



Electrodynamic Vibration Test Systems SW2-3370APP (30KN) SW2-3LS4-445APP (30KN) SW2-3,5370APP (35KN) SW2-3,5LS4-445APP (35KN)



# Dynamic Test















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# The vibrators SW2-3370APP up to SW2-3,5LS4-445APP

#### **Field of Applications**

The 30-35KN air cooled high force shaker series is designed to test high weight specimens. They are suitable for resonance determination, premature aging and fatigue testing of complete assemblies. The Long Stroke Shaker types "LS3" and "LS4" provide strokes up to 3" and 4" peak to peak.

The shaker operates in a wide useful frequency range of 5 to 3000 Hz in sine, random and shock mode. The shaker series provide different armature diameters appropriate to the specimen size. Several features make these shaker series reliable and affordable for your applications.



The 30-35KN force shaker series and the TGE series power amplifier are totally air cooled, an important feature for easy installation and economical operation.

#### **Cooling Blower**

The 30-35KN force shaker systems are optional equipped with a blower silencer that significantly reduces the ambient noise. An advanced noise reduction is possible by an additional acoustic enclosure.

#### **High Overturning Moment**

The armature design incorporates the robust structures for top guidance and a unique roller-bearing for bottom guidance. The system is capable to provide high overturning moments for testing products with a high centre of gravity.

#### **Automatic Payload Support**

A superior automatic pneumatic load support system guarantees a full nominal displacement with a maximum vertical load for test specimen and fixtures.

#### **Standard Vertical and Horizontal Operation**

The 30-35KN force shaker series are air suspended in a rigid swivel frame in order to operate in vertical and horizontal configuration. The shaker can easily be moved in either vertical or a horizontal direction and can be used in combination with a slip table or environmental chamber with optional thermal barrier.

#### **High Protection Standard**

A high standard protection system of interlock circuits ensures the best level of protection for the operator, test specimens and the systems themselves.

#### Controller

The RMS Shaker Systems can be operated with the RMS controller "Test Manager SWR1200/ SWR1220 and with all third party Control Systems.





















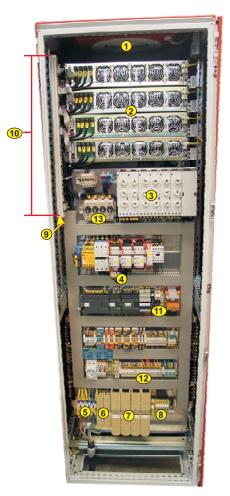
#### **Power Amplifier**

The systems are driven with a RMS power amplifier TGE series which is build as a 19" width and 2000 mm standard height cabinet or as a compact 700 mm height case.

- Air cooled design in accordance to European Type of Protection IP 53.
- 3 up to 160KVA output power in steps of 10KVA power modules
- 3KVA power modules for low power shaker systems
- Using latest MOSFET technology
- · High efficiency
- High protection standards with a full range of system interlock circuits ensures high reliability
- 100% compliance with international safety and EMC standards
- 110 kHz switching frequency allow high signal bandwidth
- · Low harmonic distortion
- Compact stand alone-design including field/degaussing field supply and EMI filter with free space for vibration controller or customer instrumentation.
- PLC controlled using touch screen user interface
- · Remote controllable
- · Very high peak performance for shock and random tests

All RMS shaker systems comply with the German, and international safety, EMI, EMC standards and the European Community directives:

- EU- Directive "Safety of machinery" 98/37/EWG
- DIN EN ISO 12100-1 and -2 , Safety of machinery Basis
- DIN EN 1050 Safety of machinery Principles for risk assessment
- DIN EN 60204-1, Safety of machinery Electrical equipment of machines
- DIN EN 50178, Electronic equipment for use in power installations
- DIN EN 61000-6-2 and -4, Electromagnetic compatibility (EMC)



RMS amplifiers have a clear structure according to CE and additional German and European industrial standards

#### Legend

- 1 Fan
- 2 Power modules
- 3 Lead fuses
- 4 Blower motor protection relay
- 5 Mains connection
- 6 Field coil connection
- 7 Shaker connection 8 Blower connection
- 9 Reset button
- 10 Modul monitor
- 11 Fuses
- 12 Connection strip
- 13 Link fuses





