



SALE OF VIBRATION EQUIPMENT | TESTING SERVICES | MULTI-BRAND MAINTENANCE

Vibration Test System :

80 to 200kN

Solutions tailored to high-load testing

With capacities ranging from 80 to 200 kN, our shakers are designed to meet the testing requirements for systems, structures and equipment subjected to high loads. They enable qualification, characterisation and validation tests to be carried out, particularly as part of industrial test campaigns.

Robust and powerful, these solutions enable the reproduction of representative and demanding vibration environments.

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Vibration test system 80kN



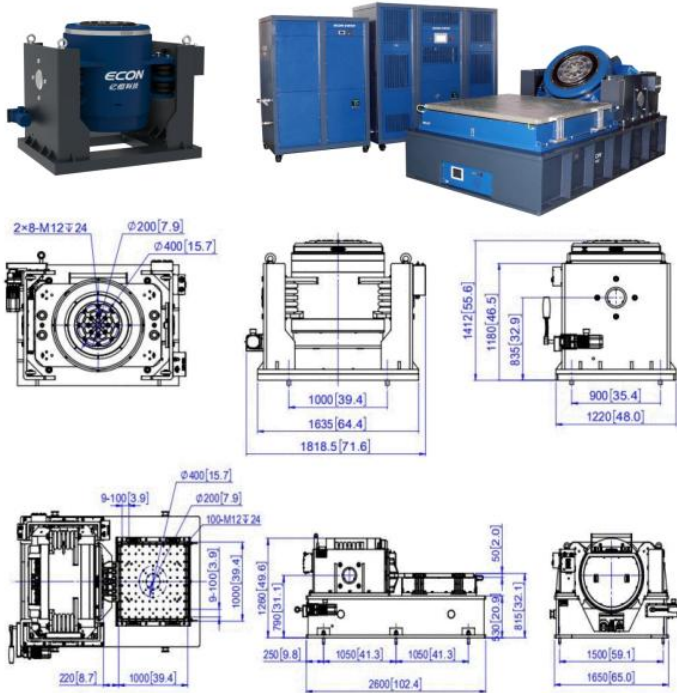
Vibration Testing System EDH-8000

EDH-8000 (Example drawing) (mm)

TECHNICAL PARAMETERS Vibration exciter EDH-8000	
Rated peak force Sine _{sin}	80 kN
Rated peak force Shock _{sh}	160 kN
Frequency range	5 ~ 2500 Hz
Max. displacement Peak-Peak ¹	76 mm
Max. velocity	2 m/s
Max. acceleration Sine	100 g
Effective moving mass	80 kg
Weight	5800 kg (vertical)
Armature diameter	10000 kg(with 1000mm slip table) 480 mm

COOLING UNIT CU-1	
Internal Circle Water Flow	50 L/min
Internal Circle Water Pressure	0.8-1.2 MPa
External Circle Water Flow	300 L/min
External Circle Water Pressure	0.25-0.4 MPa
Dimensions	1250 x 980 x 1800 mm
Weight	600 kg

TECHNICAL PARAMETERS Power Amplifier VSA-D104A	
Output power _{out}	100 kVA
Voltage _{in} max.	120 V
Current _{in} max.	70 A
Conversion Efficiency	93%
Distortion	(5 ~ 5k Hz) ≤ 0.8%
Signal to noise ratio	> 65 dB
Total mass	2200 kg
Dimensions	2000 x 2000 x 940 mm
Power supply (Standard)	AC/380V ± 10%, 50Hz
Interlocks:	Over-temperature, over-current, over-voltage, module fault, over displacement, interlock, etc.



Vibration test system 100kN

Specification

V3.8

ECON

EDH-10000-D124A

Electro-dynamic Vibration Testing System (100kN, Water Cooled)

Features

- Intensified armature design by specific reinforced material
- Unique parallel circulating water cooling design with higher cooling efficiency
- Dedicated filtration mechanism with 1 μ m filtration accuracy
- Precise measurement and interlocks protection on cooling water failure
- Complex upper suspension design for better low frequency performance
- Sophisticated current control with unbalance <1% for higher safety
- Stronger anti-overturning moment by using high wear resistance and self-lubricating material on lower guidance mechanism
- Latest SiC-FET technique based power amplifier, modularized power with higher voltage resistance, higher switching frequency, and lower distortion
- Smarter remote control on power amplifier thru Ethernet connectivity
- System MTBF > 6,000 Hours, long-time operation with minimum maintenance
- Optional head expander, slip table, chamber thermal barrier

