

Brushed Screwdriver



CL Series
(DC Type)

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.

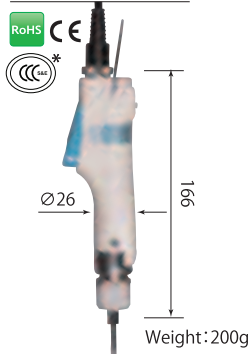
Lever Start Type

Lever Start Type

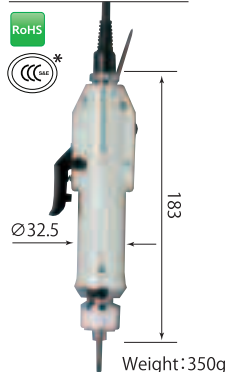
Push-to-Start Type

Push-to-Start Type

CL-2000



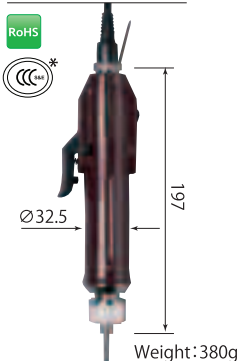
CL-3000



CL-4000PS



CL-4000



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

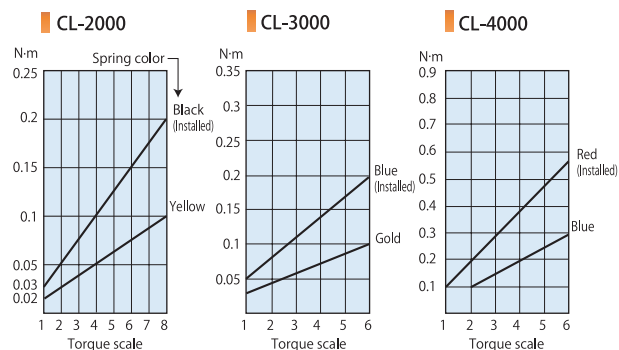
CL Series Specifications

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 |
| | lbf·in | 0.17 - 1.7 | 0.3 - 1.7 | 0.9 - 4.8 |
| | (kgf·cm) | (0.2 - 2) | (0.3 - 2) | (1 - 5.5) |
| Torque Switching | | Stepless adjustment | Stepless adjustment | Stepless adjustment |
| Unloaded Rotation | HI | 680 | 1,000 | 1,000 |
| | 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 Drive | HIOS Shank | H4 | H4 | H4 |
| | HEX Shank | — | — | 1/4HEX or 5HEX |
| Power Supply | CLT-30 | ○ | ○ | — |
| | CLT-60 | ○ | ○ | ○ |
| | CLT-100 | ○ | ○ | ○ |
| | MC-70L | ○ | ○ | ○ |
| Accessories | Bit (one each) | H4 | + #0 (Ø2.0×40 mm) + #0 (Ø2.5×40 mm) | + #0 (Ø2.5×40 mm) + #1 (Ø4.0×40 mm) |
| | | 1/4HEX | | + #0 (5.0×50 mm) + #2 (5.0×50 mm) — (5.0×50 mm) |
| | Spring | Yellow | Gold | Blue |
| | Cord length (m) | 1.5 m (5P) | 1.5m (5P) | 1.5m (5P) |
| | Carbon brush (Order code) | | 1 pair (A45-0420) | 1 pair (CL4-0420) |

Output torque guide (HI input)

(Including PS type)



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



CL Series
(DC Type)

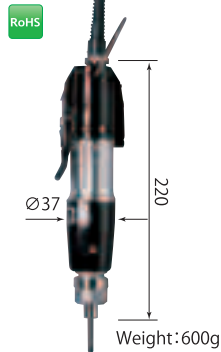
Well suited for many kinds of operations requiring a wide range of torque values

- 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.

