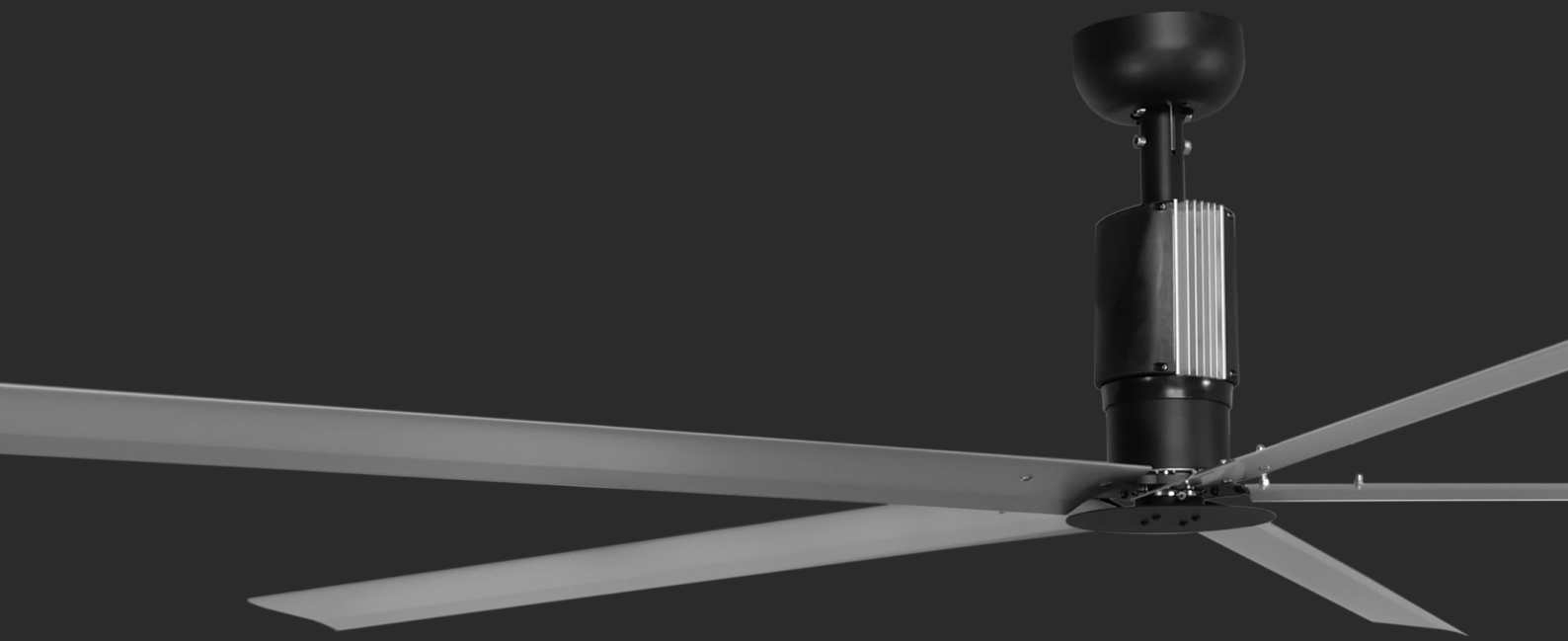


# ADVANCED OPERATIONS

NETWORKING MODE



**NORDIC FAN COMPANY™**

SILENT • CLIMATE-FRIENDLY • COMFORT

# CONTENTS

Motor and Drive System Specifications .....	3
Drive Board Layout .....	4
Fan Networking .....	5
Installation Schematics .....	6

**IMPORTANT:** NETWORKING OF FANS REQUIRES ACCESSING THE NORDIC™ SYSTEM DRIVE, WHICH VOIDS THE WARRANTY UNLESS PRIOR WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE MANUFACTURER.



