



PACMotion* VFD

Integrated drive solution



Flexibility to Meet Your Needs

GE's PACMotion VFD is an integrated, rugged, and modular variable frequency drive designed for a range of applications, including water/wastewater, metro, automotive, mining, food and beverage, packaging, oil and gas, discrete manufacturing and modular machine designs.

The PACMotion VFD seamlessly integrates with GE's controllers and Field Agent technology. Leveraging the total system architecture provides continuous feedback that can improve your process and profitability.

The flexible design offers power ranges from 0.75 to 250kW (1 to 350HP) as well as a host of communications protocols. Options such as a braking resistor, external keypad, and encoder option cards let you customize the PACMotion VFD to your requirements.

Fully Integrated for System Simplicity

The PACMotion VFD easily and seamlessly integrates with PACSystems RX3i applications for quick and cost-effective installation. Incorporated within GE's Proficy Machine Edition, it offers plug-and-play startup and simplified programming. Customers can leverage native PROFINET System Redundancy¹ support, eliminating the need for an intermediary device and saving up to 15% in control solution costs.

Rugged Design for Demanding Applications

The PACMotion VFD is built to perform in harsh environments. Conformally coated circuit boards can withstand the most demanding environmental conditions. It provides a high current overload capacity: rated up to 150% in continuous duty and 175% for short durations. With operating temperatures up to 40°C for IP55 and IP66 enclosures and up to 50°C for IP20, the PACMotion VFD can meet your toughest challenges.

Compact, Modular Design

The compact footprint of the PACMotion VFD minimizes control cabinet space, or with IP55 or IP66 enclosures, you can skip the control cabinet entirely. The built-in keypad and display allow operators to validate parameters, providing instant feedback during troubleshooting.

The modular design allows individual units to be connected and controlled with a single keypad.

Connects and Optimizes

Connecting the PACMotion VFD with other GE products lets you monitor, record, and optimize output in real time. Adding Field Agent technology allows you to send data via a secure connection to the Industrial Internet.

Key Benefits

- Native PROFINET System Redundancy support eliminates need for an intermediary device, reducing costs
- IP55 and IP66 enclosures allow drives to be mounted without a control cabinet
- Built-in Safe Torque Off (STO) support saves development and commissioning time by allowing integrated safety and standard applications

Specifications

- 1 and 3 Phase 200-240VAC
- 3 Phase 380-480VAC
- 3 Phase 500-600VAC
- 0.75 up to 250kW (1 up to 350 HP)
- Integrated with Proficy Machine Edition
- Supports PROFINET system redundancy
- VFC (Voltage Flux Control) vector control for field-oriented control (without encoder)
- Safe Torque Off (STO) Integrated

Temperature Range

- -10°C to 40°C for IP55 and IP66
- -10°C to 50°C for IP20
- -40°C to 60°C in storage (not in operation)
- Cold-plate technology allowing heat dissipation interface via external heat sink or machine components

Ratings

- Current overload up to 150% in continuous operation
- Current overload up to 175% in short term operation
- Breakaway torque up to 200%

Display

- LED for Status

Optional Controls I/O

- Inputs: 3 digital + 2 digital/analog
- Outputs: 2 digital/analog + 2 relays
- Optional expansion cards available

Motor Cable Length

- 100m+ shielded
- 150m+ unshielded

Protocols

- PROFINET comes standard
- Available options
 - EtherNet/IP
 - Modbus TCP

Housings

- IP20 Standard
- IP55/NEMA-12K Housing
- IP66/NEMA-4X Housing

Filters

- Integrated EMC filter (up to 11Kw)
 - 1PH class A/B limit
 - 3PH class A limit (EN 55011 and EN 50014 meets EN 61800-3)

Certifications

- CE
- cUL
- UL 61010
- C-Tick
- EU RoHS
- EU Reach
- China RoHS
- EAC
- CSA
- DNV/GL

EXAMPLE: IC820-0015-2B1-2P

Product Name	IC820	PACMotion VFD
Recommended motor power	0015	0015 = 1.5 kW
Connection voltage	2	2 = 200 - 240VAC 4 = 380 - 480VAC 6 = 500 - 600VAC
Interference suppression on the input	B	0 = None A = Class C2 B = Class C1
Connection type	1	1 = 1-phase 3 = 3-phase
Design	2	2 = Standard IP20 housing 5 = IP55/NEMA-12K 6 = IP66/NEMA-4X
Option Card	P	P = Profinet RT (Standard) 0 = Empty (Purchase separately)
Country-specific variant	(60 Hz)	50 Hz or 60 Hz design

