

Hand Hold Smart Screwdrivers

Equipped with the Tamagawa permanent magnet synchronous servo motor.

- Patented Design with a good grip, non-slip feeling comfortable and secure.
- Efficient heat dissipation design, ultra-low noise while operation.
- Equipped with efficient and powerful servo motor.
- Equipped with high accuracy sensors and status indicating LED.
- With Power transmission mechanism of high precision reducer.
- Meet the standard of EN62841, EN 61000, EN 55014, etc.

⚠ 为实现符合人机工程学的优秀操作应用，请将手持式螺丝刀与平衡力臂（参考本资料P38平衡力臂章节）配合使用。



DC 15W

DC 40W

DC/AC 90W

Technical Specifications

Motor Power	Model	Adapted controller	Tool cable	Torque output range			Speed range (rpm)	Adapted outer diameter of screw (mm) ^[*Note]	Applicable batch head	weight (kg)
				kgf.cm	N.m	lbf.in				
DC 15W	HF1110	ACT-H60□□	C511□-A	0.20~1.30	0.02~0.13	0.18~1.15	1~5000	1.0~1.7	Tail	0.30
		HNB11□□								
		XDT11□1								
	HF1340	ACT-H61□□		0.30~5.50	0.03~0.55	0.27~4.87	1~1200	1.2~2.5	Tail	0.30
		HNB13□□								
		XDT13□1								
DC 40W	□□2120	ACT-H00□□	C1□3□	0.20~2.30	0.02~0.23	0.18~2.04	1~5000	1.0~2.0	Tail	0.40
		HN□21□□	C1□4□							
		HM□21□□	C1□4□							
		XDT21□1	C1□7□							
	□□2350 □□2351	ACT-H01□□	C1□3□	1.50~9.00	0.15~0.90	1.33~7.97	1~1200	2.0~3.0	Tail Hex (6.35mm)	0.50
		HN□23□□	C1□4□							
		HM□23□□	C1□4□							
		XDT23□1	C1□7□							
	□□2460 □□2461	ACT-H02□□	C1□3□	2.00~12.00	0.20~1.20	1.77~10.62	1~1000	2.0~3.5	Tail Hex (6.35mm)	0.50
		HN□24□□	C1□4□							
		HM□24□□	C1□4□							
		XDT24□1	C1□7□							
□□2571	ACT-H03□□	C1□3□	5.00~16.00	0.50~1.60	4.42~14.16	1~800	2.5~4.0	Hex (6.35mm)	0.60	
	HN□25□□	C1□4□								
	HM□25□□	C1□4□								
	XDT25□1	C1□7□								
DC 90W	HE3111	ACT-H71□□	C511□-A	1.00~7.00	0.10~0.70	0.88~6.20	1~5000	2.0~2.5	Hex (6.35mm)	0.90
		XDT31□1								
	HE3221	ACT-H72□□		6.00~24.00	0.60~2.40	5.31~21.20	1~1200	3.5~4.5	Hex (6.35mm)	1.06
		XDT32□1								
	HE3331	ACT-H73□□		6.00~30.00	0.60~3.00	5.31~26.55	1~1000	3.5~5.0	Hex (6.35mm)	1.06
		XDT33□1								
AC 90W	HE4111	ACT-H81□□	C511□-A	2.00~12.00	0.20~1.20	1.77~10.62	1~5000	2.0~3.5	Hex (6.35mm)	0.90
	HE4221	ACT-H82□□		8.00~43.00	0.80~4.30	7.08~38.00	1~1500	3.5~5.5	Hex (6.35mm)	1.06
	HE4331	ACT-H83□□		10.00~55.00	1.00~5.50	8.85~48.68	1~1200	4.0~6.0	Hex (6.35mm)	1.06

[*Note]: The listed screw diameter range values in the table are for reference only. Feel free to consult our sales representatives for more detailed information if needed.