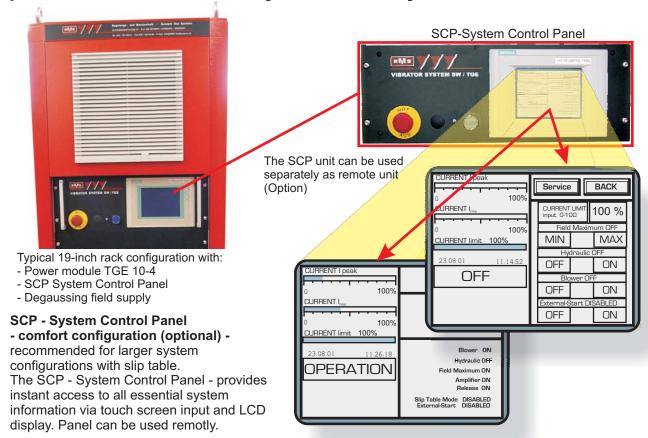






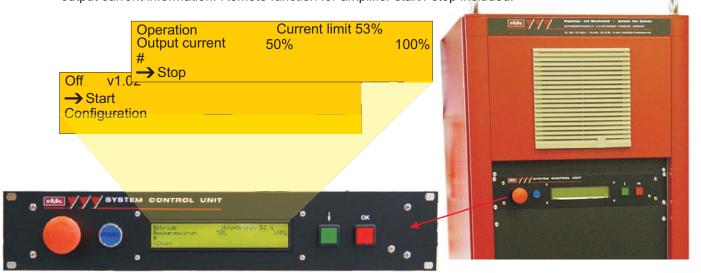


# The operation of RMS-Electrodynamic Test Systems



#### SCU System Control Unit - Standard equipment for amplifiers TGE 10-X -

Microprocessor based amplifier / system control unit with LCD function display (monochrome) provides instant access to essential information of the system as amplifier status, setting including interlocks and output current information. Remote function for amplifier start / stop included.















## Digital Controller "Test Manager SWR 1200 and SWR 1220"



#### Field of application:

The SWR 1200 Test Manager is an intelligent controller for the activation of electrodynamic and servo hydraulic vibrator systems.

With its modern microprocessor technology and ergonomically designed software architecture it is the first choice of testing and R&D departments. It is a useful tool in enforcing the application of many international test specifications (e.g. DIN EN 600 68-2, VDE, MIL, etc.)

#### **Characteristics:**

The self-explanatory user interface (based on MS Windows) together with the modular upgrading concept are the main focuses of the SWR 1200. The Test Manager is networked (TCP/IP) and has comprehensive analysis functions.

#### Options:

The SWR 1200 Test Manager is available with the following options:

- · Basic software: sine, random, shock
- Sine on random
- Resonance mode
- · Road simulation
- · ActiveX interface
- Test sequencing
- · Remote display software
- 4 or 8 channel
- and more.....

#### Software applications











TEMP./CLIMATIC CHAMBER CONTROL

SINE ON





ActiveX

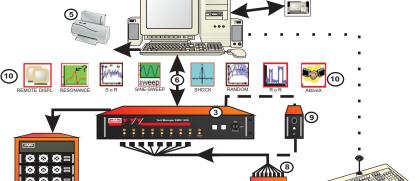


Vibration Generator

- Power amplifier with or without Field Power Supply
- Test Manager Controller SWR
- Host-PC
- 4a. Host-PC 2 4b: Remote control unit
- 5. Printer

2

- Equipment under test (EUT), acceleration sensors connected (ICP-type)
- Charge amplifier necessary when piezoelectric accelerometers used.
- Software



(7)

Blockdiagram of a vibration system with controller













# Horizontal slip tables

#### Field of application:

Horizontal slip tables extend the applications of vibration systems. A slip table is required in 3-axis tests where the operating position of the specimen is specified. The vertical axis (z) is tested on the shaker and the horizontal axes (x + y) on the slip table. The shaker can be pivoted within its frame for this purpose.

A slip table enables a test of very heavy or bulky specimen in a horizontal position. This combination is the perfect completion for specimens which have to be tested in their original fitting position.



Vibrator and slip table are mounted on a common base element which is installed on air isolators to eliminate vibration transmission into the ground.

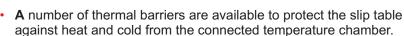
The slip plate with mounting inserts slides on an oil film provided by a hydraulic unit. Our horizontal slip tables consist of the slip table plate, linear bearings guidance, the coupling between shaker and plate and finally the main frame with integrated swivel frame and hydraulic supply.

The slip tables are suitable for combination with a temperature or climatic chamber.

