



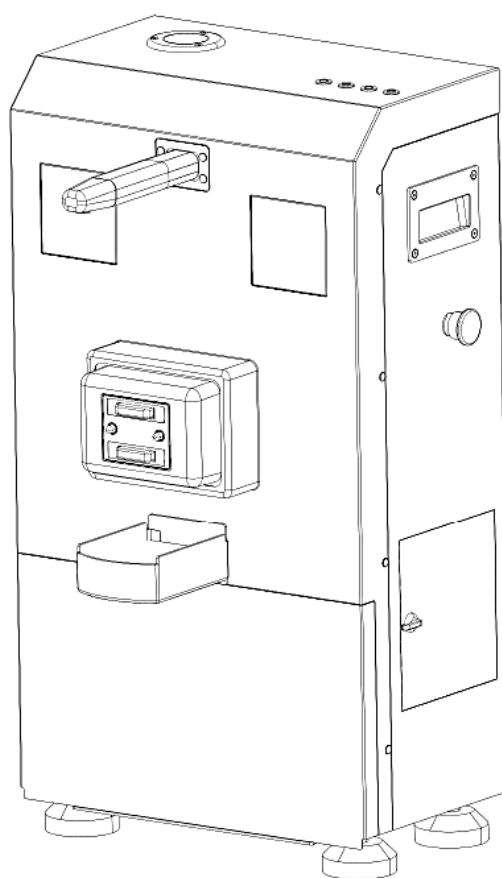
Clean like a pro

Workstation CWS-01



User Manual

Original Instruction



2023.09



www.cenobots.com

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Introduction

This manual is only intended for end user and provides necessary information for operating the device. It contains the safety, installation, operations, maintenance and the specifications of the device.



CAUTION Read all instructions before operating or maintaining this device.

The device will provide the optimal service, if:

- Operate the device properly.
- Maintain the device regularly according to the maintenance instructions.
- Maintain the device with manufacturer supplied or equivalent parts.

If you have questions about the instructions and explanations of this manual, please contact CenoBots.

Intended Use

The workstation is intended for use with the CenoBots autonomous scrubber dryer, equipped with an array of automatic functions that ensure effortless maintenance of the CenoBots cleaning robots. It has functions for charging, refilling clean water, draining waste water, and filling detergent for the autonomous scrubber dryer.

Environment Protection



Please dispose of packaging materials and used device components such as charger in an environmentally safe way according to your local waste disposal regulations.



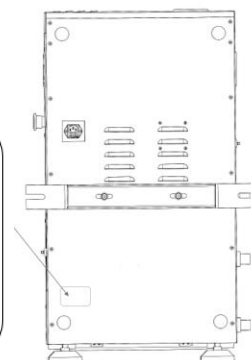
Device Data Label

The model and serial number of the device are shown on the nameplate which is located at the rear of the device. This information is needed when ordering repair parts for the device. Please note the device model and serial number as below:

Model: _____

Serial Number: _____

Data of Purchase: _____



Uncrate the Device

When the device is delivered, please check the packaging and device carefully for any damage. If there is any damage, report to the carrier immediately. Contact the local dealer or CenoBots directly for missing items.

Safety

Important Safety Instructions

Save These Instructions

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:

⚠WARNING: To warn hazards or unsafe practices which could result in severe personal injury or death.

⚠CAUTION: To warn hazards or unsafe practices which could result in minor personal injury or product or property damage.

FOR SAFETY: To identify actions which must be followed for safe operation of equipment.

⚠WARNING: To reduce the electric shock, fire, explosion or injury:

- Always read the manual and before using the device for the first time.
- Do not use the device in rooms where explosive or highly combustible substances (e.g., gas, solvents, heating fuel, dust, etc.) are stored or processed.
- Power off the switch and disconnect the supply cord before servicing the device.
- Never touch the mains plug or socket with wet hands.
- Do not use or store the device outdoors.

⚠WARNING: This device is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge

⚠WARNING: Children should be supervised to ensure that they do not play with the device.

⚠WARNING: Use only an external supply with the following specifications:

Voltage: 100-240 V a.c.

Power: at least as 1000 W

⚠WARNING: This device incorporates an earth connection for functional purposes and must only be plugged into an earthed socket-outlet.

