

Transnet Port Terminals

Ngqura Container Terminal

Document Title:

SCOPE OF WORK

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Strip and Test Variable Frequency Drive (VFD)

1. DETAILED SCOPE OF WORK

Strip and test Variable Frequency Drive (VFD) shown in figure 1 below. Specifications are stated in section 2 below.

Strip and test VFD for any faults for repairs and provide report. This is an RFQ for Strip and test only and it is for 1 VFDs, repairs are excluded. The unit must be taken offsite (off Transnet Premises) and tested on the contractor's premises.

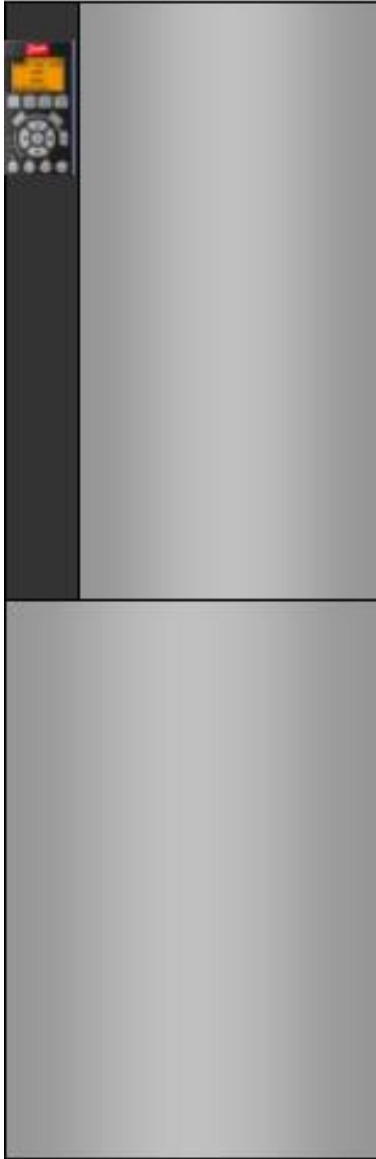


Fig 1: Danfoss Variable Frequency Drive (VFD)

A full report on findings must be submitted with quote. The report must include analyses done, findings and possible cause for failure, and recommendations.

Record all the components that need repairs and possible replacement.

A list of components that need to be replaced together with part number (OEM part numbers) of each component must be included on the report.

Results of all electronic components that were tested must be provided with results of each component stated on the report regardless the component need to be replaced or not

For static tests, The DC+ and DC- results for both forward and reverse bias test must be given for the following, not just stated as “passed”

- ☐ Rectifier Section (L1,L2&L23)
- ☐ Inverter Section (U,V&W)
- ☐ Brake IGBT

The results for the following components must also be provided/given, not just stated as “passed”

- ☐ Balance circuit
- ☐ Electronic filter (capacitor bank)
- ☐ Cooling components (fans etc)

Results for Dynamic Tests must be given/ stated accordingly.
This in line with Danfoss manual static testing procedure.

2. VFD SPECIFICATIONS

Part Number: : 131Z9862
Manufacturer: Danfoss
Serial Numbers: SN 001708H293

200kW/300HP, High Overload
IN: 3x380-500V 50/60Hz 381/348A
OUT: 3X0-Vin 0-800Hz 395/361A

250kW/350HP, Normal Overload
IN: 3x380-500V 50/60Hz 463/427A
OUT: 3x0-Vin 0-800Hz 480/443A

3. Requirements

All work and testing to be done on the drive to be OEM or OEM agent or Service provider.

A full report on findings must be submitted with quote. The report must include analyses done, findings and possible cause for failure, and recommendations.

A list of components that need to be replaced together with part number (OEM part numbers) of each component must be included on the report.

For queries contact Renier on 0675925792

