

Vibration Compensator EMC Series (Electric Moment Compensator)

KOMECCO



Horizontal Type



Vertical Type

- **Effectively decreases vibrations that are difficult to manage through manual methods.**
- **Cost-effective and quick solution for reducing ship propulsion**

Horizontal Type

Horizontal compensation device is installed on the deck house or engine top to reduce vibro-motive force caused by H or X-moment of the main engine guide-force, decreasing vibrations in the ship girder, D/H and main engine body.



Vertical Type

Vertical compensation device is installed in the steering gear room or on the mooring desk and used to effectively reduce the vertical hull girder vibration occurring from unbalanced moment in the 2nd order of the main engine.

Required size of vibro-motive force is determined according to the horizontal distance between the main engine center and vibro-motive compensation device, MCR, and M2v.



Trial operation time can be greatly **reduced** using optimal control phase and control following algorithm. **High energy saving effect** is created by the function to select and control the speed of ship as required for vibration reduction.

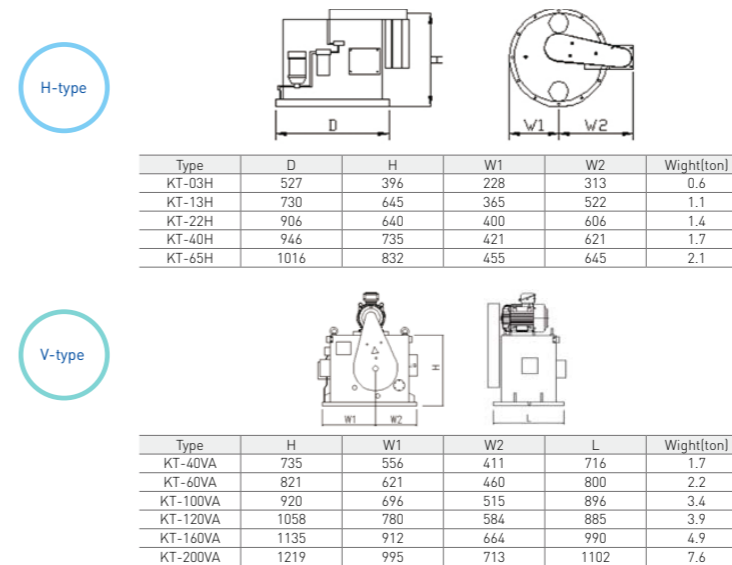
Major components of the system

- **Vibration compensator (electric balancer):** device that generates vibro-motive force
- **Control panel:** system management and control
- **Encoder unit:** acquisition of speed and phase of the main engine

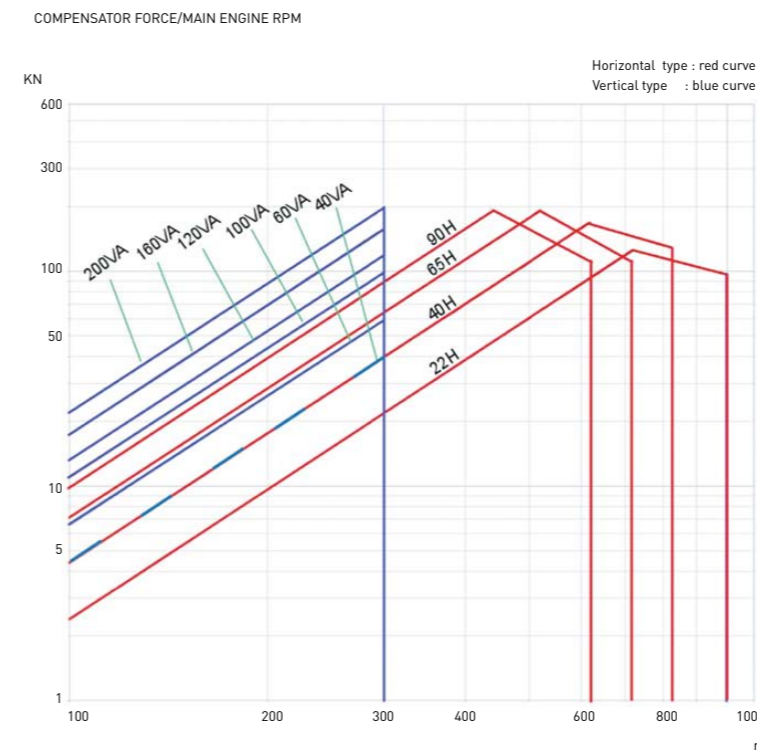
Major functions of the system

- **Reduced trial operation time** and cost using a function that automatically computes optimal control phase and necessary vibro-motive force
- **Large energy reduction** effect using a function to stop operation in M/E speed section where vibration damping is unnecessary and to start operation in necessary sections
- **Control** can be adjusted **without external devices** such as hydraulic system.
- **Control performance** was **improved** by removal of phase deviation when acquiring phase using encoder.

Dimensions



Compensator Selection Diagram





EDIT

AUTOMATION

We edit. You lead.

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