⚠WARNING: If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

⚠WARNING: This device is designed exclusively for CenoBots scrubber dryers that are equipped with lithium iron phosphate batteries and does not charge other robots or batteries.

FOR SAFETY:

1. Do not use the device,
 - Unless trained and authorized.
 - Unless the operator manuals of this device and cleaning robot are read and understood.
 - Under the influence of alcohol or drugs.
 - Outdoors. This device is for indoor use only.
 - If not in proper operating condition, including temperature, altitude and the material of the ground. Refer to the specifications.
 - In flammable or explosive areas.
 - In areas with possible falling objects.
 - If the accessories or consumables are not supplied or authorized by CenoBots. Using other accessories may impair safety.
2. Before start up the device:
 - Check device for fluid leaks.
 - If safety-relevant covers, such as power supply cords, are damaged, stop the device and report.
 - Ensure that all covers are positioned in the designated locations as specified in the instructions.
3. When operating the device
 - Use it as described in this manual.
 - Pay attention to the local situation, as well as to third persons and children. Go slowly on slopes and slippery surfaces.
 - Keep children and unauthorized persons away from device.
4. When maintaining the device
 - Turn off the device and disconnect the supply cord.
 - Do not jack up device.
 - Do not clean the device with a pressure washer.
 - Use accessories and consumables supplied or authorized by CenoBots. The use of other accessories may impair safety.
 - Do not dismantle the device without permission. If you need service, please contact the local distributor.
5. When loading/unloading the device onto/off truck or trailer:
 - Drain the water tank before loading.
 - Block the device well.
 - Use tie- down straps to secure device.

Safety Labels

	Disposal
	Do not throw used device components to the bin.