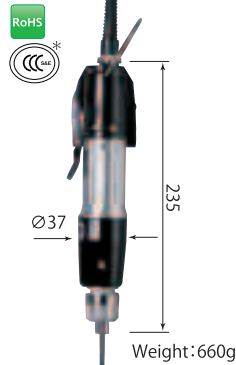
Lever Start Type

Lever Start Type

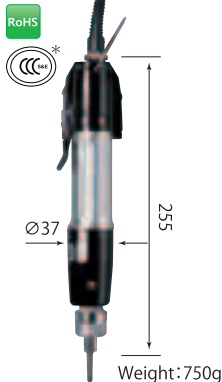
CL-6000



CL-6500



CL-7000

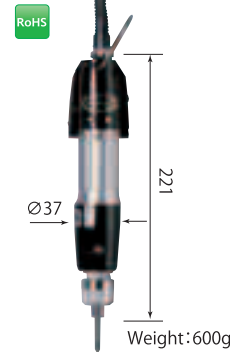


Unit : mm

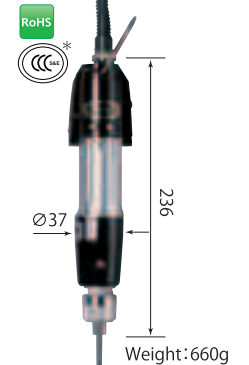
Push-to-Start Type

Push-to-Start Type

CL-6000PS

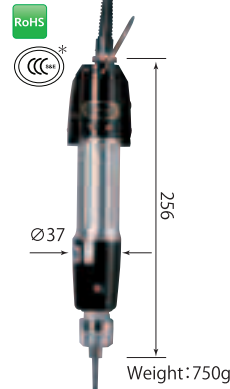


CL-6500PS



Unit : mm

CL-7000PS



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.

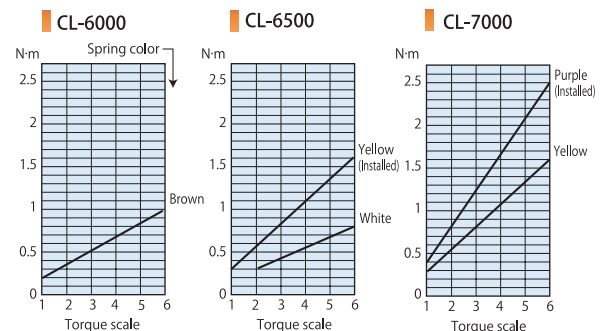
CL Series Specifications

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 | 1.7 - 8.8 | 2.6 - 14 | 2.6 - 22 |
| | | (kgf·cm) | (2 - 10) | (3 - 16) | (3 - 25) |
| Torque Switching | | | Stepless adjustment | Stepless adjustment | Stepless adjustment |
| Unloaded Rotation | | HI | 800 | 900 | 750 |
| Speed (r.p.m) ±10% | | LOW | 500 | 600 | 500 |
| Screw Size (mm) | 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 Drive | HIOS Shank | | H5 | H5 | H5 |
| | 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 (Ø5.0×60 mm) | + #1 (Ø5.0×60 mm) | + #1 (Ø5.0×60 mm) |
| | | | + #2 (Ø5.0×60 mm) | + #2 (Ø5.0×60 mm) | + #2 (Ø5.0×60 mm) |
| | | 1/4HEX | + #1 (5.0×50 mm) | + #1 (5.0×50 mm) | + #1 (5.0×50 mm) |
| | + #2 (5.0×50 mm) | | + #2 (5.0×50 mm) | + #2 (5.0×50 mm) | |
| | — (5.0×50 mm) | | — (5.0×50 mm) | — (5.0×50 mm) | |
| | Spring | | White | | Yellow |
| Cord length (m) | | 2 m (5P) | | 2 m (5P) | |
| Carbon brush (Order code) | | | 1 pair (C1 65-0490) | | 1 pair (C1 65-0490) |

Output torque guide (HI input)

(Including PS type)



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.

High-torque Brushed Screwdriver

CL Series
(DC Type)

Powerful enough for high-torque screw tightening with 5N·m (50kgf·cm).

