

CHUCK CONTROLLERS

Need of a chuck controller

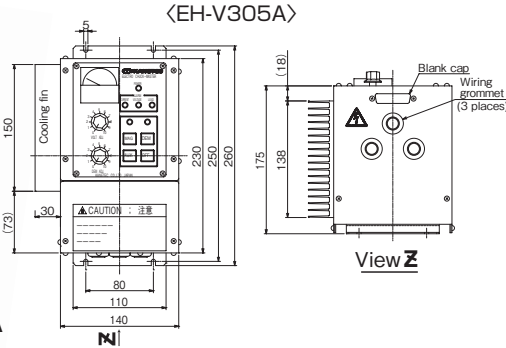
Direct current (DC) is required to generate a magnetic force in the electromagnetic chuck. Also when demounting a workpiece after machining, electrical demagnetization is required to reduce the residual holding power. For this purpose, an Electro Chuck Master or a chuck controller consisting of a rectifier and demagnetizer (Chuck Master dedicated to demagnetization and selector switch) is required.

- Rectifier: Rectifies an input from an alternating current (AC) power source to direct current (DC) and supplies it to the electromagnetic chuck.
- Demagnetizer: Once a workpiece has been attracted to the electromagnetic chuck, it cannot be demounted easily due to its residual holding power even when the power is turned off. The demagnetizer is used to attenuate the DC power from the rectifier and eliminate the residual magnetism.

Model EH-V NON-CONTACT TYPE CHUCK MASTER*



EH-V305A



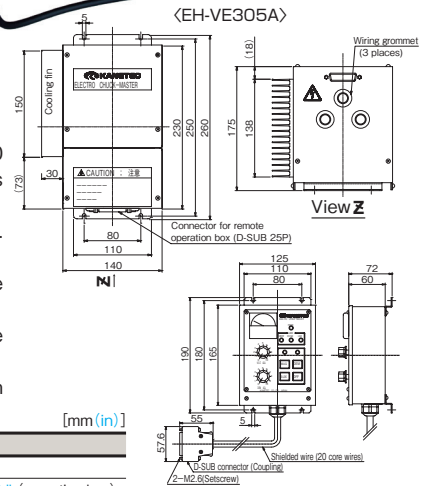
View Z

Remote operation type

<Remote operation box>



EH-VE305A



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<Dimensions of remote operation box>

[Application]

Rectifies an input from an AC power source to DC and outputs it to the electromagnetic chuck.

[Features]

- Developed as a non-contact type Chuck Master capable of outputting a constant voltage in a wide range of 100 VAC to 220 VAC and providing high speed consistent demagnetizing effect. Also various protective functions have been incorporated and indicator lamps for individual alarms are provided to identify alarms easily.
- Because a relay (consumable part) is not used, this model can be used continuously and withstand frequent ON/OFF operations.
- The holding power of the electromagnetic chuck can be controlled by adjusting the voltage.
- The rapid automatic demagnetization function is activated to reduce the residual holding power of the electromagnetic chuck.
- Many input/output signals are employed that can be utilized by connecting them to the pin terminal type terminal block in the case.
- Model EH-VE is a derived type of Model EH-V305A (operation unit incorporated) to which a remote operation box is attached for remote operation. For 10A operation, select model EH-VE210D.

| Model | Power Source | Output | Width | Height | Depth | Mass |
|-----------|------------------------------------|--------------|-----------|-----------|-----------|---|
| EH-V305A | Single phase 100-220 VAC (50/60Hz) | 0-90 VDC 5A | 170(6.69) | 260(10.2) | 175(6.89) | 4kg/ 8.8 lb |
| EH-VE305A | | | | | | 4kg/ 8.8 lb(main unit) + 1kg/ 2.2 lb(operation box) |
| EH-VE210D | Single phase 200 VAC(50/60Hz) | 0-90 VDC 10A | 282(11.1) | 290(11.4) | | 6kg/ 13 lb(main unit) + 1kg/ 2.2 lb(operation box) |

*Switch selection (Prior to use, be sure to check the position of the switch.) **If the magnetic force needs not be adjusted, select Model ES-M.

