 W	153 W	231 W	323 W	538 W	620 W
M-800W	110 W	200 W	300 W	420 W	700 W	830 W

M-400W: 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

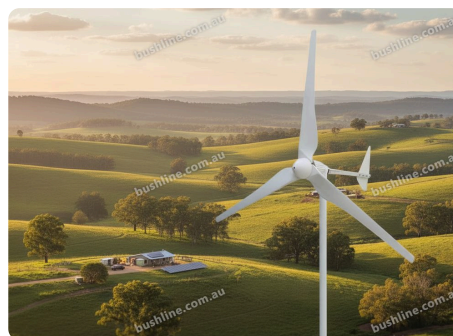
Half your power problem happens after dark. An off-grid house bank does its hardest work when the panels are asleep, and a grey winter front can flatten solar for a week. The L1 Series are the 1–2 kW horizontal workhorses for a 48 V bank — 48 to 58 kg, 2.6 to 3.2 m rotors, three reinforced FRP blades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

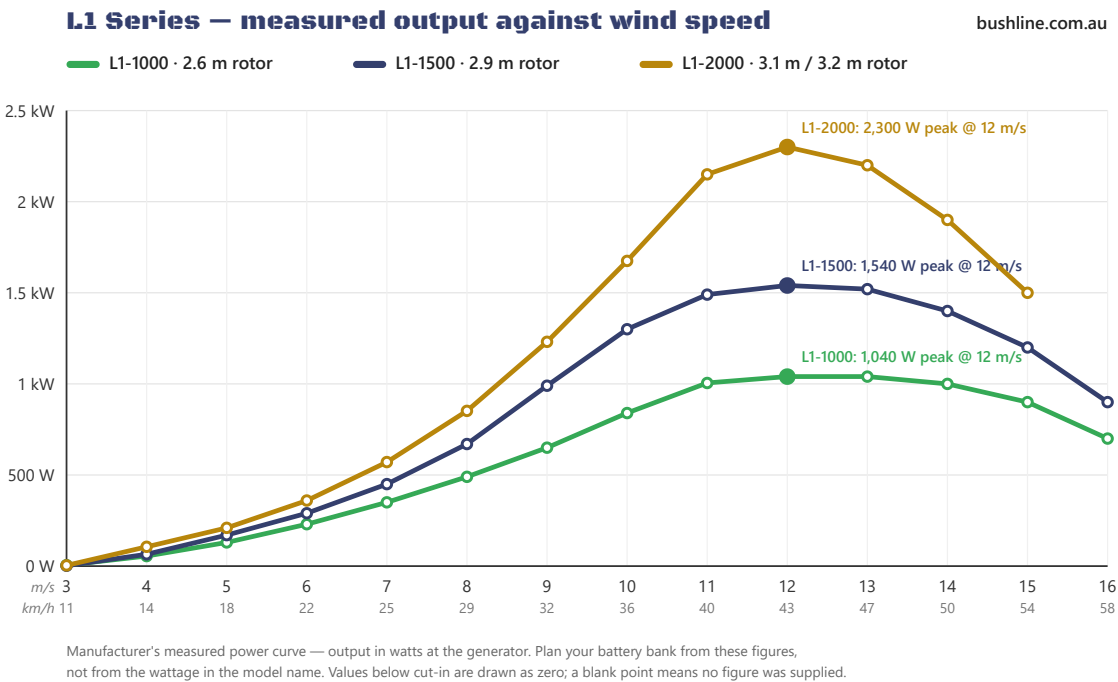
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing 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	\$1,395	\$1,725	\$1,980
Kit with pure-wind controller (no solar input)	\$2,150 WW10-48-48	\$2,930	\$3,185
Options	Air Upgrade +\$345 on any variant	Air Upgrade +\$375 on any variant Sold as turbine only — matched controller WW20-48-48 on the MWM controller page, \$1,205	Air Upgrade +\$410 on any variant Sold as turbine only — matched controller WW20-48-48 on the MWM controller page, \$1,205
Delivery	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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

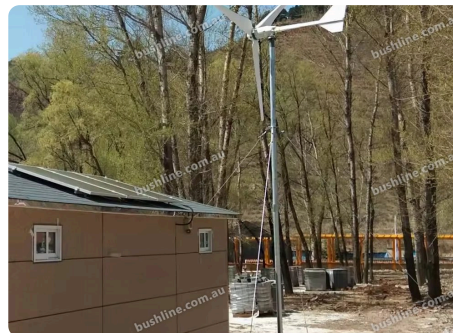
When solar cannot carry the property, wind takes the shift. The L2 Series swing bigger rotors — 3.5 to 4.1 m — for the pressure pump, the shed, the freezer and the fences. The L2-2000 charges a 48 V bank directly. The L2-2500 and L2-3000 generate at 220 V, which keeps the current low on a long cable 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

