

# B R A K I N G   C H O P P E R C H T

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# About Us

## FOUNDED IN 1975, SECOM IS A LEADING COMPANY FOR THE DISTRIBUTION AND PRODUCTION OF COMPONENTS AND DEVICES FOR POWER ELECTRONICS

SECOM continuously carries out new research and technical proposal in conjunction with important clients, providing technical support to meet their specific needs.

Production excellence and efficient organization allow SECOM to commit itself to providing to the market with timely and professional service in numerous sectors of static energy conversion. Flexibility and short delivery time have become pillars to SECOM's company policy.

### WHO WE ARE



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Over the years the company has become an important designer and manufacturer of power electronic devices for industrial automation manufacturing technologies

### WHAT WE DO



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SECOM studies and manufactures customized solutions on behalf of its customers.

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# CHT

## OVERVIEW

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The **CHT braking chopper** is designed for use in applications where it is required to actively dissipate large amounts of energy from the DC bus.

The available range of CHT units covers currents from 100 up to 1500A.

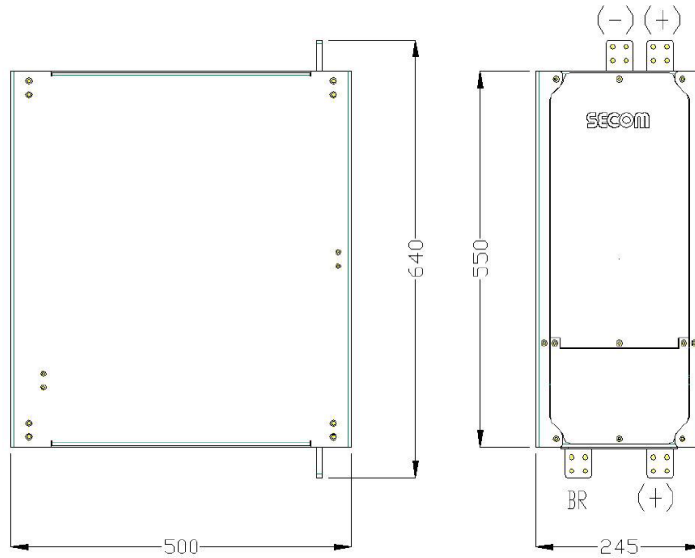


# CHT

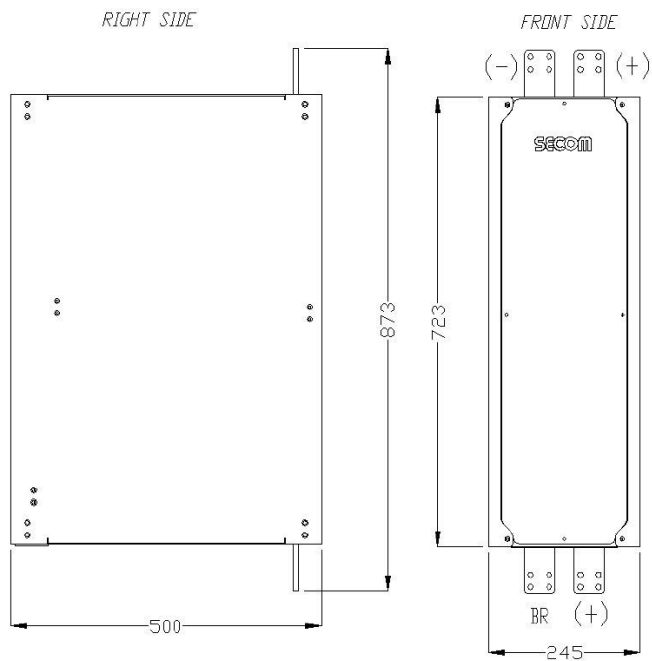
## DIMENSIONS

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CHT units are available in three different mechanical sizes, dictated by the required current; mechanical drawings listing dimensions.