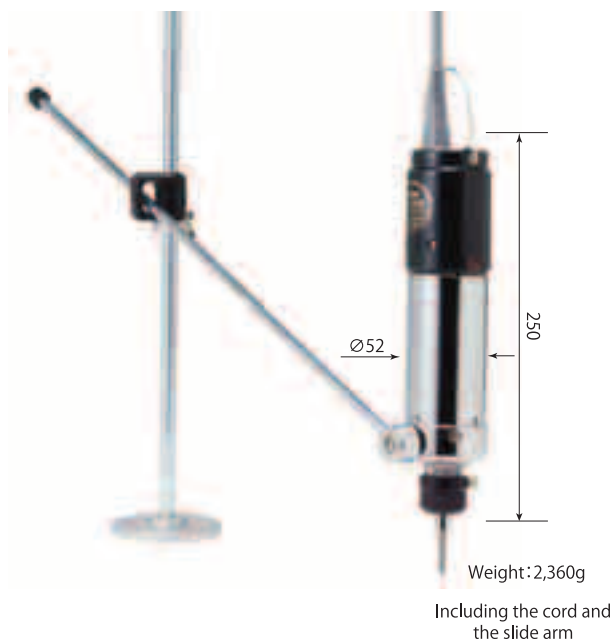
- These screwdrivers can handle high-torque screw tightening that used to be only done by pneumatic screwdrivers.
- can always tighten screws with stable torque.
- The shockless stand absorbs reaction force created by the clutch.

Push-to-Start Type

Push-to-Start Type

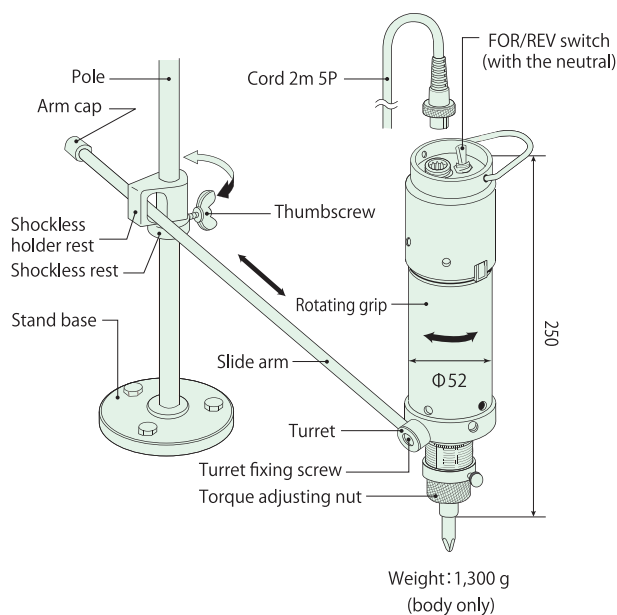
CL-9000 (with shockless stand)

Unit : mm



Main Components of Shockless Stand

Unit : mm



Specifications

| | |
|-------------------------|--|
| Slide arm length | 530 |
| Effective sliding range | 475 |
| Support rod height | 570 |
| Height | 8 |
| Stand base | Diameter of fixing bolt hole |
| | Distance between fixing bolt holes |
| | (one side of the equilateral triangle) |

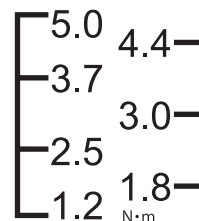
CL Series Specifications

Specifications

| Push-to-Start Type Model | | CL-9000 |
|--------------------------------------|--|--|
| Controlled Torque Range | N·m | 1.2 - 5 |
| | lbf·in | 10 - 43 |
| | (kgf·cm) | (12 - 50) |
| Torque Switching | | Stepless adjustment |
| Unloaded Rotation Speed (r.p.m) ± 5% | | 530 |
| Screw Size (mm) | | 4.0 - 6.0 |
| Bit Drive HEX shank | | 1/4HEX |
| Power Supply | | CLT-80 |
| Accessories | HEX shank bit (width across flats: 6.35mm, one each) | + #2 (7.0×100mm) + #3 (7.0 × 100mm) |
| | Stand ASSY | Pole, stand base, shockless rest, thumbscrew (1pc each) |
| | Arm ASSY | Shockless holder, slide arm with arm cap, turret, turret fixing screw (1pc each) |
| | Cord Length(m) | 2m (5P) |
| | Carbon brush (Order code) | 1 pair (CL9-0410) |