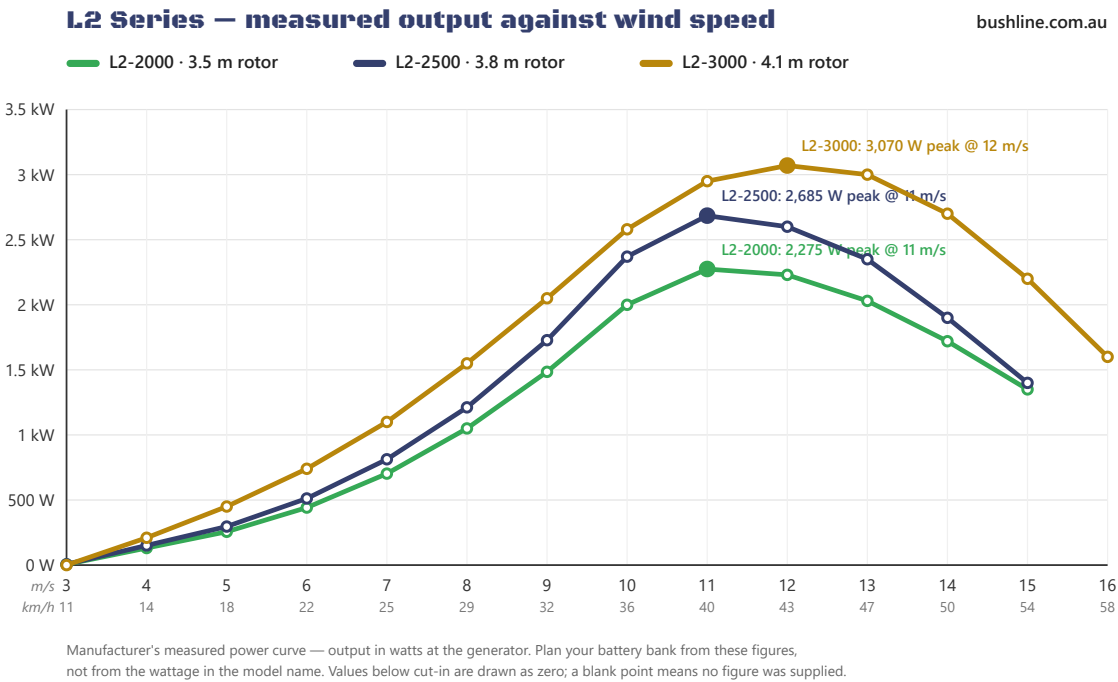
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L2 Series — prices and matched controllers

AUD incl. GST	L2-2000	L2-2500	L2-3000
Turbine only	\$3,445	\$3,235	\$3,985
Kit with hybrid controller (takes solar)	\$4,465 LHCM2-1/48V	Not offered on this model	Not offered on this model
Kit with pure-wind controller (no solar input)	\$4,650 WW20-48-48	\$5,250 WW30-48-240	\$6,000 WW30-48-240
Options	Air Upgrade +\$590 on any variant	Air Upgrade +\$655 on any variant	Air Upgrade +\$720 on any variant
Delivery	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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

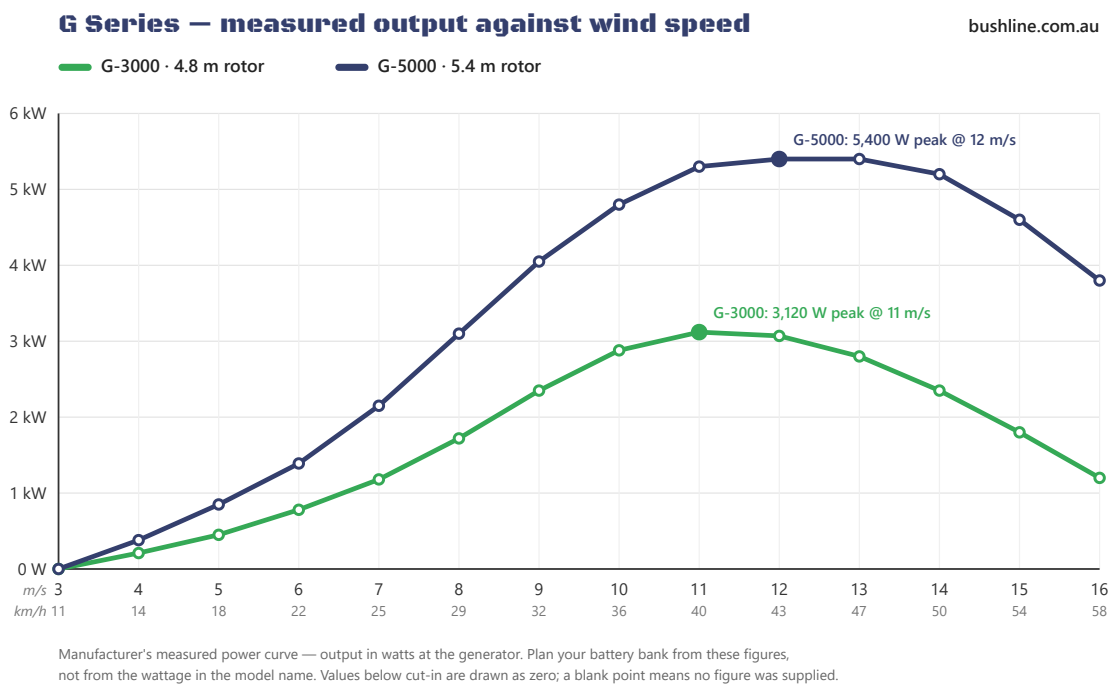
¹ CE marked to the Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU and Machinery Directive 2006/42/EC; tested to EN 61400-2 (small wind turbines), EN ISO 12100 and EN 60204-1. ² CE marked by the manufacturer to the Low Voltage Directive only. CE is a European mark and carries no legal standing 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. Delivery on this model is quoted to your exact address before you order.	Built to order and sea-freighted — allow 4 to 6 weeks. Delivery on this model is quoted to your exact address before you order.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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 hybrid controller (takes solar)	\$1,055 12V LHECR0512 \$1,055 24V LHECR0824 \$1,080 48V LHECR1248
Kit with pure-wind controller (no solar input)	\$1,210 12V LWCMD400W-12V \$1,245 24V LWCMD800W-24V \$1,330 48V LWCMD1000W-48V
Delivery	Free delivery, Australia and New Zealand. 10 to 14 days from the day you order — allow up to 3 weeks.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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?

Yes. The HECR series is a wind-solar hybrid: wind charges through MPPT and a solar array connects to the same unit on PWM — up to 600 W of PV on the 12V model, 1000 W on the 24V, 1200 W on the 48V. Never running panels? Pick With Pure-Wind Controller — the WCMD units have no PV input at all.

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.

