

BF 50 wall fans

Technical User Guide



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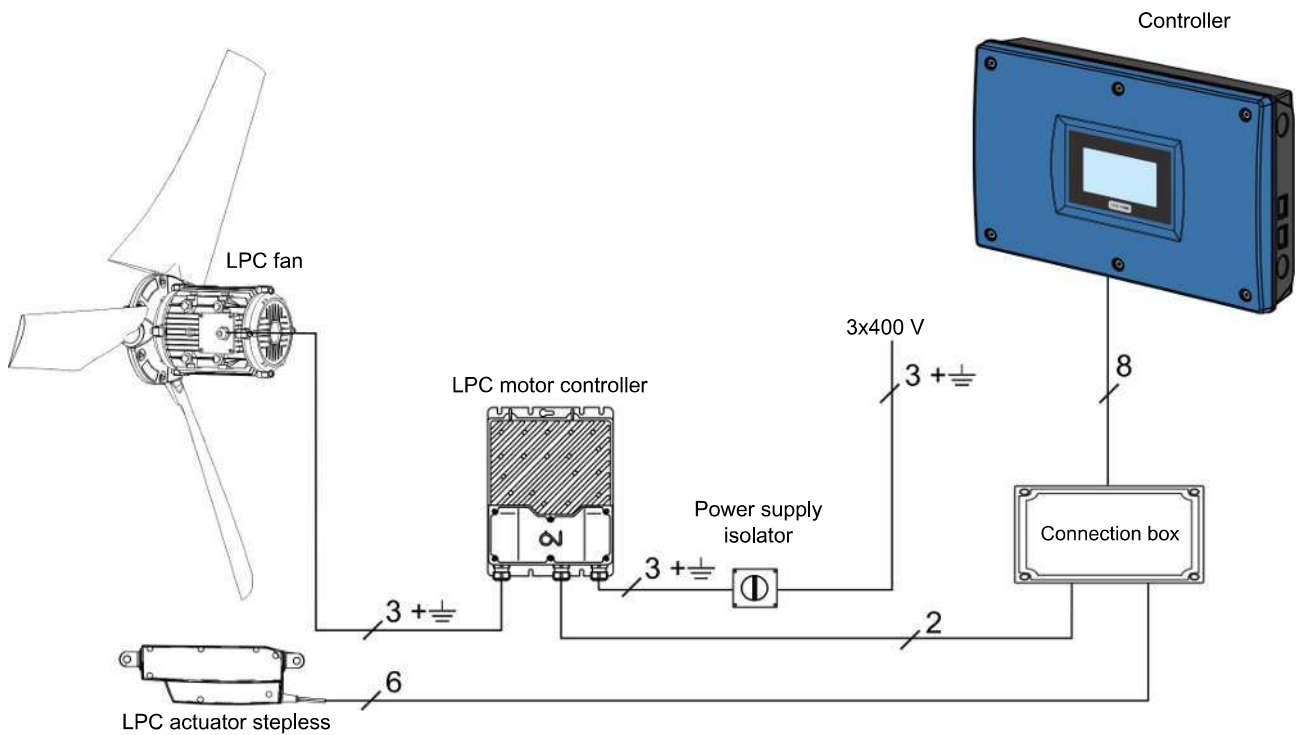
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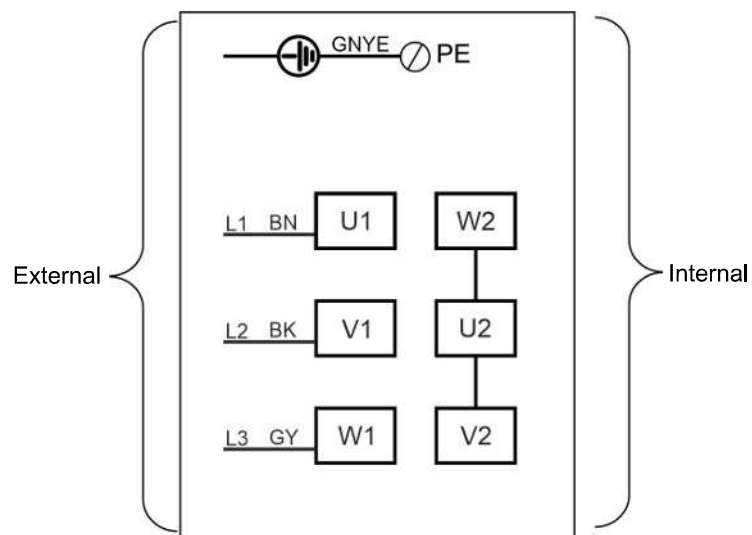