#### Options:

- Hydrostatic bearing design for enhanced guidance to support heavy payloads lead to a restrained movement, resulting in pure linear motion. (Type SWHxxx1)
- Regarding the application and the size and weight of the specimen, the hydrostatical guided slip table types can be optionally equipped with up to 7 bearings
- Various slip table dimensions can be supplied for our different vibration systems.
- Grid design and thread dimensions can be selected.

temperature/climatic chamber.



Suitable accessories are available for use in combination with a



Slip table base with V-bearings



Slip table base with hydrostatic bearings







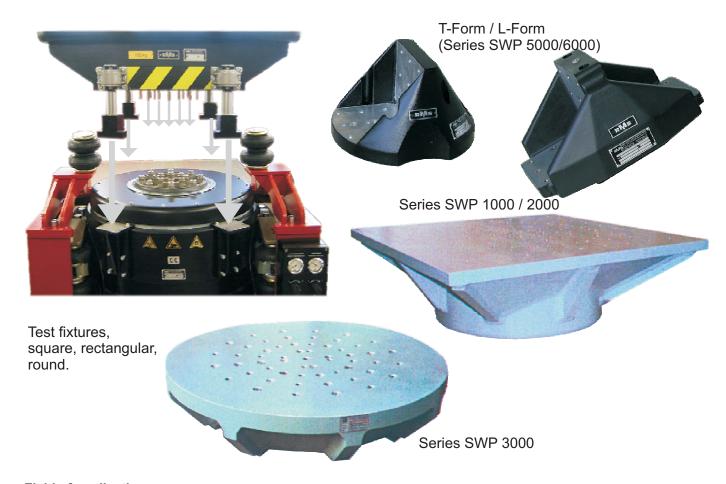








# Test fixtures and load-bearing platforms



#### Field of application:

Only a small number of test items can be fastened directly onto the mounting surface of the vibrator. Shape, size and test position of the test items require custom-built fixtures.

#### **Characteristics:**

We use test fixtures made of magnesium- and aluminium cast plates. These fixtures can be directly bolted to the moving element of the vibrator. The specimen can be mounted by means of the threaded inserts in the plate.

#### **Options:**

A special multipart transmitter shaft with a thermal barrier is available for combined use with a temperature chamber. Fixtures with additional bearings are also available for our systems with more than 5 kN.

For additional information please contact RMS sales department at <a href="mailto:vertrieb@rms-testsystems.de">vertrieb@rms-testsystems.de</a>













# RMS-vibration systems in temperature-/climatic chamber operation



#### Field of application:

International test specifications of automobile and aircraft industry demand combined stress of vibration and temperature/climate. The challenge is to combine the vibration system optimal with the temperature/ climatic chamber.

#### **Characteristics:**

Due to our multi-functional interface between chamber and vibrator we accomplish an optimal sealing of the temperature/climatic chamber and an effective temperature protection for the vibrator. Thus we ensure a perfect combination with all well-known temperature climatic chamber manufacturers.

#### Options:

In close collaboration between our design engineers and the specialists for climatic chambers we develop special solutions for the individual requirements of our customers.















# Technical Data SW2-3370APP (30KN)

#### Shaker Specification SW2-3370APP Sine Force [KN] pk 30 Random Force [KN] rms (ISO5344) 30 Shock Force [KN] pk (half sine) 60 Usable Frequency Range [Hz] 2800 Armature -Resonance [Hz] 2400 Acceleration [m/s2] pk )\*1 967,7 Velocity [m/s] pk (shock/sine) )\* 2,3 2 Displacement [mm] pk-pk (shock/sine) 51 51 Moving Mass [kg] (rated) 31 Load Support [kg] (max) 500 Armature Table Diameter [mm] 370 Insert Pattern Number 17 Insert Pattern Thread (metric) 10 Total Weight [kg] )\*3 2600 1120 x 1328 x 868 Dimensions (HWD) [mm] Total Power Consumption [KW] 37,5 Shaker noise [dBA] (max) )\*4 120

- )\*1: @ rated armature weight
- )\*2: @ 150mm above armature table
- )\*3: @ external raw water temp. 25°C )\*4 @ 1m distance, incl. silencer

| Amplifier | Sp | eci | fica | tio | n |
|-----------|----|-----|------|-----|---|
|           |    |     |      |     |   |

| Type Number of                                  | Cabinets |
|---|----------|
| TGE10-3   | 1        |
| Number of Power Moduls                          | 3        |
| Output Power [KVA]                              | 30       |
| Output Current [A] rms                          | 300      |
| Peak Current [A] pk                             | 1200     |
| Output Voltage [V] rms/peak                     | 90 / 240 |
| Efficience [%]                                  | 85-90    |
| Switching Freq. [kHz]                           | 110      |
| Signal input [V] rms (for rated output voltage) | 2        |
| Signal-to-Noise [dB]                            | > 50     |
| Bandwidth [Hz] (-3dB)                           | 3000     |
| Dim. (HWD) [mm] 1980x                           | 610x820  |
| Weight [kg]                                     | 450      |
| Notes   |          |
|   |          |