Know your Device

Overview of Appearance

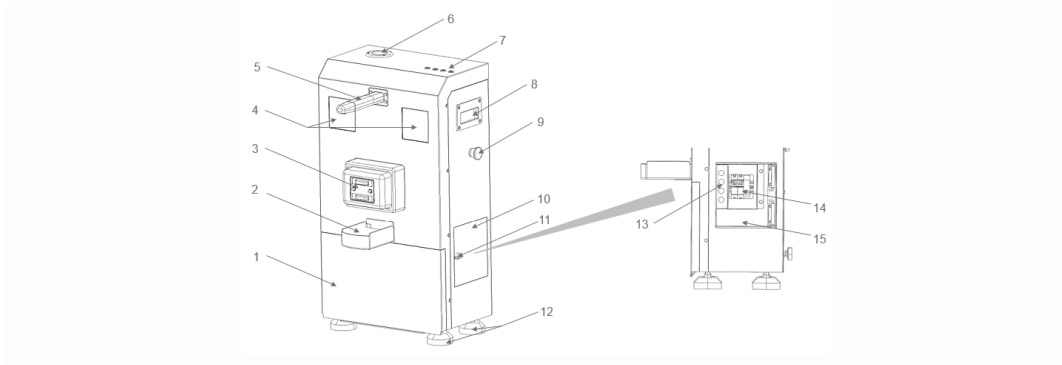


FIG.1

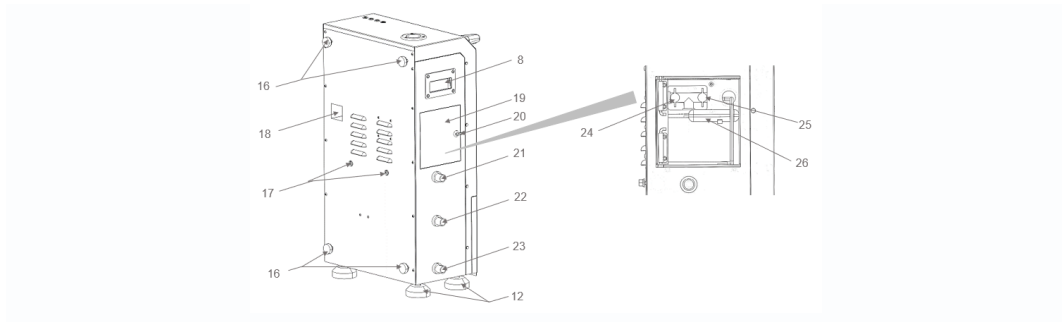


FIG.2

- | | |
|------------------------------|--|
| 1. Front cover | 14. Air circuit breaker |
| 2. Waste water hopper | 15. Manual charger |
| 3. Auto charging port | 16. Back support cup |
| 4. QR code | 17. Support mounting screw holes |
| 5. Rubber water inlet pipe | 18. Supply cord connector |
| 6. Detergent tank cap | 19. Right door |
| 7. Indicator lights | 20. Right doorknob |
| 8. Handle | 21. Water inlet |
| 9. Emergency stop button | 22. Water outlet 1 |
| 10. Left door | 23. Water outlet 2 |
| 11. Left doorknob | 24. Valve for water filling |
| 12. Bottom support cup | 25. Valve for nozzle |
| 13. Manual operation buttons | 26. Nozzle (For rinsing the recovery tank of the device) |

Water outlet instruction

Water outlet1: The waste water draining from water outlet1 is driven by a pump, and it is used when the height at the draining area/point is greater than the water outlet2.

Know your Device

Water outlet2: This water outlet is gravity-driven and does not require any powered mechanism. The liquid flows out naturally based on gravity, and the height at the draining point must be lower than the height of this water outlet.

Indicator light introduction

Indicators are in the top of the device. They show the power and working status of the device.

No.	Item	Description
A1	Power	Green: Power on Red: Device error Red flash: E-stop button is pressed
A2	Charging	Green: Robot is charging
A3	Filling water	Green: Robot is filling water
A4	Draining water	Green: Robot is draining water Red: Workstation water tank is full

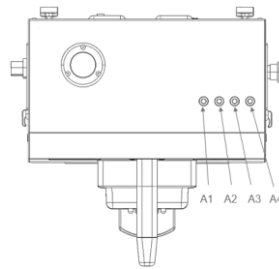


FIG.3

Manual operation button introduction

Manual buttons are behind the left door. In normal operation, it needs to be set to the automatic mode, unless the manual mode is required during maintenance or debugging.

No.	Item	Description
B1	Auto/Manual switch	This is a switch used for manual and automatic switching
B2	Filling water	This is for manually filling water for the robot
B3	Draining water	This is for manually draining waste water from the workstation tank
B4	Filling detergent	This is for manually filling detergent for the robot

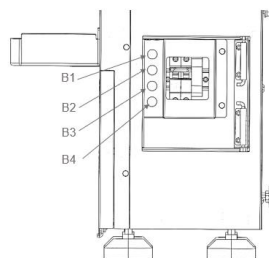


FIG.4

Install the Device

Select site

Select the site where the workstation will be installed and follow these steps:

1. The workstation needs to be placed against a wall, ensuring there are no obstacles within a 2m*2m area in front of it. It should not be deployed in corridors, narrow spaces, corners, or other restrictive environments. Choose a location with an obvious building structure in front of it.
2. The floor surface must be flat and smooth to ensure that the base station electrode piece and the device body electrode piece are aligned in the same horizontal line.
3. Ensure there are no obvious stains or marks on the QR code of the base station.
4. Try to avoid crowded areas to prevent interference with the charging task.
5. The location of the docking station should not obstruct the passage of other personnel.
6. Choose a convenient location for a power supply.
7. Select a location where maintenance personnel can easily monitor the robot to perform daily maintenance and confirm its status.

Install the Device

We recommend securing the device to the wall to prevent unintended movement.

Install the device onto the wall

1. Check the accessories according to the shipping list.
2. Ensure that the charging ports of the robot and the workstation are at the same height. If the workstation is not horizontal, it should be adjusted accordingly. To adjust the height and the levelness of the workstation, the operation can be taken as shown in FIG. 5.
 - 1) Loosen the nut indicated by the arrow in Figure 5.
 - 2) Rotate the Bottom support cup to lengthen or shorten it.
 - 3) Lock the nut after the adjustment.

Note: Each support cup can be adjusted individually.

