



Outdoor Transformer Voltage Converter

User Instruction Manual



Outdoor Transformers:

60W 12V, 60W 12V+12V, 100W 12V, 100W 24V, 200W 12V, 300W 12V, 300W 24V, 500W 12V, 500W 24V



HBF-60B	IP66 TXF 60VA 240/12V
HBF-60W	IP66 TXF 60VA 240/12+12V
HBF-105A	IP66 TXF 105VA 240/24V
HBF-105B	IP66 TXF 105VA 240/12V
HBF-200B	IP66 TXF 200VA 240/12V
HBF-300A	IP66 TXF 300VA 240/24V
HBF-300B	IP66 TXF 300VA 240/12V
HBF-500A	IP66 TXF 500VA 240/24V
HBF-500B	IP66 TXF 500VA 240/12V

Thank-you for purchasing a TorTech Outdoor transformer!

Tortech Transformers maintain their power rating 24/7

Thermal cut-out and safety fuse included for your Protection.

This transformer is built for 240V Alternating Current (AC) input with 12V or 24V AC output.

This Transformer is rated IP 66- This means it is dust and water proof.

Note: This transformer is designed with an **AC output**, not a DC output.

Operating Instructions - Please read this manual:

- Hardwire your lights into the low voltage terminal block. Make sure the terminal is tight. Plug this transformer into your Australia mains power outlet. Switch on the transformer and you are ready to go!
- Please ensure the required wattage of your lights is less than the transformers rated capacity.
- **Ensure you are using the correct cable crosssectional size (see Garden light voltage drop chart)**

Storage and use:

- **Note:** This transformer is Ip66 rated – can be used inside and outside. **Dust and water proof.**
- Keep out of reach of children
- Keep away from oils or flammable substances.
- Do not submerge under a body of water.



Warranty:

All Torteck transformers come with a 1 year warranty. Please keep your invoice with date of purchase as proof of warranty. No serviceable parts inside the unit. Opening or misuse will void warranty. Return for authorised servicing.

Overloading: Fuses in the transformer will “blow” if you draw more current than what the transformer can provide. They are part of the inbuilt safety protection of our transformers. The outdoor transformer has a one-shot fuse due to the IP safety requirements. This fuse can not be replaced.

Internal Fuse:

The outdoor transformer has a thermal cut-out in series with a one shot fuse in the primary circuit. Neither device can be accessed, if an overload occurs the thermal cut-out will open. This will reset after a period of time. If a short circuit is applied the one shot fuse will blow and the outdoor transformer must be replaced.

Idle Currents:

The reason the Torteck range (>100va ratings) has such low idle current AND idle watts loss is due to the core construction of the toroidal transformer magnetic core. The toroidal transformer (round / donut core) uses better quality core steel (grain orientated silicon steel) that has lower losses than conventional EI(square)

TORTECH OUTDOOR GARDEN (12-24 V_{AC}) TRANSFORMERS IDLE (NO LOAD) INPUT CURRENT

Part number	No load/Input current (mA)	Idle Watts	Efficiency %	Part number	No load/Input current (mA)	Idle Watts	Efficiency %
HBW-40W	32.3	< 1 W	82.6	HBW-300B	28.7	3.3 W	91
HBW-60B	30.1	1.2 W	83.5	HBW-300A	28.8	2.9 W	91
HBW-60W	29.6	1.1 W	83.5	HBW-500B	24.9	4.3	92.7
HBW-105B	29.3	1.9 W	85	HBW-500A	28	4.3 W	92.7
HBW-200B	25.9	3.2 W	88				

Garden Lighting Voltage Drop Chart –

It is very important that the outdoor cable chosen meets size requirements based on distance used and wattage drawn. If unsure please contact us first.

Cable length and cross sectional area mm² – based on Copper wire

Maximum distances in metres for stated wattage with Voltage Drop of up to 1 Volt

Please note: The following cable sizes are in mm²

Lamp Load/Total Wattage	Distance (m)		
	Cable Size		
	4.0mm	6.0mm	10mm
20W	65	97	164
40W	32	48	81
50W	25	38	65
60W	20	32	54
70W	18	27	46
80W	16	24	40
90W	14	21	35
100W	13	19	33
120W	10	16	27
150W	8.3	13	21
200W	6.5	10	16
250W	5	8	12.6
300W	4.2	6.7	10.7

Safety Compliance Approvals:

RCM tick of approval demonstrates Torteck Pty Ltd’s commitment to mandatory Australian Electrical Safety EESS Legislation



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