#### Blower

Motor Power [KW]
Dimensions (HWD) [mm]
Air Flow [m³/min]

7,5 960 x 1078 x 686 50

Blower Noise [dBA] )\*6

70

### Usable slip tables

| Type )*1 | Thickness [mm] | Material | Mass[kg] )*2 | Size [mm] | Max. Load [kg] )*3 | Nr. of Bearings |
|----------|----------------|----------|--------------|-----------|--------------------|-----------------|
| SWH500   | 30             | MG       | 36           | 500×500   | 200                | 1               |
| SWH600   | 40             | MG       | 46           | 600×600   | 300                | 1               |
| SWH700   | 45             | MG       | 64           | 700×700   | 400                | 2               |
| SWH800   | 45             | MG       | 78           | 800×800   | 500                | 2               |
| SWH801   | 45             | MG       | 80           | 800×800   | 4000               | 2               |
| SWH900   | 45             | MG       | 95           | 900×900   | 600                | 2               |
| SWH1000  | 45             | MG       | 114          | 1000×1000 | 700                | 2               |
| SWH901   | 45             | MG       | 115          | 900×900   | 4000               | 2               |

)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

More usable slip tables next page















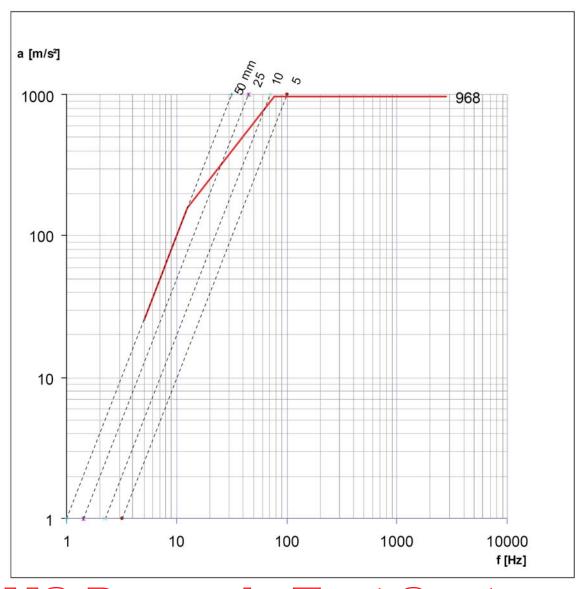
| SWH1001 | 45 | MG | 125 | 1000×1000 | 4000       | 2   |
|---------|----|----|-----|-----------|------------|-----|
| SWH1100 | 45 | MG | 135 | 1100×1100 | 800        | 2   |
| SWH1101 | 45 | MG | 145 | 1100×1100 | 4500       | 2   |
| SWH1200 | 45 | MG | 158 | 1200×1200 | 800        | 2   |
| SWH1201 | 45 | MG | 167 | 1200×1200 | 4500-8000  | 2-4 |
| SWH1301 | 50 | MG | 210 | 1300×1300 | 6500-13500 | 3-7 |
| SWH1401 | 50 | MG | 240 | 1400×1400 | 7000-14000 | 3-7 |
| SWH1501 | 50 | MG | 270 | 1500×1500 | 7000-14000 | 3-7 |

<sup>)\*1</sup> slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint )\*3 depending on the location of the payload on the table

More usable slip tables previous page

Sine Performance Curve:

SW2-3370APP















# Technical Data SW2-3LS4-445APP (30KN)

#### **Shaker Specification** SW2-3LS4-445APP Sine Force [KN] pk 30 Random Force [KN] rms (ISO5344) 30 Shock Force [KN] pk (half sine) 60 Usable Frequency Range [Hz] 2800 Armature -Resonance [Hz] 2400 Acceleration [m/s2] pk )\*1 750,0 Velocity [m/s] pk (shock/sine) )\* 2,4 2 Displacement [mm] pk-pk (shock/sine) 100 70 40 Moving Mass [kg] (rated) Load Support [kg] (max) 500 Armature Table Diameter [mm] 445 Insert Pattern Number 17 Insert Pattern Thread (metric) 12 Total Weight [kg] )\*3 2600 1265 x 1330 x 850 Dimensions (HWD) [mm] Total Power Consumption [KW] 37,5 Shaker noise [dBA] (max) )\*4 120

