

HTD3

Series

Embodied Robot lifting mechanism

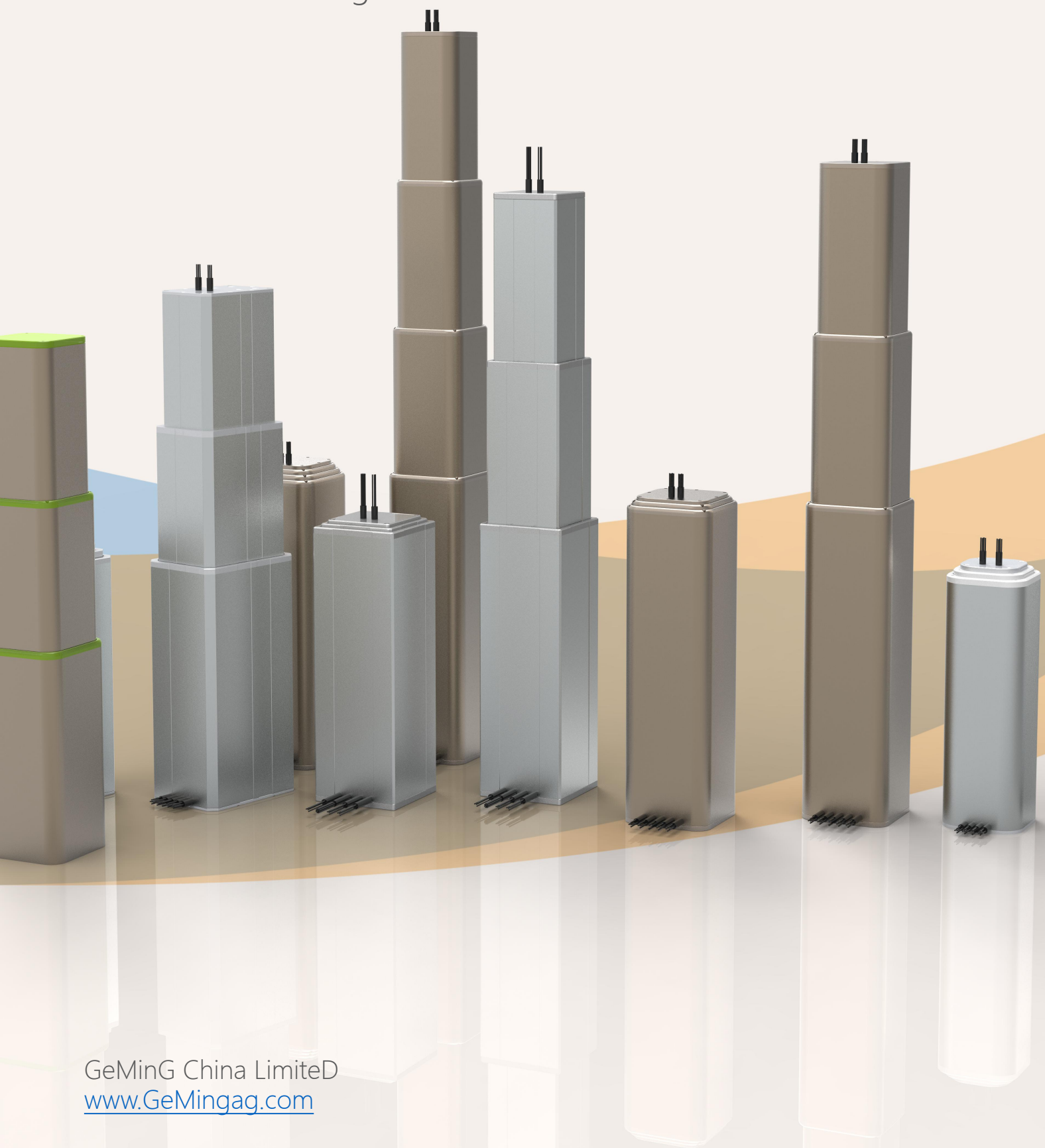
Intelligent lifting column

身高范围

HT

Series

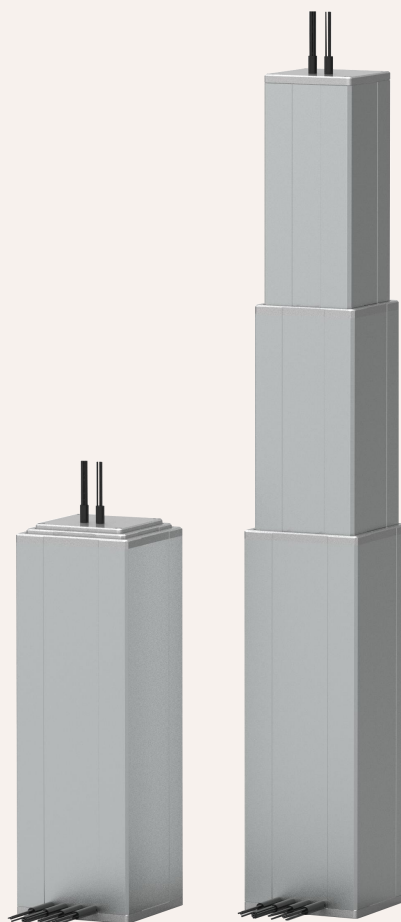
Embodied Robot lifting mechanism



HTD3-14

Series

Embodied Robot lifting mechanism



Product Category

1、Applications of embodied robots

The HTD3-14 is a 142x142 square lifting column designed by GeMinG specifically for JuSheng robots. Tailor-made for mobile robots, service robots, and AGV/AMR intelligent equipment, it integrates three core advantages: precise lifting motion, high-load stable support, and intelligent adaptive control. It perfectly adapts to the application needs of robots in all scenarios, including walking, operation, obstacle avoidance, and workstation docking. Made of high-strength molded aluminum alloy, it is impact-resistant and wear-resistant. The built-in silent servo lifting system ensures precise and controllable lifting stroke, smooth start and stop without shaking, and low noise operation. Equipped with an intelligent linkage sensing module, it can seamlessly communicate with the JuSheng robot control system, automatically matching the working height, precisely lifting at fixed points, and linkage start and stop, achieving fully automated unmanned operation.