Scale of Output Torque

A seal that indicates output torque values is affixed to the body of CL-9000.



Suction (Vacuum)

CLQ

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. 58.

| Model | (A) Mouthpiece model | (B) Bit length | (C) Suction attachment model |
|----------|----------------------|----------------|------------------------------|
| CLQ-2000 | F3-Standard 18mm | H4 60mm | CLQ2-SET/CLQ2-SET-ESD* |
| CLQ-3000 | F3-Standard 18mm | H4 60mm | CLQ4-SET/CLQ4-SET-ESD* |
| CLQ-4000 | F3-Standard 18mm | H4 60mm | CLQ4-SET/CLQ4-SET-ESD* |
| CLQ-6000 | F6-Standard 31mm | H5 80mm | CLQ65-SET/CLQ65-SET-ESD* |
| CLQ-6500 | F6-Standard 31mm | H5 80mm | CLQ65-SET/CLQ65-SET-ESD* |
| CLQ-7000 | F6-Standard 31mm | H5 80mm | CLQ65-SET/CLQ65-SET-ESD* |

(Including PS type)

*ESD is anti-electrostatic

Note: The suction attachment cannot be used with 1/4HEX .



Anti-electrostatic

CL-ESD



The screwdriver body uses an anti-electrostatic material prevent the generation of static electricity, which is suitable for the assembly of precision equipment and electronic parts.

[Surface resistance: max. $10^4 \Omega$]

Models:

CL-2000ESD CL-6000ESD
CL-3000ESD CL-6500ESD
CL-4000ESD CL-7000ESD

(Including PS Type)



Clean Room + Anti-electrostatic

CLQ-CR-ESD



In addition to anti-electrostatic measures, two vacuum units are installed in the body and the suction portion in order to suck up dust generated from screw tightening.

[Class 100 equivalent]

[Surface resistance: max. $10^4 \Omega$]

Models:

CLQ-3000CR-ESD
CLQ-4000CR-ESD
CLQ-6000CR-ESD
CLQ-6500CR-ESD
CLQ-7000CR-ESD

(Including PS Type)

Related Products

Related Products

Noiseless Screwdriver

CL-NL



Electrical noise is more subdued than standard screwdrivers.

Models: CL-6000NL
CL-3000NL CL-6500NL
CL-4000NL CL-7000NL
(Including PS Type)

Power supply with HIOS screw counter

CLT-70STC3

Power supply with HIOS screw counter helps to prevent skipping screw tightening.



Compatible screwdrivers:
CL-2000 CL-3000 CL-4000 CL-6000
CL-6500 CL-7000 (Including PS Type)

Separate counter

CLOP-SC1

External counter helps to prevent skipping screw tightening.



▶ See P. 41-43 for details.

Accessories

Accessories

Pistol Attachment

PA-65

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



Compatible screwdrivers:
CL-6000, CL-6500, CL-7000 (Including PS Type)

Angle Attachment

ANGL-Z (For HIOS H5 and 5HEX drive)

ANGLX-Z (For 1/4 HEX drive)

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



* Always set the output to 1.5N·m or lower when you use this attachment.



Compatible screwdrivers:
CL-6000, CL-6500, CL-7000 (Lever Type only)

Push-to-Start Grip Attachment

PS-1

PS-1-ESD



This attachment converts the screwdriver from lever start to push-to-start.



Compatible screwdrivers:
CL-4000 (Image of fitting)