

Beijer Frequency Inverter (BFI) Comparison Sheet



Products	E2	P2	H2
IP20 Supply / Power Range	110–115V, 1ph, 2.3 to 5.8A (0.5 to 1.5HP) 200–240V, 1ph, 2.3 to 15A (0.37 to 4kW / 0.5 to 5HP) 200–240V, 3ph, 2.3 to 18A (0.37 to 4kW / 0.5 to 5HP) 380–480V, 3ph, 2.2 to 24A (0.75 to 11kW / 1 to 15HP)	200–240V, 1ph, 4.3 to 10.5A (0.75 to 2.2kW / 1.0 to 3.0HP) 200–240V, 3ph, 4.3 to 24A (0.75 to 5.5kW / 1.0 to 7.5HP) 380–480V, 3ph, 2.2 to 24A (0.75–11kW / 1.0 to 15HP)	200–240V, 1ph, 4.3 to 10.5A (0.75 to 2.2kW / 1.0 to 3.0HP) 200–240V, 3ph, 4.3 to 24A (0.75 to 5.5kW / 1.0 to 7.5HP) 380–480V, 3ph, 2.2 to 24A (0.75–11kW / 1.0 to 15HP)
IP40 Supply / Power Range		380–480V, 3ph, 370 to 450A (200 to 250kW / 300 to 350HP)	380–480V, 3ph, 370 to 450A (200 to 250kW / 300 to 350HP)
IP55 Supply / Power Range	110–115V, 1ph, 2.3 to 5.8A (0.5 to 1.5HP) 200–240V, 1ph, 2.3 to 10.5A (0.37 to 2.2kW / 0.5 to 3HP) 200–240V, 3ph, 2.3 to 18A (0.37 to 4kW / 0.5 to 5HP) 380–480V, 3ph, 2.2 to 18A (0.75 to 7.5kW / 1 to 10HP)	200–240V, 3ph, 24 to 312A (5.5 to 90kW / 7.5 to 125HP) 380–480V, 3ph, 24 to 302A (11 to 160kW / 15 to 250HP)	200–240V, 3ph, 24 to 312A (5.5 to 90kW / 7.5 to 125HP) 380–480V, 3ph, 24 to 302A (11 to 160kW / 15 to 250HP)
IP66 Supply / Power Range	110–115V, 1ph, 2.3 to 5.8A (0.5 to 1.5HP) 200–240V, 1ph, 2.3 to 15A (0.37 to 4kW / 0.5 to 5HP) 200–240V, 3ph, 2.3 to 18A (0.37 to 4kW / 0.5 to 5HP) 380–480V, 3ph, 2.2 to 18A (0.75 to 7.5kW / 1 to 10HP)	200–240V, 1ph, 4.3 to 10.5A (0.75 to 2.2kW / 1.0 to 3.0HP) 200–240V, 3ph, 4.3 to 18A (0.75 to 4.0kW / 1.0 to 5HP) 380–480V, 3ph, 2.2 to 18A (0.75 to 7.5kW / 1.0 to 10HP)	200–240V, 1ph, 4.3 to 10.5A (0.75 to 2.2kW / 1.0 to 3.0HP) 200–240V, 3ph, 4.3 to 18A (0.75 to 4.0kW / 1.0 to 5HP) 380–480V, 3ph, 2.2 to 18A (0.75 to 7.5kW / 1.0 to 10HP)
Operating Ambient Rating	IP20: 50°C IP55: 40°C IP66: 40°C	IP20: 50°C IP40: 40°C IP55: 40°C IP66: 40°C	IP20: 50°C IP40: 40°C IP55: 40°C IP66: 40°C
Control Modes	V/F Energy Optimised	V/F, Energy Optimised, Sensorless & Closed Loop Vector, Open Loop Permanent Magnet	V/F Energy Optimised
Maximum Output Hz	500	500	120
Linear / Variable Torque Control	Linear	Linear	Linear & Variable
Overload Capacity	150% - 60 Secs 175% - 2 Secs	150% - 60 Secs 200% - 3.75 Secs 250% - 1.8 Secs 300% (max) - 1.25 Secs	110% - 60 Secs 125% - 7.5 Secs 150% - 3.9 Secs 165% (max) - 2.9S
Internal EMC Filter Unit Available	110V not available with filter All other models available with or without filter	All models provided with internal EMC filter	All models provided with internal EMC filter
Line Reactance	External option	Frame size 2-4: External option Frame size 5-7: DC line reactor Frame size 8: AC line reactor	Frame size 2-4: External option Frame size 5-7: DC line reactor Frame size 8: AC line reactor
Internal Brake Transistor	Frame size 2-3	Standard frame size 2-5 Optional frame size 6 and above	Not available