HPRO Series

VERTICAL AXIS · 2 MODELS

Three-blade H-type verticals, maglev generator, 1–2 kW

Horizontal turbines need clean, steady wind from one direction. Around houses, sheds and tree lines that is exactly what you do not get. The HPRO Series are H-type verticals — three straight aluminium-alloy blades on a magnetic-levitation generator — that take wind from all 360 degrees with no yaw mechanism. The HPRO-2000 is 200 kg: on a working property a ground mast in clean air is usually the better installation. Delivery on both is quoted to your address before you order.



HPRO-1000 · 1000 W @ 12 m/s



HPRO-2000 · 2000 W @ 12 m/s

Specification	HPRO-1000	HPRO-2000
Application class	MEDIUM	HEAVY DUTY
Rated power	1000 W @ 12 m/s	2000 W @ 12 m/s
Peak output	1,100 W	2,200 W
Battery bank	48 V	48 V
Rotor diameter	2.5 m / 1.6 m	2 m / 3 m
Blade length / height	1.6 m high	3 m high
Blades	3	3
Start-up · cut-in	2.5 m/s (combined)	2.5 m/s (combined)
Rated wind speed	12 m/s	12 m/s
Survival wind speed	35 m/s (126 km/h)	35 m/s (126 km/h)
Generator	Maglev PM, 3-phase AC	Maglev PM, 3-phase AC
Generator speed	300 rpm	300 rpm
Over-speed brake	Electromagnetic brake	Electromagnetic brake
Direction control	360° auto windward	360° auto windward
Mounting	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m
Blade material	High-strength aluminium alloy	High-strength 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	95 kg · 140 kg	200 kg · 260 kg
Packing	Two packages: 2.57 m × 450 × 300 mm + 1.62 m × 400 × 480 mm	Two packages: 3.2 m × 400 × 300 mm + 2.1 m × 470 × 510 mm
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.

HPRO Series — prices and matched controllers

AUD incl. GST	HPRO-1000	HPRO-2000
Turbine only	\$4,170	\$5,925
Kit with hybrid controller (takes solar)	Not offered on this model	\$6,945 LHCM2-1/48V
Kit with pure-wind controller (no solar input)	\$4,925 WW10-48-48	\$7,130 WW20-48-48
Delivery	Built to order and sea-freighted — allow 4 to 6 weeks. Delivery on this model is quoted to your exact address before you order.	Built to order and sea-freighted — allow 4 to 6 weeks. Delivery on this model is quoted to your exact address before you order.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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

HPRO-1000

Will it really make 1000 watts?

At 12 m/s — a 43 km/h blow — that is the manufacturer's rating, with a stated maximum of 1,100 W. Unlike our horizontal turbines, the manufacturer publishes no power curve for this model, so we cannot tell you what it makes at 5, 7 or 9 m/s — and we will not calculate a figure and pass it off as measured. Expect a fraction of the rated output in normal usable wind, and size your system accordingly.

Can the kit controller take solar panels?

No. The WW10-48-48 is a pure-wind MPPT controller with no PV input at all, and the manufacturer lists no hybrid alternative for this model. If a one-box wind-plus-solar setup matters to you, look at the HPRO-2000 or the H12 range instead — we would rather point you at the right machine than sell you this one.

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

The supplier publishes no battery-side charging current for this controller, and we will not calculate one by dividing watts by volts — that is how people end up sizing breakers off a guess. Its own manual does print 21 A rated input current, and that figure is in the table below. Do not size cable or breakers from the wattage in any product title.

HPRO-2000

Will it really make 2000 watts?

At 12 m/s — a 43 km/h blow — that is the manufacturer's rating, with a stated maximum of 2,200 W. Unlike our horizontal turbines, the manufacturer publishes no power curve for this model, so we cannot tell you what it makes at 5, 7 or 9 m/s — and we will not calculate a figure and pass it off as measured. Expect a fraction of the rated output in normal usable wind, and size your system accordingly.

Can I mount it on the roof?

Only with your eyes open. The manufacturer lists rooftop mounting at 3 to 6 m above the roofline — and in the same breath its own documentation says, word for word, "check roof structure before mounting." This is a 200 kg machine before you add the mount. That is a structural engineering question, not an installer's judgement call on the day. A ground mast at 6 to 10 m sidesteps the whole issue and usually finds cleaner air anyway.

Does the kit controller take solar panels?

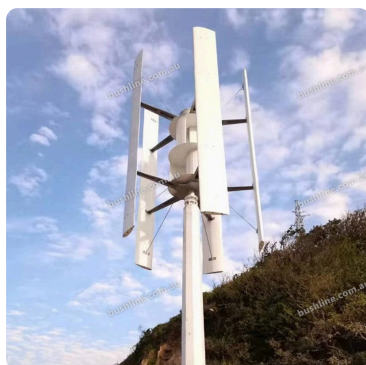
Pick With Hybrid Controller and yes: the LHCM2-1/48V runs the turbine on MPPT and takes a solar array on a PWM input. Pick With Pure-Wind Controller and no: the WW20-48-48 has no PV input at all. They are different boxes for different systems — the WW20-48-48 table below spells out what is actually published, and for the hybrid unit the supplier prints only series-level figures, so there is no model-level table for us to show.

H12 Series

Five-blade H-type verticals, 1–2 kW

VERTICAL AXIS · 2 MODELS

Built for wind that never blows straight. The H12 Series are five-blade H-type verticals for a 48 V bank — aluminium alloy blades standing upright around a central generator, taking gusts from any point of the compass with nothing to swing or hunt. The H12-1000 ships by sea with an air option; the H12-2000 is quoted to your address before you order.



