

LABA⁷

ELECTROMAGNETIC SHOCK DYNO

The Future of Shock
Absorber Testing



MOTOR CONTROL AND MEASUREMENT UNIT

Position resolution and sampling rate: 50 nanometers / 20 kHz (digital)

Load cell resolution and sampling rate: 20 bit / 20 kHz

Temperature sampling rate and resolution: 12 bit,

1 analog output channel: 0...10 V 12 bit, up to 20 kHz

2 analog input channel: 0...10 V/ 4...20 mA 12 bit up to 20 kHz

1 isolated CAN interface for extension add-on communication

5 open drain outputs, 8 A

2 open drain outputs, 1 A

2 digital input channel: 0...24 V

RS485 interface for extension add-on

1 isolated USB interface

HDMI interface

2 USB non-isolated interfaces.



FEATURES

- Rod force calibration
- Warmup and interval testing
- Unlimited graph comparison
- Force vs Displacement
- Force vs Velocity, PVP graphs available for sinewave tests
- Force, Displacement and Velocity over time graphs
- Pass / Fail feature, manufacturing mode
- Live dyno data preview
- Testing presets

CONFIGURATION

- Velocity
- Acceleration
- Force
- Temperature and stroke limits



MOVING PATTERNS

Single pulse with separately adjustable rise/fall time

Sine wave

Triangle

POWER REQUIREMENTS

1-phase 220 V / 240 V or 3-phase 380 VAC / 400 VAC - from 16 A

SYSTEM REQUIREMENTS

Windows 7 (SP1), 8, 10, 11

.NET Framework 4.7.2

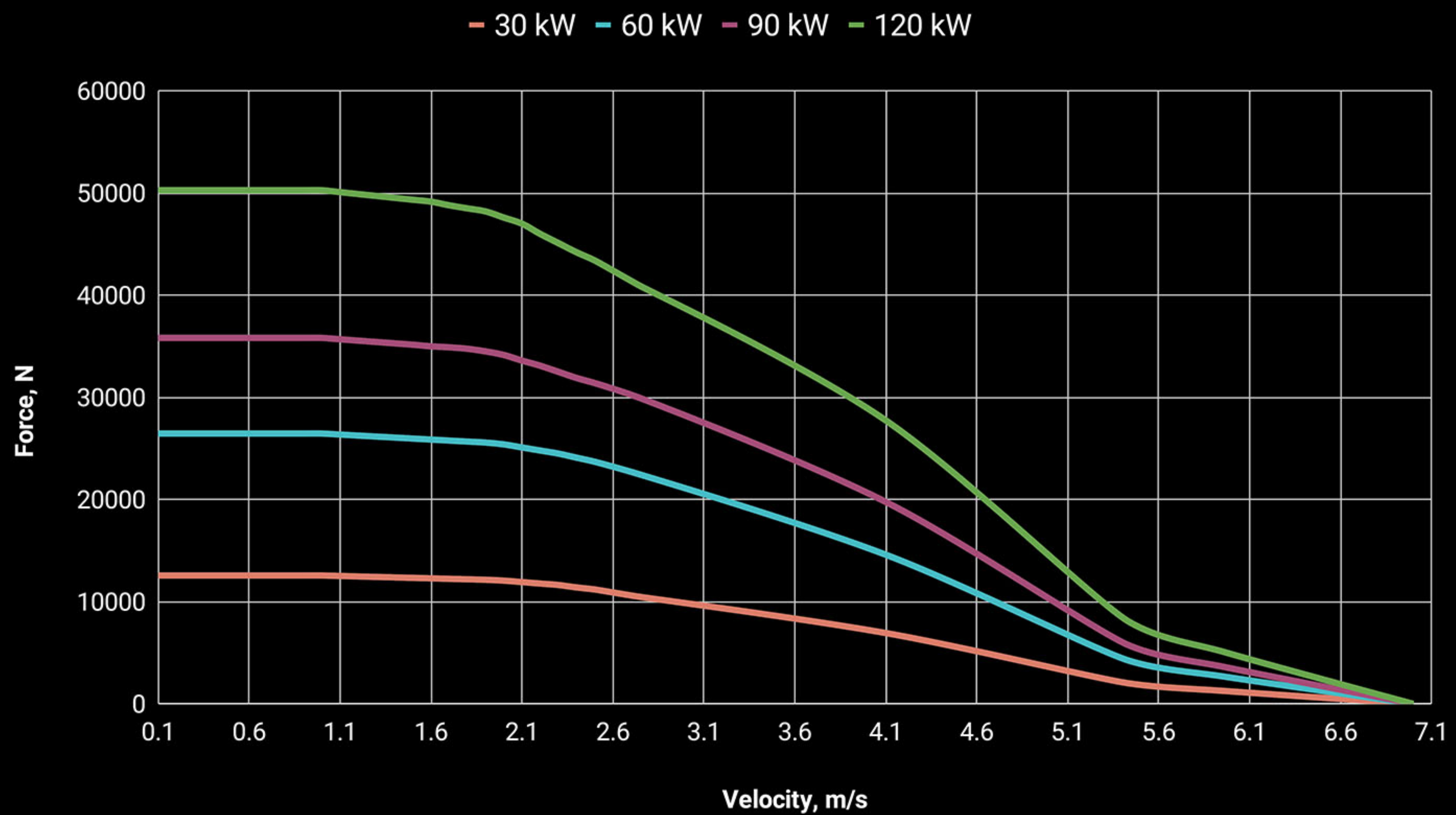
1 GHz processor or faster with two or more cores