Function Overview

Body Weight:	14.5KG (500/500)
Voltage:	48V DC
Motor Options:	DC Servo Motor
Maximum Thrust (Pull):	1500 N / 1500N
Maximum Speed Under Load:	0-150 mm / S
Minimum Initial Height:	Stroke /2 + 250mm (Standard)
Dynamic Lateral Torque:	500Nm
Static Lateral Torque:	700Nm
Color:	Silver Gray, Black (Customizable)
Noise:	48~65 DB
Temperature Range:	-35 ° C ~ + 75 ° C
Protection Rating:	IP54
Screw Selection:	Ball Screw Lead: 20
Reduction Ratio:	10:1
Limit Options:	Soft Limit, Mechanical Limit
Communication Options:	CANopen / EtherCAT, RS485
Wiring Method:	Internal Wiring (Custom wiring required))

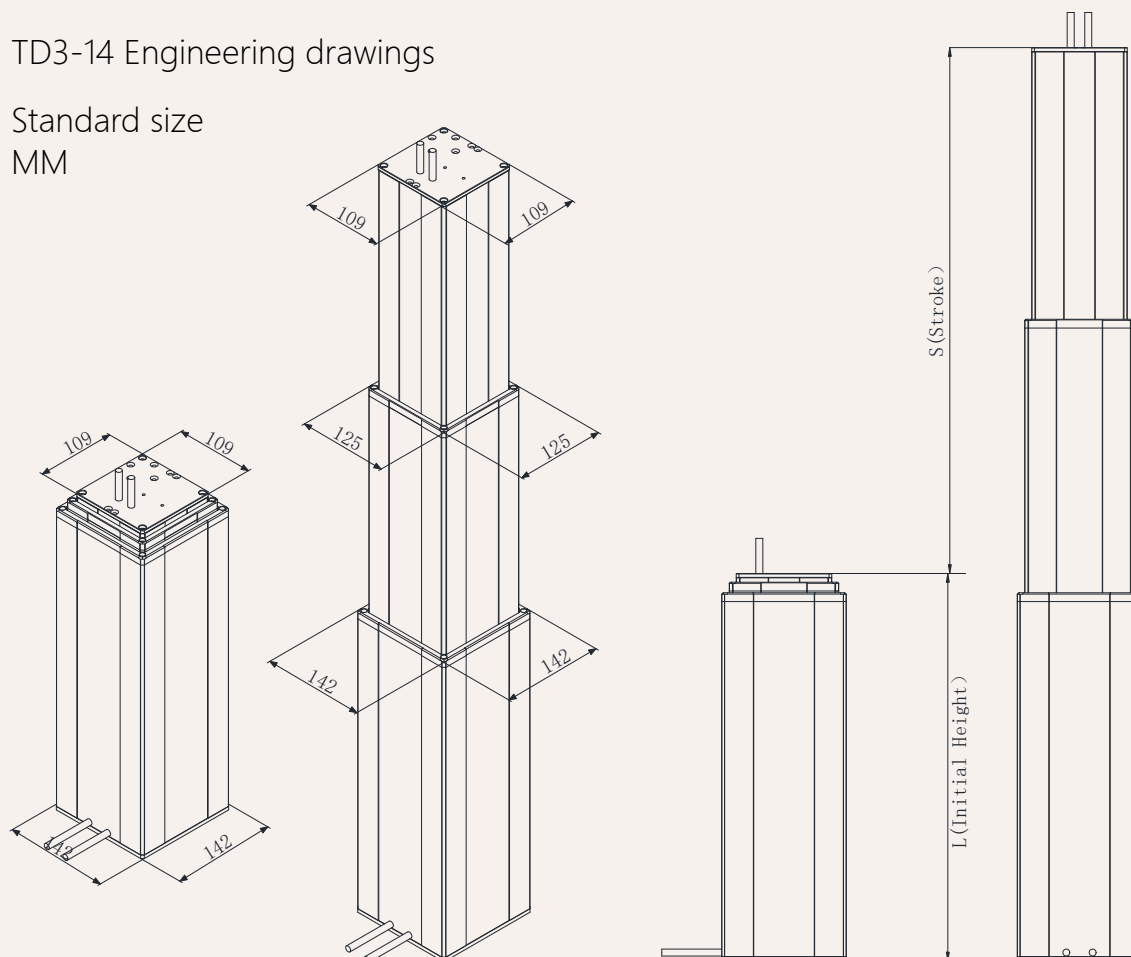


Initial height and unfolded height (non-standard can be customized)

SStroke MM	300	400	500	600	700	800
L Closed height	400	450	500	600	650	700
S+L Unfolding height	700	850	1000	1200	1350	1500

TD3-14 Engineering drawings

Standard size
MM



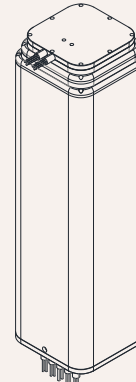
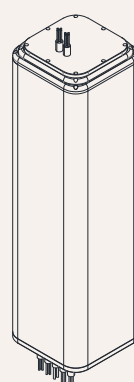
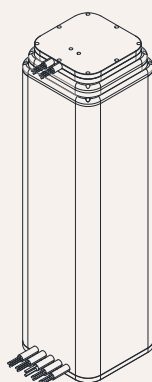
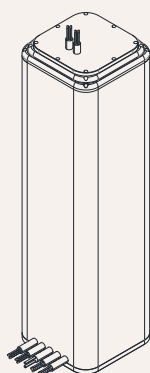
Motor cable exit point:

