



Client: Enerflex, USA  
Location: Block 62, Oman  
Reff. No.: BAH/2015/03/02/01

## 004 – DESIGN & MANUFACTURE OF CONTAINERIZED INTELLIGENT MCC PANELS

### Background

**Enerflex** is an American company with an operational base in the UAE. It had to install gas compression systems in Block 62 of Oman oil field which was supervised by **ExxonMobil**. Part of the requirement was to build a movable building to certain specifications to house the motor control centre and power centre in the field. The site conditions were rugged and with high temperatures and humidity. We proposed a modular system that could be a better solution to a purpose-built building and offered a greater advantage of relocation, if necessary, to another site.

### Case Study

The proposal put forward was to use two standard containers and convert them into the desired specifications in terms of insulation, IP rating, emergency exits, etc. One container to house power switchboard and other site instrumentation while the second container was to house 94 motor starters of various sizes in a withdrawable design along with five 1600A ACB's. The challenge was the high density of motor starters within space constraints. Our design solution used the 'state-of-the-art' **withdrawable modules** based on pressure contacts and offering very compact modules developed by Cellmec using the **IDS-Technology GmbH** pressure contact switching device. All the ACB's were selected from the **Terasaki AR216S** range equipped with patented double-break contacts that allow quicker interruption compared to the standard ACB's which in-tern creates a cost-saving on the cable work. Feeders were protected by MCCB's with electronic tripping devices & motor controls were built with MPCB's and electronic protection relays. The whole intelligent motor control centre was monitored by a local SCADA system. The two containers housing the systems were FAT tested in Bahrain by Enerflex engineers and they were eventually transported as standard 40ft high cube containers to the site and erected and commissioned.

