

Newsletter # 13

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PRODERA

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HAPPY NEW YEAR FROM ALL AT PRODERA

This coming year, we will again work on new products and upgrade the performance of our existing equipment.

New constant force shaker type EX 58 C40



Late last year we supplied to one of our long-time customers the new constant force modal shaker type EX 58 C40.

The design of the well-known EX 58 shaker, 50 Newton for 8A peak was relooked and we can now offer the EX 58 C40 which delivers 75 Newton for 8 A peak and a displacement of \pm 20 mm.

The range of long stroke constant force shakers comprises now:

Shaker	Force in N	Stroke in mm	Peak Current in Amps
EX 58 C40	75	± 20	8
EX 220 C40	250	± 20	20
EX 320 C50	300	± 25	20
EX 520 C50	550	± 25	20
EX 1070 C50	1200	± 25	60



EX 58 C40

EX 220 C40

EX 520 C50

EX 1070 C50

The shakers EX 58 C40 and EX 220 C40 are compatible with the standard amplifiers types A 735 and A 648 S and therefore directly interchangeable with the earlier designed shakers types EX 58 and EX 220 SC.

Airborne A 735 Amplifier



At the request of one of our customers, an aircraft manufacturer, we designed an airborne amplifier for in-flight vibration testing.

This new design delivers 8A peak and allows PRODERA to offer two constant current airborne amplifiers:

- A 735 Airborne 8 A peak, single-phase 115V 400 Hz
- A 520 20 A peak, three-phase 115V 400 Hz

Readers might remember that two amplifiers type A 520 are used for the boom certification flight test of the MRTT A 330 flight refueling EADS CASA project

PRODERA IN-HOUSE PRODUCTS

The products mentioned below are standard PRODERA products, fully operational. Our Design Team is at your disposal for special developments, either hardware or software.

GROUND VIBRATION TEST EQUIPMENT

- Range of Constant Force Modal Shakers (CFMS) and Current Controlled Amplifiers (CCA), Modal Accelerometers and Conditioning Amplifiers.
- Multipoint excitation and acquisition system P-SYS-MODAL
- Latest version of P-WIN-MODAL software: the software calculates the modal parameters of a structure by using 4 different modal methods for increased accuracy completed with FRF module
- Suspension Systems for modal shakers and structures
- Suspension Systems for up to 40 tons' aircraft
- Shaker calibration systems certified according to NIST standard
- Modal Software Calibration device Strucsim-3-D[®]

IN-FLIGHT TEST EQUIPMENT

- New range of inertial shakers and on-board 115 V / 400 Hz power amplifiers
- P-FLIGHT-MODAL Flutter Prediction Software covering the sub, super and transonic ranges. Import data: GVT results or external
- P-FLUTTER-MONITORING: 32 channel Flutter Monitoring Software
- In-flight excitation equipment:
 - Pyrotechnical thrusters: ideal for multipoint synchronic in-phase or out of phase in-flight excitation
- Ground Stations:
 - 1.8 m S-Band antenna, continuous rotation, GPS and Signal Strength Position Control

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