0 =Bottom panel, Top panel

1 = Bottom side, Top side

2=Bottom panel, Top panel

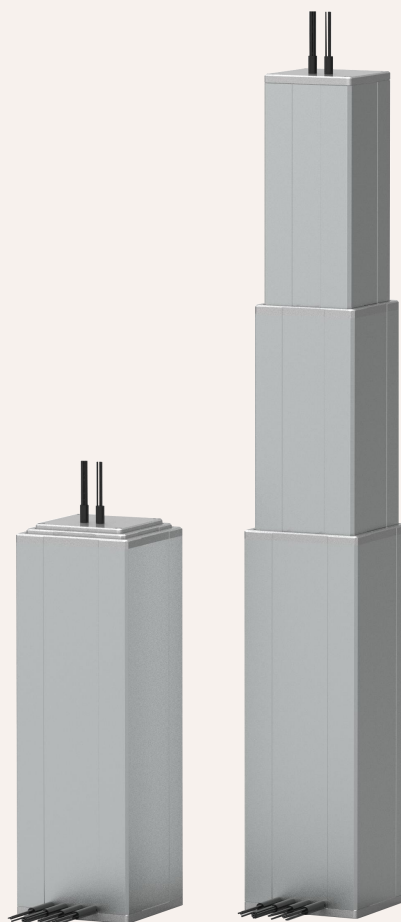
3=Bottom panel, Top side



HTD3₋₁₂

Series

Embodied Robot lifting mechanism



Product Category

1、Applications of embodied robots

The HTD3-14 is a 125x125 square lifting column designed by GeMinG specifically for JuSheng robots. Tailor-made for mobile robots, service robots, and AGV/AMR intelligent equipment, it integrates three core advantages: precise lifting motion, high-load stable support, and intelligent adaptive control. It perfectly adapts to the application needs of robots in all scenarios, including walking, operation, obstacle avoidance, and workstation docking. Made of high-strength molded aluminum alloy, it is impact-resistant and wear-resistant. The built-in silent servo lifting system ensures precise and controllable lifting stroke, smooth start and stop without shaking, and low noise operation. Equipped with an intelligent linkage sensing module, it can seamlessly communicate with the JuSheng robot control system, automatically matching the working height, precisely lifting at fixed points, and linkage start and stop, achieving fully automated unmanned operation.

Function Overview

Body Weight:	12.5KG (420/425)
Voltage:	25-48V DC
Motor Options:	DC Servo Motor
Maximum Thrust (Pull):	500 N / 500N
Maximum Speed Under Load:	0-60 mm / S
Minimum Initial Height:	Stroke /2 + 250mm (Standard)
Dynamic Lateral Torque:	500Nm
Static Lateral Torque:	700Nm
Color:	Silver Gray, Black (Customizable)
Noise:	48~65 DB
Temperature Range:	-35 ° C ~ + 75 ° C
Protection Rating:	IP54
Screw Selection:	Ball Screw Lead: 20
Reduction Ratio:	10:1
Limit Options:	Soft Limit, Mechanical Limit
Communication Options:	CANopen / EtherCAT, RS485 Internal Wiring
Wiring Method:	(Custom Wiring Required)