I/O Connections	2 x Programmable Digital Inputs 2 x User-selectable Digital or Analog Inputs 1 x User-selectable Digital or Analog Output 1 x Programmable Relay (single pole)	3 x Programmable Digital Inputs 2 x User-selectable Digital or Analog Inputs 2 x User-selectable Digital or Analog Outputs 2 x Programmable Relays (1 x change-over, 1 x single pole) Safe Torque Off Inputs	3 x Programmable Digital Inputs 2 x User-selectable Digital or Analog Inputs 2 x User-selectable Digital or Analog Outputs 2 x Programmable Relays (1 x change-over, 1 x single pole) Safe Torque Off Inputs
Factory Fit Controls	IP55: Optional factory fit IP66: Optional factory fit (Speed Pot, Enable/Direction, Power Isolator)	IP66: Optional factory fit (Speed Pot, Enable/Direction, Power Isolator) IP55: Power Isolator (option)	IP66: Power Isolator (optional factory fit) IP55: Power Isolator (option)
Frequency Set-point Input	No	Yes - Digital Input 3 (20kHz max)	No
Power Supplies	24VDC @ 100mA 10VDC @ 10mA (for potentiometer)	24VDC @ 100mA 10VDC @ 10mA (for potentiometer)	24VDC @ 100mA 10VDC @ 10mA (for potentiometer)
Display Type	7 segment LED	IP20: 7 segment LED IP40, 55 or 66: Standard 7 segment LED or Optional OLED	IP20: 7 segment LED IP40, 55 or 66: OLED
Keypad	5 button (start, stop, up, down, navigate)	7-Seg = 5 button (start, stop, up, down, navigate) OLED = 7 button (start, stop, up, down, navigate, PLC1, PLC2)	7-Seg = 5 button (start, stop, up, down, Navigate) OLED = 7 button (start, stop, up, down, Navigate, Hand, Auto)
Service/Maintenance Indication	No	Yes	Yes
PID Control	Yes (PI)	Yes (PID)	Yes (PID)
Energy Optimiser	Yes	Yes	Yes
Spin Start	Yes, frame size 2-3	Yes	Yes
Safe Torque Off Function	No	Yes	Yes
Pluggable Terminals	No	Yes	Yes
Fire Mode	No	No	Yes
Pump Cascade	No	No	Yes
Mains Power Disconnect	IP66: Factory fit option	IP55: External option IP66: Factory fit option	IP55: External Option IP66: Factory Fit Option
Bluetooth	Yes (requires BFI Fast Copy Stick)	Yes (requires BFI Fast Copy Stick)	Yes (requires BFI Fast Copy Stick)
Parameter Copy Module	BFI Fast Copy Stick	BFI Fast Copy Stick	BFI Fast Copy Stick
Communications	Modbus RTU	Modbus RTU / CANopen	Modbus RTU / BACnet
PC Software	BFI Software Suite	BFI Software Suite	BFI Software Suite
PC Software Functionality	Real Time Parameter Edit Parameter Storage / Retrieval Parameter Upload / Download Bluetooth / RS485 Communication	Real Time Parameter Edit Parameter Storage / Retrieval Parameter Upload / Download Bluetooth / RS485 Communication PLC Programming Functionality (licensed)	Real Time Parameter Edit Parameter Storage / Retrieval Parameter Upload / Download Bluetooth / RS485 Communication PLC Programming Functionality (licensed)
Remote Keypad	OPT-2-OPOINT-BFI	OPT-2-OPOINT-BFI, OPTIPAD-BFI	OPT-2-OPOINT-BFI, OPTIPAD-BFI
Options	OPT-HVACO-IN-BFI ODP-2ROUT-IN-BFI OPT-LOGIP-11-IN-BFI OPT-LOGIP-23-IN-BFI	OPT-2-CASCD-IN-BFI OPT-2-ENCOD-IN-BFI OPT-2-EXTIO-IN-BFI OPT-2-PROFB-IN-BFI OPT-2-ETHNT-IN-BFI OPT-2-DEVNT-IN-BFI	OPT-2-CASCD-IN-BFI OPT-2-EXTIO-IN-BFI OPT-2-BACNT-IN-BFI OPT-2-PROFB-IN-BFI OPT-2-ETHNT-IN-BFI OPT-2-DEVNT-IN-BFI
Conformance	CE, UL, cUL	CE, UL, cUL	CE, UL, cUL