Demand more Eaton's enclosed drives portfolio





Enclosed drives product offering



Our extensive enclosed drives product offering covers most HVAC and industrial applications. These standard products are pre-engineered to provide a complete drawing package at time of quote and a short lead time.

HVAC



DH1 PowerXL® DH1 drive

Industrial



ACE Enclosed DG1 drive Hazardous location DG1 drive



Enclosed SVX drive



Harmonics mitigation

EGF

Passive filtered DG1



12-Pulse SVX



CFX Passive filtered SVX

Standard options

Enclosure options

- NEMA® Type 1, 1 filtered, 12, 3R, 7
- Wall-mount
- Floor-mount
- Space heater

Pilot device options

- Indicating lights
- Pushbuttons
- HOA switches
- Speed potentiometers
- E-stops
- External keypad

Control options

- CPT
- Terminal blocks
- Control relays
- Timers

Metering options

- Elapsed time meter
- Volt meter
- Amp meter
- Frequency meter
- Power meter

Surge protection Input reactor

Fuses

Input power options

Fused disconnect

Circuit breaker disconnect

Bypass options

- Three-contactor bypass
- RVSS bypass

Output power options

- Output contactor
- Output reactor
- dV/dt filter
- Sine wave filter



Product range Voltage: 208–575 Horsepower: 1–1000



Technology comparison

Technology	Inductive reactors	12-Pulse converters	Passive filters	18-Pulse converters	Active front end drives
How it works	Mitigates higher-order harmonics by providing high input impedance that limits high-frequency currents.	Two parallel 6-pulse converters fed by parallel isolation transformer paths, phase shifted 30°, which mitigates 5th and 7th order harmonics. Input impedance mitigates higher-order harmonics as well.	Provides high input impedance for higher- order harmonics and a shunt-tuned reactor and capacitor to mitigate 5th and 7th harmonics.	Three parallel 6-pulse converters fed by a single-phase shifting autotransformer, phase shifted 20° to cancel all harmonics below the 17th. Input impedance mitigates higher-order harmonics as well.	IGBT-based front end pulls relatively linear power from the line and uses an L-C-L filter to mitigate the IGBT switching noise.
Typical THD	33–38%	12–18%	6–8%	3–6%	3–5%
Advantages	 Low-cost, simple application 	Simple to applyExtremely robust	 Simple retrofit Low cost for performance Insensitive to voltage imbalance 	Simple to applyExtremely robust	 Slightly higher efficiency Immune to voltage imbalance Regeneration capability
Disadvantages	Low effectivenessVoltage drop concerns	 Not as effective as other methods Relative high cost compared to passive filters 	 Challenges with generator design Power factor issues Less robust than 18-pulse 	High cost on small hp	High cost, not as robust as 18-pulse

Eaton has a complete line of harmonics mitigation drives that are industry proven to protect your equipment, comply to IEEE® 519 standards and save you





СРХ 18-pulse SVX



RGX Active front end

Variable Frequency Drives Flex Center

Eaton's Variable Frequency Drive Flex Center provides customers with value-engineered enclosed drive solutions—how they want it, when they want it.









Deadfront door



A/C units



Custom paint colors

NEMA 3R device panel door







USB and RJ45 bulkhead

120 V receptacles





Redundant drive



Two-contactor bypass with isolation switch



Line isolation switch



Rapid Response 3-day quick-ship program for EGS drives

PowerXL DH1 1-day quick-ship program for enclosed DH1 drives

Sun shields

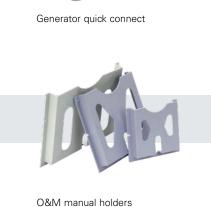




NEMA 3R device panel door with viewing window



EATON Enclosed drives solutions





For more information about the Flex Center, please contact 1-920-319-3539 or VFDFlexCenter@Eaton.com

HMI





Insect screens



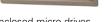






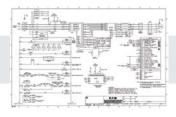






The Flex Center helps you solve your toughest applications. Whether it is extreme environmental conditions, complex electrical schematics or lightningfast lead times, we deliver a customized solution to meet your needs.





Customer supplied schematics

Enclosure lights



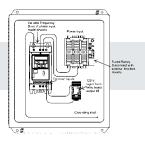
Dual main breakers for bypass configuration



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H 500

Custom-labeled drives



OEM drive assembly



Custom enclosure modifications





Is your equipment down? Did you need to be up and running yesterday?

We can help!

Our Rapid Response program delivers enclosed DH1 drives in 1–3 days.

Support contacts and resources



Variable Frequency Drives Flex Center

Email

VFDFlexCenter@Eaton.com

Phone

1-920-319-3539

■ EatonCare Technical Resource Center (TRC) low-voltage variable frequency drives support

24/7 Phone support

1-877-386-2273 option 2, option 6

- Option 1: Pre-sale application support, new or aftermarket part number identification
- Option 2: Network and communication guestions
- Option 3: Startup or programming questions
- Option 4: Troubleshooting assistance

Fmail

- Technical support: TRCDrivesTechSupport@Eaton.com
- Pre-sale support: PresaleVFD@Eaton.com
- Aftermarket: VFDAftermarketEG@Eaton.com

Startup and service

Startup and service support can be provided by Eaton's Electrical Engineering Services & Systems (EESS) or an Eaton certified independent service provider (ISP).

www.eaton.com/vfdaftermarket

- To contact EESS: Use the Locate an Eaton Engineering Office tool on the right-hand side of the screen
- To contact an ISP: Select the ISP nearest you using the list of independent service providers found on the Documentation tab, under Service and Startup

\square Online resources

Resource	Website	
Drives product information	www.eaton.com/drives	
Enclosed drives product information	www.eaton.com/encloseddrives	
Software downloads	www.eaton.com/drives	
Harmonics and energy savings calculators	www.eaton.com.drives	
Online drives training	www.eaton.com/vfdaftermarket	
Classroom drives training	www.eaton.com/vfdaftermarket	

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