4.1.20 BF 50 LPC 3x400 V with actuator – stepless (435409/435382)

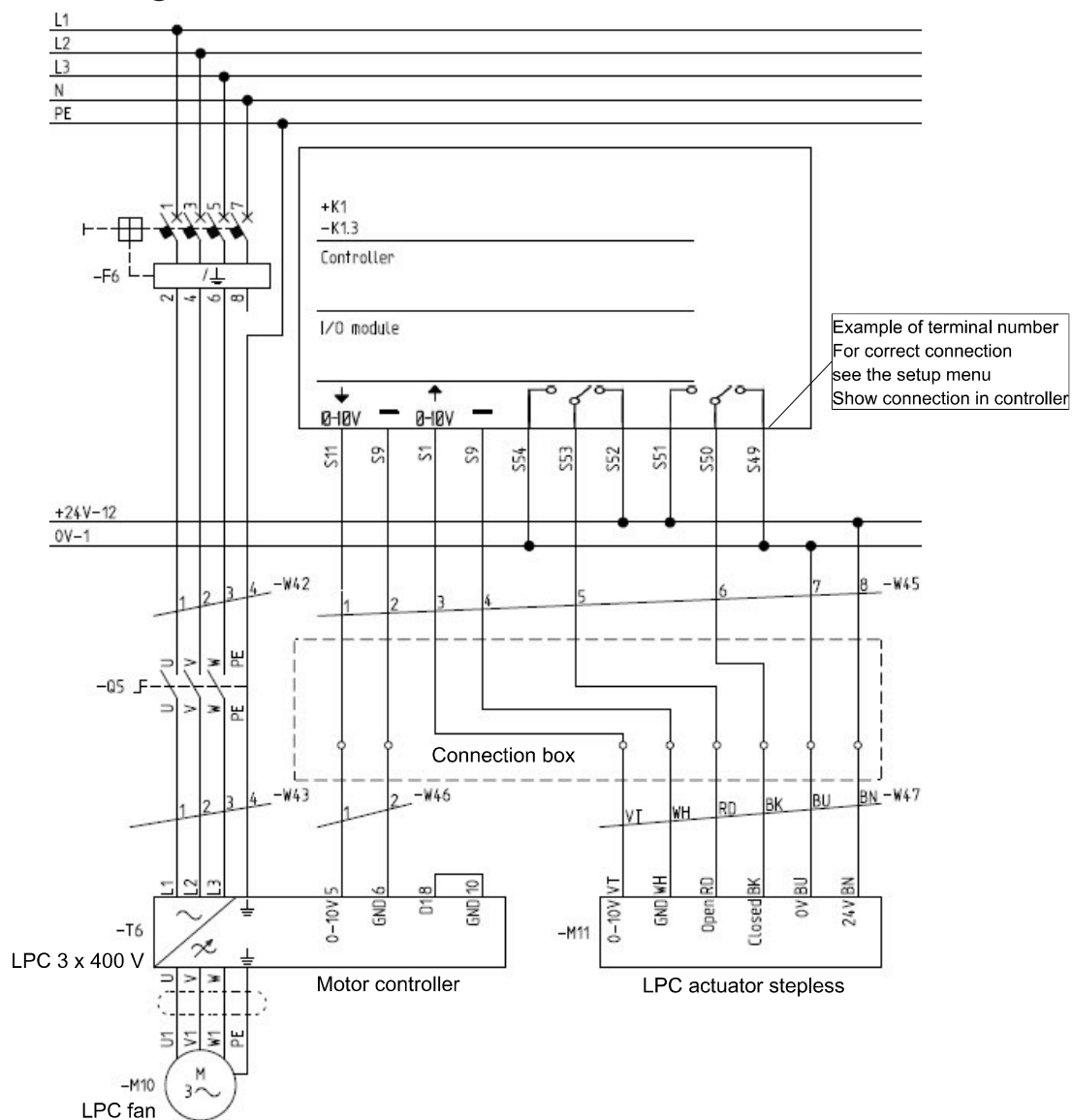
4.1.20.1 Cable plan



4.1.20.2 Terminals in LPC 3x400 V fan



4.1.20.3 Circuit diagram



7.2 BF 50 LPC 3x400 V

		435405 BF 50 LPC ON/OFF HF / 435409 BF 50 LPC VAR HF	435408 BF 50 LPC ON/OFF LE / 435382 BF 50 LPC VAR LE
Electrical			
Rated voltage	V AC	400 +10% / -8%	400 +/- 10%
Operating voltage	V AC	280 – 485 For supply voltages below the rated voltage range, a reduction of the fan's RPM may occur depending on the load and ambient temperature.	
RCD		To be installed in accordance with applicable laws and standards. PFI 300 mA (type B) may be used in front of the supply voltage for LPC regulated fans.	
Frequency	Hz	50 / 60	
Leakage current to ground at 50 Hz	mA	Max. 3.0	
Max. ballast fuse	A	16	
Max. current consumption At 400 V AC supply	A	3.12	2.45
Max. input power (P1)	W	1921 (1865)	1441 (1428)
CosPhi [Φ]	Factor	0.94	
Regulation ability		20 to 100% / 8 - 0 V	
Motor protection		Built-in current limiter in LPC motor control. Use fuse in front of LPC motor control.	
Thermal cutout (PTO)		-	
Interface			
Inputs			
A1: Analog fan speed	V DC	10 – 0 (default)	
D1: Start / Stop	V DC	0 / 24 with internal pull-up	
D2: Polarity analog input 0-10 V / 10-0 V	V DC	0 / 24 with internal pull-up	
LPC-2 relay module (optional)			
D3: Input reversing	V DC	0 - 24 with internal pull-up	
Output alarm relay		1 A, 30 V DC, 24 V AC	