- )\*1: @ rated armature weight
- )\*2: @ 150mm above armature table
- )\*3: @ external raw water temp. 25°C
- )\*4 @ 1m distance, incl. silencer

| <b>Amplifier</b> | Specification |
|------------------|---------------|
|------------------|---------------|

| Type Number of                                  | Cabinets 1 |
|---|------------|
| Number of Power Moduls                          | 3          |
| Output Power [KVA]                              | 30         |
| Output Current [A] rms                          | 300        |
| Peak Current [A] pk                             | 1200       |
| Output Voltage [V] rms/peak                     | 90 / 240   |
| Efficience [%]                                  | 85-90      |
| Switching Freq. [kHz]                           | 110        |
| Signal input [V] rms (for rated output voltage) | 2          |
| Signal-to-Noise [dB]                            | > 50       |
| Bandwidth [Hz] (-3dB)                           | 3000       |
| Dim. (HWD) [mm] 1980x6                          | 610x820    |
| Weight [kg]                                     | 450        |
| Notes   |            |
|   |            |

## Blower

Motor Power [KW]
Dimensions (HWD) [mm]
Air Flow [m³/min]

7,5 960 x 1078 x 686 28

Blower Noise [dBA] )\*6

70

## Usable slip tables

| Type )*1 | Thickness [mm] | Material | Mass[kg] )*2 | Size [mm] | Max. Load [kg] )*3 | Nr. of Bearings |
|----------|----------------|----------|--------------|-----------|--------------------|-----------------|
| SWH500   | 30             | MG       | 36           | 500×500   | 200                | 1               |
| SWH600   | 40             | MG       | 46           | 600×600   | 300                | 1               |
| SWH700   | 45             | MG       | 64           | 700×700   | 400                | 2               |
| SWH800   | 45             | MG       | 78           | 800×800   | 500                | 2               |
| SWH801   | 45             | MG       | 80           | 800×800   | 4000               | 2               |
| SWH900   | 45             | MG       | 95           | 900×900   | 600                | 2               |
| SWH1000  | 45             | MG       | 114          | 1000×1000 | 700                | 2               |
| SWH901   | 45             | MG       | 115          | 900×900   | 4000               | 2               |

)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

More usable slip tables next page















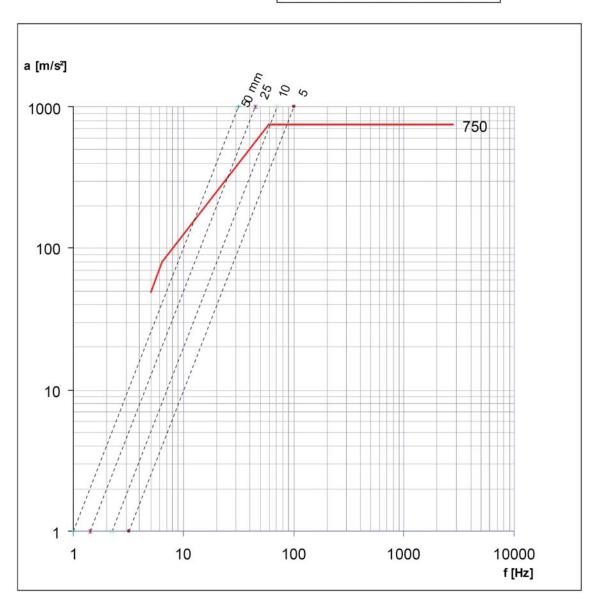
| SWH1001 | 45 | MG | 125 | 1000×1000 | 4000       | 2   |
|---------|----|----|-----|-----------|------------|-----|
| SWH1100 | 45 | MG | 135 | 1100×1100 | 800        | 2   |
| SWH1101 | 45 | MG | 145 | 1100×1100 | 4500       | 2   |
| SWH1200 | 45 | MG | 158 | 1200×1200 | 800        | 2   |
| SWH1201 | 45 | MG | 167 | 1200×1200 | 4500-8000  | 2-4 |
| SWH1301 | 50 | MG | 210 | 1300×1300 | 6500-13500 | 3-7 |
| SWH1401 | 50 | MG | 240 | 1400×1400 | 7000-14000 | 3-7 |
| SWH1501 | 50 | MG | 270 | 1500×1500 | 7000-14000 | 3-7 |

<sup>)\*1</sup> slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint )\*3 depending on the location of the payload on the table