H12-1000 · 1000 W @ 12 m/s



H12-2000 · 2000 W @ 12 m/s

Specification	H12-1000	H12-2000
Application class	MEDIUM	HEAVY DUTY
Rated power	1000 W @ 12 m/s	2000 W @ 12 m/s
Peak output	1,100 W	2,100 W
Battery bank	48 V	48 V
Rotor diameter	1.28 m / 2 m	1.55 m / 2.4 m
Blade length / height	2 m high	2.4 m high
Blades	5	5
Start-up · cut-in	2 m/s (combined)	2.5 m/s (combined)
Rated wind speed	12 m/s	12 m/s
Survival wind speed	45 m/s (162 km/h)	45 m/s (162 km/h)
Generator	PM synchronous, 3-phase AC	External rotor, 3-phase AC
Generator speed	500 rpm	250 rpm
Over-speed brake	Electromagnetic brake	Electromagnetic brake
Direction control	360° auto windward	360° auto windward
Mounting	Ground 6–10 m · roof 3–6 m	Ground 6–10 m · roof 3–6 m
Blade material	Aluminium alloy	Aluminium alloy
Body material	Aluminium alloy	Die-cast aluminium
Protection grade	IP54	IP54
Working temperature	-20 °C to +50 °C	-20 °C to +50 °C
Net · gross weight	75 kg · 90 kg	Not specified by supplier · 170 kg
Packing	Two boxes : 310 × 310 × 350 mm and 2.05 m × 250 × 350 mm	Two boxes : 2.5 m × 300 × 300 mm and 1.2 m × 400 × 400 mm
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.

H12 Series — prices and matched controllers

AUD incl. GST	H12-1000	H12-2000
Turbine only	\$2,770	\$3,435
Kit with hybrid controller (takes solar)	\$3,685 LHCM1-06/48V	\$4,455 LHCM2-1/48V
Kit with pure-wind controller (no solar input)	\$3,525 WW10-48-48	\$4,640 WW20-48-48
Options	Air Upgrade +\$590 on any variant	
Delivery	Built to order and sea-freighted — free, allow 4 to 6 weeks (up to 7 for WA and regional addresses). Air Upgrade option lands in around 2 to 3 weeks.	Built to order and sea-freighted — allow 4 to 6 weeks. Delivery on this model is quoted to your exact address before you order.

Kit prices name the controller that ships. Hybrid controllers take a solar array as well as the turbine; pure-wind controllers do not. 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

H12-1000

Will it really make 1000 watts?

At 12 m/s — a 43 km/h wind — that is the manufacturer's rating, with a published maximum of 1,100 W. On a normal usable breeze you will see a fraction of that, working day and night. The manufacturer publishes no power curve for its vertical machines, 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?

The hybrid option does. The LHCM1-06/48V runs the turbine through MPPT and takes a solar array on a PWM input — one unit, both sources. The pure-wind WW10-48-48 has no PV input at all. Pick the package that matches how you will actually wire the system.

H12-2000

Will it really make 2000 watts?

At 12 m/s — a 43 km/h wind — that is the manufacturer's rating, with a published maximum of 2,100 W. On a normal usable breeze you will see a fraction of that, working day and night. The manufacturer publishes no power curve for its vertical machines, 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 a solar bank.

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 sheds, trees and buildings, the vertical layout earns its keep. If your site is open and laminar, look at our L-series horizontals instead — honestly.

What charging current do the controllers handle?

The pure-wind WW20-48-48 has a genuinely published figure: 42 A maximum output current, printed by the manufacturer for this exact model. The hybrid LHCM2-1/48V does not — no charging current is published anywhere for the HCM series, and we will not calculate one by dividing watts by volts. Either way, do not size cable or breakers from the wattage in any product title — that is your electrician's job, from the real figures.

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 families, and the difference is the single most important fact on any controller page. H-series (HECR, HCM) are wind-solar hybrids: wind on MPPT, solar on PWM, one unit runs both. W-series (WCMD, MWM) are pure-wind MPPT controllers with no solar input at all.

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 four series

Series	Family	Takes solar?	Turbines it ships with	Sold on its own
HECR HECR wind-solar hybrid	H — wind-solar hybrid	Yes — wind MPPT + solar PWM	M-400W, M-600W, M-800W, X-300	Kits only — adds to the turbine price
HCM HCM wind-solar hybrid	H — wind-solar hybrid	Yes — wind MPPT + solar PWM	L2-2000, HPRO-2000, H12-1000, H12-2000	LHCM1-06/48V \$915 LHCM2-1/48V \$1,020
WCMD WCMD pure-wind MPPT	W — pure-wind MPPT	No — turbine only	M-400W, M-600W, M-800W, X-300	Kits only — adds to the turbine price
MWM MWM 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, HPRO-1000, HPRO-2000, H12-1000, H12-2000	WW10-48-48 \$755 WW20-48-48 \$1,205 WW30-48-240 \$2,015 WW50-48-240 \$2,225

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

Controller	Series	Battery	In a kit	On these turbines
LHECR0512	HECR · hybrid	12 V	adds \$195	M-400W, M-600W, M-800W, X-300
LHECR0824	HECR · hybrid	24 V	adds \$195	M-400W, M-600W, M-800W, X-300
LHECR1248	HECR · hybrid	48 V	adds \$220	M-400W, M-600W, M-800W, X-300
LWCMD400W-12V	WCMD · pure-wind	12 V	adds \$350	M-400W, M-600W, M-800W, X-300
LWCMD800W-24V	WCMD · pure-wind	24 V	adds \$385	M-400W, M-600W, M-800W, X-300
LWCMD800W-48V	WCMD · pure-wind	48 V	adds \$430	M-600W, M-800W
LWCMD1000W-48V	WCMD · pure-wind	48 V	adds \$415 to \$470	M-400W, X-300

HECR — Compact wall-mounted hybrid. Wind on MPPT, solar on PWM, so one box runs a turbine and a small solar array. Rated to 800 W of wind. The kit controller for the M Series and X-300.

HCM — The larger hybrid, rated for 1–2 kW turbines. Wind on MPPT, solar on PWM. Offered as the hybrid kit option on the L2-2000, HPRO-2000, H12-1000 and H12-2000, and sold on its own.