Model

① ② ③ ④ ⑤ **N** ⑥

① Series

HD: without static protection(Red)

HE: with static protection(Purple)

HF: with static protection(Purple)
(low resistance)

② Motor Power

1: DC 15W

2: DC 40W (HD/HE/HF Series)

3: DC 90W (HE Series)

4: AC 90W (HE Series)

③ Max. speed (rpm)

DC 15W	1: 5000	3: 1200
DC 40W	1: 5000	3: 1200
	4: 1000	5: 800
DC 90W	1: 5000	2: 1200
	3: 1000	
AC 90W	1: 5000	2: 1500
	3: 1200	

④ Max. torque (N.m)

DC 15W	1: 0.13	4: 0.55
DC 40W	2: 0.23	5: 0.90
	6: 1.20	7: 1.60
DC 90W	1: 0.70	2: 2.40
	3: 3.00	
AC 90W	1: 1.20	2: 4.30
	3: 5.50	

⑤ Batch head

DC 15W	0: Tail
DC 40W	0: Tail
	1: Hex (6.35mm)
DC 90W	1: Hex (6.35mm)
AC 90W	

⑥ Remark

No mark: Standard software

0000~0050: Special function software

0051~9999: Non-standard / Customied

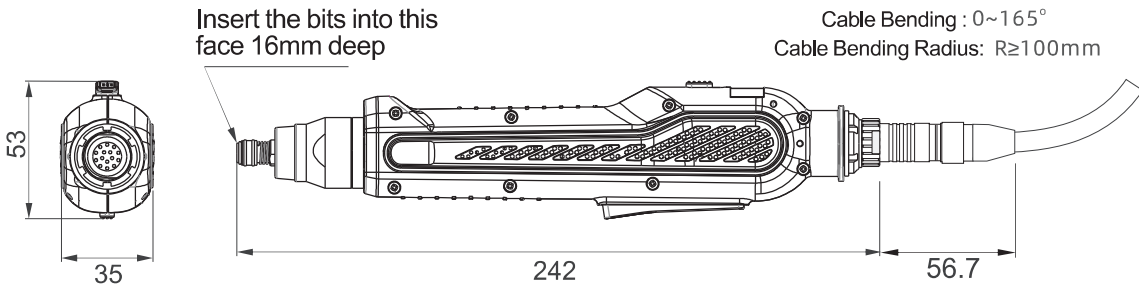
⚠ The parameter above are for reference only

Dimensions

(Unit: mm)

