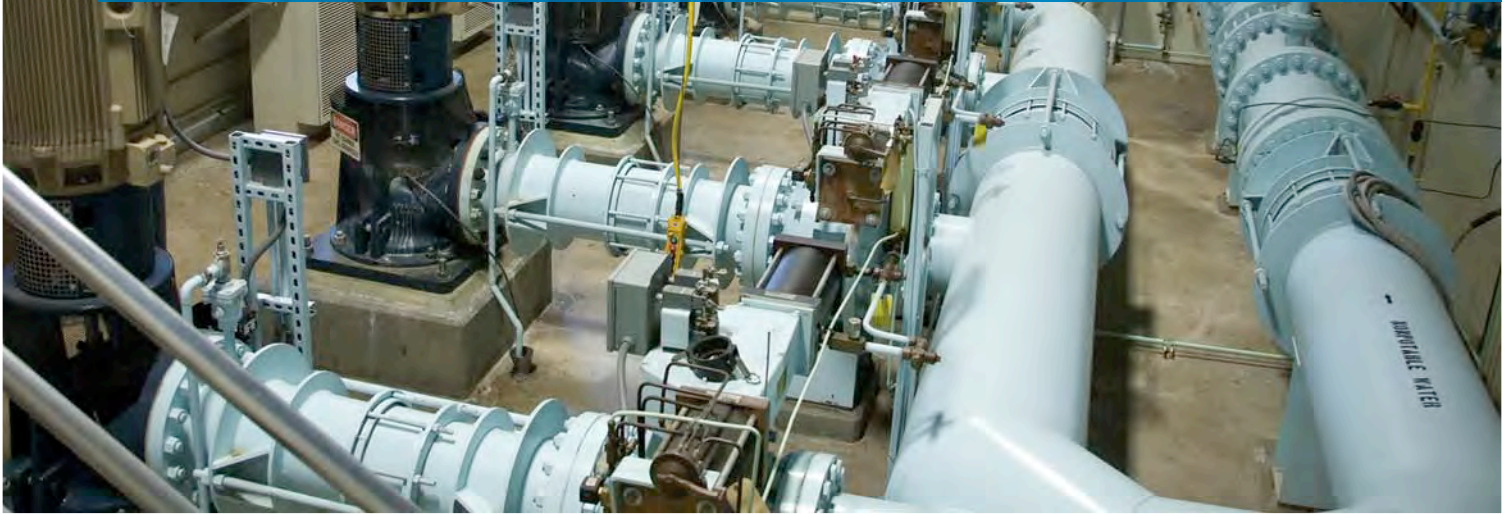


PowerXL Series DG1 general-purpose drives



Next-generation drives for today's demands



The DG1 general-purpose drives are part of the Eaton 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.

Features

- Graphic LCD keypad display
- Active energy control algorithm
- On-board 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

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)



Product range

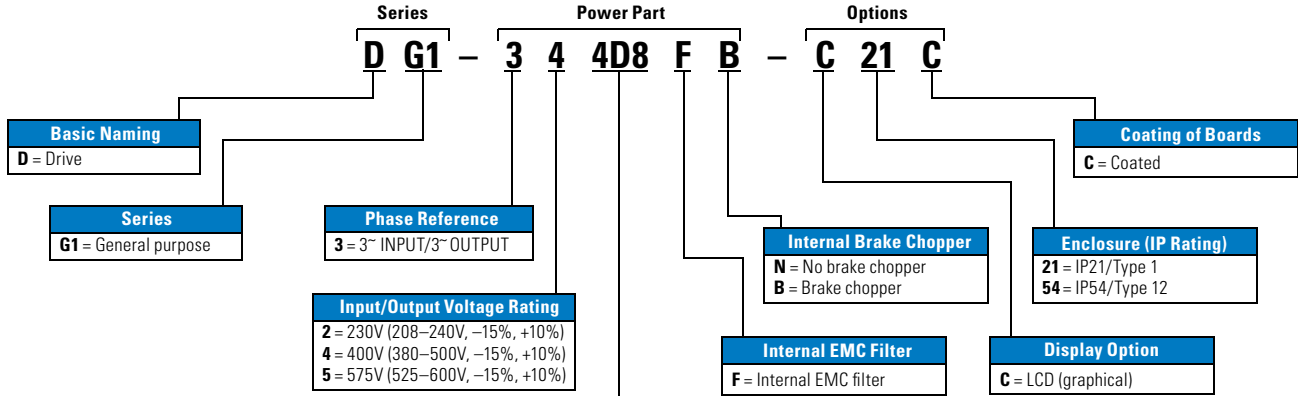
- 230V to 125 hp, 310A, 90 kW
- 480V to 250 hp, 310A, 160 kW
- 575V to 250 hp, 250A, 160 kW
- Type 1/IP21 or Type 12/IP54 packaging
- Global Electronic Services