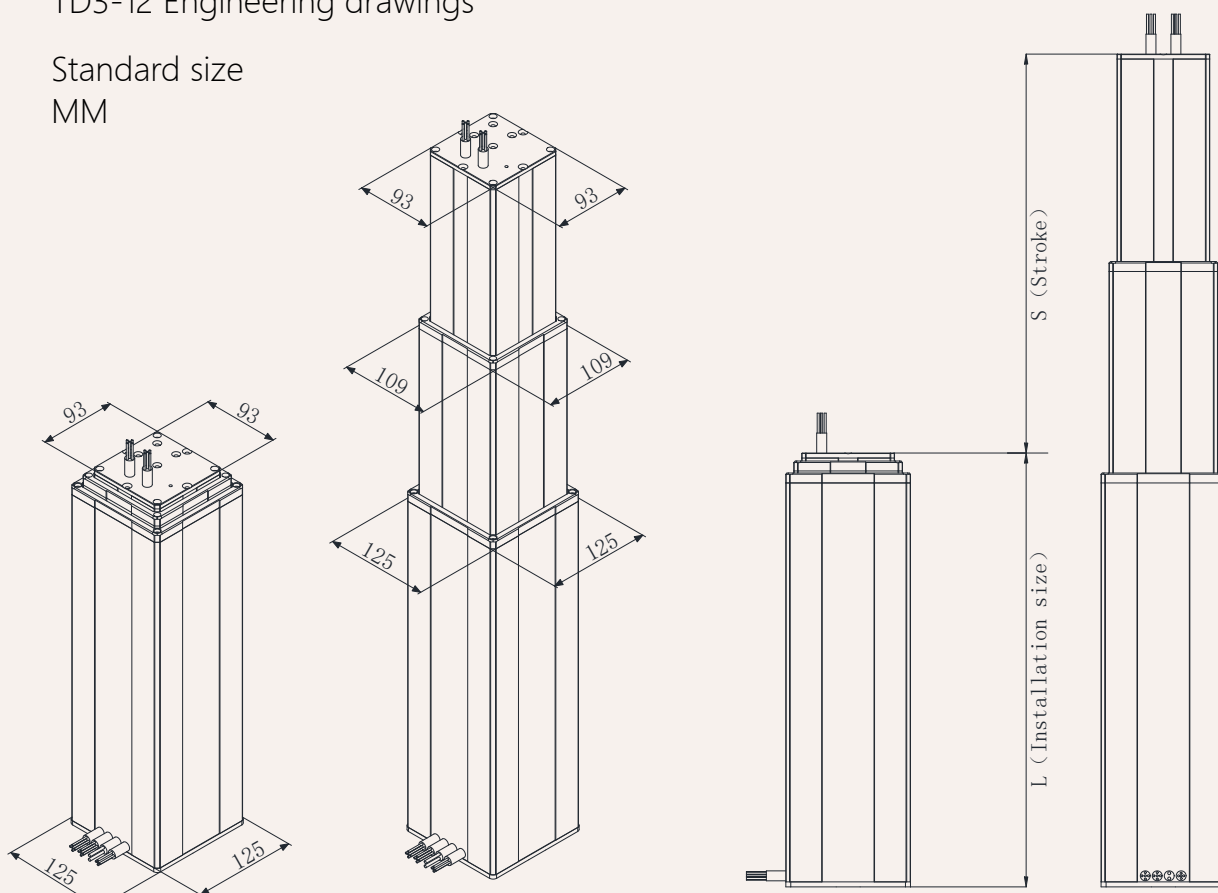


Initial height and unfolded height (non-standard can be customized)

SStroke MM	300	400	500	600	700	800
L Closed height	400	450	500	600	650	700
S+L Unfolding height	700	850	1000	1200	1350	1500

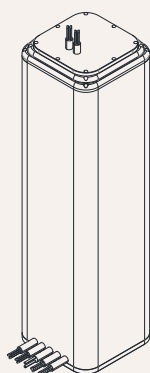
TD3-12 Engineering drawings

Standard size
MM

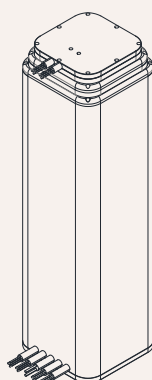


Motor cable exit point:

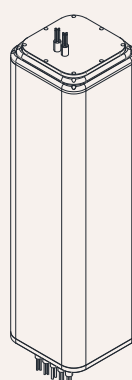
0 =Bottom panel, Top panel



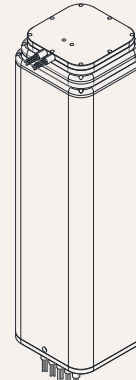
1 = Bottom side, Top side



2=Bottom panel, Top panel



3=Bottom panel, Top side



HTO3₋₁₃

Series

Embodied Robot lifting mechanism



Product Category

1、Applications of embodied robots

The HTO3 is a 136x136 square-round lifting column designed by GeMinG specifically for Embodied Robots. Tailor-made for mobile robots, service robots, and AGV/AMR intelligent equipment, it integrates three core advantages: precise lifting motion, high-load stable support, and intelligent adaptive control. It perfectly adapts to the application needs of robots in all scenarios, including walking, operation, obstacle avoidance, and workstation docking. Made of high-strength molded aluminum alloy, it is impact-resistant and wear-resistant. The built-in silent servo lifting system ensures precise and controllable lifting stroke, smooth start and stop without shaking, and low noise operation. Equipped with an intelligent linkage sensing module, it can seamlessly communicate with the robot's control system, automatically matching the working height, precisely lifting at fixed points, and 联动 start and stop, achieving fully automated unmanned operation.

Function Overview

Body Weight:	12.5KG (420/425)
Voltage:	25-48V DC
Motor Options:	DC Servo Motor
Maximum Thrust (Pull):	500 N / 500N
Maximum Speed Under Load:	0-60 mm / S
Minimum Initial Height:	Stroke /2 + 250mm (Standard)
Dynamic Lateral Torque:	500Nm
Static Lateral Torque:	700Nm
Color:	Silver Gray, Black (Customizable)
Noise:	48~65 DB
Temperature Range:	-35 ° C ~ + 75 ° C
Protection Rating:	IP54
Screw Selection:	Ball Screw Lead: 20
Reduction Ratio:	10:1
Limit Options:	Soft Limit, Mechanical Limit
Communication Options:	CANopen / EtherCAT, RS485 Internal Wiring
Wiring Method:	(Custom Wiring Required)

