

Brushless® Screwdriver

VB Series (AC Type) Transformerless

Energy saving and cost reduction can be achieved by reducing power consumption by about 50% (compared with conventional HIOS product).

- The temperature rise of the motor is reduced by about 30% and reduces errors caused by heating.
- Can be directly plugged into AC outlet.

Lever Start Type

VB-1510

(100V) (120V) (220-240V)

Hi-speed rotation
VB-1510-18

Weight: 526g

VB-1820/VB-3012

(100V) (120V) (220-240V)

Hi-speed rotation and Hi-torque
VB-3020 (only for 100V)

Weight: 750g

VB-4504

(120V) (220-240V)

Weight: 750g

Push-to-Start Type

VB-1510PS

(100V) (120V) (220-240V)

Hi-speed rotation
VB-1510-18PS

Weight: 526g

VB-1820PS / VB-3012PS / VB-4504PS

(100V) (120V) (220-240V)

Hi-speed rotation and Hi-torque
VB-3020PS (only for 100V)

Weight: 750g

VB-4504PS (with shock-less stand)

(100V) (120V) (220-240V)

Weight: 1,430g Including the screwdriver cord and the slide arm

VB Series Specifications

Lever Start Model	VB-1510			VB-1510-18			VB-1820			VB-3012			VB-3020			VB-4504					
Push-to-Start Model	VB-1510PS			VB-1510PS-18			VB-1820PS			VB-3012PS			VB-3020PS			VB-4504PS					
AC input power (±5%)	100V	120V	220-240V	100V	120V	220-240V	100V	120V	220-240V	100V	120V	220-240V	100V	120V	220-240V	100V	120V	220-240V			
Power consumption(W)*1	20W	20W	25W	20W	20W	25W	40W	40W	32W	40W	40W	32W	20W	40W	32W	40W	40W	32W			
Output Torque	N·m		0.25 - 1.5		0.2 - 1		0.4 - 1.8		0.5 - 3		1 - 3		1 - 4.5		1 - 4.5		1 - 4.5				
	lbf·in		2.2 - 13		2.2 - 8.7		3.5 - 16		4.3 - 26		8.7 - 26		8.7 - 39.1		8.7 - 39.1		8.7 - 39.1				
	(kgf·cm)		(2.5 - 15)		(2 - 10)		(4 - 18)		(5 - 30)		(10 - 30)		(10 - 45)		(10 - 45)		(10 - 45)				
Torque Switching	Stepless adjustment			Stepless adjustment			Stepless adjustment			Stepless adjustment			Stepless adjustment			Stepless adjustment					
Unloaded Rotation Speed (r.p.m) ±10%	970			1,800			2,000			1,200			2,000			400					
Screw Size (mm)	Machine Screw		2.0 - 4.0		2.0 - 4.0		2.6 - 4.0		3.0 - 5.0		3.0 - 5.0		3.0 - 5.0		3.0 - 5.0		3.0 - 5.0				
	Tapping Screw		2.0 - 3.0		2.0 - 3.0		2.6 - 3.0		3.0 - 4.0		3.0 - 4.0		3.0 - 4.0		3.0 - 4.0		3.0 - 4.0				
Bit Drive	HIOS Shank			H4			H4			H5 and S5HEX (both can be used)			H5 and S5HEX (both can be used)			H5 and S5HEX (both can be used)			—		
	HEX Shank			H5 and S5HEX or 1/4HEX			H5 and S5HEX or 1/4HEX			1/4HEX			1/4HEX			1/4HEX			1/4HEX		
AC Screwdriver Cord length	3m			3m			3m			3m			3m			3m					
Accessories	Bit (one each)	H4		+#1 (Ø4×40mm)		+#2 (Ø4×40mm)		+#1 (Ø5×60mm)		+#2 (Ø5×60mm)		+#1 (Ø5×60mm)		+#2 (Ø5×60mm)		+#1 (Ø5×60mm)		+#2 (Ø5×60mm)			
		H5		+#1 (Ø5×50mm)		+#2 (Ø5×50mm)		+#1 (Ø5×50mm)		+#2 (Ø5×50mm)		+#1 (Ø5×50mm)		+#2 (Ø5×50mm)		+#1 (Ø5×50mm)		+#2 (Ø5×50mm)			
		1/4HEX		+#1 (5.0×50mm)		+#2 (5.0×50mm)		+#1 (5.0×50mm)		+#2 (5.0×50mm)		+#1 (5.0×50mm)		+#2 (5.0×50mm)		+#1 (5.0×50mm)		+#2 (5.0×50mm)			
		—		— (5.0×50mm)		— (5.0×50mm)		— (5.0×50mm)		— (5.0×50mm)		— (5.0×50mm)		— (5.0×50mm)		— (5.0×50mm)		— (5.0×50mm)			
	Torque adjustment spring		Silver			Silver			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)			
Plus screw for adjustment		—			—			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)				
Flat 2P conversion plug (only for 100V)		1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)				