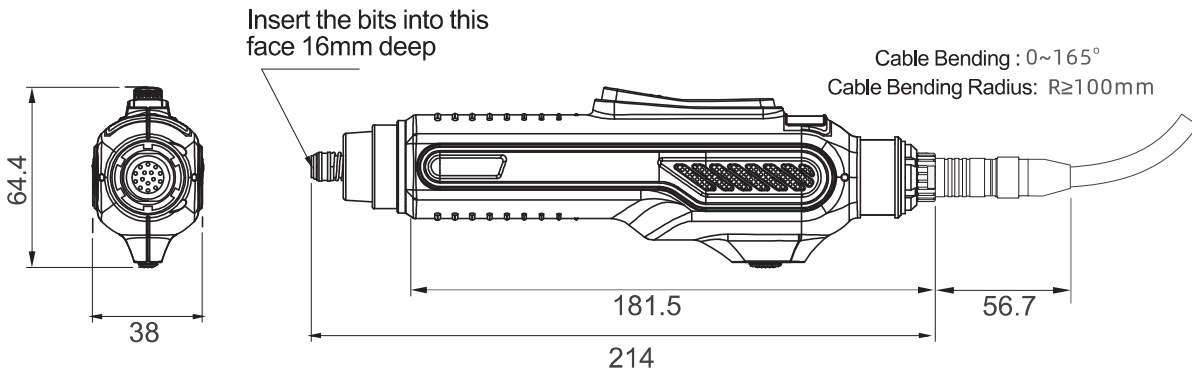
15W Series

- HF1110
- HF1340



40W Series

- HD2120
- HF2120

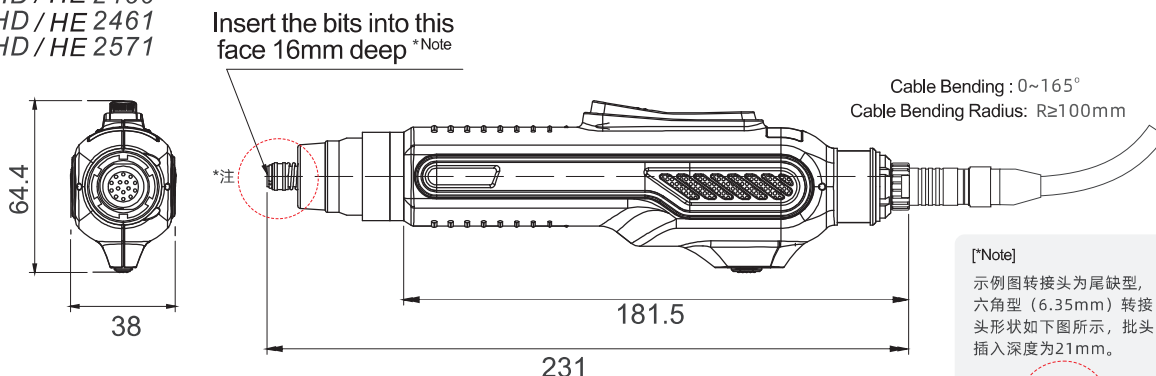


Dimensions

(Unit: mm)

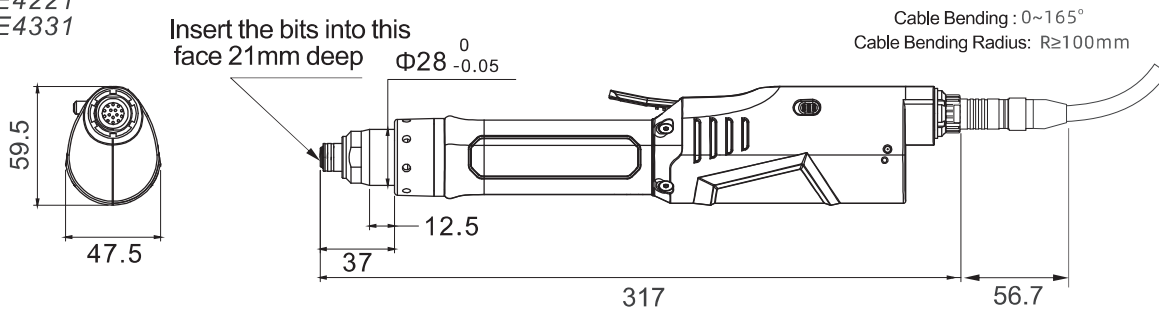
40W Series

- HD/HE 2350
- HD/HE 2351
- HD/HE 2460
- HD/HE 2461
- HD/HE 2571



90W Series

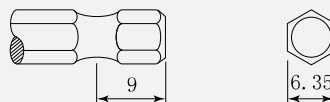
- HE3111
- HE4111
- HE3221
- HE3331
- HE4221
- HE4331



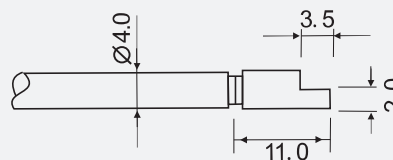
Mounting size of bits

(Unit: mm)

Hex (6.35mm)



Hex (4mm)