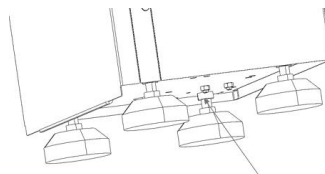


FIG.5

3. Install the bracket to the device as shown in FIG. 6

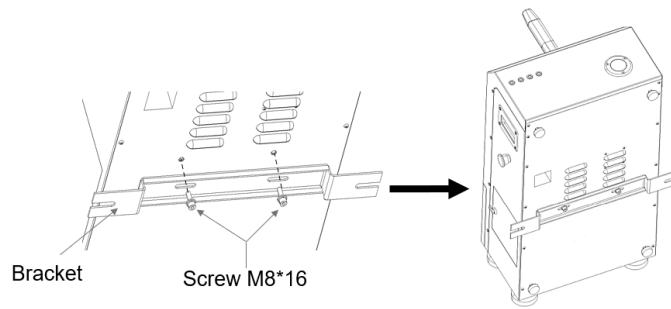


FIG.6

4. Install the supply cord to the device as shown in FIG. 7

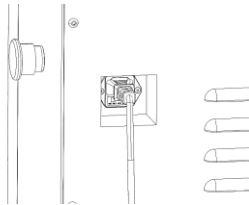


FIG.7

5. Install the device to the wall using the expansion bolts as shown in FIG. 8.

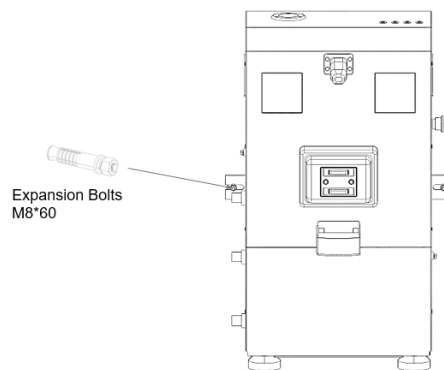


FIG.8

6. Adjust the four back support cups (16) until they touch the wall. They are adjusted in the same way as the bottom support cup. Lock the nut after the adjustment.

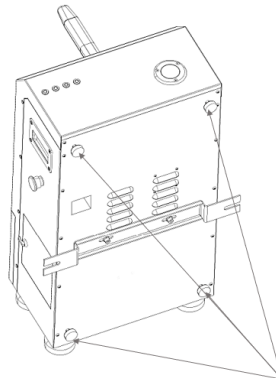


FIG.9

Install the water outlet hose

1. Select the appropriate water outlet based on the description of the water outlet in the previous section 'Overview of Appearance'.
2. Release the white end cap of the selected water outlet.
3. Install the adapter to the connector.
4. Install the draining hose to the adapter and secure it by clamp.

Note: The clamp needs to be clamped on the area of the draining hose with the inscription '34'.

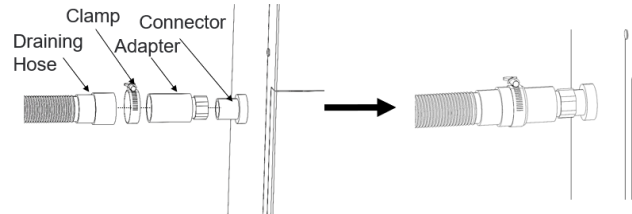


FIG.10

Install the water inlet hose

1. Release the white end cap of the water inlet.
2. Connect the water inlet hose to the water inlet.

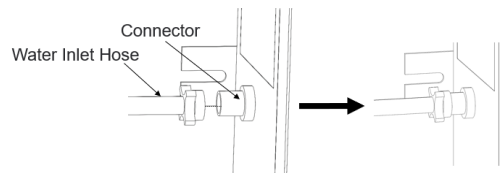


FIG.11

3. Connect the water inlet hose to the tap.
 - 1) Loosen the 4 screws of the adapter
 - 2) Install the adapter to the tap and tighten the 4 screws of the adapter.

Note: The adapter needs to be pressed firmly between the tap.

- 3) Install the water hose to the adapter as shown in FIG. 12.

Note: The outer diameter of the tap should be less than 25mm (0.98 inch).

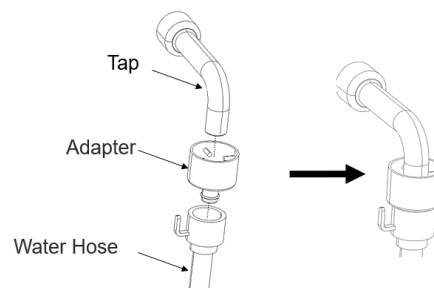


FIG.12

Operation

The main purpose of this chapter is to provide the necessary operating instructions for the operators.