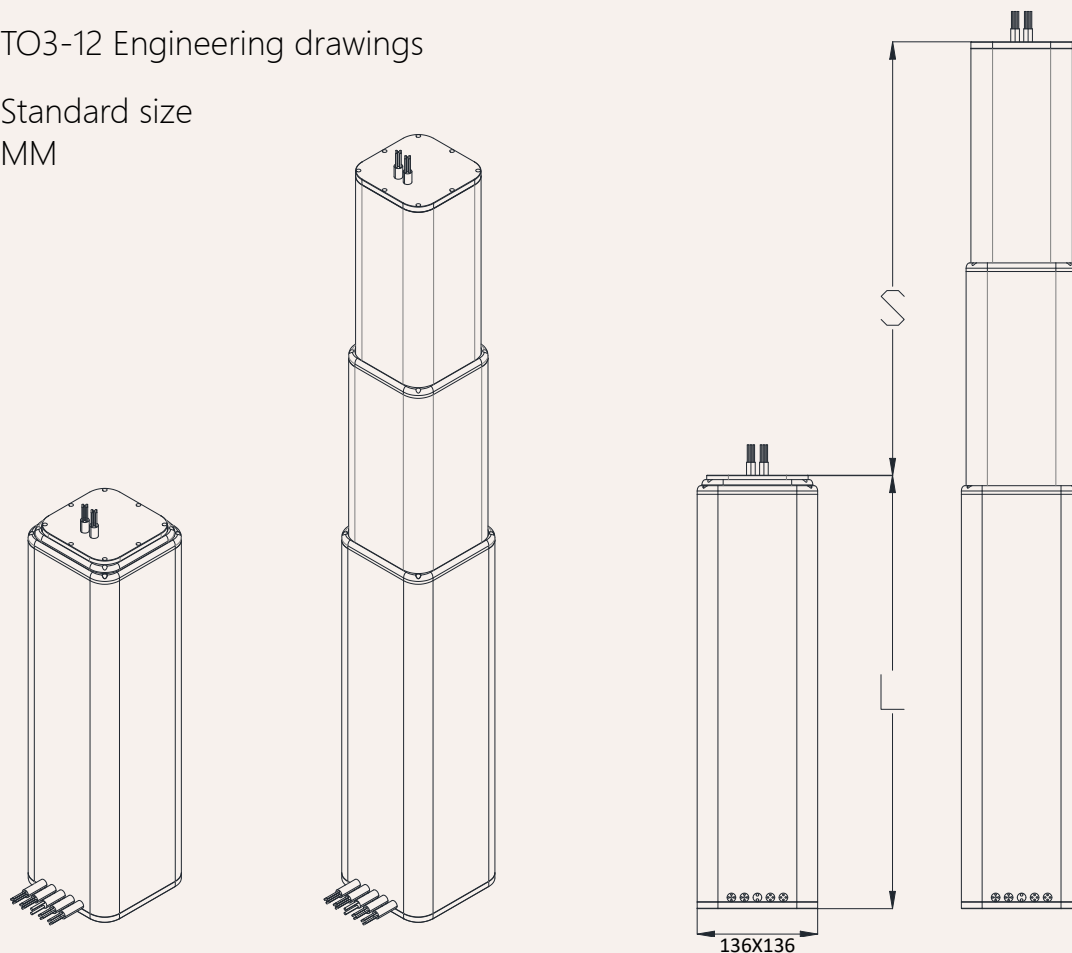


Initial height and unfolded height (non-standard can be customized)

SStroke MM	300	400	500	600	700	800
L Closed height	400	450	500	600	650	700
S+L Unfolding height	700	850	1000	1200	1350	1500

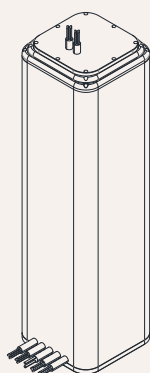
TO3-12 Engineering drawings

Standard size
MM

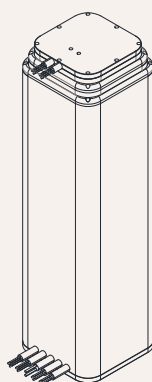


Motor cable exit point:

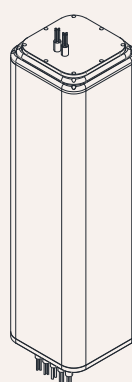
0 =Bottom panel, Top panel



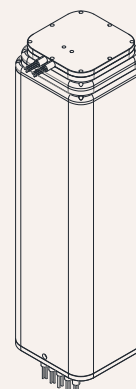
1 = Bottom side, Top side



2=Bottom panel, Top panel



3=Bottom panel, Top side



HTO3₋₁₂

Series

Embodied Robot lifting mechanism



Product Category

1、Applications of embodied robots

The HTO3 is a 125x125 square-round lifting column designed by GeMinG specifically for Embodied Robots. Tailor-made for mobile robots, service robots, and AGV/AMR intelligent equipment, it integrates three core advantages: precise lifting motion, high-load stable support, and intelligent adaptive control. It perfectly adapts to the application needs of robots in all scenarios, including walking, operation, obstacle avoidance, and workstation docking. Made of high-strength molded aluminum alloy, it is impact-resistant and wear-resistant. The built-in silent servo lifting system ensures precise and controllable lifting stroke, smooth start and stop without shaking, and low noise operation. Equipped with an intelligent linkage sensing module, it can seamlessly communicate with the robot's control system, automatically matching the working height, precisely lifting at fixed points, and 联动 start and stop, achieving fully automated unmanned operation.

