

Fact Sheet

### **VLT® HVAC Basic Drive**



## Efficient, basic control of fans and pumps in HVAC applications.

Optimised for basic operation of pumps and fans, the VLT® HVAC Basic Drive is supplied with built-in functions that reduce initial costs and increase productivity.

The drive is the most compact unit in its class. Integrated DC coils reduce harmonics to an absolute minimum, and the Automatic Energy Optimizer saves 15-25% energy from the second you turn the it on.

### **Product range**

3 x 200 – 240 V	0.25 -	45	kW
3 x 380 – 480 V	0.37 –	90	kW
3 x 525 – 600 V	22-	90	kW

# Available enclosure ratings

IP20 IP21/UL Type 1 (separate option kit) IP54

Feature  All built-in – low investment  Flying Start  Reduced mechanical wear on equipment  Most common HVAC protocols for BMS controller connectivity are embedded  Built-in Pl controller  Smart Logic Controller  Integrated fan and pump functionality  Fire Override Mode  Save senergy – less operation cost  Automatic Energy Optimizer function  Sleep mode  Unequalled robustness – maximum uptime  IP 20/IP 21/Type 1/IP 54  Robust single enclosure  Unique cooling concept with no forced air flow over electronics  Max ambient temp. up to 50° C  User friendly – save commissioning and operating cost  Operate both PM and asynchronous motors  Easy connectability  Display in engineering units  Alpha numeric display/improved HMI  Start up wizard  Autor estart  Saves protection class C1, C2 or C3  Meets protection class C1, C2 or C3				
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Built-in FMC filter Meets protection class C1 C2 or C3	Built-in DC coils and EMC filters – no harmonic c	-in DC coils and EMC filters – no harmonic concerns		
Meets protection class C1, C2 of C5	Built-in EMC filter	Meets protection class C1, C2 or C3		
Integrated DC Choke Small power cables. Meets EN 61000-3-12	Integrated DC Choke	Small power cables. Meets EN 61000-3-12		
Thermistor input Prevents motor overheating	Thermistor input	Prevents motor overheating		

motor control and asynchronous motor control as standard increase flexibility and efficiency.





#### Easy to configure

- Start up with a configuration wizard
- Easy to program parameters
- Alphanumeric display
- Hand Off Auto keys
- Status LCDs
- Easy to install
- Easy to wire up
- 7 languages and numeric programming



#### Choice made simple

- Enclosures: IP20/Chassis or IP21/Type 1 or IP54
- Harmonic filters
- Minimum 25 m C3 as standard built-in

Optional: C1/C2 filters

Voltage: 208/230/460/575

#### **Specifications**

Mains supply (L1, L2, L3)				
Supply voltage	200-240 V ±10%			
Supply voltage	380-480 V ±10%			
Supply voltage	525-600 V ±10%			
Supply frequency	50/60 Hz			
Displacement Power Factor (cos φ) near unity	(> 0.98)			
Switching on input supply L1, L2, L3	1 time/minute max.			

Output data (U, V, W)				
Output voltage	0-100% of supply voltage			
Switching on output	Unlimited			
Ramp times	1–3600 sec.			
Open/Closed loop	0–400 Hz			

Digital inputs			
Programmable digital inputs	4		
Logic	PNP or NPN		
Voltage level	0-24 VDC		

Analog input			
Analog inputs	2		
Modes	Voltage or current		
Voltage level	0 V to +10 V (scaleable)		
Current level	0/4 to 20 mA (scaleable)		

1–20 mA
240 VAC, 2 A and 400 VAC, 2 A)

Fieldbus communication	
Standard built-in:	N2 Metasys
BACnet mstp	FLN Apogee
FC Protocol	Modbus RTU

#### **Dimensions**

Power (kW/HP)				Height (mm/inch)		Width	Depth	
Frame	IP Class	3 x 200-240 V	3 x 380–480 V	3 x 525-600 V		Incl. decoupling plate	(mm/inch)	(mm/inch)
H1	IP20	0.25-1.5 kW/0.3-2 HP	0.37-1.5 kW/0.5-2 HP	-	195/7.7	273/10.7	75/2.9	168/6.6
H2	IP20	2.2 kW/3 HP	2.2-4 kW/3-5.4 HP	-	227/8.9	303/11.9	90/3.5	190/7.5
НЗ	IP20	3.7 kW/5 HP	5.5-7.5 kW/7.5-10 HP	-	255/10.0	329/13.0	100/3.9	206/8.1
H4	IP20	5.5-7.5 kW/7.5-10 HP	11-15 kW/15-20 HP	-	296/11.7	359/14.1	135/5.3	241/9.5
H5	IP20	11 kW/15 HP	18.5-22 kW/25-30 HP	-	334/13.1	402/15.8	150/5.9	255/10.0
Н6	IP20	15-18.5 kW/20-25 HP	30-45 kW/40-60 HP	18.5-30 kW/25-40 HP	518/20.4	595/23.4-635/25.0	239/9.4	242/9.5
H7	IP20	22-30 kW/30-40 HP	55-75 kW/75-100 HP	37-55 kW/50-75 HP	550/21.7	630/24.8-690/27.2	313/12.3	335/13.2
Н8	IP20	37-45 kW/50-60 HP	90 kW/125 HP	75-90 kW/100-125 HP	660/26.0	800/31.5	375/14.8	335/13.2
Н9	IP20	-	_	2.2-7.5 kW/3-10 HP	372/14.6	374/14.7	130/5.1	205/8.0
H10	IP20	-	=	11-15 kW/15-20 HP	475/18.7	419/16.5	165/6.5	249/9.8
12	IP54	-	0.75-4 kW/1-5.4 HP	-	332/13.1	-	115/4.5	225/8.8
13	IP54	-	5.5-7.5 kW/7.5-10 HP	-	368/14.5	-	135/5.3	237/9.3
14	IP54	-	11-18.5 kW/15-25 HP	_	476/18.7	-	180/7.1	290/11.4
16	IP54	-	22-37 kW/30-50 HP	-	650/25.6	-	242/9.5	260/10.2
17	IP54	_	45-55 kW/60-75 HP	_	680/26.8	_	308/12.1	310/12.2
18	IP54	-	75-90 kW/100-125 HP	-	770/30.3	-	370/14.6	335/13.2

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