

PowerXL Series DG1 general purpose drives



Next-generation drives for today's demands



The DG1 general-purpose drives are part of Eaton's next-generation PowerXL Series of adjustable frequency drives specifically engineered for today's more demanding commercial and industrial applications. With an industry-leading energy efficiency algorithm, high short-circuit current rating and robust design, the DG1 offers customers increased efficiency, safety and reliability.

Product range

- 0.75-90kW 208V-240V
- 0.75-160kW 380V-500V
- IP21 or IP54 packaging

Benefits

- Dual VT and CT ratings
- Easy menu navigation
- Two configurable keypad soft keys
- Conformal coated boards standard
- EMC filter standard
- Brake chopper standard (FR1-FR3)

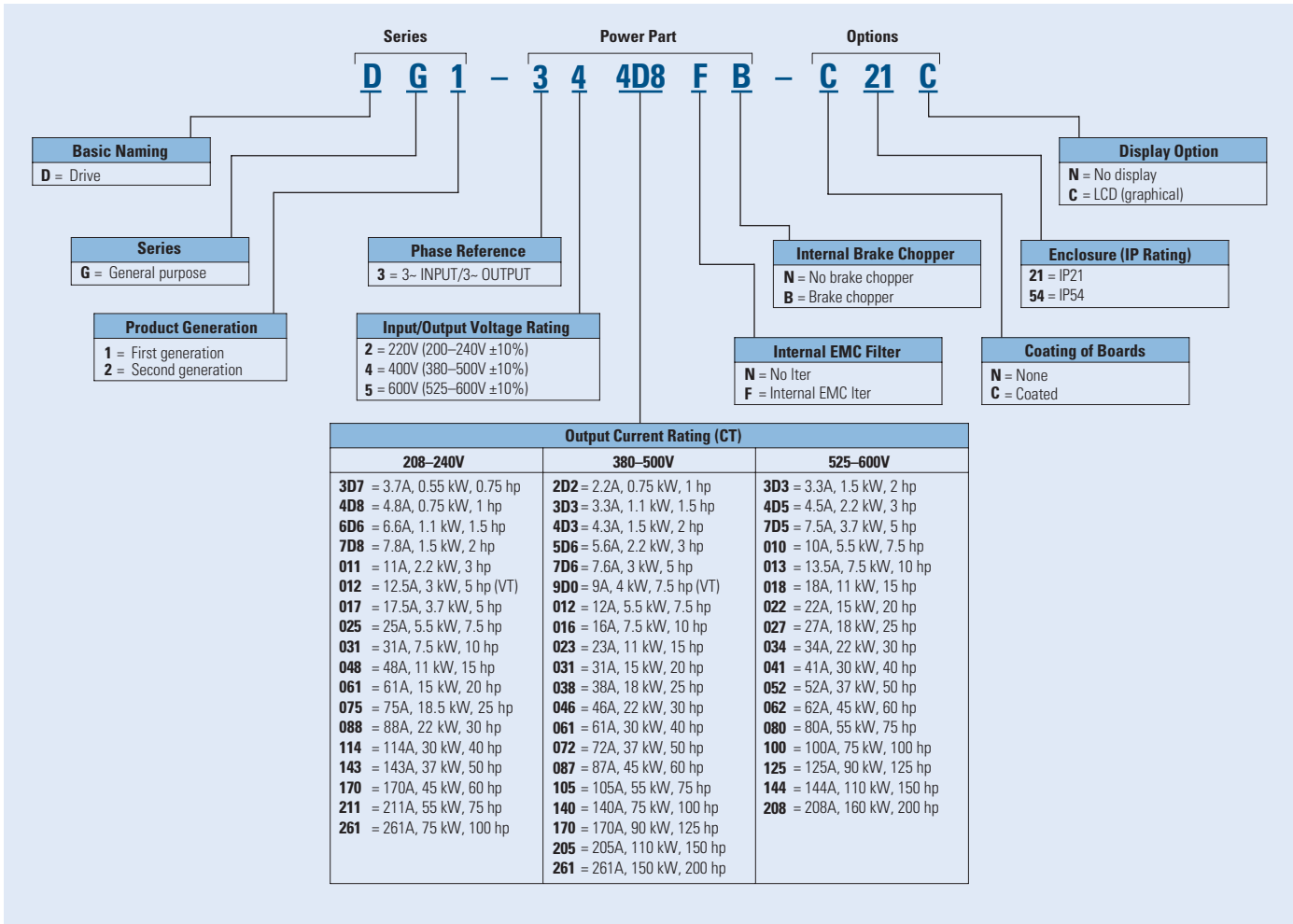


Features

- Graphic LCD keypad display
- Active energy control algorithm
- Onboard communications:
 - EtherNet/IP, Modbus/TCP
 - RS-485: Modbus RTU, BACnet, MS/TP
- 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:
 - Standard
 - Multi-pump and fan control
 - Multi-PID
 - Multi-purpose
- Advanced configuration PC tool

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Specifications

Product	Specification			
	Voltage	Horsepower (CT/I _H)	(kW)	Amperes (CT/I _H)
FR1	220 Vac	0.75–3	0.55–2.2	3.7–11
	400 Vac	1–5	0.75–3.7	2.2–7.6
FR2	220 Vac	5–7.5	3–5.5	12.5–25
	400 Vac	7.5–15	5.5–11	12–23
FR3	220 Vac	10–15	7.5–11	31–48
	400 Vac	20–30	15–22	31–46
FR4	220 Vac	20–30	15–22	61–87
	400 Vac	40–60	30–45	61–87
FR5	220 Vac	40–60	30–45	105–170
	400 Vac	75–125	55–90	105–170
FR6 ⁽¹⁾	220 Vac	75–100	55–75	205–261
	400 Vac	150–200	110–160	205–261

Note: ⁽¹⁾ FR6 will be released in 2015.

Input ratings

Description	Specification
Input voltage (B _{in})	208–240V, 380–500V, –15 to 10%
Input frequency (f _{in})	50–60 Hz (variation up to 45–66 Hz)
Connection to power	Once per minute or less
Short-circuit withstand rating	100 kAIC

Output ratings

Description	Specification
Output voltage	0 - Vin
VT/I _L overload	Overload 1.1 x I _L (1 min./10 min.)
CT/I _H overload	Overload 1.5 x I _H (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 (0 frost) to 50°C, up to 55°C with derating
Storage temperature	–40° to 70°C
Relative humidity	0–95% RH, non-condensing, non-corrosive
Altitude	100% load capacity (no derating) up to 1000m; 1% derating for each 100m above 1000m

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