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

MWM — 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.

HECR series

HYBRID

HECR wind-solar hybrid — takes a solar array as well as the turbine

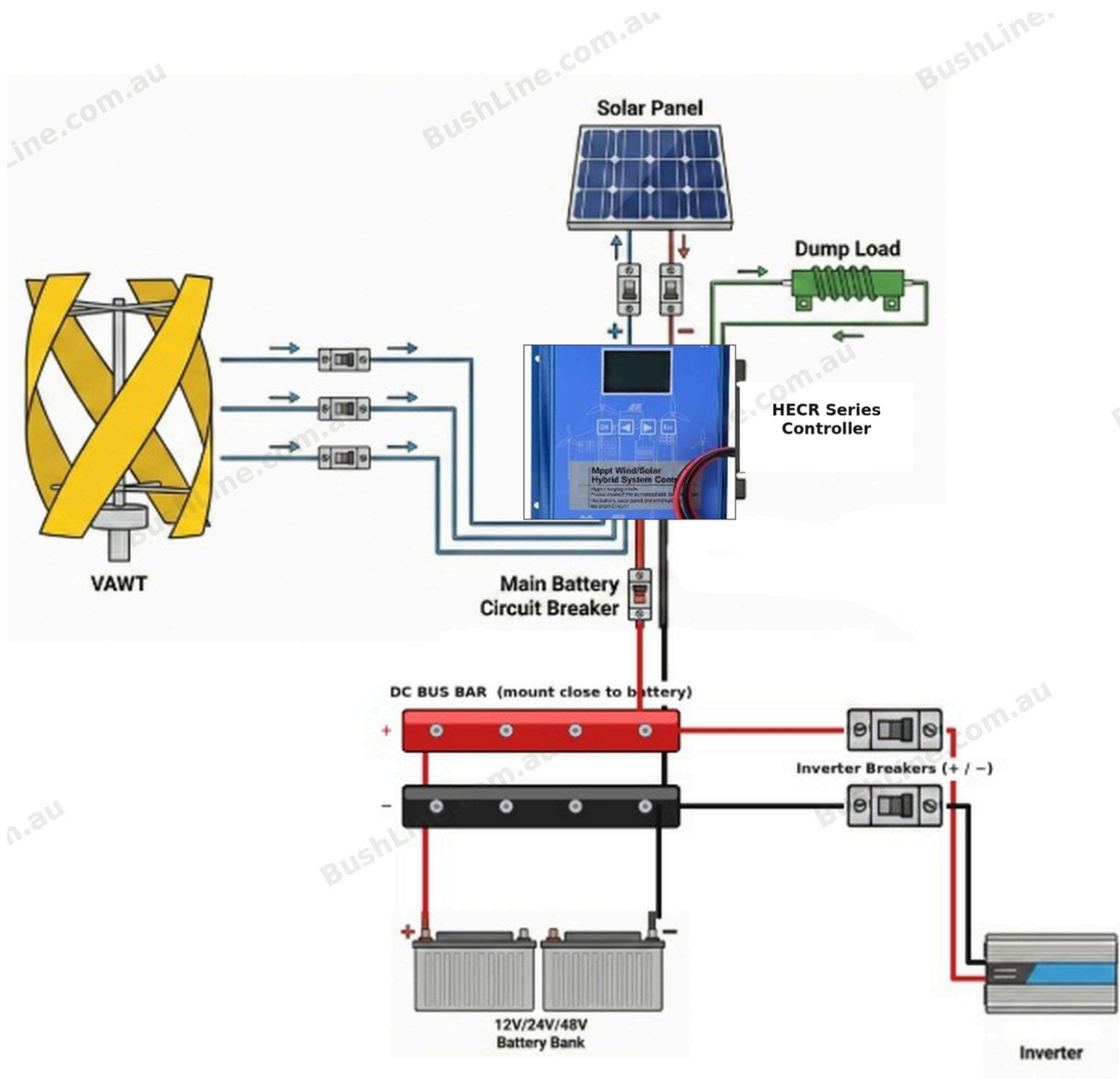
Compact wall-mounted hybrid. Wind on MPPT, solar on PWM, so one box runs a turbine and a small solar array. Rated to 800 W of wind. The kit controller for the M Series and X-300.

Specification	LHECR0512 (12V kit)	LHECR0824 (24V kit)	LHECR1248 (48V kit)
Controller type	Wind-solar hybrid (wind MPPT + PV PWM)		
Rated wind power	Up to 500 W	Up to 800 W	Up to 800 W
Rated PV power	Up to 600 W total system	Up to 1000 W total system	Up to 1200 W total system
Battery voltage	12 V	24 V	48 V
Max wind input voltage	80 V		
Max PV input voltage	55 V	55 V	95 V
Maximum battery charging current	Not specified by supplier — do not size cable or breakers from the wattage in the product title		
Wind protection	Reverse-current, over-voltage, over-current, over-speed and manual dump		
Display	LCD		
Communications	Bluetooth built in		
Installation	Wall-mounted, natural cooling		
Controller size	162 × 145 × 61.8 mm		
Net weight	1.9 kg		

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

HECR series — system connection

Indicative only. It shows how the parts relate; it is not a compliant electrical design for any site. The solar array is shown because this series accepts PV input. Cable, breakers, isolator and dump load are sourced locally and sized by your electrician.



HCM series

HYBRID

HCM wind-solar hybrid — takes a solar array as well as the turbine

The larger hybrid, rated for 1–2 kW turbines. Wind on MPPT, solar on PWM. Offered as the hybrid kit option on the L2-2000, HPRO-2000, H12-1000 and H12-2000, and sold on its own.

