

About

Drive And Control Automation System

A drive and control automation system is designed for Helicopter Main Gear Box (MGB) load test rig. The test rig consists of test rig structure in which the MGB of Advanced Light Helicopter (ALH), drive motor, adapter gear boxes are installed. Supplying all hardware & software required for the drive and control automation system for the test rig.

The test rig is a mechanical closed loop system in which the rated speed of MGB is achieved by motor through lower adaptor gearbox. In order to achieve various loads such as thrust loads, torque load and hydraulic pump loads the hydraulic power packs with actuators will be employed. The hydraulic power packs consist of motor pumps, various process switches, sensors valve, etc. which facilitate remote operation of DAS (Data Acquisition System) of the test rig. An AC alternator which is mounted on MGB is to be loaded through resistive load bank with contactor panel.



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SPECIFICATION

Items Name	Specifications
250KW AC motor with encoder	TYPE- 3 Phase TEFC squirrel cage Ac induction moter, suitable for inverter duty confirming to IS/IEC standards,
Blower Motor	Blower motor 1 phase/3 phase for motor cooling
AC Variable frequency drive(VFD)	Application- Variable frequency driveRequired for above 250 kw moter make siemens/ABB/PARKER,
МССВ	4 Pole, 600A MCCB for main incoming supply, Breaking Capacity 100 kA with Rotory handle
AC Line Reactors	Phase AC line reactors for 250kW VFD
МРСВ	Motor circuit breaker, 3P, 415VAC 1-1.6 A, thermal magnetic, spring terminals
VFD Remote Display	Remote display for VFD with connecting cable
Phase Indicator	Phase Indicator



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Key Features

- 1. Temperature module/card
- 2. Digital Input(24Vdc) module/card
- 3. Digital output with potential free SPDT relay board
- 4. Vibration input (IEPE) module/card-Input Type
- 5. Analog input Voltage module/card
- 6. Analog input Current module/card
- 7. 250KW AC motor with encoder
- 8. Emergency Stop Push Button



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Applications

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