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SEMI F47-0706

(Reapproved 0812)

Voltage Sag Immunity Compliance Certificate

Adjustable Frequency Drive

**Model: VLT® HVAC Drive Series FC-102, FC-202,
VLT® Refrigeration Drive Series FC-103**

(See Annex 1 for a more detailed model description)

Description: Adjustable Frequency Drive

Manufacturer Name: Danfoss Drives A/S

Manufacturer Address: Design Center EU , Ulsnaes 1, DK 6300 Graasten, Denmark

Test Date and Location: 21 March 2017, same as above.

Tested configuration: Normal operation and motor connection

Pass/Fail criteria: Tool Halting process without automatic recovery. Based on the test report DANF-023A, the manufacturer declares that the hardware and firmware design of Series FC-102 & FC-202 has not been changed, as tested, and stated in Report DANF-023A. Similarly, the hardware of the FC-103 Series is identical to FC-102 & FC-202, with the only difference being a different software version.

Certification:

Power Standards Laboratory certifies that the above tool meets the Mandatory requirements of SEMI F47-0706 for voltage sag immunity when tested according to the procedures set forth in IEC 61000-4-34. An IPC Voltage Sag Generator was used for the testing that fully complies with IEC 61000-4-34.



**EUT: Adjustable Frequency Drive
(Representative model)**



Syeda Mehwish

Syeda Mehwish 17th August FC2023
Power Standards Lab
<http://www.Powerside.com>

The certificate expires 3 years after the issuance date.

ANNEX 1

Description of the VLT® HVAC Drive FC 102, FC 202 Series

| Type | IP20 | IP21 | IP55/66 | Mains Supply [Vac] | Power [kW] |
|-----------------------|----------|----------|----------|---------------------------------|-------------|
| FC202 k25 | X | | X | 200-240 | 0.25 |
| FC202 k37 | X | | X | 200-240/380-480 | 0.37 |
| FC202 k55 | X | | X | 200-240/380-480 | 0.55 |
| FC202 k75 | X | | X | 200-240/380-480 | 0.75 |
| FC102/202 1k1 | X | | X | 200-240/380-480/525-600/525-690 | 1.1 |
| FC102/202 1k5 | X | | X | 200-240/380-480/525-600/525-690 | 1.5 |
| FC102/202 2k2 | X | | X | 200-240/380-480/525-600/525-690 | 2.2 |
| FC102/202 3k0 | X | | X | 200-240/380-480/525-600/525-690 | 3 |
| FC102/202 3k7 | X | | X | 200-240 | 3.7 |
| FC10/2022 4k0 | X | | X | 380-480/525-600/525-690 | 4 |
| FC102/202 5k5 | X | X | X | 200-240/380-480/525-600/525-690 | 5.5 |
| FC102/202 7k5 | X | X | X | 200-240/380-480/525-600/525-690 | 7.5 |
| FC102/202 11k | X | X | X | 200-240/380-480/525-600/525-690 | 11 |
| FC102/202 15k | X | X | X | 200-240/380-480/525-600/525-690 | 15 |
| FC102/202 18k | X | X | X | 200-240/380-480/525-600/525-690 | 18.5 |
| FC102/202 22k | X | X | X | 200-240/380-480/525-600/525-690 | 22 |
| FC102/202 30k | X | X | X | 200-240/380-480/525-600/525-690 | 30 |
| FC102/202 37k | X | X | X | 200-240/380-480/525-600/525-690 | 37 |
| FC102/202 45k | X | X | X | 200-240/380-480/525-600/525-690 | 45 |
| FC102/202 55k | X | X | X | 380-480/525-600/525-690 | 55 |
| FC102/202 75k | X | X | X | 380-480/525-600/525-690 | 75 |
| FC102/202 90k | X | X | X | 380-480/525-600/525-690 | 90 |
| FC 102/202 75k | X | X | X | 525-600 | 0.75 |