Function Overview

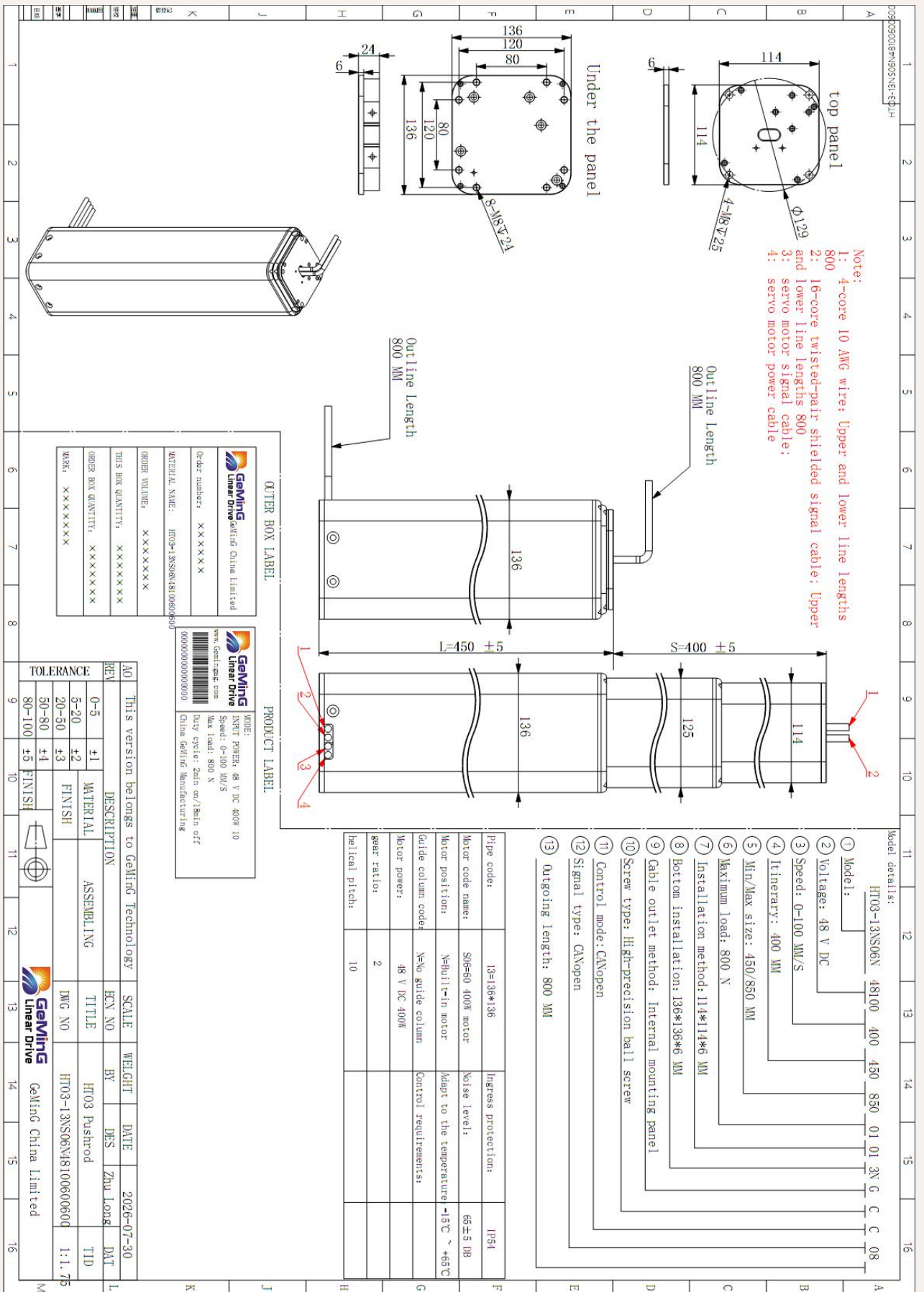
Body Weight:	12.5KG (420/425)
Voltage:	25-48V DC
Motor Options:	DC Servo Motor
Maximum Thrust (Pull):	500 N / 500N
Maximum Speed Under Load:	0-60 mm / S
Minimum Initial Height:	Stroke /2 + 250mm (Standard)
Dynamic Lateral Torque:	500Nm
Static Lateral Torque:	700Nm
Color:	Silver Gray, Black (Customizable)
Noise:	48~65 DB
Temperature Range:	-35 ° C ~ + 75 ° C
Protection Rating:	IP54
Screw Selection:	Ball Screw Lead: 20
Reduction Ratio:	10:1
Limit Options:	Soft Limit, Mechanical Limit
Communication Options:	CANopen / EtherCAT, RS485 Internal Wiring
Wiring Method:	(Custom Wiring Required)



HTD3-12-Customer confirms engineering drawings

Standard size

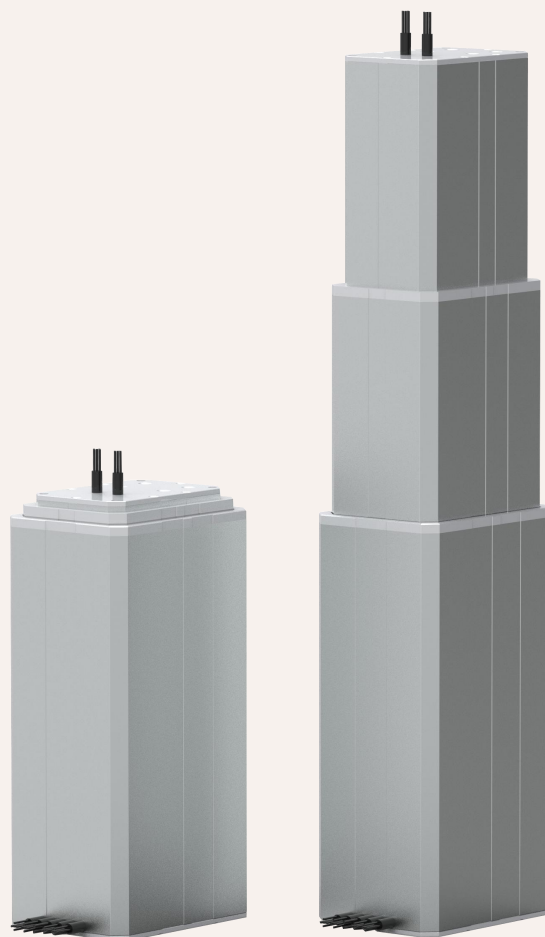
MM



HTA3

Series

Intelligent lifting column



Product Category

1、Applications of embodied robots

The HTA3 is a 193x141 rectangular lifting column designed by GeMinG specifically for Jushang robots. Tailor-made for mobile robots, service robots, and AGV/AMR intelligent equipment, it integrates three core advantages: precise lifting motion, high-load stable support, and intelligent adaptive control. It perfectly adapts to the application needs of robots in all scenarios, including walking, operation, obstacle avoidance, and workstation docking. Made of high-strength molded aluminum alloy, it is impact-resistant and wear-resistant. The built-in silent servo lifting system ensures precise and controllable lifting stroke, smooth start and stop without shaking, and low noise operation. Equipped with an intelligent linkage sensing module, it can seamlessly communicate with the Jushang robot control system, automatically matching the working height, precisely lifting at fixed points, and linkage start and stop, achieving fully automated unmanned operation.