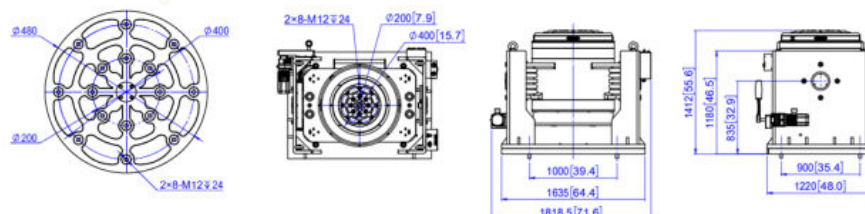


Performances

Shaker Model	EDH-10000
Sine Force	100 kN
Random Force (rms)	70 kN
Shock Force	200 kN
Usable Frequency Range	5-2,500 Hz (1)
Max. Shock Displacement (p-p)	76 mm
Max. Velocity	2.0 m/s
Max. Acceleration (sine, bare table)	981 m/s ²
Max. Load	1,000 kg
Armature Diameter	480 mm
Effective Moving Elements Mass	85 kg
Armature Fundamental Resonance	2,000 Hz
	(Bare table, $\pm 5\%$)
Body Suspension Natural Frequency	<3 Hz
Overturning Movement	>10,000 Nm
Magnetic Flux Leakage	<5 mT (2)
Load Attachment Points	16xM12
Armature Insert Pattern	8x200 mm, 8x400 mm
Dimension (W×D×H)	1819×1220×1412 mm
Weight	5,800 kg
System Working Environment	
Temperature	5~40 °C
Humidity (RH, non-condensing)	10~90%
Power Supply Requirement	3-phase 380VAC/50Hz (3)
Max. Power Consumption	200 kVA
Earthing Impedance Requirement	$\leq 4\Omega$
Compressed Air Requirement	0.6 Mpa

Power Amplifier Model	VSA-D124A
Amplifier Type	Digital Switching
Power Module	SiC-FET
Remote Control	Ethernet
Rated Power Output	120 kVA
Max. Output Voltage	120 Vrms
Max. Output Current	1050 Arms
Switching Frequency	400 kHz
Signal to Noise Ratio	>70 dB
Conversion Efficiency	>93%
Frequency Response	± 1.5 dB (5-5,000Hz)
Harmonic Distortion	<0.8% (5-5,000Hz)
Parallel Operation Current Unbalanceness	$\leq 1.0\%$
Operation	Touch Screen (7")
Interlocks and Protection	voltage, current, travel, temperature cooling, module failure, etc
Dimension (W×D×H)	2000×940×2000 mm
Weight	2,400 kg
Water Cooling Unit Model	
CU-1	
Internal Circulating Water Flow/Pressure	50 L/min, 0.8-1.2 MPa
External Circulating Water Flow/Pressure	300 L/min, 0.25-0.4 MPa (4)
Distilled Water Requirement	Hardness <30ppm, PH 7-8, Conductivity 1 μ S/cm
Dimension (W×D×H)	1250×950×1800 mm
Weight	600 kg
Accessories (standard)	
Electricity Wires/Cables Length	10 m (5)
Accessories	Center Ruler, Dust Cover, Installation Tools

Outline Drawing



Notes

- (1) This is sine working frequency defined as per standard ISO 5344. Sine working frequency can start from 2Hz, and Random working frequency can start from 1Hz.
- (2) Degaussing coil (magnetic flux leakage <1mT) is optionally available.
- (3) Power supply can be customized as per standard of different countries/area.
- (4) External circulating water is optionally supplied by cooling tower or chiller, as per request and design.
- (5) Electricity wires/cables length can be customized as per request.