## ADDRESS

The Nordic Fan Company ApS  
Snarelosevej 192A  
7000 Fredericia  
Denmark



## CONTACT

+45 73 70 90 83  
info@nordicfancompany.com  
www.nordicfancompany.com



# MOTOR AND DRIVE SYSTEM SPECIFICATIONS

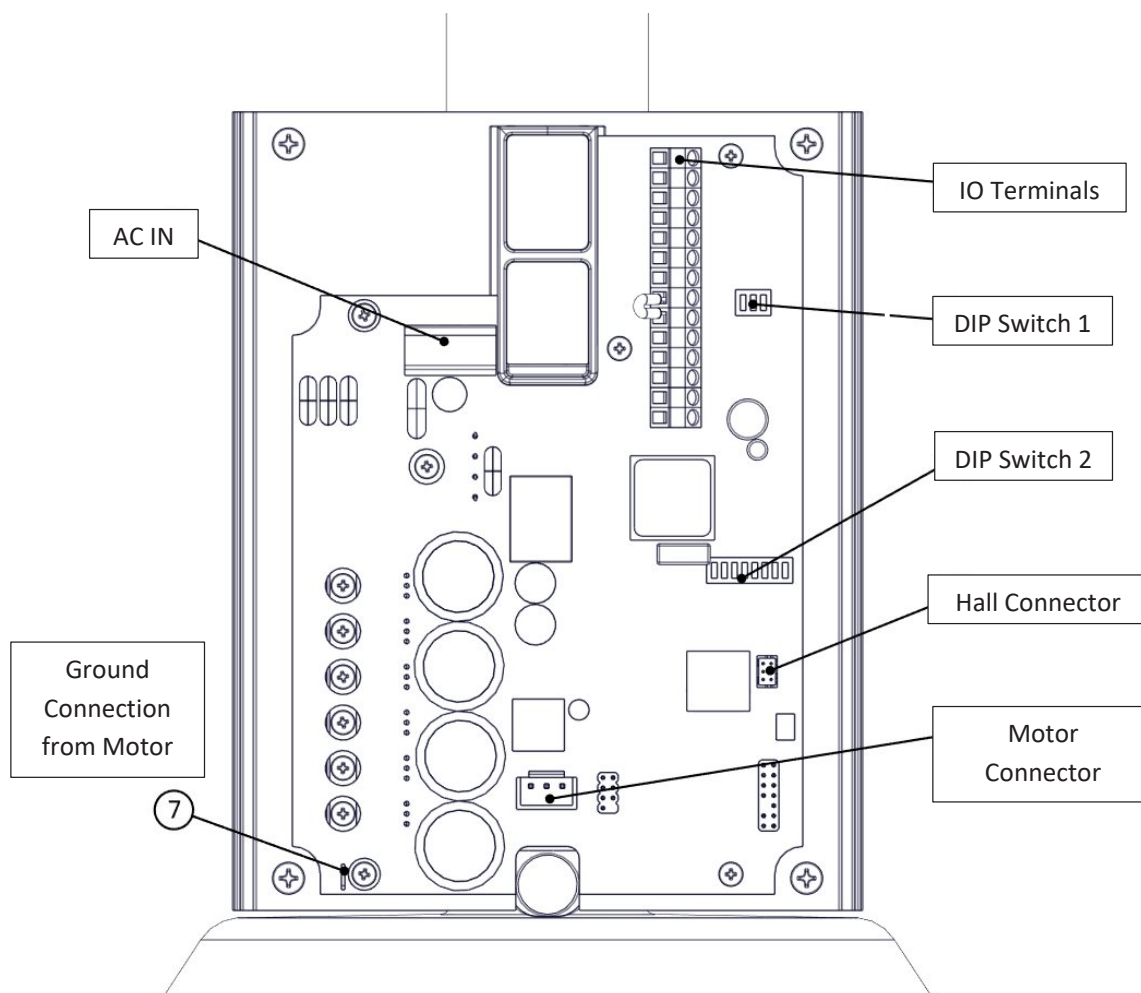
The NORDIC™ HVLS fan Controller is capable of managing up to 5 networked NORDIC™ systems daisy-chained in series.

<b>Input Power</b>	
AC Input Range	1x 230VAC
AC Input Frequency	50Hz
<b>Outputs</b>	
DC Bus Voltage	340V
Motor Power Output	0.5HP (0.37kW) continuous
Current	4.9A
<b>Inputs/Outputs</b>	
Wall mount HMI	FWD/STOP/REV, Speed Control (UP/DOWN Arrows)
Analog/Digital Signals	Terminal Strip Signals
<b>Communications</b>	
RS-485	ASCII serial commands, MODBUS
<b>Motor Feedback</b>	
Halls	Halls
Motor Temp	Thermistor, isolated
<b>Display</b>	
LCD	8X2 character LCD display on HMI
<b>Protections</b>	
Motor Over Temperature	Current limit and LCD status enable >90°C, Drive disable >110°C
Drive Over Temperature	Current limiting when drive temp exceeds 90°C
Protective Earth	External ground connection marked per IEC60417
Regeneration	Drive protected in overvoltage state
<b>Mechanical and Environmental</b>	
Size	203mm X 140mm X 61mm
Weight	3.6kg
Ambient Temperature	0 to +50°C operating, -40 to +85°C storage
<b>Enclosure</b>	
	NEMA 1, IP 50, Black ABS (UL 94 5VA Compliant)



# DRIVE BOARD LAYOUT

AC IN	230VAC
Motor Connector	Connection to motor
Hall Connector	From motor
DIP Switch 1	3 position, Modbus term. settings, active low, see table below
DIP Switch 2	8 position, Modbus addr. settings, active low, see table below
IO Terminals	14 position I/O rail, see table below



# FAN NETWORKING

**IMPORTANT:** FOR NETWORKING MULTIPLE FANS USING A SINGLE CONTROL SOURCE, THE DIPSWITCH SETTINGS ON EACH FAN'S DRIVE BOARD NEEDS TO BE ADJUSTED USING THE FOLLOWING INSTRUCTIONS.

## FIRST FAN

1. Determine the first fan in the network daisy-chain by identifying the fan that is connected directly to the control source.
2. Remove the front drive cover from the first fan in the network using a phillips screwdriver.
3. Dipswitch 1 is used to set parameters that improve network function and should be set as shown in the table below.
4. Verify that each of the switches on dipswitch 2 are set as shown in the below table

## ALL REMAINING FANS

1. Remove the front drive cover using a phillips screwdriver.
2. Make sure the dipswitch 1 & 2 settings are as shown in the column "Network, All other fans" in the table below.
3. Reinstall the front drive cover and you are ready to go.

		Standard, non-network setting	Network	
			First fan	All other fans
DIP Switch Set 1	Position 1	off (down)	off (down)	off (down)
	Position 2	on (up)	on (up)	off (down)
	Position 3	on (up)	on (up)	off (down)
DIP Switch Set 2	Position 1	on (up)	Same	Same
	Position 2	off (down)		
	Position 3	off (down)		
	Position 4	off (down)		
	Position 5	off (down)		
	Position 6	on (up)		
	Position 7	off (down)		
	Position 8	off (down)		



# INSTALLATION SCHEMATICS