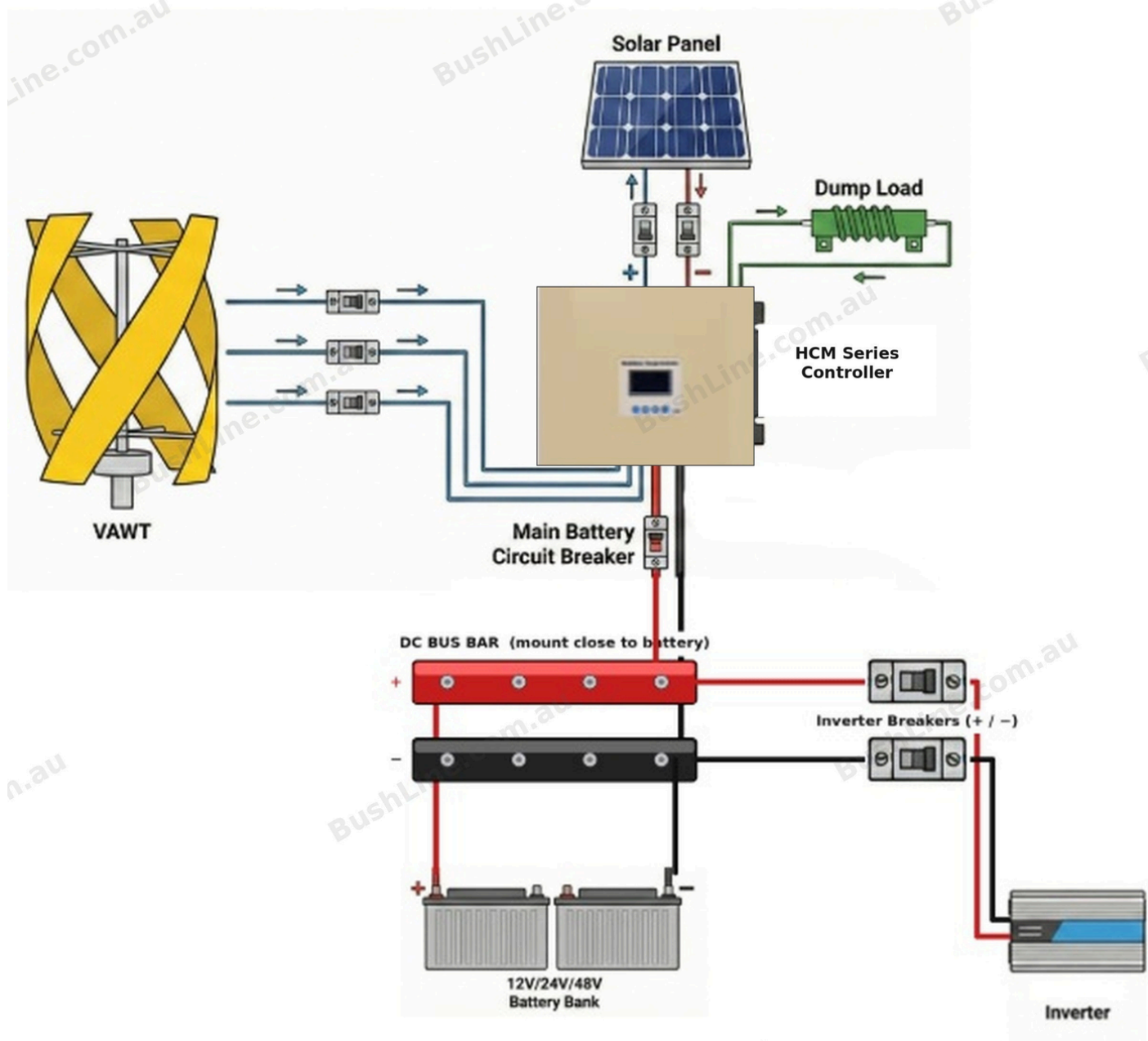


Specification	HCM series (LHCM1-06/48V and LHCM2-1/48V)
Controller type	Wind-solar hybrid — wind MPPT + solar PWM
Rated wind power	1 kW – 3 kW (series datasheet); the manufacturer's selection chart describes the series as 1–2 kW — both as printed
Rated solar power	1 kW – 3 kW (series datasheet)
Maximum battery charging current	Not specified by supplier — do not size cable or breakers from the wattage in the product title
Battery voltage	48 V as supplied (series supports 24 / 48 / 96 / 120 / 192 V, one of five, customisable)
Max wind input voltage	180 V below 96 V systems; 350 V above 96 V (except for special parameters)
Max solar input voltage	180 V below 96 V systems; 350 V above 96 V (except for special parameters)
Wind charging mode	MPPT (boost), MPPT (buck) or MPPT (boost & buck); PWM optional. The manufacturer does not state which build these two models are.
Solar charging mode	PWM
Wind unloading method	Internal and external resistance unloading; different power ratings use different unloading methods, subject to the actual configuration
Dump load control	Over rotate speed limiting, over voltage limiting, over current limiting, PWM
Protection	Battery: over-discharge, over-charge, anti-reverse connection · Wind: over rotate speed, over voltage, over current
Manual controls	Manual brake function; separate wind charging and solar charging switches
Battery under voltage (Low) — 48 V setting	40.8 V (adjustable)
Battery under voltage recovery (RLow) — 48 V setting	46.5 V (adjustable)
Battery over voltage (Full) — 48 V setting	58.8 V (adjustable)
Battery over voltage recovery (RFull) — 48 V setting	52.8 V (adjustable)
Battery float voltage (Float) — 48 V setting	54.0 V (adjustable)
Load output	None — battery charging only
Display	LCD — battery voltage, charging current and state of charge; wind voltage, current, rotor speed, output power; solar voltage and current; system state, energy generated, error codes
Communications	RS232, RS485, GPRS or anemometer — one of the four, purchased separately
Quiescent power drain	3 W or less
Operating temperature & humidity	-20°C to +55°C / 35–85% RH (non-condensing)
Controller size	460 × 400 × 165.4 mm
Net weight	14 kg
Package size and gross weight	530 × 480 × 285 mm; 16.5 kg

Source: <https://bushline.com.au/products/hcm-wind-solar-hybrid-controller-48v>

HCM series — system connection

Indicative only. It shows how the parts relate; it is not a compliant electrical design for any site. The solar array is shown because this series accepts PV input. Cable, breakers, isolator and dump load are sourced locally and sized by your electrician.



