

Ultra Low speed dynamometer system

SPECIFICATION

Ultra Low speed dynamometer

Operation Speed _(normal operation)	: 10 1/min
Operation Speed _(High speed operation)	: 22 1/min
Absorption Torque _(Continuous Rating)	: 300 Nm
Absorption Torque _(Instant maximum)	: 820 Nm

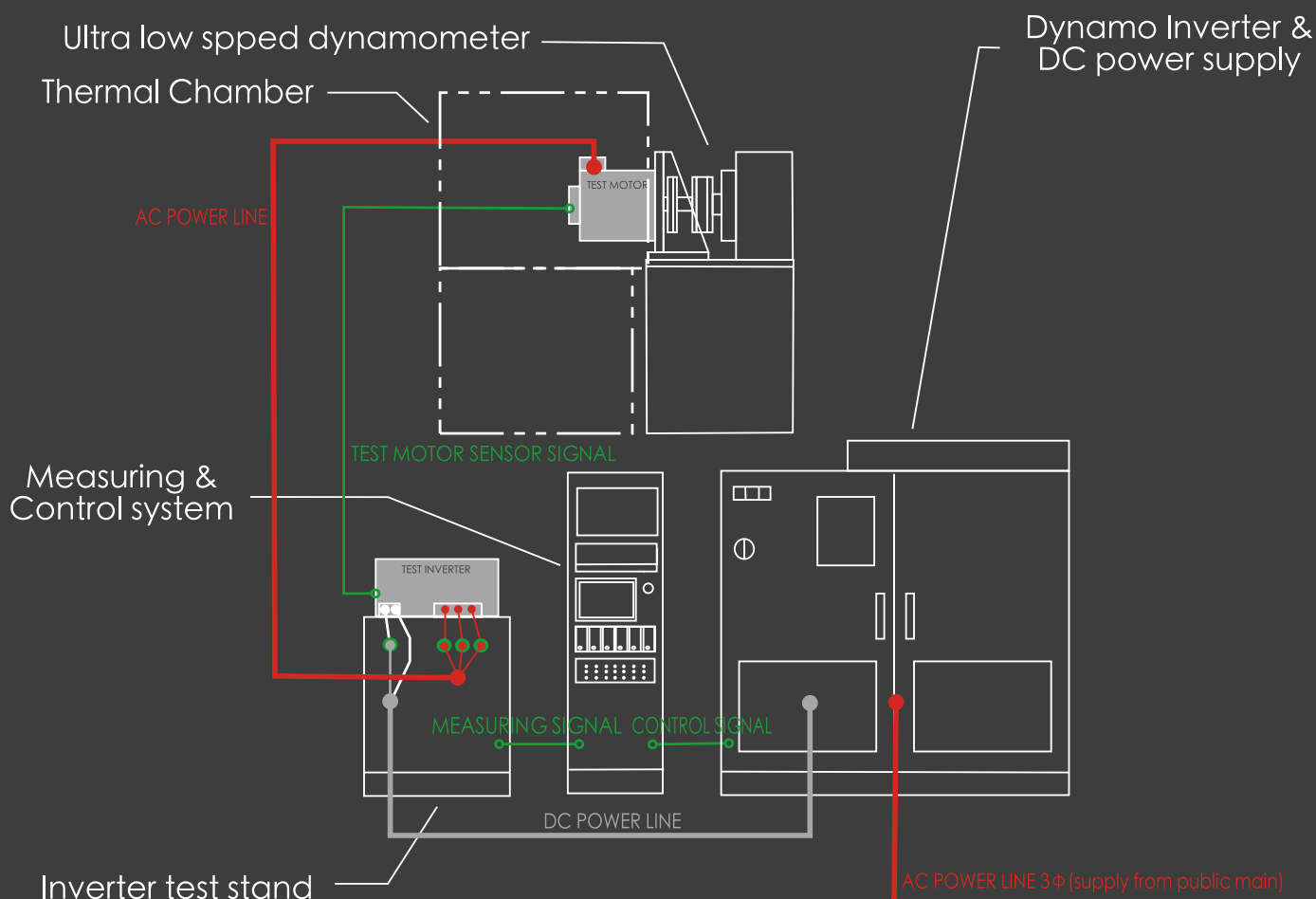
Torque and Speed measuring system

Absorption Torque _(Continuous Rating)	: ± 500 Nm
Torque detection Accuracy	: 0.05 %FS
Angular resolution	: 36,000 P/R