More usable slip tables previous page

Sine Performance Curve:

SW2-3LS4-445APP















# Technical Data SW2-3,5370APP (35KN)

| SW2-3,5370APP                                |
|--|
|  |
| Sine Force [KN] pk 35                        |
| Random Force [KN] rms (ISO5344) 35           |
| Shock Force [KN] pk (half sine) 80           |
| Usable Frequency Range [Hz] 5 2800           |
| Armature -Resonance [Hz] 2400                |
| Acceleration [m/s²] pk )*1 1000,0            |
| Velocity [m/s] pk (shock/sine) )* 2,5 / 2    |
| Displacement [mm] pk-pk (shock/sine) 51 / 51 |
| Moving Mass [kg] (rated) 35                  |
| Load Support [kg] (max) 500                  |
| Armature Table Diameter [mm] 370             |
| Insert Pattern Number 17                     |
| Insert Pattern Thread (metric) 10            |
| Total Weight [kg] )*3 2600                   |
| Dimensions (HWD) [mm] 1120 x 1328 x 850      |
| Total Power Consumption [KW] 41,4            |
| Shaker noise [dBA] (max) )*4 120             |

- @ rated armature weight
- )\*2: @ 150mm above armature table
- )\*3: @ external raw water temp. 25°C
- )\*4 @ 1m distance, incl. silencer

# **Amplifier Specification**

| Type Number of Ca                               | abinets  |
|---|----------|
| TGE10-4   |          |
| Number of Power Moduls                          | 4        |
| Output Power [KVA]                              | 40       |
| Output Current [A] rms                          | 400      |
| Peak Current [A] pk                             | 1600     |
| Output Voltage [V] rms/peak                     | 90 / 240 |
| Efficience [%]                                  | 85-90    |
| Switching Freq. [kHz]                           | 110      |
| Signal input [V] rms (for rated output voltage) | 2        |
| Signal-to-Noise [dB]                            | > 50     |
| Bandwidth [Hz] (-3dB)                           | 3000     |
| Dim. (HWD) [mm] 1980x61                         | 0x820    |
| Weight [kg]                                     | 500      |
| Notes   |          |
|   |          |

#### Blower Motor Power [KW] 960 x 1078 x 686 Dimensions (HWD) [mm] Air Flow [m³/min] 51 Blower Noise [dBA] )\*6 78

#### Usable slip tables

| Type )*1 | Thickness [mm] | Material | Mass[kg] )*2 | Size [mm] | Max. Load [kg] )*3 | Nr. of Bearings |
|----------|----------------|----------|--------------|-----------|--------------------|-----------------|
| SWH500   | 30             | MG       | 36           | 500×500   | 200                | 1               |
| SWH600   | 40             | MG       | 46           | 600×600   | 300                | 1               |
| SWH700   | 45             | MG       | 64           | 700×700   | 400                | 2               |
| SWH800   | 45             | MG       | 78           | 800×800   | 500                | 2               |
| SWH801   | 45             | MG       | 80           | 800×800   | 4000               | 2               |
| SWH900   | 45             | MG       | 95           | 900×900   | 600                | 2               |
| SWH1000  | 45             | MG       | 114          | 1000×1000 | 700                | 2               |
| SWH901   | 45             | MG       | 115          | 900×900   | 4000               | 2               |

<sup>)\*1</sup> slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint )\*3 depending on the location of the payload on the table