Vibration test system 160kN

Specification

V3.8

ECON

EDH-16000-D174A

Electro-dynamic Vibration Testing System (160kN, Water Cooled)

Features

- Intensified armature design by specific reinforced material
- Unique parallel circulating water cooling design with higher cooling efficiency
- Dedicated filtration mechanism with 1 μ m filtration accuracy
- Precise measurement and interlocks protection on cooling water failure
- Complex upper suspension design for better low frequency performance
- Sophisticated current control with unbalance <1% for higher safety
- Stronger anti-overturning moment by using high wear resistance and self-lubricating material on lower guidance mechanism
- Latest SiC-FET technique based power amplifier, modularized power with higher voltage resistance, higher switching frequency, and lower distortion
- Smarter remote control on power amplifier thru Ethernet connectivity
- System MTBF > 6,000 Hours, long-time operation with minimum maintenance
- Optional head expander, slip table, chamber thermal barrier

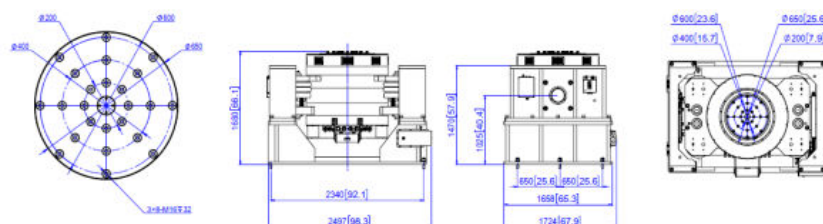


Performances

Shaker Model	EDH-16000
Sine Force	160 kN
Random Force (rms)	112 kN
Shock Force	320 kN
Usable Frequency Range	5-2,100 Hz (1)
Max. Shock Displacement (p-p)	76 mm
Max. Velocity	2.0 m/s
Max. Acceleration (sine, bare table)	981 m/s ²
Max. Load	2,000 kg
Armature Diameter	650 mm
Effective Moving Elements Mass	160 kg
Armature Fundamental Resonance	1,700 Hz
	(Bare table, $\pm 5\%$)
Body Suspension Natural Frequency	<3 Hz
Overturning Movement	>12,000 Nm
Magnetic Flux Leakage	<5 mT (2)
Load Attachment Points	24xM16
Armature Insert Pattern	8x200 mm, 8x400 mm, 8x600 mm
Dimension (WxDxH)	2497x1724x1680 mm
Weight	14,980 kg
System Working Environment	
Temperature	5~40 °C
Humidity (RH, non-condensing)	10~90%
Power Supply Requirement	3-phase 380VAC/50Hz (3)
Max. Power Consumption	300 kVA
Earthing Impedance Requirement	$\leq 4\Omega$
Compressed Air Requirement	0.6 Mpa

Power Amplifier Model	VSA-D174A
Amplifier Type	Digital Switching
Power Module	SiC-FET
Remote Control	Ethernet
Rated Power Output	170 kVA
Max. Output Voltage	120 Vrms
Max. Output Current	1485 Arms
Switching Frequency	400 kHz
Signal to Noise Ratio	>70 dB
Conversion Efficiency	>93%
Frequency Response	± 1.5 dB (5-5,000Hz)
Harmonic Distortion	<0.8% (5-5,000Hz)
Parallel Operation Current Unbalanceness	$\leq 1.0\%$
Operation	Touch Screen (7")
Interlocks and Protection	voltage, current, travel, temperature, cooling, module failure, etc
Dimension (WxDxH)	2600x940x2000 mm
Weight	2,800 kg
Water Cooling Unit Model	
CU-2	
Internal Circulating Water Flow/Pressure	100 L/min, 0.8-1.2 MPa
External Circulating Water Flow/Pressure	500 L/min, 0.25-0.4 MPa (4)
Distilled Water Requirement	Hardness <30ppm, PH 7-8, Conductivity 1 μ S/cm
Dimension (WxDxH)	1350x1200x1800 mm
Weight	1,000 kg
Accessories (standard)	
Electricity Wires/Cables Length	10 m (5)
Accessories	Center Ruler, Dust Cover, Installation Tools

Outline Drawing



Notes

- (1) This is sine working frequency defined as per standard ISO 5344. Sine working frequency can start from 2Hz, and Random working frequency can start from 1Hz.
- (2) Degaussing coil (magnetic flux leakage <1mT) is optionally available.
- (3) Power supply can be customized as per standard of different countries/area.
- (4) External circulating water is optionally supplied by cooling tower or chiller, as per request and design.
- (5) Electricity wires/cables Length can be customized as per request.