Straight & Angle head type

Smart Screwdrivers



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Straight type

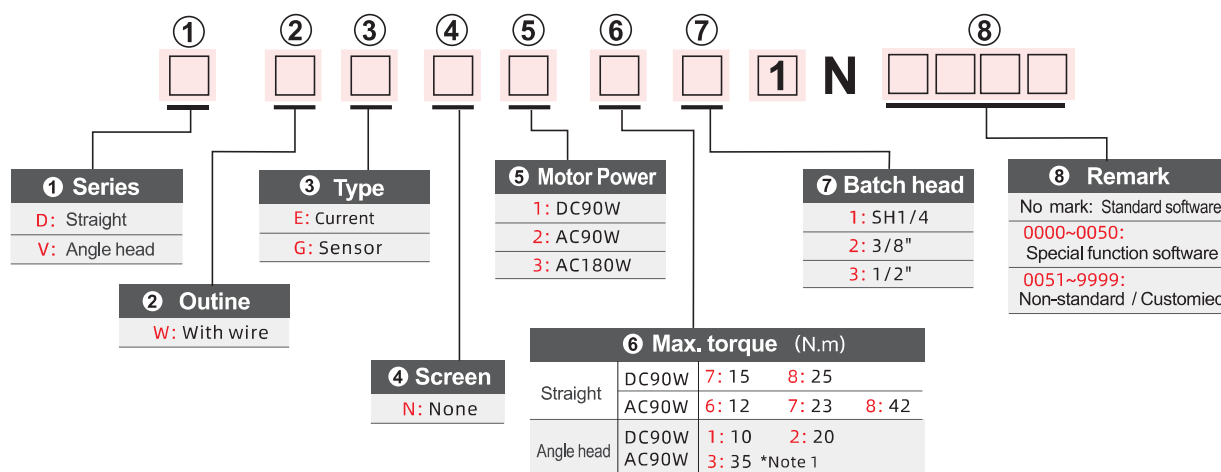
Angle head type

Technical Specifications

Series	Motor Power	Model	Adapted controller	Tool cable	Torque output range			Speed range (rpm)	Adapted outer diameter of screw (mm) ^[*Note]	Applicable batch head	weight (kg)
					kgf.cm	N.m	lbf.in				
Straight type	DC 90W	DWEN1711	ACT-H77□□	C511□-A	30~150	3.0~15.0	27~133	1~180	5.0~9.0	SH1/4	2.60
			XDT36□□								
	AC 90W	DWEN1821	ACT-H78□□		50~250	5.0~25.0	44~221	1~108	6.0~10.0	W3/8"	2.60
			XDT37□□								
			DWEN2511		20~120	2.0~12.0	18~106	1~420	4.5~8.0	SH1/4	
AC 90W	DWEN2721	ACT-H87□□	50~230	5.0~23.0	44~204	1~220	6.0~10.0	W3/8"	2.60		
		DWEN2831	50~420	5.0~42.0	44~372	1~130	6.0~12.0	W1/2"			
Angle head type	DC 90W	VWEN1111	ACT-H77□□	C511□-A	30~100	3.0~10.0	27~89	1~180	5.0~7.0	SH1/4	2.95
			XDT36□□								
	AC 90W	VWEN1221	ACT-H78□□		50~200	5.0~20.0	44~177	1~108	6.0~9.0	W3/8"	2.95
			XDT37□□								
			VWEN2111		30~100	3.0~10.0	27~89	1~420	5.0~7.0	SH1/4	
	AC 90W	VWEN2221	ACT-H87□□		50~200	5.0~20.0	44~177	1~220	6.0~9.0	W3/8"	2.95
			VWEN2321		60~350	6.0~35.0	53~310	1~130	6.0~10	W3/8"	
	AC 180W	VWEN3111	ACT-H91□□		C611□-A	300~800	30.0~80.0	266~708	1~94	12.0~14.0	W1/2"
VWEN3211			500~1300	50.0~130.0		443~1151	1~75	12.0~16.0			

[*Note]: The listed screw diameter range values in the table are for reference only. Feel free to consult our sales representatives for more detailed information if needed.