More usable slip tables next page













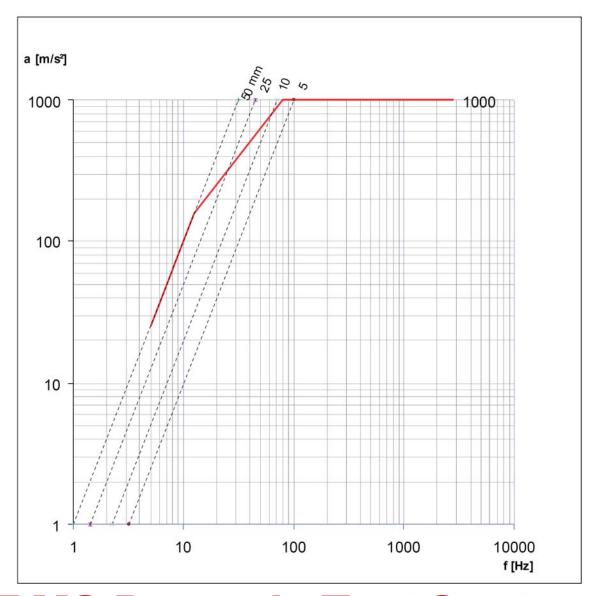


| SWH1001 | 45 | MG | 125 | 1000×1000 | 4000       | 2   |
|---------|----|----|-----|-----------|------------|-----|
| SWH1100 | 45 | MG | 135 | 1100×1100 | 800        | 2   |
| SWH1101 | 45 | MG | 145 | 1100×1100 | 4500       | 2   |
| SWH1200 | 45 | MG | 158 | 1200×1200 | 800        | 2   |
| SWH1201 | 45 | MG | 167 | 1200×1200 | 4500-8000  | 2-4 |
| SWH1301 | 50 | MG | 210 | 1300×1300 | 6500-13500 | 3-7 |
| SWH1401 | 50 | MG | 240 | 1400×1400 | 7000-14000 | 3-7 |
| SWH1501 | 50 | MG | 270 | 1500×1500 | 7000-14000 | 3-7 |

<sup>)\*1</sup> slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint )\*3 depending on the location of the payload on the table

More usable slip tables previous page

Sine Performance Curve: SW2-3,5370APP















# Technical Data SW2-3,5LS4-445APP (35KN)

#### Shaker Specification SW2-3,5LS4-445APP Sine Force [KN] pk 35 Random Force [KN] rms (ISO5344) 35 Shock Force [KN] pk (half sine) 80 Usable Frequency Range [Hz] 2600 Armature -Resonance [Hz] 2350 Acceleration [m/s2] pk )\*1 777,8 Velocity [m/s] pk (shock/sine) )\* 2,5 2 Displacement [mm] pk-pk (shock/sine) 100 70 45 Moving Mass [kg] (rated) Load Support [kg] (max) 500 Armature Table Diameter [mm] 445 Insert Pattern Number 17 Insert Pattern Thread (metric) 12 Total Weight [kg] )\*3 2600 Dimensions (HWD) [mm] 1265 x 1330 x 850 Total Power Consumption [KW] 41,4 Shaker noise [dBA] (max) )\*4 120

- )\*1: @ rated armature weight
- )\*2: @ 150mm above armature table
- )\*3: @ external raw water temp. 25°C
- )\*4 @ 1m distance, incl. silencer

# **Amplifier Specification**

| Type Number of Cabinets                         |          |  |  |  |  |  |
|---|----------|--|--|--|--|--|
| TGE10-4   | 1        |  |  |  |  |  |
| Number of Power Moduls                          | 4        |  |  |  |  |  |
| Output Power [KVA]                              | 40       |  |  |  |  |  |
| Output Current [A] rms                          | 400      |  |  |  |  |  |
| Peak Current [A] pk                             | 1600     |  |  |  |  |  |
| Output Voltage [V] rms/peak                     | 90 / 240 |  |  |  |  |  |
| Efficience [%]                                  | 85-90    |  |  |  |  |  |
| Switching Freq. [kHz]                           | 110      |  |  |  |  |  |
| Signal input [V] rms (for rated output voltage) | 2        |  |  |  |  |  |
| Signal-to-Noise [dB]                            | > 50     |  |  |  |  |  |
| Bandwidth [Hz] (-3dB)                           | 3000     |  |  |  |  |  |
| Dim. (HWD) [mm] 1980x                           | 610x820  |  |  |  |  |  |
| Weight [kg]                                     | 500      |  |  |  |  |  |
| Notes   |          |  |  |  |  |  |
|   |          |  |  |  |  |  |

#### 

#### Usable slip tables

| Type )*1 | Thickness [mm] | Material | Mass[kg] )*2 | Size [mm] | Max. Load [kg] )*3 | Nr. of Bearings |
|----------|----------------|----------|--------------|-----------|--------------------|-----------------|
| SWH500   | 30             | MG       | 36           | 500×500   | 200                | 1               |
| SWH600   | 40             | MG       | 46           | 600×600   | 300                | 1               |
| SWH700   | 45             | MG       | 64           | 700×700   | 400                | 2               |
| SWH800   | 45             | MG       | 78           | 800×800   | 500                | 2               |
| SWH801   | 45             | MG       | 80           | 800×800   | 4000               | 2               |
| SWH900   | 45             | MG       | 95           | 900×900   | 600                | 2               |
| SWH1000  | 45             | MG       | 114          | 1000×1000 | 700                | 2               |
| SWH901   | 45             | MG       | 115          | 900×900   | 4000               | 2               |