Dynamo meter control

Control method	: APC _(Automatically Positioning Control) /ASR
Positioning accuracy	: ± 0.1 deg
Speed control accuracy	: 0.3 %FS

BASIC COMPOSITION



Ultra Low speed dynamometer system

BASIC FUNCTION

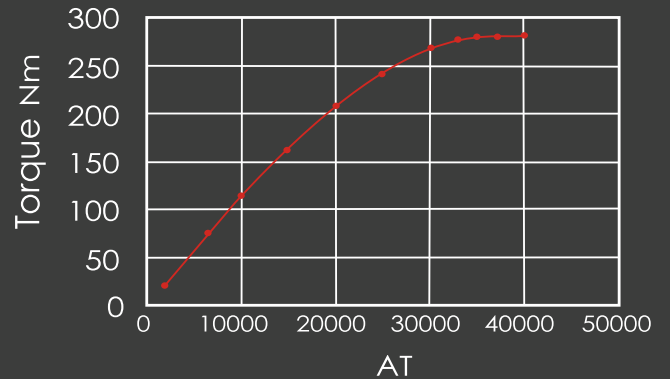
● Measurement of K_t

It is possible to measure a K_t accurately, by stabilizing rotational speed and temperature condition of a motor

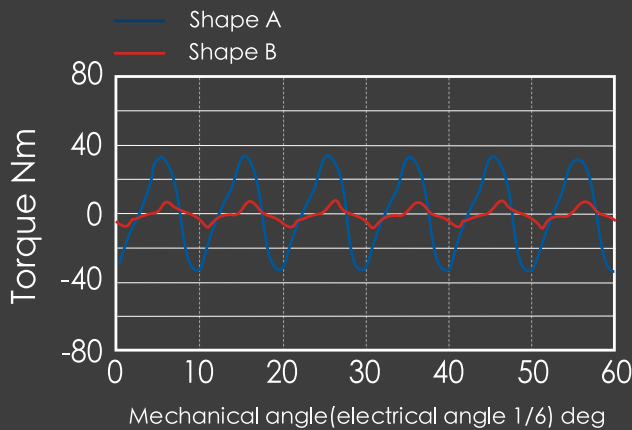
● Measurement of cogging torque and torque ripple

It is possible to measure a cogging torque and a torque ripple accurately, by stabilizing rotational speed and temperature condition of a motor

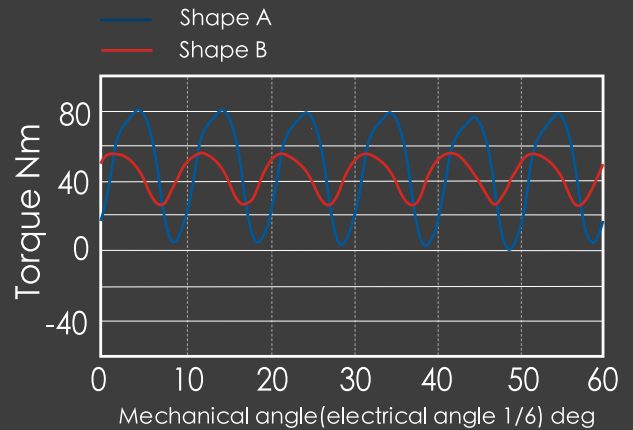
Example: Measurement of K_t



Example: Measurement of a cogging torque
Effect of stator teeth shape for a cogging torque (6poles PMSM)



Example: Measurement of a torque ripple
Effect of stator teeth shape for a torque ripple (6poles PMSM)



OTHER FUNCTION

● Measurement of an inductance in motor operation

It is possible to measure a coil inductance in real operating condition