Model



*Note 1: 电机功率为DC90W时不可选此项

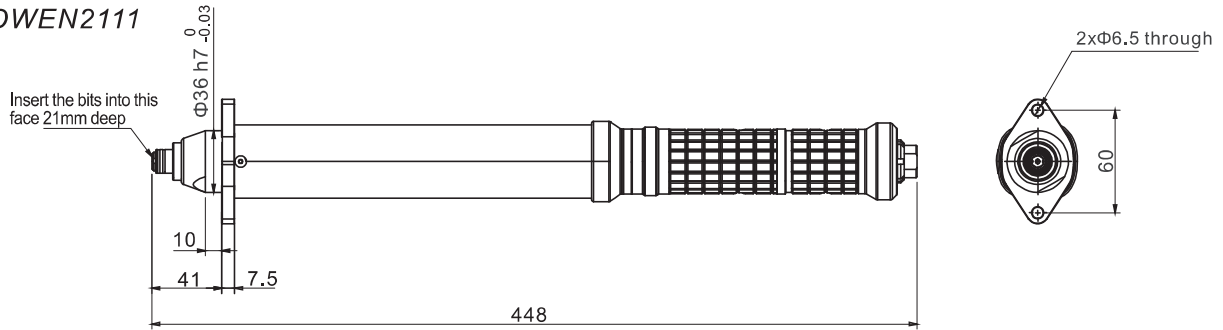
⚠ The parameter above are for reference only

Dimensions

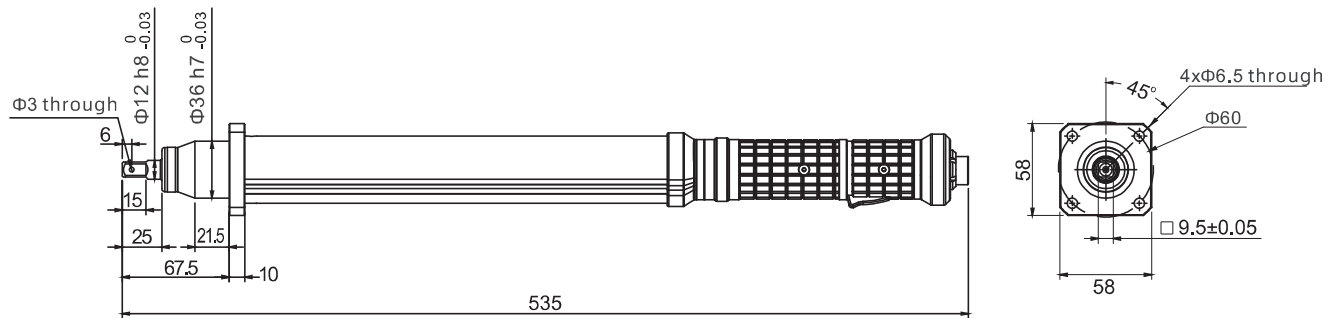
(Unit: mm)

Straight series

• DWEN2111

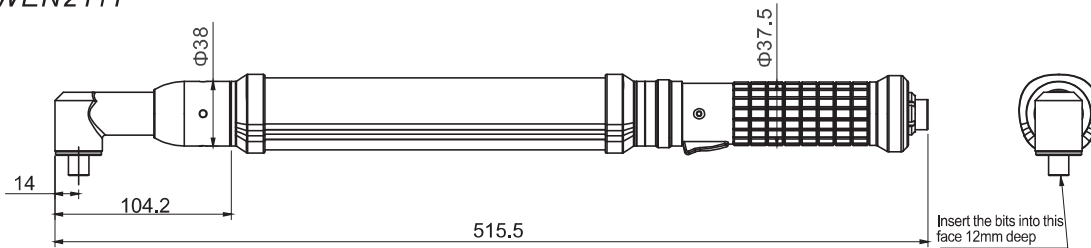


• DWEN2721



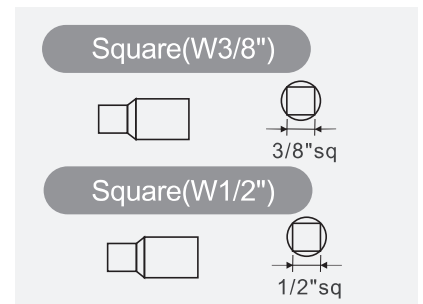
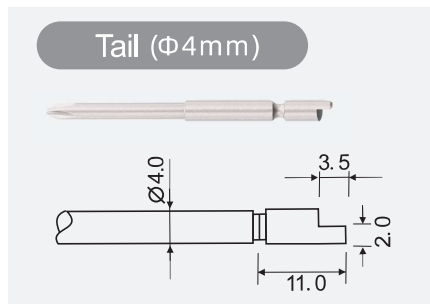
Angle head series

