

QP Arab-D – PLC Based System for Inst. Air Compressor Skid

Oil & Gas

Instrument Air Supply

Compressor Control



Contact:

Prudent Solutions WLL
P. O. Box 11091,
Manama,
BAHRAIN
Phone: +973 1745 6180
Fax: +973 1745 6190
www.prudentolutions.net

Founding year:

1999

End User: Qatar Petroleum (QP)
Customer: ETS-Qatar / Atlas-Copco
Segment: Compressor Control

Requirements of the customer:

- In 2009 Qatar Petroleum, decided to replace their existing Instrument Air System of Dukhan Arab-D plant as the reliability of the compressors had degraded affecting smooth operation of the plant. M/s ETS Qatar was awarded the EPC for 3+1 Oil-free screw compressors and air dryer. M/s Atlas-Copco Middle East was major vendor for the screw compressor-dryer skid.
- In this connection Prudent Solutions was awarded the contract to supply & commission new PLC System for automatic controls & sequencing of the compressor/dryer equipment's.



Short description of the solution

Allen Bradley Control-Logix Redundant System with Simplex I/O's on Controlnet
Communication to DCS on Dual Modbus RS-485 link

  OPERATIONS ENGINEERING DUKHAN	
PROJECT / CONTRACT REF.: GC07102000 EPIC FOR THREE OIL FREE SCREW COMPRESSORS AND AN AIR DRYER AT ARAB D PLANT, DUKHAN	
DOCUMENT TITLE : SPECIFICATION FOR IA COMPRESSOR CONTROL SYSTEM	
MAIN CONTRACTOR  ENERGY TECHNICAL SERVICES P.O. Box 4718 Doha, Qatar Tel: +9744428492 Fax: +9744427409 E-mail: energytech@qatar.net.qa	ENGINEERING CONSULTANT  ENERGOPROJEKT-ENTEL P. O. Box 4769 Doha, Qatar Tel : +974 4478 571 Fax : +974 4478 572 e-mail : energoqt@qatar.net.qa
DWG. / DOC. NO. 2628-5026 SHT. 01 OF 22 REV. 1	

Rockwell Automation

Recognized Systems Integrator



QP Arab-D – PLC Based System for Inst. Air Compressor Skid



Contact:

Prudent Solutions WLL
P. O. Box 11091,
Manama,
BAHRAIN
Phone: +973 1745 6180
Fax: +973 1745 6190
www.prudentolutions.net

Founding year:

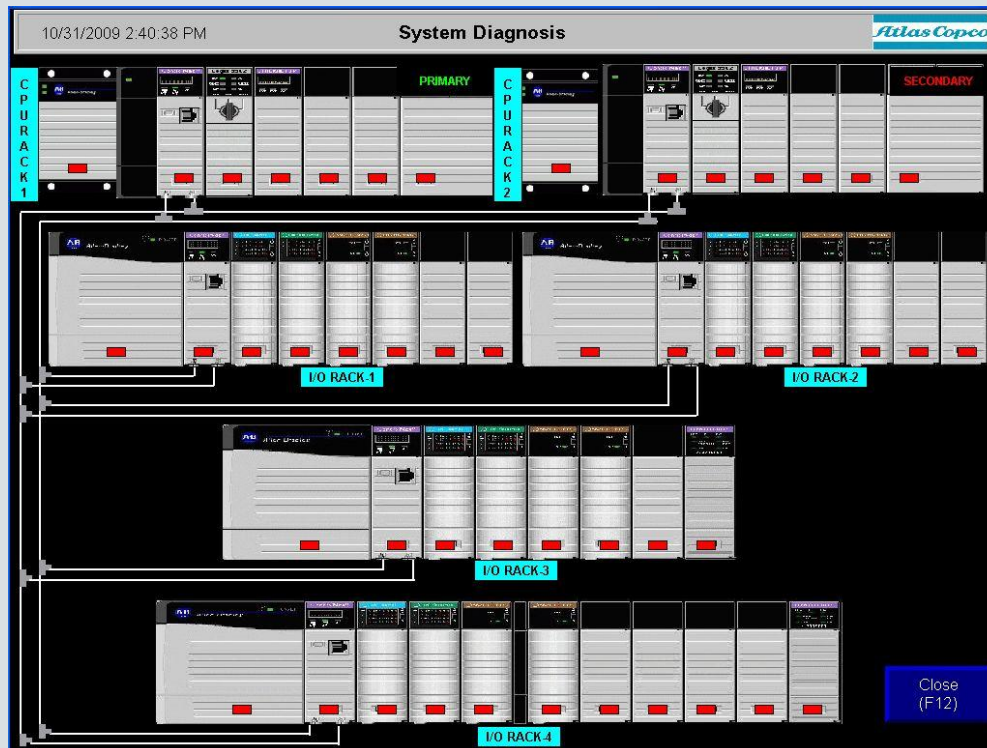
1999



Recognized Systems Integrator

Implementation by the Solution Partner:

- One Common PLC for all Compressors for sequencing, alarming, interlocking, safety shutdown interlocks, and data mapping.
- Dual Modbus Communication modules for redundant Communication with DCS
- Monitoring status of equipment's, change loading / unloading set-points locally via 15" Touch Screen PanelView+ HMI.



Benefits for the customer:

- Proven Allen Bradley ControlLogix technology
- Redundant CPU, Power Supply, Communication Interface provides High Availability
- Combination of Hardwired and RS485 Network provides High Reliability for important real time signal interchange
- High level Diagnostics & Ease of Maintenance

