

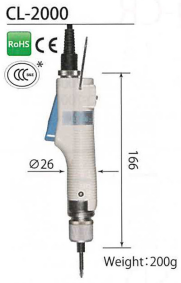
Brushed Screwdriver



Handle low-torque screw tightening with confidence!

- This screwdriver is especially designed to deliver low torque for accurate and stable tightening of screws in small sizes.
- Compact and light-weight design makes it easy for female operators to use.
- Model CL-2000 has a coreless motor with an especially long life.
- With safety design running on low voltage and direct current, these screwdrivers can be used safely.

Lever Start Type



Push-to-Start Type

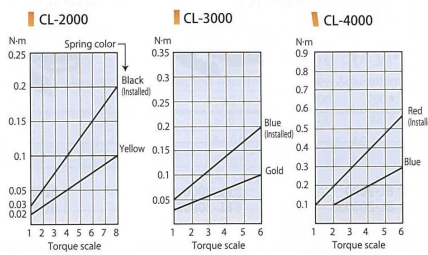


CCC*
Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

CL Series Specifications

Lever Start-Type Model	CL-2000	CL-3000	CL-4000
Push-to-Start-Type Model			CL-4000PS
Output	N·m 0.02 - 0.2	0.03 - 0.2	0.1 - 0.55
Torque Range	lbf·in (0.2 - 2)	0.3 - 1.7 (0.3 - 2)	0.9 - 4.8 (1 - 5.5)
Torque Switching	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation	HI 680	1,000	1,000
Speed (r.p.m.)	LOW 490	670	690
Screw Size	Machine Screw 1.0 - 2.3	1.0 - 2.0	1.4 - 2.6
	Tapping Screw 1.0 - 2.0	1.0 - 1.7	1.4 - 2.3
Bit	HIOS Shank H4	H4	H4
Drive	HEX Shank		1/4HEX or 5HEX
Power Supply	LHT-30*	○	—
	LVT-30*	○	—
	CLT-30	○	—
	CLT-60	○	○
	CLT-100	○	○
	MC-70L	○	○
Accessories	Bit (one each)	H4 + #0 (Ø2.0×40 mm) + #0 (Ø2.5×40 mm)	+ #0 (Ø2.0×40 mm) + #0 (Ø2.5×40 mm)
	Spring	Yellow	Gold
	Cord length (m)	1.5 m (5P)	1.5 m (5P)
	Carbon brush (Order code)	1 pair (A45-0420)	1 pair (CL4-0420)

Output torque guide (HI input)



* The rotation speed can be adjustable by using the power supply LVT-30 or LHT-30. Please review the details by downloading the instruction manuals for LVT-30 or LHT-30 from the HIOS website.
Notes:
● The carbon brush for CL-2000 is an enclosed type and cannot be replaced by a user. Although the life of the carbon brush depends on use conditions, as a guide, if you tighten about 6,000 screws a day, you have to replace the carbon brush 3 to 4 years after you started using it. When a replacement is required, please contact HIOS distributors for the service.

Brushed Screwdriver



Well suited for many kinds of operations requiring a wide range of torque values

- This screwdriver has been a long-selling product thanks to its operability, reliability and stability.
- With low DC voltage these screwdrivers can be used safely.
- The grip design helps operators to reduce fatigue caused by long hours operation.

Lever Start Type



Push-to-Start Type

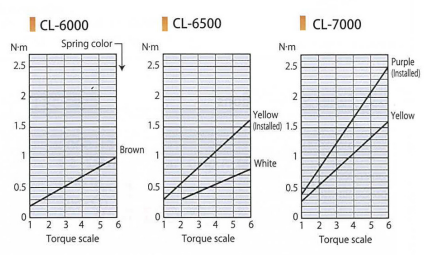


CCC*
Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.
Also, the body color of the CCC certified CL-6500/CL-6500PS/CL-7000/CL-7000PS is different from that of the standard models. The body color of the CCC certified models is available on the page "CCC certified models" on our website.