• VWEN2111



Mounting size of bits

(Unit: mm)



ACT Series Controller

- With TFT-LCD monitor, it is able to display the setting, programming, and status of the machine.
- 12 task modes that can be used for multiple assembly requirements
- Up to 8 different torque parameter settings per task
- Built-in servo driver can provide precise control of torque, corner monitoring and deceleration tightening
- Programmable IO and system extension components for process control
- Communication interface for advanced data storage and factory control interactions
- Dual operation and monitoring functions, such as physical button and LED indicator light, to further improve the reliability of the controller
- Beautiful and compact configuration, convenient and flexible installation, suitable for many applications



HNA Series Controller

- Patented Design
- TFT-LCD monitor able to display the setting, programming and status of the machine
- Lots of task modes that can be used for multiple assembly requirements
- Up to 8 different torque parameter settings per task
- Built-in servo driver can provide precise control of torque, corner monitoring and deceleration tightening
- Provides graphical tools for process optimization and diagnostics
- Programmable IO and system extension components for process control
- Communication interface for advanced data storage and factory control interactions
- Dual operation and monitoring functions, such as physical button and LED indicator light, to further improve the reliability of the controller



Model

ACT - M 1 0 2 1 - □
 ① ② ③ ④ ⑤ ⑥ ⑦

①	Name	ACT: ACT series Controller		
②	Screwdriver type	M: Machine load	H: Hand hold	
③	Power	0: 40W 4: 400W	1: 100W 5: 750W	2: 150W 6: 15W
④	Max. speed (rpm)	0: 5000 5: 500	1: 1200 6: 400	2: 1000 7: 300
⑤	User interface	0: IO	1: IO+RS232	2: IO+RS485
⑥	Custom	3: IO+CANopen 4: IO+Ethernet 5: IO+EtherCAT		
⑦	Positioning device	1: no custom other: custom		
		P: Built-in positioning device L: Distribution balance arm port, but no positioning device None: No positioning device		

Model

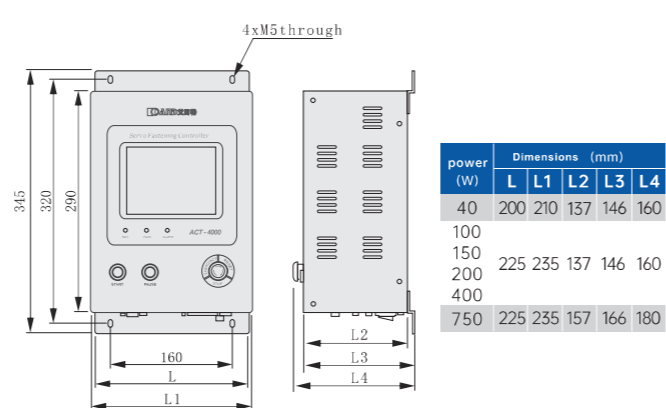
HNA - M 2 1 1 1 - □
 ① ② ③ ④ ⑤ ⑥ ⑦

①	Name	HNA: HNA series Controller		
②	Screwdriver type	M: Machine load	H: Hand hold	
③	Power	1: DC 15W	2: DC 40W	3: DC 90W
④	Max. speed(rpm)	1: 5000	2: 1500	3: 1200 4: 1000 5: 800 9: 6000
⑤	User interface	0: IO	1: IO+RS232	2: IO+RS485
⑥	Custom	3: IO+CANopen 4: IO+Ethernet 5: IO+EtherCAT		
⑦	Positioning device	1: no custom other: custom		
		P: Built-in positioning device L: Distribution balance arm port, but no positioning device None: No positioning device		

Interface Description



Dimensions (mm)