1 Phase 200 - 240VAC

Catalog Number	Motor Power (kW/HP)	Design	Current (A)
IC855-0008-2B1-XX	0.75/1	2 = IP20 6 = IP66	4.3
IC855-0015-2B1-XX	1.5/2		7
IC855-0022-2B1-XX	2.2/3		10.5

3 Phase 400 - 480VAC

Catalog Number	Motor Power (kW/HP)	Design	Current (A)
IC855-0008-4A3-XX	0.75 / 1	2 = IP20 6 = IP66	2.2
IC855-0015-4A3-XX	1.5 / 2		4.1
IC855-0022-4A3-XX	2.2 / 3		5.8
IC855-0040-4A3-XX	4 / 5		9.5
IC855-0055-4A3-XX	5.5 / 7.5		14
IC855-0075-4A3-XX	7.5 / 10		18
IC855-0110-4A3-XX	11 / 15	5 = IP55	24
IC855-0150-4A3-XX	15 / 20		30
IC855-0185-4A3-XX	18.5 / 25		39
IC855-0220-4A3-XX	22 / 30		46
IC855-0300-4A3-XX	30 / 40		61
IC855-0370-4A3-XX	37 / 50		72
IC855-0450-4A3-XX	45 / 60		90
IC855-0550-4A3-XX	55 / 75		110
IC855-0750-4A3-XX	75 / 100		150
IC855-0900-4A3-XX	90 / 120		180
IC855-1100-4A3-XX	110 / 150		202
IC855-1320-4A3-XX	132 / 175		240
IC855-1600-4A3-XX	160 / 210	302	
IC855-2000-4A3-XX*	200 / 300	2 = IP20	370
IC855-2500-4A3-XX*	250 / 350		450

* Braking Resistor Required

3 Phase 200 - 240VAC

Catalog Number	Motor Power (kW/HP)	Design	Current (A)
IC855-0008-2A3-XX	0.75 / 1	2 = IP20 6 = IP66	4.3
IC855-0015-2A3-XX	1.5/2		7
IC855-0022-2A3-XX	2.2/3		10.5
IC855-0030-2A3-XX	3 / 4		14
IC855-0040-2A3-XX	4 / 5		18
IC855-0055-2A3-XX	5.5 / 7.5		24
IC855-0075-2A3-XX	7.5 / 10	5 = IP55	39
IC855-0110-2A3-XX	11 / 15		46
IC855-0150-2A3-XX	15 / 20		61
IC855-0185-2A3-XX	18.5 / 25		72
IC855-0220-2A3-XX	22 / 30		90
IC855-0300-2A3-XX	30 / 40		110
IC855-0370-2A3-XX	37 / 50		150
IC855-0450-2A3-XX	45 / 60		180
IC855-0550-2A3-XX	55 / 75		202
IC855-0750-2A3-XX	75 / 100		248
IC855-0900-2A3-XX	90 / 120		302

3 Phase 500 - 600VAC

Catalog Number	Motor Power (kW/HP)	Design	Current (A)
IC855-0008-603-XX	0.75 / 1	2 = IP20 6 = IP66	2.1
IC855-0015-603-XX	1.5 / 2		3.1
IC855-0022-603-XX	2.2 / 3		4.1
IC855-0040-603-XX	4 / 5		6.5
IC855-0055-603-XX	5.5 / 7.5		9
IC855-0075-603-XX	7.5 / 10		12
IC855-0110-603-XX	11 / 15	5 = IP55	17
IC855-0150-603-XX	15 / 20		22
IC855-0185-603-XX	18.5 / 25		28
IC855-0220-603-XX	22 / 30		34
IC855-0300-603-XX	30 / 40		43
IC855-0370-603-XX	37 / 50		54
IC855-0450-603-XX	45 / 60		65
IC855-0550-603-XX	55 / 75		78
IC855-0750-603-XX	75 / 100		105
IC855-0900-603-XX	90 / 120		130
IC855-1100-603-XX	110 / 150		150