Vibration test system 200kN

Specification

V3.8

ECON

EDH-20000-D214A

Electro-dynamic Vibration Testing System (200kN, Water Cooled)

Features

- Intensified armature design by specific reinforced material
- Unique parallel circulating water cooling design with higher cooling efficiency
- Dedicated filtration mechanism with 1 μ m filtration accuracy
- Precise measurement and interlocks protection on cooling water failure
- Complex upper suspension design for better low frequency performance
- Sophisticated current control with unbalance <1% for higher safety
- Stronger anti-overturning moment by using high wear resistance and self-lubricating material on lower guidance mechanism
- Latest SiC-FET technique based power amplifier, modularized power with higher voltage resistance, higher switching frequency, and lower distortion
- Smarter remote control on power amplifier thru Ethernet connectivity
- System MTBF > 6,000 Hours, long-time operation with minimum maintenance
- Optional head expander, slip table, chamber thermal barrier

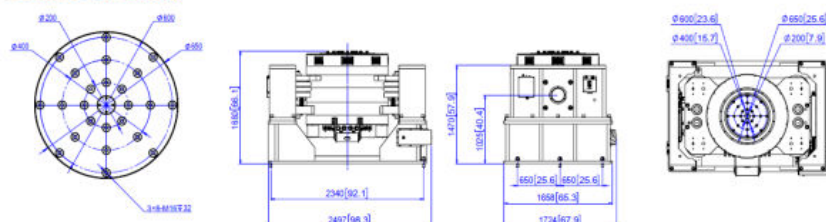


Performances

Shaker Model	EDH-20000
Sine Force	200 kN
Random Force (rms)	140 kN
Shock Force	400 kN
Usable Frequency Range	5-2,100 Hz (1)
Max. Shock Displacement (p-p)	76 mm
Max. Velocity	2.0 m/s
Max. Acceleration (sine, bare table)	981 m/s ²
Max. Load	2,000 kg
Armature Diameter	650 mm
Effective Moving Elements Mass	180 kg
Armature Fundamental Resonance	1,600 Hz
	(Bare table, $\pm 5\%$)
Body Suspension Natural Frequency	<3 Hz
Overturning Movement	>12,000 Nm
Magnetic Flux Leakage	<5 mT (2)
Load Attachment Points	24xM16
Armature Insert Pattern	8x200 mm, 8x400 mm, 8x600 mm
Dimension (W×D×H)	2497×1724×1680 mm
Weight	15,030 kg
System Working Environment	
Temperature	5~40 °C
Humidity (RH, non-condensing)	10~90%
Power Supply Requirement	3-phase 380VAC/50Hz (3)
Max. Power Consumption	350 kVA
Earthing Impedance Requirement	$\leq 4\Omega$
Compressed Air Requirement	0.6 Mpa

Power Amplifier Model	VSA-D214A
Amplifier Type	Digital Switching
Power Module	SiC-FET
Remote Control	Ethernet
Rated Power Output	210 kVA
Max. Output Voltage	120 Vrms
Max. Output Current	1835 Arms
Switching Frequency	400 kHz
Signal to Noise Ratio	>70 dB
Conversion Efficiency	>93%
Frequency Response	± 1.5 dB (5-5,000Hz)
Harmonic Distortion	<0.8% (5-5,000Hz)
Parallel Operation Current Unbalanceness	$\leq 1.0\%$
Operation	Touch Screen (7")
Interlocks and Protection	voltage, current, travel, temperature cooling, module failure, etc
Dimension (W×D×H)	2600×940×2000 mm
Weight	3,200 kg
Water Cooling Unit Model	
CU-2	
Internal Circulating Water Flow/Pressure	100 L/min, 0.8-1.2 MPa
External Circulating Water Flow/Pressure	500 L/min, 0.25-0.4 MPa (4)
Distilled Water Requirement	Hardness <30ppm, PH 7-8, Conductivity 1 μ S/cm
Dimension (W×D×H)	1350×1200×1800 mm
Weight	1,000 kg
Accessories (standard)	
Electricity Wires/Cables Length	10 m (5)
Accessories	Center Ruler, Dust Cover, Installation Tools

Outline Drawing



Notes

- (1) This is sine working frequency defined as per standard ISO 5344. Sine working frequency can start from 2Hz, and Random working frequency can start from 1Hz.
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- (3) Power supply can be customized as per standard of different countries/area.
- (4) External circulating water is optionally supplied by cooling tower or chiller, as per request and design.
- (5) Electricity wires/cables length can be customized as per request.





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MAINTENANCE

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