

GE Energy

DV-300 Drive

Flexibility, Performance, and Simplicity

Digital DC Technology

The DV-300 is a three-phase, six-pulse converter. It is available in either non-regenerative or fully regenerative design to provide the needed flexibility for industrial applications. The DV-300 utilizes digital control and a custom chip set which allow precise regulation of motor speed, current, and field; providing reliable, consistent, and repeatable performance. This performance makes the DV-300 the drive of choice for a wide array of industries including textiles, paper converting, plastics converting, corrugating, wire drawing, rubber and plastics, metal processing, machine tools, material handling, and more.

Easy Set-up and Tuning

To allow for easy startup and tuning, the DV-300 offers two choices, an optional keypad programmer or the standard PC Configurator tool. The Windows™-based PC Configurator tool enables the user to set up drive parameters, enter motor data, and program drive I/O. Time is saved by archiving and downloading drive parameters to ease setup of similar applications. Menu and detailed help screens simplify the drive configuration.

Custom Regulators and Features

The DV-300 drive can handle difficult applications and complex operations with the addition of a Digital General Function (DGF) card. The DGF board allows application specific regulators, provides special sequencing operations, and solves other drive control challenges.

Plug and Play Communications Options

A wide range of advanced communication capabilities is available for the DV-300 drive. The drive communicates on a high speed serial link including Profibus-DP™ and DeviceNet™ protocol options. These communication options allow the drive process control, and the data collection system to be easily integrated.

And More...

Other options include additional I/O, removable keypad programmer, keypad door mount kit, and an encoder signal repeater.



1-2000 Horsepower



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DV-300 Drive

Overview

Programmable

- Four accel/decel ramps
 - ramp types: linear, s-curve
- Minimum and Maximum speed limits
- Adjustable current limits (motoring and braking)
- Eight preset speeds
- Password protection
- Field control
 - Current regulation
 - Field weakening
 - Voltage control
- Jog functions
- Flying restart
- Zero speed threshold and functionality
- Tach feedback bypass
- Catch a spinning motor
- Reset to default parameters
- PID
 - Centerwind with dancer feedback
 - Sectional Control with load cell or dancer
 - General Purpose

Protective Functions

- Faults detected:
 - Internal and external
 - Field loss
 - Over-voltage/Under-voltage
 - Motor over temperature
 - Motor overload

- Tach loss
- Option card failure
- Fault data history (last ten faults)

Standard I/O

- Analog inputs
 - 3 Differential, 12 BIT Programmable selectable for +10VDC,0-20mA, 0-10VDC,4-20mA
- Digital inputs
 - 4 Fixed 24VDC (Enable, Start/Stop, Fast Stop, External Fault)
 - 4 programmable digital inputs
- Digital outputs
 - 4 programmable digital outputs
 - 1 Drive OK normally open contact
 - 1 Programmable normally open contact
- Built in RS485 communications port
- Sinusoidal encoder input (with internal 5VDC available from drive)
- Digital tach (w/internal 24VDC available from drive)
- DC tach input

Environmental Operating Conditions

- Ambient temperature: 0 - 40°C
- Ambient humidity: 5% to 85% Relative humidity (non-condensing)
- Altitude: to 3300ft (1000m) without derating
- Enclosure: IP20 - open chassis

AC Input

- Armature 230 to 500VAC $\pm 10\%$, 3 ϕ (690VAC version available)
- Control power, 115 to 230VAC $\pm 10\%$, 1 ϕ
- Field, 230 to 460VAC $\pm 10\%$, 1 ϕ

Performance

- Regenerative and non-regenerative
- 150% overload for 60 seconds
- Speed, current and CEMF regulation
- 16 BIT Microprocessor
- Speed accuracy
 - Digital tach $\pm .01\%$
 - Encoder $\pm .005\%$
 - DC tach $\pm .05\%$
 - CEMF $\pm .5-1\%$

Electrical Standards and Codes

- CE
- UL, CUL
- IEC: Low voltage directive #EN50178

Options

- 2-line backlit, detachable & removable keypad programmer
- Remote keypad mounting kit
- Communications - Profibus-DP, DeviceNet and Modbus -RTU
- DGF 386 digital general function card

DV-300 Ratings/Estimated Weights and Dimensions

Non-Regen/Non-Reversing

Model #	Horsepower@ 460VAC*/500VDC	Amps	WxHxD (inches)	Weight (lbs.)
6KDV3017Q2B10	10	17	10.4x14.2x10.8	19
6KDV3035Q2B10	20	35	10.4x14.2x10.8	19
6KDV3056Q2B10	30	56	10.4x14.2x10.8	19
6KDV3088Q2B14	50	88	10.4x14.2x10.8	24
6KDV3112Q2B14	60	112	10.4x14.2x10.8	24
6KDV3148Q2B14	75	148	10.4x14.2x10.8	24
6KDV3224Q2B20	125	224	12.2x15.3x13.3	54
6KDV3280Q2B20	150	280	12.2x15.3x13.3	54
6KDV3336Q2B20	200	336	12.2x15.3x13.3	65
6KDV3400Q2B20	250	400	12.2x15.3x13.3	65
6KDV3450Q2B20	275	450	12.2x15.3x13.3	70
6KDV3560Q2B25	300	560	20.5x20.1x15.8	135
6KDV3800Q2B25	500	800	20.5x20.1x15.8	143

* 150% for 60 seconds, 40°C, 1000M AMSI

Regenerative/Reversing

Model #	Horsepower@ 460VAC*	Amps	WxHxD (inches)	Weight (lbs.)
6KDV3017Q4F10	10	17	10.4x14.2x10.8	19
6KDV3035Q4F10	20	35	10.4x14.2x10.8	19
6KDV3056Q4F10	30	56	10.4x14.2x10.8	19
6KDV3088Q4F14	50	88	10.4x14.2x10.8	24
6KDV3112Q4F14	60	112	10.4x14.2x10.8	24
6KDV3148Q4F14	75	148	10.4x14.2x10.8	24
6KDV3224Q4F20	125	224	12.2x15.3x13.3	54
6KDV3280Q4F20	150	280	12.2x15.3x13.3	54
6KDV3336Q4F20	200	336	12.2x15.3x13.3	65
6KDV3400Q4F20	250	400	12.2x15.3x13.3	65
6KDV3450Q4F20	275	450	12.2x15.3x13.3	70
6KDV3560Q4F25	300	560	20.5x20.1x15.8	135
6KDV3850Q4F25	500**	850	20.5x20.1x15.8	144

** For product information above 500 Horsepower, contact GE

For more information, or the name of your nearest distributor, call 1-800-543-6196

GE Energy

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