Size 1

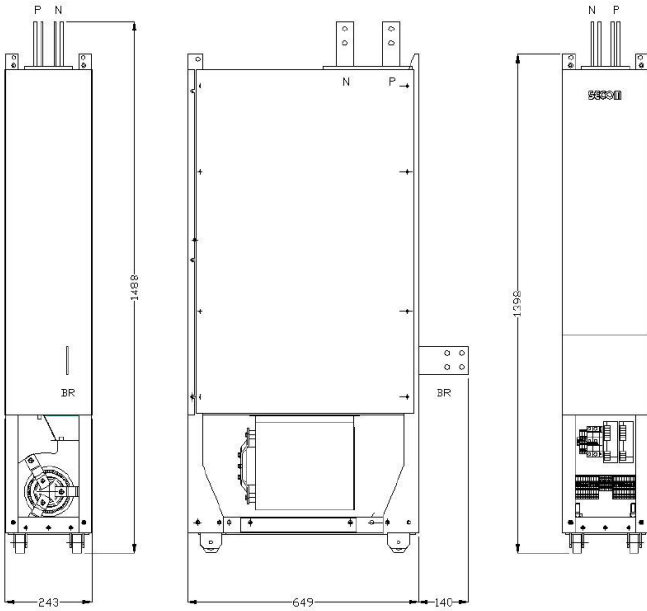


Size 2

# CHT

## DIMENSIONS

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Size 3

# COOLING CIRCUIT

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Cooling of the semiconductor switches is provided by a forced convection circuit. Details of the system ratings are listed below.

| Parameter                  | Value     |
|----------------------------|-----------|
| Power supply (Vdc)         | 24        |
| Power (W)                  | 39        |
| Flow (m <sup>3</sup> /h)   | 200 - 400 |
| Operating temperature (°C) | 10 - 40   |
| Max temperature (°C)       | 45        |

*CHT cooling circuit up to 225 A*

| Parameter                  | Value     |
|----------------------------|-----------|
| Power supply (Vac)         | 230/1ph   |
| Power (W)                  | Up to 80  |
| Flow (m <sup>3</sup> /h)   | 350 - 600 |
| Operating temperature (°C) | 10 - 40   |
| Max temperature (°C)       | 45        |

*Cooling circuit, CHT from 275 up to 750 A*

| Parameter                  | Value       |
|----------------------------|-------------|
| Power supply (Vac)         | 400-3ph     |
| Power (W)                  | 750         |
| Flow (m <sup>3</sup> /h)   | 1100 - 1400 |
| Operating temperature (°C) | 10 - 40     |
| Max temperature (°C)       | 45          |

*Cooling circuit, CHT from 1000 up to 1500 A*

The design of the CHT unit enclosure ensures there are sufficient openings for correct air flow. Periodic maintenance should be carried out to check for and prevent obstruction of the ventilation grill, furthermore correct ventilation must be provided in the cubicle that the CHT is installed in.

# TECHNICAL DATA

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| Environment conditions                   |                        |
|--|------------------------|
| Altitude                                 | 1000 m above sea level |
| Climate                                  | Temperate              |
| Operating temperature (min./max.)        | 0 ÷ 40°C               |
| Storage temperature                      | 0 ÷ 40°C               |
| Relative Humidity (absence of pollution) | 10 ÷ 90%               |

| Dimension and weight |                 |
|----------------------|-----------------|
| Height               | 550/725/1398 mm |
| Width                | 243 mm          |
| Depth                | 500/650 mm      |
| Weight               | 35-80 kg        |

| Electrical data |                |
|-----------------|----------------|
| Semiconductor   | IGBT           |
| Cooling system  | Forced air     |
| Nominal current | 100 - 1500 A   |
| Supply voltage  | 400 - 1150 Vdc |
| Braking         | IGBT chopper   |



# TECHNICAL DATA

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| CHT up to 500 A                         |          |
|---|----------|
| Control supply voltage                  | 230 Vac  |
| Frequency                               | 50/60 Hz |
| A.C. current                            | 0.5 A    |
| Optional electronics power supply       | ± 24Vdc  |
| D.C. current                            | 2 A      |
| Fan supply voltage 1                    | 24 Vdc   |
| Fans current 1                          | 2 A      |
| Fan supply voltage 2 (alternative to 1) | 230 Vac  |
| Frequency                               | 50/60 Hz |
| Fans current 2                          | 0.5 A    |

| CHT from 750 to 1500 A            |                  |
|-----------------------------------|------------------|
| Control supply voltage            | 230 Vac          |
| Frequency                         | 50/60 Hz         |
| A.C. current                      | 0.5 A            |
| Optional electronics power supply | ± 24Vdc          |
| D.C. current                      | 2 A              |
| Fan supply voltage 1              | 400-440Vac - 3ph |
| Frequency                         | 50/60 Hz         |
| Fans A.C. current                 | 3 A              |

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