*1 The value of power consumption is an approximate estimate.

Accessories & Applicable Screwdrivers

VB Accessories & Applicable Drivers

Accessories

Suction(vacuum) Attachments for VB Series

By making use of negative pressure, the effort needed to pick up screws can be reduced. This suction attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It can also be used to remove powder dust generated from screw tightening.

Order guide

(A), (B) and (C) needed to be purchased separately if you would like to mount this suction device to your VB screwdriver.

* There are several options of sizes of (A) and (B) depending on the screw size. For more information on the size, please refer to P. 54.

Model	(A) Mouthpiece model	(B) Bits total length	(C) Suction attachment model	
AC100V	VB-3020	F6-Standard 31mm	H5 100mm	VZQ18-SET
AC100V	VB-1820			
AC120V	VB-3012			
AC220V-240V				

Including PS type. Not applicable to VB-4504PS (100V).

Pistol Attachment

PAB-18 (for Lever Start)
PAB-18PS (for Push-to-Start)

This attachment converts a standard screwdriver to a pistol-style screwdriver, most suitable for horizontal tightening.

Compatible screwdrivers:
PAB-18
VB-1820, VB-3012, VB-3020

PAB-18PS
VB-1820PS, VB-3012PS, VB-3020PS

For use with HIOS screw counters

VB-OPC

Compatible counters
HIOS screw counter
VZOP-STC

Models:
(100V, 120V) VB-1510-OPC
(100V, 120V) VB-1510-18-OPC
(100V, 120V) VB-1820-OPC
(100V, 120V) VB-3012-OPC
(100V) VB-3020-OPC (Including PS type)
(100V, 120V) VB-4504PS-OPC

These screwdrivers prevent you from skipping screw tightening in combination with the screw counter.

- They have a function to output positive rotation, reverse rotation and torque-up (tightening complete) signals.

If you would like to purchase AC220V-240V type, please contact HIOS distributors.

Angle Attachment

ANGLV-Z-CH1 (with HIOS shank)
ANGLV-Z-XX1 (with hexagonal shank)

This attachment is most suitable when the available space is very small for screw tightening. This attachment can be fitted to the tip of the screwdriver.

* The output torque should be 2N·m or lower when you use this attachment.

Compatible screwdrivers:
VB-1820, VB-3012, VB-3020 (Lever Type only)

CCC certified models
(100V/220V) ...VB-1510, VB-1510PS (100V/220V) ...VB-3012, VB-3012PS
(100V/220V) ...VB-1820, VB-1820PS (100V/220V) ...VB-4504, VB-4504PS

Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

Output torque guide

(Including PS type)

VB-1510

VB-1510-18

VB-1820 (Silver)

VB-3012 VB-3020

VB-4504

*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.

Plug type

- Type A / 100V
- Type A-2 / 120V
- Type C / 220V-240V
- Type A-3 / 220V-240V
- Type S / 220V-240V