Start Device

1. Connect the supply cord to wall outlet.

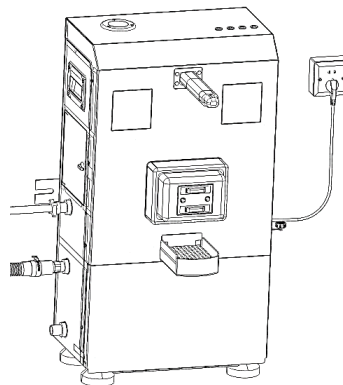


FIG.13

2. Turn the air circuit breaker (14) to up position.

Charge Manually

The manual charger connector is behind the left door.

This manual charger can be used when the battery is completely out of power and the Cenobots scrubber dryer cannot be charged by the auto charging port (3).

⚠CAUTION: Please put the charging connector back in its original place after use.

Notice: Turn off the cleaning robot when manually charging.

Operate the Nozzle

This nozzle is intended for use in rinsing the scrubber dryer when maintaining it. The nozzle is located behind the right door of the workstation.



FIG.14

To use the nozzle, the following steps should be taken:

1. Open the right door and take out the nozzle.
2. Turn valve (24) to the 'ON' position.
3. Turn on the valve located on the nozzle as shown in FIG.14.
4. Turn off the valve located on the nozzle after use.
5. Return the nozzle to its original position.
6. Turn off valve (24) and close the right door of the workstation.

Stop the Device

There are two ways to stop the device.

1. Press the emergency stop button of the workstation.
The emergency stop (9) is located in the right of the device.
2. Press the emergency stop button of the cleaning robot.

Upon pressing the emergency stop button, the device will initiate the stop function, which includes ceasing charging, refilling water, draining water, and other related activities.

Turn off Device

The workstation can be turned off by turning the air circuit breaker (14) to the down position.

⚠WARNING: Do not operate the device with wet hands.

Transportation

⚠CAUTION: Be aware of the weight of the device during the transportation.

The following steps should be taken when loading or unloading for transportation:

1. Make sure the air circuit breaker is turned off.
2. Drain and rinse waste water tank.
3. Use packing straps to secure the device, and place some soft materials like sponge between the device and packing straps to avoid scratching the surface of the device.
4. Do not lay the device flat when loading or unloading.

⚠CAUTION: Do not use forklift directly to pick up the device, or use lifting rope to lift the device.

Storage

⚠ CAUTION: Be aware of the weight of the device during the storage.

The following steps should be taken when storing the device.

1. Store the device in the dry area indoors and out of direct sunlight under the following temperature conditions:

Min. storage temperature	-10°C
Max. storage temperature	40°C

2. Completely drain and rinse waste water tank.
3. Turn off the air circuit breaker before storing the device.

Maintenance

The device needs to be maintained regularly to keep the best of the performance and the service life.

Maintenance Schedule

Interval	Parts	Procedure	Person Resp.
Daily	Workstation waste water tank	Clean, rinse	Operator
	Waste water hopper	Clean, rinse	Operator
	Covers	Clean the device covers	Operator
Weekly	Fill the detergent	Charge	Operator

Clean the Hopper

The hopper, located in front of the device, is designed to receive waste water from the autonomous scrubber dryer.

To maintain the waste water hopper, follow these steps:

- 1) Clean the filter in the hopper if there is debris.
- 2) Rinse the filter.
- 3) Put the filter back into the hopper.

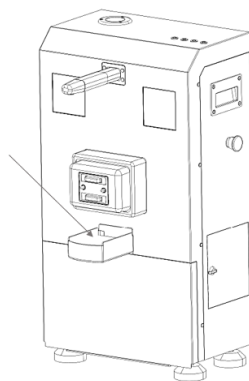


FIG.15

Clean the Water Tank

The water tank is located behind the front cover(W12). Remove the cover and use the nozzle to clean it.

⚠WARNING: Please turn off the device and disconnect the supply cord when maintain the device.

Note: There is no need for an extra tool to take off the front cover.

1. Remove the front cover following the arrows indicated in FIG. 16.
2. Take out the waste water tank.
3. Rinse the waste water tank.
4. Put the waste water tank back in its original position.
5. Put the front cover back in its original position.