Mechanical			
Cable length	m	0.7 m shielded	
Impeller diameter	mm	1278	
Number of fan blades	pcs.	3	
Fan blade pitch	°	40	40
Fan output			
Revolutions per minute	RPM	750	680
Air output at 0 Pa	m³/h	48900 (53800)	44100 (48600)
Air output at -10 Pa	m³/h	46900 (52100)	42200 (46400)
Air output at -20 Pa	m³/h	44900 (49100)	40200 (43900)

		435405 BF 50 LPC ON/OFF HF / 435409 BF 50 LPC VAR HF	435408 BF 50 LPC ON/OFF LE / 435382 BF 50 LPC VAR LE
Air output at -30 Pa	m³/h	43100 (46900)	38000 (41600)
Air output at -40 Pa	m³/h	41100 (44900)	35500 (39500)
Air output at -50 Pa	m³/h	39200 (42800)	33300 (36400)
Air output at -60 Pa	m³/h	36600 (40600)	30600 (33700)
Air output at -70 Pa	m³/h	34200 (37800)	27500 (30800)
Air output at -80 Pa	m³/h	31600 (34700)	24000 (27400)
Air output at -90 Pa	m³/h	28900 (31600)	19000 (22400)
Air output at -100 Pa	m³/h	25000 (28200)	-
Power consumption at -10 Pa	W	1907 (1758)	1434 (1360)
Specific output at -10 Pa	m³/kWh	24600 (29600)	29400 (34100)
Specific energy at -10 Pa	Watt/1000 m³/h	41 (34)	34 (29)
Testing body		SKOV A/S	
Environment			
Temperature, operation	°C (°F)	÷ 40 to + 40 (÷ 40 to 104)	
Start temperature	°C (°F)	÷ 40 to + 50 (÷ 40 to 122)	
Storage temperature	°C (°F)	÷ 40 to + 70 (÷ 40 to 158)	
Ambient humidity, operation	% RH	10 - 95	
Protection class	IP	Motor controller: IP 65 Fan motor: IP 65	
Fan noise, outside (2 m, 45 degrees)	dB (A)	74	71
Shipment			
Shipping weight	g	75000	