WCMD series

PURE-WIND

WCMD pure-wind MPPT — no solar input at all

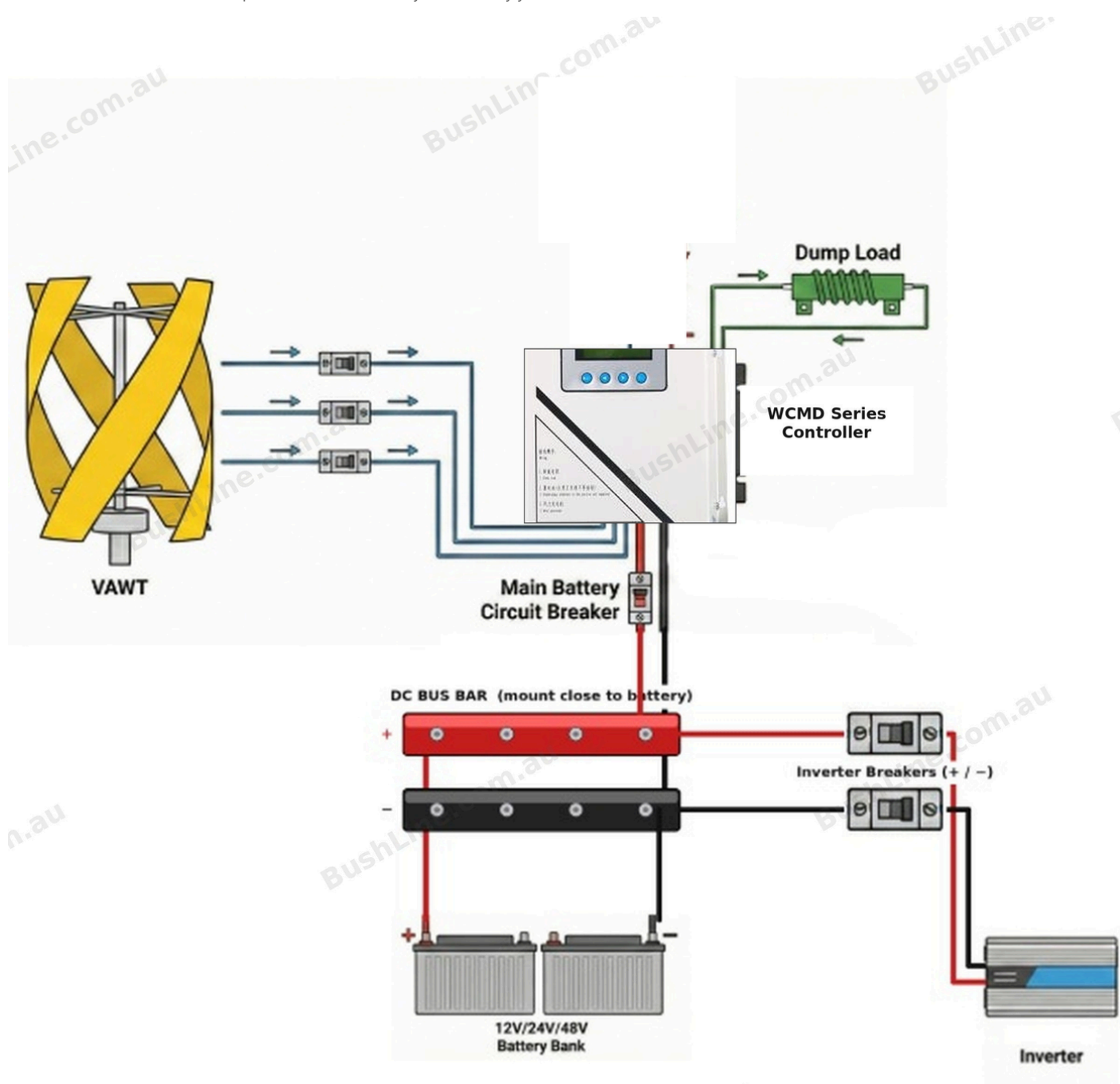
Pure-wind MPPT with boost, buck and boost-buck charging, built-in LCD and dump-load braking. No solar input at all. The pure-wind kit controller for the M Series and X-300.

Specification	LWCMD400W-12V	LWCMD800W-24V	LWCMD800W-48V	LWCMD1000W-48V
Controller type	Pure-wind MPPT (no PV input at all)	Pure-wind MPPT (no PV input at all)	Pure-wind MPPT (no PV input at all)	Pure-wind MPPT (no PV input at all)
Battery voltage	12 V	24 V	24 V	48 V
Max wind power	400 W	800 W	800 W	1000 W
Max wind input voltage	80 V	80 V	80 V	180 V
Wind charging method	Boost / buck / boost-buck MPPT	Boost / buck / boost-buck MPPT	Boost / buck / boost-buck MPPT	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	External unloading — dump-load resistor included with the controller; an enclosed resistance box is available as an optional extra	External unloading — dump-load resistor included with the controller; an enclosed resistance box is available as an optional extra	External unloading — dump-load resistor included with the controller; an enclosed resistance box is available as an optional extra
Load output	None	None	None	None
Protection	Over-voltage, over-current, reverse connection, over-speed and dump-load protection	Over-voltage, over-current, reverse connection, over-speed and dump-load protection	Over-voltage, over-current, reverse connection, over-speed and dump-load protection	Over-voltage, over-current, reverse connection, over-speed and dump-load protection
Display	Built-in LCD	Built-in LCD	Built-in LCD	Built-in LCD
Working temperature	-20°C to +55°C	-20°C to +55°C	-20°C to +55°C	-20°C to +55°C
Static loss	1.8 W or less	1.8 W or less	1.8 W or less	1.8 W or less
Warranty	1 year	1 year	1 year	1 year
Maximum battery charging current	Not specified by supplier — do not size cable or breakers from the wattage in the product title	Not specified by supplier — do not size cable or breakers from the wattage in the product title	Not specified by supplier — do not size cable or breakers from the wattage in the product title	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.