CL Series Specifications

Lever Start-Type Model	CL-6000	CL-6500	CL-7000	
Push-to-Start-Type Model	CL-6000PS	CL-6500PS	CL-7000PS	
Output	N·m 0.2 - 1	0.3 - 1.6	0.3 - 2.5	
Torque Range	lbf·in (2 - 10)	2.6 - 14 (3 - 16)	2.6 - 22 (3 - 25)	
Torque Switching	Stepless adjustment	Stepless adjustment	Stepless adjustment	
Unloaded Rotation	HI 800	900	750	
Speed (r.p.m.)	LOW 500	600	500	
Screw Size	Machine Screw 2.0 - 3.0	2.0 - 4.0	2.0 - 5.0	
	Tapping Screw 2.0 - 2.6	2.0 - 3.0	2.0 - 4.0	
Bit	HIOS Shank H5	H5	H5	
Drive	HEX Shank 1/4HEX or 5HEX	1/4HEX or 5HEX	1/4HEX or 5HEX	
Power Supply	CLT-60	○	○	
	CLT-100	○	—	
	MC-70L	○	○	
		○	○	
Accessories	Bit (one each)	H5 + #1 (Ø5×60 mm) + #2 (Ø5×60 mm)	+ #1 (Ø5×60 mm) + #2 (Ø5×60 mm)	
		1/4HEX + #1 (5×50 mm) + #2 (5×50 mm) — (5×50 mm)	+ #1 (5×50 mm) + #2 (5×50 mm) — (5×50 mm)	
	Spring	White	Yellow	
	Cord length (m)	2 m (5P)	2 m (5P)	2 m (5P)
		Carbon brush (Order code)	1 pair (CL65-0490)	1 pair (CL65-0490)

Output torque guide (HI input)



The unloaded rotation speed (r.p.m.) in the specifications is measured when the screwdriver is operated with the HIOS standard power supply. Therefore, if you use another power supply or when input voltage varies, the value displayed will also vary. Please refer to the value in the specifications only as a guide.

Brushed Screwdriver

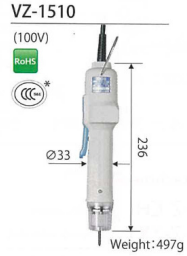
VZ Series

(AC Type)
Transformerless

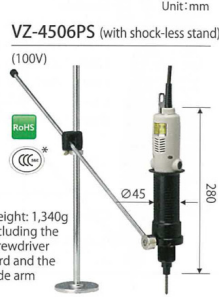
Transformerless screwdrivers suitable for heavy work

- Transformerless type with built-in controller.
- Can be directly plugged into an AC outlet.
- Light and slim balanced body design that minimizes operator fatigue.
- HIOS H5 bit and hexagonal bit with width across flats 5mm (SHEX) can be used.
(Not applicable to VZ-1510 and VZ-1501PS)

