

TECHNICAL SPECIFICATION



Rig Dimensions: 1800mm x 1400mm x 1000mm
Driveline Height: 1113mm at rotational axle centreline

Max Motor Diameter: 315mm
Steel Shaft: 40mm diameter & 1500mm length

Power Measurement

Precision power analyser for motor and inverter analysis

Three phase and DC measurements

Breakdown of system, inverter and motor efficiency.

BEMF analysis and measurement capability

Torque & Speed Measurement

T12HP Torque Transducer from HMB.

Non-contacting high speed transducer with accuracy class 0.02.

Hardware & Instrumentation

Thermocouple and RTD inputs (16 as standard)

Mayr ROBA-DS coupling, zero backlash and full balanced assembly

Noise immunity and fast communications via ethernet connection

Liquid cooled inverter mounting

Power Supply

Programable bi-directional power supplies (0-300V, 550A)

Automatic regeneration from load motor to minimise power consumption

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Software, Control & Interface

High speed communications to inverters and hardware

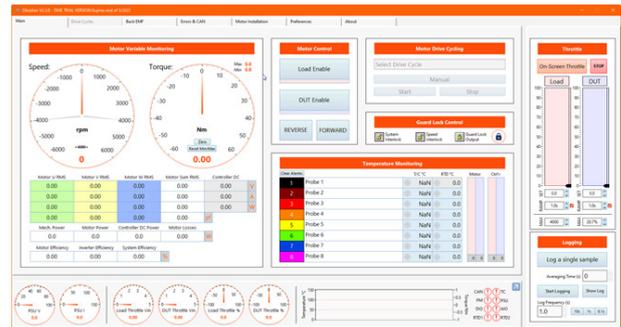
Automated efficiency contour plots, drive cycles and torque-speed plots

Automated control of torque, speed, voltage and current

Manual control option also available

Live data and graphical information for instant feedback

Obsidian Software



Data Acquisition

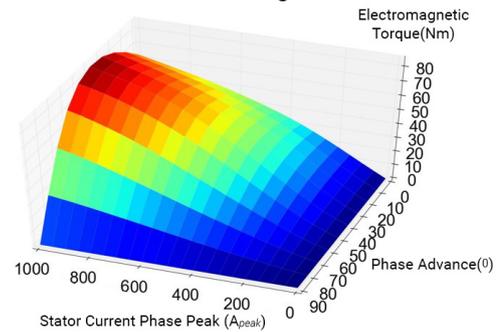
Bespoke software for flexible data acquisition

High speed acquisition for high resolution measurements

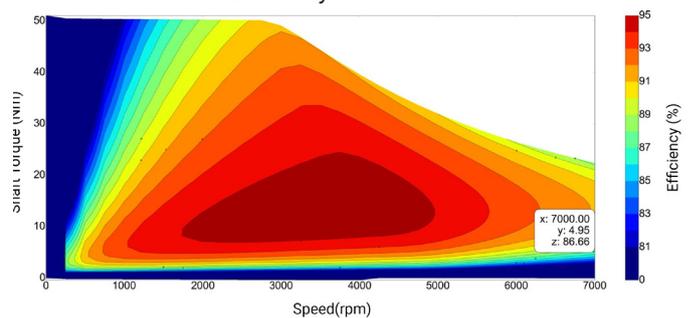
Exportable data in various file formats for analysis

Built in plotting tools for motor analysis and parameterisation

Motor Tuning Plot



Efficiency Contour Plot



Safety & Conformity

POWER assessed

UKCA Certified (conforms to LVD 2014/35/EU and EMC Directive 2014/30/EU)

Meets Machinery Directive 2006/42/EC requirements

Emergency stop systems and safety interlocks

Levelling rig casters with lock out