

PowerXL series DH1 HVAC/R drives



Next-generation drives for today's demands



The DH1 HVAC/R drives are part of the Eaton next generation PowerXL™ series of variable frequency drives specifically engineered to exceed the demands of the HVAC/R market. With an industry-leading energy efficiency algorithm, high short-circuit current rating and robust design, the DH1 offers customers increased efficiency, safety and reliability.

Features

- Graphic LCD keypad display
- Active Energy Control® algorithm
- On-board communications:
 - Modbus®/TCP
 - Modbus RTU
 - BACnet® MS/TP
 - BACnet/IP
- Onboard I/O:
 - 8DI, 1DO
 - 2AI, 2AO
 - 2 FC relays and 1 FA relay
- Real-time clock with battery backup
- 5% DC link choke
- Standard applications:
 - Basic
 - Multi-PID
 - Multi-purpose
- Advanced configuration PC tool

Benefits

- Variable torque rated for HVAC/R applications
- Easy menu navigation
- Two configurable keypad soft keys
- Conformal coated boards standard

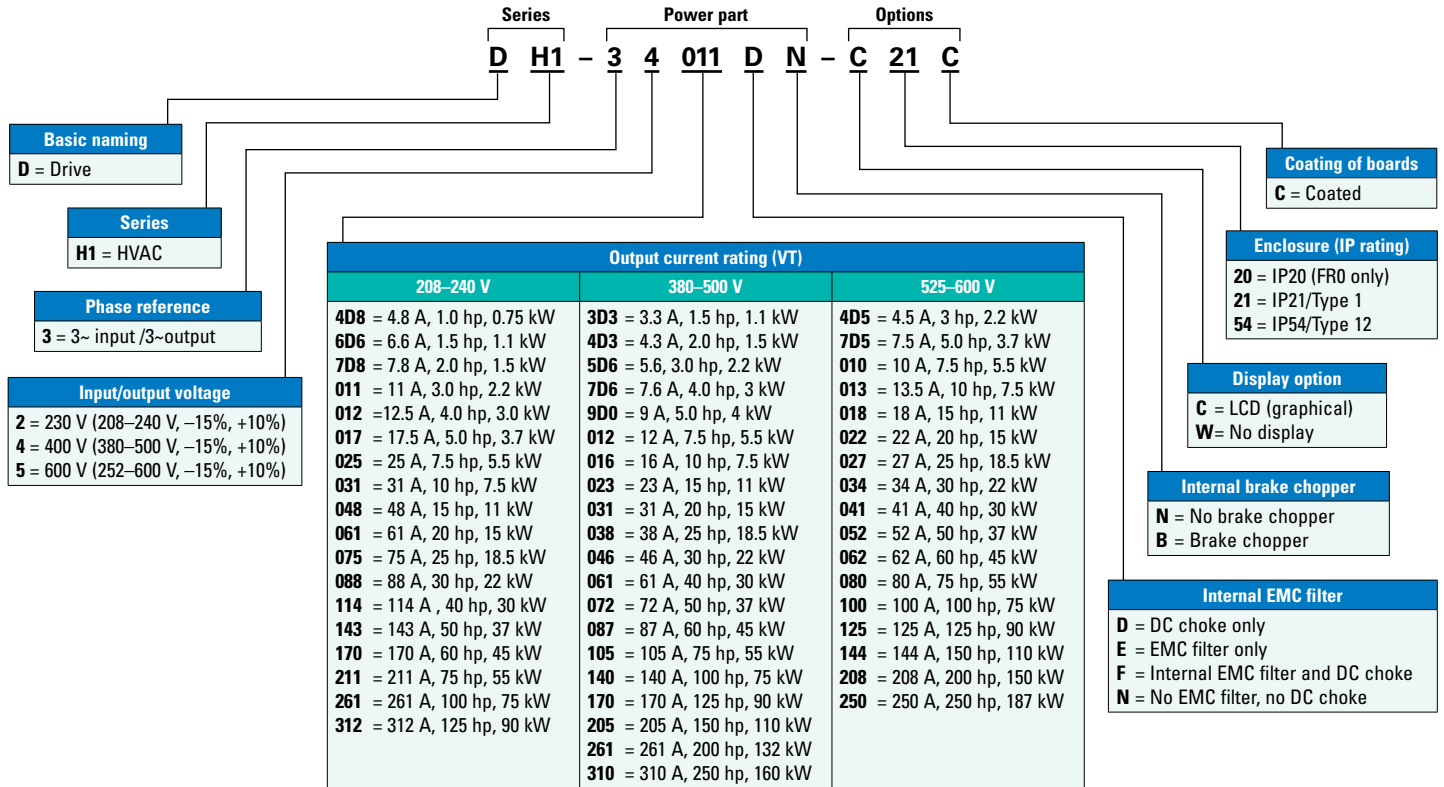


Product range

- 208–240 V, 1–125 hp, 312 A, 90 kW
- 380–500 V, 1.5–250 hp, 310 A, 160 kW
- 525–600 V, 3–250 hp, 250 A, 160 kW
- Type 1/IP21 or Type 12/IP54 packaging



Powering Business Worldwide



Frames and power ranges

Frame size	Voltage	hp (VT/I _L)	kW	Amperes (VT/I _L)
FR0	230 Vac	1–2	0.75–1.5	4.8–7.8
	480 Vac	1.5–5	1.1–3	3.3–7.6
FR1	230 Vac	1–4	0.75–3	4.8–12.5
	480 Vac	1.5–7.5	1.1–5.5	3.3–12
	575 Vac	3–7.5	2.2–5.5	4.5–10
FR2	230 Vac	5–10	3.7–7.5	17.5–31
	480 Vac	10–20	7.5–15	16–31
	575 Vac	10–20	7.5–15	13.5–22
FR3	230 Vac	15–20	11–15	48–61
	480 Vac	25–40	18.5–30	38–61
	575 Vac	25–40	18.5–30	27–41
FR4	230 Vac	25–40	18.5–30	75–114
	480 Vac	50–75	37–55	72–105
	575 Vac	50–75	37–55	52–80
FR5	230 Vac	50–75	37–55	143–211
	480 Vac	100–150	75–110	140–205
	575 Vac	100–150	75–110	100–144
FR6	230 Vac	100–125	75–90	261–312
	480 Vac	200–250	132–160	261–310
	575 Vac	200–250	150–187	208–250

Input ratings

Description	Specification
Input voltage (B _{in})	208–240 V, 380–500 V, 525–600 V, –15 to 10%
Input frequency (f _{in})	50–60 Hz (variation up to 45–66 Hz)
Connection to power	Up to one connection every 60 seconds
Short-circuit withstand rating	100 kAIC (with fuses and circuit breakers)

Output ratings

Description	Specification
Output voltage	0 to V _{in}
VT/I _L overload	Overload 1.1 x I _L (1 min./10 min.)
Initial output current	200% (2 sec./20 sec.)
Output frequency	0–400 Hz (standard)
Frequency resolution	0.01 Hz

Ambient conditions

Description	Specification
Operating temperature	–10 °C (no frost) to +50 °C, up to +60 °C with derating
Storage temperature	–40 °C to +70 °C
Relative humidity	0–95% RH, noncondensing, non-corrosive
Altitude	100% load capacity (no derating) up to 3280 ft (1000 m); 1% derating for each 328 ft (100 m) above 3280 ft (1000 m) 9843 ft (3000 m) maximum

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