MWM series

MWM 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.

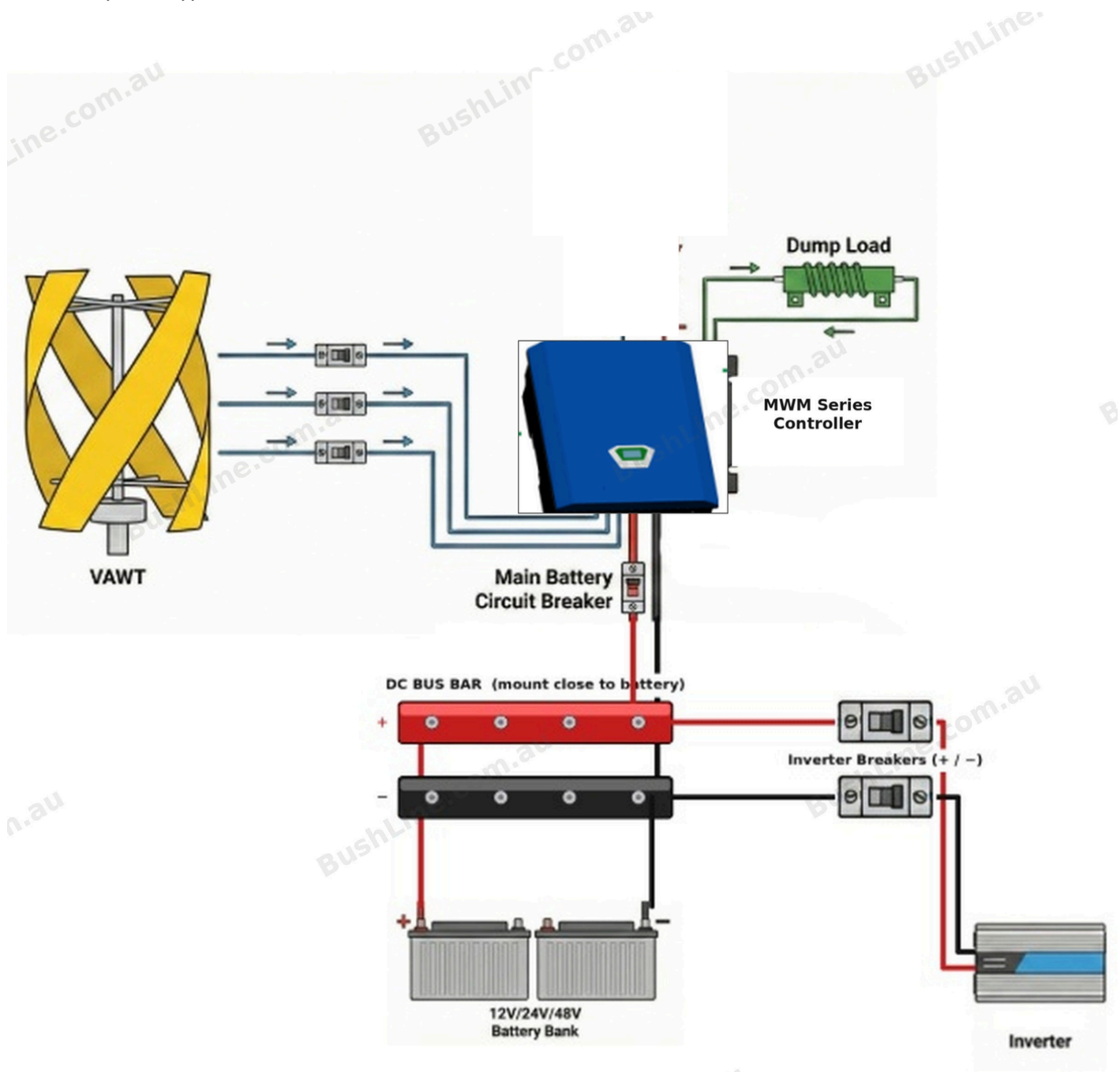


Specification	WW10-48-48	WW20-48-48	WW30-48-240	WW50-48-240
Controller type	Pure-wind MPPT (no PV input at all)			
Topology	Step-up	Step-up	Step-down	Step-down
Rated input power (matched turbine size)	1 kW	2 kW	3 kW	5 kW
Rated input voltage	48 Vdc	48 Vdc	280 Vdc	280 Vdc
Wind input voltage range	0–64 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, August 2026); optional RS232 / RJ45 / GPRS / Bluetooth / Zigbee			
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/mwm-pure-wind-mppt-controller-2kw-5kw>

MWM 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.



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

Free delivery to Australia and New Zealand. The small four (M-400W, M-600W, M-800W, X-300) ship by air: 10 to 14 days from the day you order, allow up to 3 weeks. The L1 Series, L2 Series and H12-1000 are built to order and sea-freighted: allow 4 to 6 weeks, up to 7 for WA and regional addresses; an Air Upgrade option (around 2 to 3 weeks) is on the product page where the carton allows it. The G-3000, G-5000, H12-2000, HPRO-1000 and HPRO-2000 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

Fifteen of the sixteen 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-400W 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. Freight is included in every price except the five quote-first models. The site is the source of truth — if this page and the site ever disagree, the site wins.



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