4 GB RAM

2 GB HDD

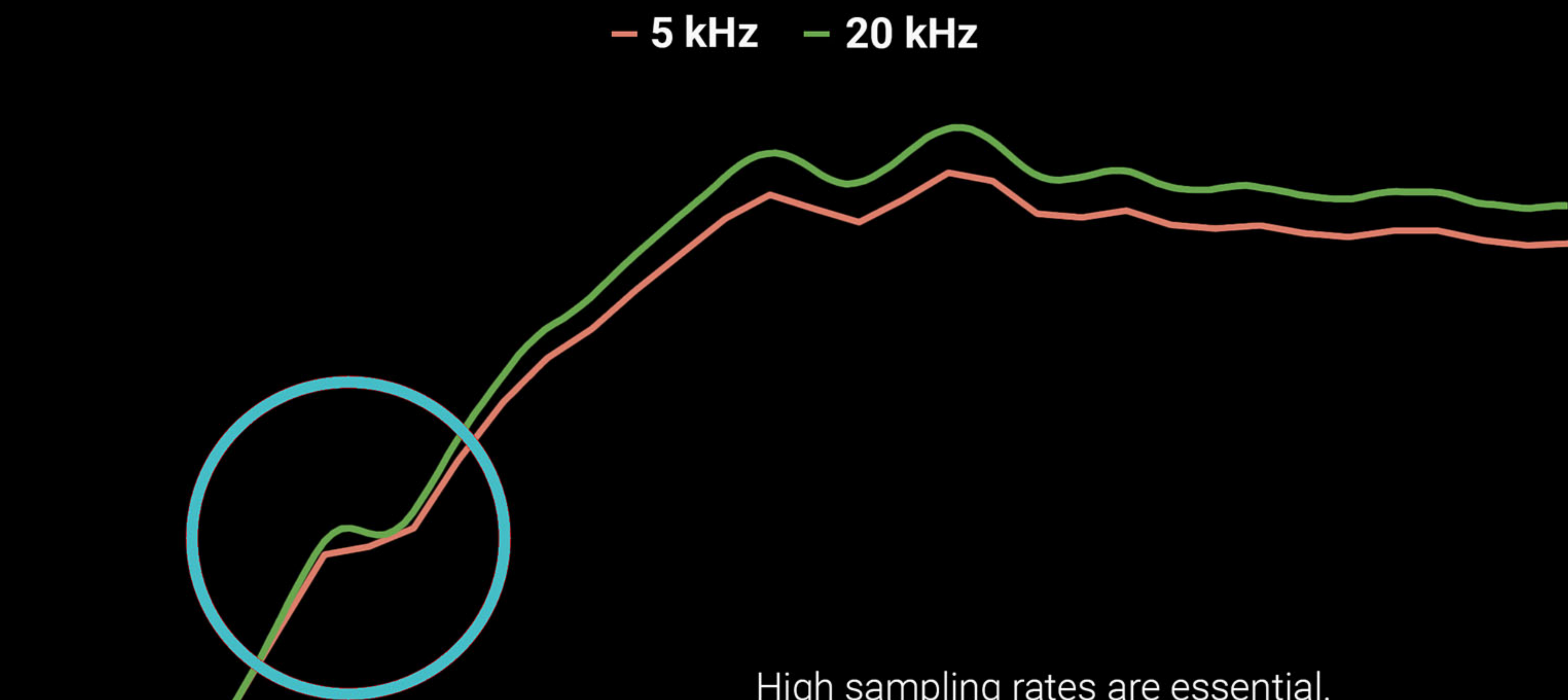
FORCE VS VELOCITY

EMA by LABA7, Force vs Velocity



Force measured at 100 mm stroke tests.
Force measured in impulse testing method.
Maximum force can vary according to damper characteristics.

ROLE OF RESOLUTION



High sampling rates are essential.
Even a fraction of a second
delay in force application can influence
a vehicle's performance.

Make the right, data-based decisions.

ELECTROMAGNETIC SHOCK DYNO

30 kW

Peak force: ~11.9kN@2m/s

Stroke: 0/200mm

Maximum velocity no load: ~7m/s

Maximum acceleration: ~40G

Starting from
50 000 EUR

60 kW

Peak force: ~25kN@2m/s

Stroke: 0/200mm

Maximum velocity no load: ~7m/s

Maximum acceleration: ~40G

Starting from
75 000 EUR

90 kW

Peak force: ~33.8kN@2m/s

Stroke: 0/200mm

Maximum velocity no load: ~7m/s

Maximum acceleration: ~40G

Starting from
110 000 EUR

120 kW

Peak force: ~47.5kN@2m/s

Stroke: 0/200mm

Maximum velocity no load: ~7m/s

Maximum acceleration: ~40G

Starting from
160 000 EUR

CONTACTS

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