)\*1 slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint

)\*3 depending on the location of the payload on the table

More usable slip tables next page

Blower Noise [dBA] )\*6



78











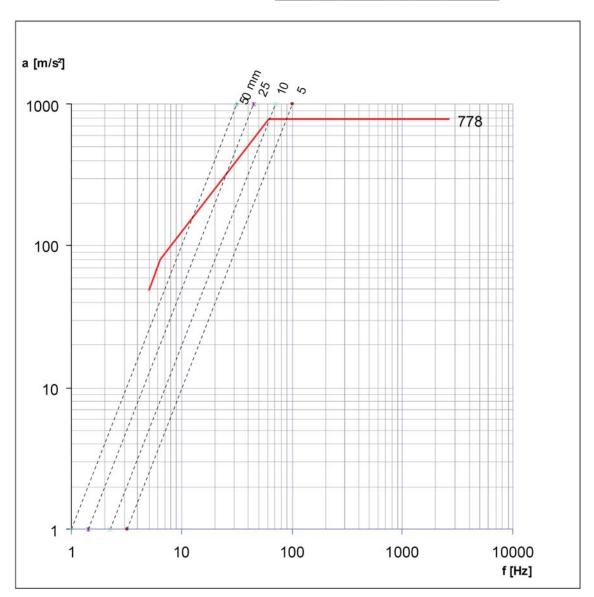


| SWH1001 | 45 | MG | 125 | 1000×1000 | 4000       | 2   |
|---------|----|----|-----|-----------|------------|-----|
| SWH1100 | 45 | MG | 135 | 1100×1100 | 800        | 2   |
| SWH1101 | 45 | MG | 145 | 1100×1100 | 4500       | 2   |
| SWH1200 | 45 | MG | 158 | 1200×1200 | 800        | 2   |
| SWH1201 | 45 | MG | 167 | 1200×1200 | 4500-8000  | 2-4 |
| SWH1301 | 50 | MG | 210 | 1300×1300 | 6500-13500 | 3-7 |
| SWH1401 | 50 | MG | 240 | 1400×1400 | 7000-14000 | 3-7 |
| SWH1501 | 50 | MG | 270 | 1500×1500 | 7000-14000 | 3-7 |

<sup>)\*1</sup> slip table types ending with: 1 = hydrostatic bearings, 0 = V-groove bearings )\*2 incl. joint )\*3 depending on the location of the payload on the table

More usable slip tables previous page

SW2-3,5LS4-445APP Sine Performance Curve:















| Space for your notes |   |  |  |  |  |  |  |  |  |
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#### THE WORLD OF RMS TEST SYSTEMS

#### Test systems for vibration testing of components and units

- Electrodynamic Vibrator Systems for Sine, Random, Shock, Resonance and Multitesting
- · Benches for environmental stress screening
- Pneumatic shock test machines (AVEX/USA)
- · Servo hydraulic Vibrators / Slip Tables



#### **Test Benches & Motion Simulators**

- Single/Multi Axis Rate/Position Systems
- Direct Drive Centrifuges for generation of accelerations
- · Customized Simulators / Hardware-in-the-Loop Testing
- Long-stroke vibration system for surveying Dynamic acceleration sensors
- Cornering Fatigue and Torsional Vibration Test Stands



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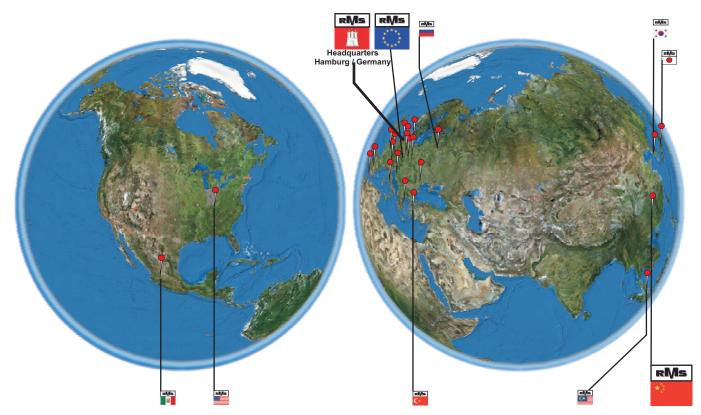
#### **Engine and Airframe Test Equipment**

- Engine Tracking/Trim Equipment ( Line Maintenance )
- Test & Simulation of APU, PMC, N1/N2, RPM
- Electronic Tester for Overhaul and Workshop
- Check/Test & Adjustment of the angular deflection of aircraft flight control surfaces





# **RMS** worldwide distribution network





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