EATON

Powering Business Worldwide

Service or Sales

sales@gesrepair.com



Output Current Rating (CT)		
208–240V	380–500V	525–600V
3D7 = 3.7A, 0.55 kW, 0.75 hp	2D2 = 2.2A, 0.75 kW, 1 hp	3D3 = 3.3A, 1.5 kW, 2 hp
4D8 = 4.8A, 0.75 kW, 1 hp	3D3 = 3.3A, 1.1 kW, 1.5 hp	4D5 = 4.5A, 2.2 kW, 3 hp
6D6 = 6.6A, 1.1 kW, 1.5 hp	4D3 = 4.3A, 1.5 kW, 2 hp	7D5 = 7.5A, 3.7 kW, 5 hp
7D8 = 7.8A, 1.5 kW, 2 hp	5D6 = 5.6A, 2.2 kW, 3 hp	010 = 10A, 5.5 kW, 7.5 hp
011 = 11A, 2.2 kW, 3 hp	7D6 = 7.6A, 3 kW, 5 hp	013 = 13.5A, 7.5 kW, 10 hp
012 = 12.5A, 3 kW, 5 hp (VT)	9D0 = 9A, 4 kW, 7.5 hp (VT)	018 = 18A, 11 kW, 15 hp
017 = 17.5A, 3.7 kW, 5 hp	012 = 12A, 5.5 kW, 7.5 hp	022 = 22A, 15 kW, 20 hp
025 = 25A, 5.5 kW, 7.5 hp	016 = 16A, 7.5 kW, 10 hp	027 = 27A, 18 kW, 25 hp
031 = 31A, 7.5 kW, 10 hp	023 = 23A, 11 kW, 15 hp	034 = 34A, 22 kW, 30 hp
048 = 48A, 11 kW, 15 hp	031 = 31A, 15 kW, 20 hp	041 = 41A, 30 kW, 40 hp
061 = 61A, 15 kW, 20 hp	038 = 38A, 18 kW, 25 hp	052 = 52A, 37 kW, 50 hp
075 = 75A, 18.5 kW, 25 hp	046 = 46A, 22 kW, 30 hp	062 = 62A, 45 kW, 60 hp
088 = 88A, 22 kW, 30 hp	061 = 61A, 30 kW, 40 hp	080 = 80A, 55 kW, 75 hp
114 = 114A, 30 kW, 40 hp	072 = 72A, 37 kW, 50 hp	100 = 100A, 75 kW, 100 hp
143 = 143A, 37 kW, 50 hp	087 = 87A, 45 kW, 60 hp	125 = 125A, 90 kW, 125 hp
170 = 170A, 45 kW, 60 hp	105 = 105A, 55 kW, 75 hp	144 = 144A, 110 kW, 150 hp
211 = 211A, 55 kW, 75 hp	140 = 140A, 75 kW, 100 hp	208 = 208A, 160 kW, 200 hp
261 = 261A, 75 kW, 100 hp	170 = 170A, 90 kW, 125 hp	
	205 = 205A, 110 kW, 150 hp	
	261 = 261A, 132 kW, 200 hp	

Space requirements for mounting the DG1 Series VFD and airflow

Frame Size	Voltage	hp (CT/IH)	kW ①	Amperes (CT/IH)
FR1	230 Vac	0.75–3	0.55–2.2	3.7–11
	480 Vac	1–5	0.75–3.7	2.2–7.6
	575 Vac	2–5	1.5–3.7	3.3–7.5
FR2	230 Vac	4–7.5	3–5.5	12.5–25
	480 Vac	7.5–15	5.5–11	12–23
	575 Vac	7.5–15	5.5–11	10–18
FR3	230 Vac	10–15	7.5–11	31–48
	480 Vac	20–30	15–22	31–46
	575 Vac	20–30	15–22	22–34
FR4	230 Vac	20–30	15–22	61–88
	480 Vac	40–60	30–45	61–87
	575 Vac	40–60	30–45	41–62
FR5	230 Vac	40–60	30–45	114–170
	480 Vac	75–125	55–90	105–170
	575 Vac	75–125	55–90	80–125
FR6	230 Vac	75–100	55–75	211–261
	480 Vac	150–200	110–150	205–261
	575 Vac	150–200	110–160	144–208

① kW ratings are at 400V / 50 Hz. The above guidelines apply unless testing has been completed to validate a design outside of these recommendations.

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 Printed in USA
 Publication No. PA040002EN / Z14668
 February 2014

Input ratings

Description	Specification
Input voltage (B_{in})	208–240V, 380–500V, 525–600V, –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 to V_{in}
VT/ I_L overload	Overload 1.1 x I_L (1 min./10 min.)
CT/IH 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 (no frost) to +40°C, up to +60°C with derating
Storage temperature	–40° to +70°C
Relative humidity	0–95% RH, noncondensing, non-corrosive
Altitude	100% load capacity (no derating) up to 3280 ft (1000m); 1% derating for each 328 ft (100m) above 3280 ft (1000m) 9843 ft (3000m) maximum

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