Function Overview

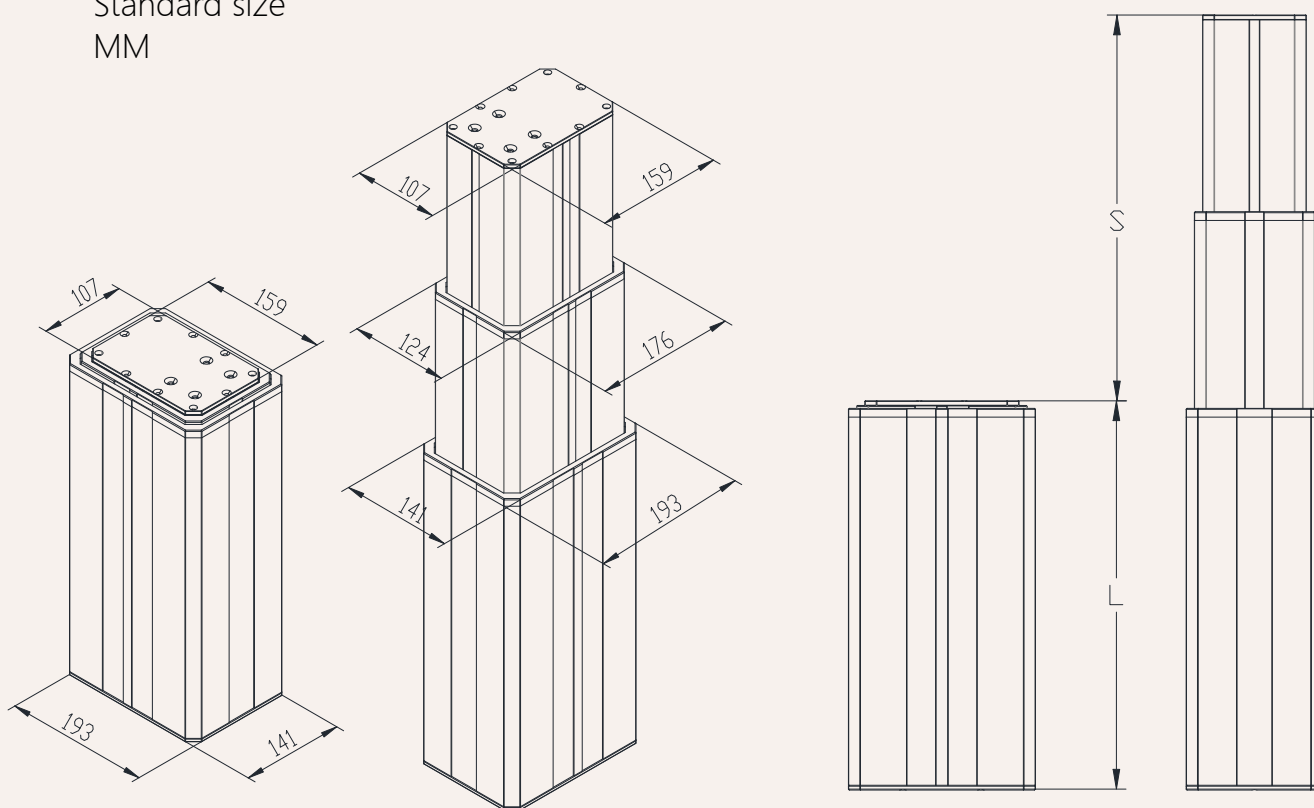
Body Weight:	17KG (400/400)
Voltage:	48V DC
Motor Options:	DC Servo Motor
Maximum Thrust (Pull):	1500 N / 1500N
Maximum Speed Under Load:	0-150 mm / s (Load 800N)
Minimum Initial Height:	Stroke /2 + 250mm
Dynamic Lateral Torque:	800Nm
Static Lateral Torque:	1000Nm
Color:	Silver Gray, Black (Customizable)
Noise:	48~70 DB
Temperature Range:	-35 °C ~ + 75 °C
Protection Rating:	IP54
Screw Selection:	Ball Screw Lead: 20
Reduction Ratio:	10:1
Limit Options:	Soft Limit, Mechanical Limit
Communication Options:	CANopen / EtherCAT, RS485
Wiring Method:	Internal Wiring (Custom Wiring Required)

Initial height and unfolded height (non-standard can be customized)

SStroke MM	300	400	500	600	700	800
L Closed height	400	450	500	600	650	700
S+L Unfolding height	700	850	1000	1200	1350	1500

TA3-Engineering drawings

Standard size
MM

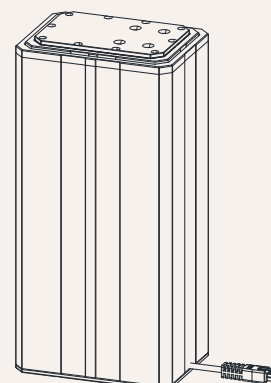
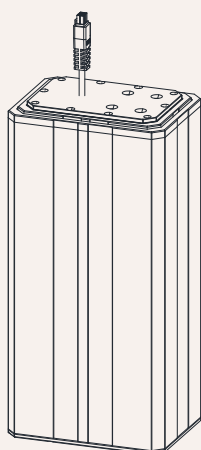


Motor cable exit point:

0 =Top panel, top exit wire

1 =Side view, cable exit at top

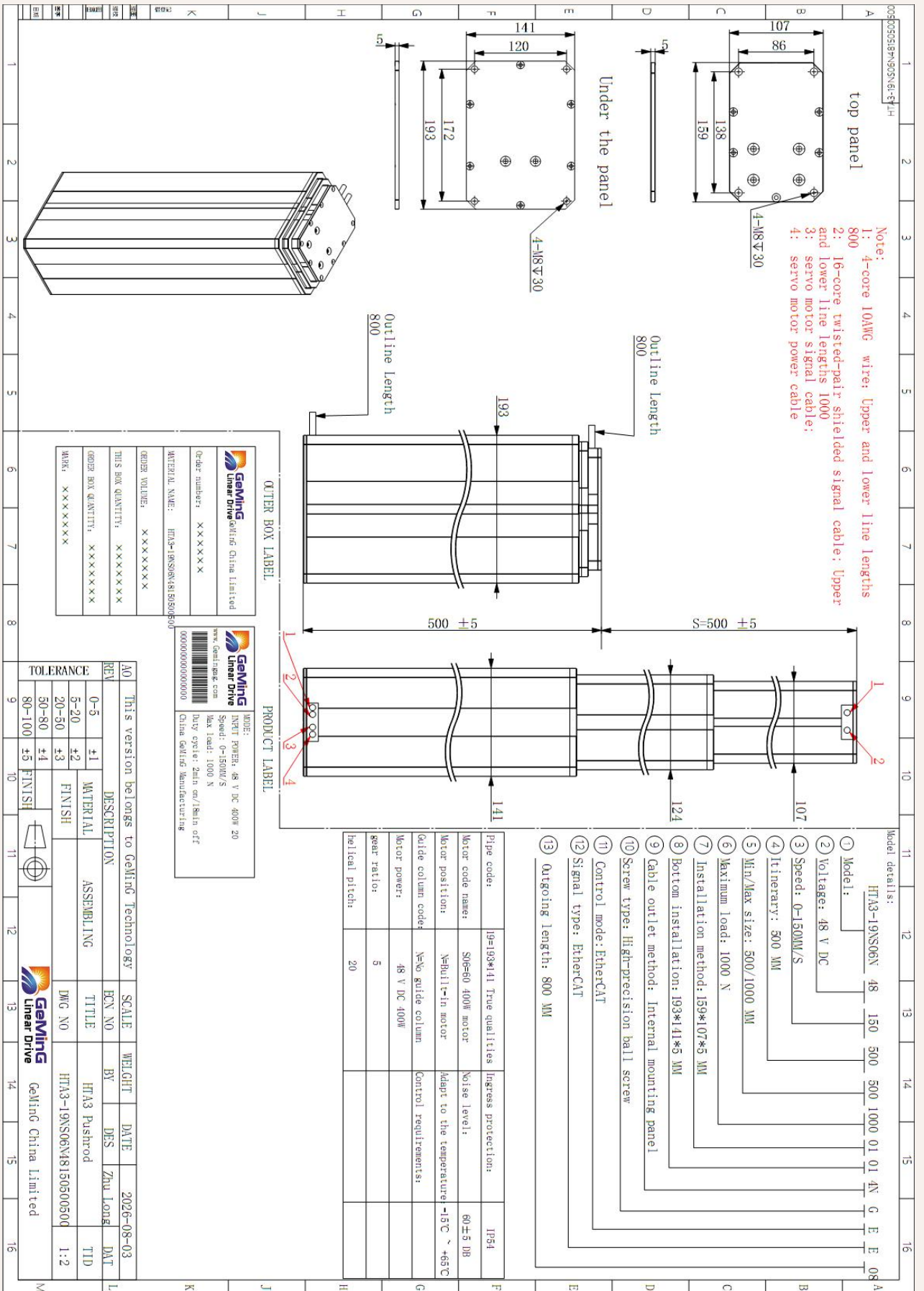
2=Side, bottom wire exit



TA3-Customer confirms engineering drawings

Standard size

MM



HTA3

Series
Embodied Intelligence

Intelligent lifting column

Height Adjustment

Positioning Adjustment

A more compact design

makes it easier to install in tight spaces

ideal for designing various types of automated equipment,

unmanned transport vehicles, and lifting equipment,

while retaining many of its popular advantages!

高清双目相机

可更换多款末端

单自由端头爪
三指/五指灵巧手

可升降身高调节

身高范围约1260-1880mm

可选配移动底盘

移动速度 $\leq 1.5\text{m/s}$

HT Model Explanation Selection Code Table

HTD3 -14 48 A *** *** - O1 O1 0 1 T N N 30
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

①	Model Prefix	HTD3-12 = 125X125 Square	HTD3-14 = 142X142 Square	HTA3 = 193X141 Rectangle
②	Voltage	48= 48V DC	24= 24V DC	
③	Loading(n)@Speed (mm/s)	0-100MM/S	0-200MM/S	
④	Stroke (mm)			
⑤	Closed height (mm)	Please refer to page 4.5.8. Note: Please refer to the valid parameter table before selecting a size!		
⑥	Top panel type	O1 = Standard pipe type, M8 mounting screws, 30mm countersunk. K = Customization	O2 = Enlarged panel type, 8mm mounting holes.	
⑦	Bottom panel type	O1 = Standard pipe type, M8 mounting screws, 30mm countersunk. K = Customization	O2 = Enlarged panel type, 8mm mounting holes.	
⑧	Qualifying Position	0= Top panel 4= Side of the inner wiring	1= Upper side 5= inner side of the line	2= lower side 3=Internal wiring panel
⑨	Type of qualification	N = Internal wiring	H = External wiring	K = Customization
⑩	Screw options	G= Ball screw (default)	T= Trapezoidal Screw	
⑪	Control method	N= Uncontrolled		
⑫	Communication Protocol	C = CANopen	E =EtherCAT	R= RS485
⑬	Line length	07 =Line length 0.7 M 30 =Line length 3.0 M 70 =Line length 7.0 M	10 = Line length 1.0 M 40 =Line length 4.0M 70 =Line length 8.0 M	15 =Line length 1.5 M 50 =Line length 5.0 M 90 =Line length 9.0 M 20= Line length 2.0 M 60= Line length 6.0M 00 =Customization