Lever Start Type



Push-to-Start Type



VZ Series Specifications

Lever Start Model		VZ-1510	VZ-1812	VZ-1820	VZ-3007	VZ-3012	VZ-4504	VZ-4506
Push-to-Start Model		VZ-1510PS	VZ-1812PS	VZ-1820PS	VZ-3007PS	VZ-3012PS	VZ-4504PS	VZ-4506PS
AC Input Power (±5%)		100V	220-240V	100V 120V	100V 220-240V	100V 120V	220-240V	100V 120V
Power Consumption (W)*1		26W	72W	40W 60W	40W 72W	40W 60W	72W	40W 60W
Output Torque Range	N·m	0.15 - 1.5	0.4 - 1.8	0.4 - 1.8	0.9 - 3	0.9 - 3	1 - 4.5	1 - 4.5
	lbf·in	1.3 - 13	3.5 - 16	3.5 - 16	7.8 - 26	7.8 - 26	8.8 - 39	8.8 - 39
	(kgf·cm)	(1.5 - 15)	(4 - 18)	(4 - 18)	(9 - 30)	(9 - 30)	(10 - 45)	(10 - 45)
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation Speed (r.p.m) ±10%		1,000	1,200	2,000	700	1,200	400	600
Screw Size (mm)	Machine Screw	2.0 - 4.0	2.6 - 4.0	2.6 - 4.0	3.0 - 5.0	3.0 - 5.0	3.0 - 5.0	3.0 - 5.0
	Tapping Screw	2.0 - 3.0	2.6 - 3.0	2.6 - 3.0	3.0 - 4.0	3.0 - 4.0	2.6 - 4.0	3.0 - 4.0
Bit Drive	HIOS Shank	H4	H5 and SHEX	H5 and SHEX	H5 and SHEX	H5 and SHEX	—	—
	HEX Shank	5HEX or 1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX
AC Screwdriver Cord Length		3m	3m	3m	3m	3m	3m	3m
Accessories	Bit (one each)	H4	+ #1 (Ø4×40mm) + #2 (Ø4×40mm)					
		H5		+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	
		1/4HEX		+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)	+ #1 (5.0×50mm) + #2 (5.0×50mm) — (5.0×50mm)
	Torque adjustment spring	Red (Ø1.5)						
	Plus screw for adjustment			M2.6 (pan head machine screw)	M2.6 (pan head machine screw)	M2.6 (pan head machine screw)		
Carbon brush (Order code)	1 pair (ACL10-0490)	1 pair (VZ18-0480B)	1 pair (VZ18-0480)	1 pair (VZ18-0480B)	1 pair (VZ18-0480)	1 pair (VZ18-0480B)	1 pair (VZ18-0480)	
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 approximate estimate. *2 If you select the hexagonal shank, no bit is included. Please purchase standard-sized hexagonal bits from commercial stores (refer to P. 51).

Variations



Suction (Vacuum) VZQ

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) and (B) needed to be purchased separately if you have a suction-type screwdriver. (A), (B) and (C) needed to be purchased separately if you want to convert your screwdriver to a suction type.

* 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	VZQ-1510	F3-standard 18mm	H4 60mm	VZQ10-SET
AC120V, AC220V-240V	VZQ-1812, 1820, 3007, 3012	F6-Standard 31mm	H5 100mm	VZQ18-SET

For use with HIOS screw counters



VZ-OPC

Models:
 (100V) VZ-1510-OPC
 (100V, 120V) VZ-1820-OPC
 (100V) VZ-3007-OPC
 (100V, 120V) VZ-3012-OPC (including PS type)
 (100V) VZ-4506PS-OPC (with shockless stand)

Compatible counter

HIOS Screw counter
VZOP-STC



▶ See P. 40 for details.

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.

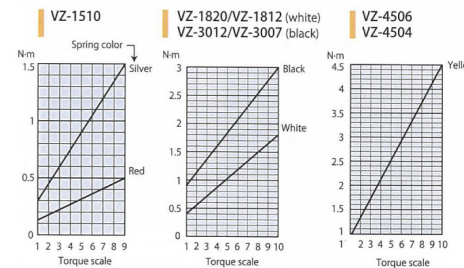
If you would like to purchase AC220V-240V type, please contact HIOS distributors.

CCC certified models

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

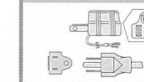
Note: CCC certified models have different specification and order codes from the standard models.
Please contact HIOS distributors before ordering.

Output torque guide

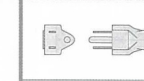


Plug type

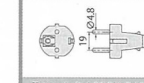
Type A / 100V



Type A-2 / 120V



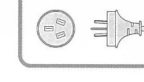
Type C / 220V-240V



Type A-3 / 220V-240V



Type S / 220V-240V



Accessories

Accessories

Pistol Attachment

PA-18 (for Lever Start*)
PA-18PS (for Push-to-Start*)

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



* Not applicable to VZ-1510 and VZ-1510PS

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 1.8N·m or lower when you use this attachment.



Compatible screwdrivers:
VZ-1820 VZ-3007 VZ-3012 (Lever Type only)

PS Front Cover Ring

VZ18-0960

This helps you to easily apply load in the axial direction to reduce workload.



Protective Cover for Torque Adjustment Nut

VZ18-0970

This cover prevents deviation from set torque due to a shock or malfunction.



Shockless Stand

VZ18PS-SAS

The shockless stand absorbs reaction force created by the clutch. This stand can be used only with Push-to-Start-type screwdrivers.