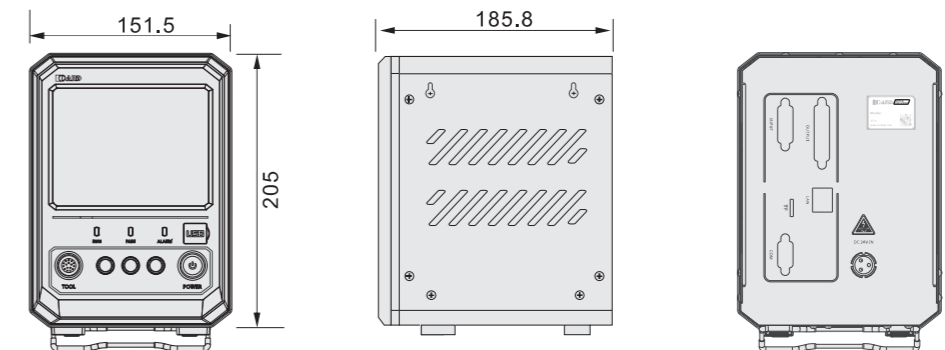


Specifications

Model	ACT-M/H 0XX1	ACT-M1/2XX1	ACT-M3/4XX1	ACT-M5XX1
Input voltage	1 Φ AC200~230V ± 10% 50/60HZ			
No-load consumption [1]	<20W	<15W		<30W
Output power [2]	40W	100W/150W	200W/400W	750W
Display (Operation interface)	① TFT-LCD, Touch Screen support ② 3 function buttons+3 LED indicators			
Torque accuracy	Within the maximum output torque range ≤3 δ ± 5%, else ≤3 δ ± 8%			
The smallest unit of twist angle display	1degree(1°)			
Tightening method	● Torque as priority (angle simultaneous monitoring secondly) ● Angle as priority (torque simultaneous monitoring secondly)			
IO channel	8_CH Optocoupler isolated input(20mA/CH,Max), 8_CH relay contact output(3A/CH, Max)			
Communication interface [3]	① RS232 ② RS485 ③ CANopen ④ Ethernet ⑤ EtherCAT			
Recommended use environment	Temperature -10 °C ~ +60 °C, humidity <90% RH (no condensation)			
Storage environment	Temperature -20 °C ~ +85 °C, humidity <90% RH (no condensation)			
Weight	about 5.5kg			
Dimensions [4]	Please refer to "Dimensions"			

[1] No-load consumption refers to the power consumption of the controller itself when the screwdriver body is not connected.
 [2] The output power refers to the maximum output power of the internal servo drive of the controller, which matches the mounted servo motor.
 [3] For the configuration of the communication interface, please refer to the product selection table.
 [4] The external dimensions are the maximum appearance of the controller itself when erected and in front of your view.

Dimensions



Specifications

Input voltage	AC 85~264V, 47~63HZ
No-load consumption [1]	<20W
Output power [2]	40W
Display (Operation interface)	① TFT-LCD, Touch Screen support ② 3 function buttons+3 LED indicators
Torque accuracy	Within the maximum output torque range ≤3 δ ± 5% ≤3 δ ± 8%
The smallest unit of twist angle display	1degree(1°)
Tightening method	① Torque as priority (angle simultaneous monitoring secondly) ② Angle as priority (torque simultaneous monitoring secondly)
IO channel	8_CH Optocoupler isolated input(20mA/CH,Max), 8_CH relay contact output(3A/CH, Max)
Communication interface [3]	① RS232 ② RS485 ③ CANopen ④ Ethernet ⑤ EtherCAT
Recommended use environment	Temperature -10 °C ~ +60 °C, humidity <90% RH (no condensation)
Storage environment	Temperature -20 °C ~ +85 °C, humidity <90% RH (no condensation)
Weight	about 3.5kg
Dimensions [4]	205(H)x151.5(W)x185.80(T)mm

[1] No-load consumption refers to the power consumption of the controller itself when the screwdriver body is not connected.
 [2] The output power refers to the maximum output power of the internal servo drive of the controller, which matches the mounted servo motor.
 [3] For the configuration of the communication interface, please refer to the product selection table.
 [4] The external dimensions are the maximum appearance of the controller itself when erected and in front of your view.