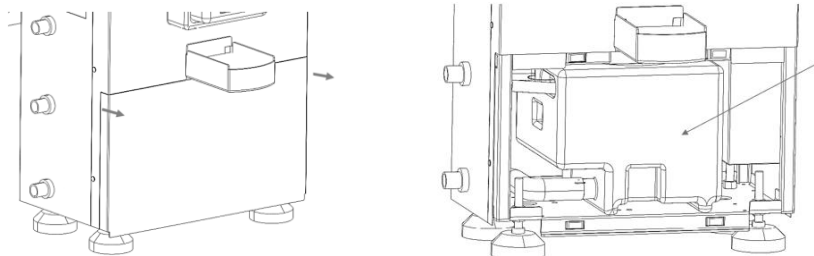


FIG.16

Fill the Detergent

The workstation has the feature of auto-filling detergent for the CenoBots autonomous scrubber dryer and the detergent should be filled into the detergent tank regularly.

To fill the detergent into the tank, the following steps should be taken:

- 1) Release the tank cap.
- 2) Fill the detergent.
- 3) Wipe off the detergent, if any remains on the surface of the station.
- 4) Cover the cap.

Notice: Please fill the low or no foam detergent to make the water pick-up more effective.

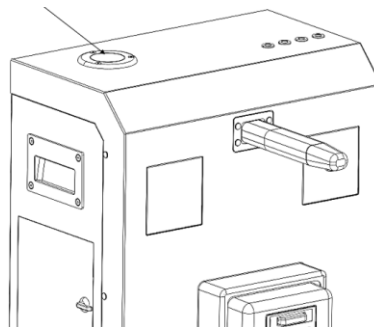


FIG.17

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The device is power off	The power socket has no power	Check the power socket
	The supply cord is not connected to the AC power	Connect the cord to the AC power
	The supply cord is not connected to the workstation or the connection between workstation and supply cord is not good	Check the connection between supply cord and workstation
	The air circuit breaker is turned off	Turn the air circuit breaker on
The device cannot charge for the robot.	Device error	Check the detail of the error on the robot screen or the mobile app and follow the steps according to the guide
	The emergency stop button is pressed	Release the emergency stop button
	Charger is damaged	Contact local dealer to replace the charger
Device stopped draining	Device error	Check the detail of the error on the robot screen or the mobile app and follow the steps according to the guide
	The pump is clogged	Clean the waste water tank
	The draining hose is clogged	Check the output end of the draining hose and clean it
	The emergency stop button is pressed	Release the emergency stop button
The device cannot fill water for the robot	The manual valve (24) is on the 'OFF' position	Turn the valve to the 'ON' position
	The tap is turned off	Turn on the tap
	The electromagnetic ball valve has malfunctioned	Contact local dealer to replace the charger
	Device error	Check the detail of the error on the robot screen or the mobile app and follow the steps according to the guide
	The emergency stop button is pressed	Release the emergency stop button
The device cannot fill the	There is no detergent in the detergent tank	Refill the detergent

Maintenance

detergent for the robot	The emergency stop button is pressed	Release the emergency stop button
	Device error	Check the detail of the error on the robot screen or the mobile app and follow the steps according to the guide

Specifications

Workstation

Dimensions (main body L*W*H)	460*270*860 mm 18.1*10.6*33.9 in
Weight	45 Kg 99 lbs
Input voltage	100-240 V a.c
Max. power	1000 W 1.34 hp
Output voltage	24 VDC
Output current	30 A
Ambient temperature	0°C~45°C
Max. water inlet pressure	0.35 MPa 3.5 bar

Declaration of Conformity

This Declaration of conformity is issued under the sole responsibility of the manufacturer:

Product name: Workstation
Model number: CWS-01

The object of the declaration described above is in conformity with Directives:

2014/35/EU Low Voltage Directive
2014/53/EU Electromagnetic Compatibility

The following harmonized standards were applied:

EN 60335-2-29:2021+ A1:2021
EN 60335-1:2012+A11:2014 +A13:2017 +A1:2019+ A14:2019 + A2:2019 + A15:2021
EN 62233:2008
EN IEC 61000-6-2: 2019
EN IEC 61000-6-4: 2019

Signed for and behalf of the manufacturer:



Rick Zhang, Chief Product Manager
July 31, 2023