Model ES-M ELECTRO CHUCK MASTER*



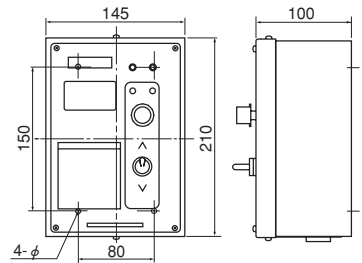
ES-M305B

[Application]

Rectifies an input from an AC power source to DC and outputs it to the electromagnetic chuck. To eliminate the residual holding power of the electromagnetic chuck, the rapid automatic demagnetization function is activated.

[Features]

- An interlock circuit is incorporated.
- Demagnetization is completed quickly by simply pressing the switch. The program has been designed to give a consistent demagnetizing effect within a short time.
- Model ES-M305B can be used on both input voltages of 100 VAC and 200 VAC.
- The noise resistance feature ensures consistent performance in certain noisy environment.
- The DC output voltage is constant.
- The fundamental functions required to control electromagnetic chucks are incorporated neatly.



Caution for use Model ES-M103B is a low-cost, readily available type and therefore lacks some functions described above.

| Model | Power Source | Output | | Dimensions | | | Mounting Hole Pitch | | Mounting Hole | Mass |
|----------|-------------------------------------|---------|---------|------------|-----------|-----------|---------------------|-----------|-----------------|---------------|
| | | Voltage | Current | Width | Height | Depth | Width | Height | | |
| ES-M103B | Single-phase 100 VAC / 50/60 Hz | 90 VDC | 3A | 145(5.70) | 210(8.26) | 100(3.93) | 80(3.15) | 150(5.90) | 4-φ 4.5(φ 0.17) | 2.3kg/ 5.1 lb |
| ES-M305B | Single-phase 100/200 VAC 50/60Hz**1 | | 5A | | | | | | | 2.5kg/ 5.5 lb |

*1---Switch selection **If the magnetic force needs to be adjusted, select Model EH.

Model EST-1 ELECTRO CHUCK MASTER* STAND

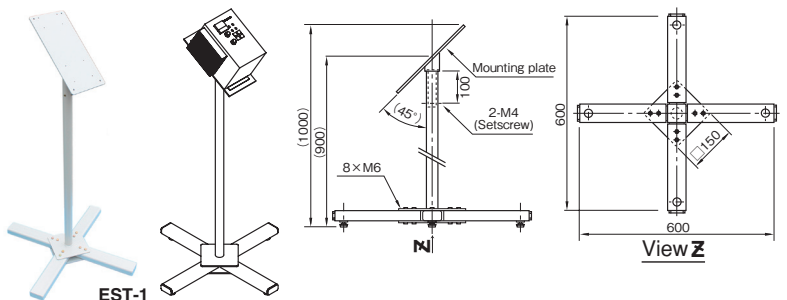
[Application]

A stand type mounting base that can be used for any types of small Chuck Masters such as ES-M305B and EH-V305A.

[Features]

- Self-standing and easy installation.
- The mounting plate at the top rotates 360 degrees to enable adjustment after installation.
- A rectifier can also be mounted.

| Model | Dimensions | Mass | Applicable Models |
|-------|--|-------------|--|
| EST-1 | 600×600×(1000) (23.6)×(23.6)×(39.4) | 9.5kg/21 lb | EH-V305A, ES-M305B/M103B, EPS-215B, RH-M102C |



View Z

EST-1

ELECTROMAGNETIC CHUCK CONTROLLERS PERMANENT MAGNETIC CHUCKS PERMANENT CHUCKS BLOCKS FOR MC VACUUM CHUCKS PROMELTA* SINE BAR CHUCKS BLOCKS HOLDERS MINI CHUCKS HOLDING TOOLS MEASURING TOOL HOLDERS MAGNETIC HOLDERS MAGNETIC TOOLS