



Brook Crompton – Mitsubishi Electric Inverter Drives Catalogue March 2016

FR-D700SC High Performance Micro Drives



Features

- Ultra compact footprint
- Exceptional energy saving for all applications
- High starting torque for demanding applications
- Simple to use built in keypad
- Proven 700 series reliability
- On board component life monitor
- Built in 485/Modbus for networking
- Built in safety stop function

Sales Information

The D700 inverter sets new standards of control and performance in a standard compact drive. The flexibility and ease of use make it a simple choice for a wide range of applications from fan and pump energy optimisation through to the rugged duty requirements of materials handling systems. Typical applications are; feeder and conveyor lines, machine tools, fans, pumps and compressors. The drive is further enhanced by the inclusion of a certified safety stop input which can be connected directly to a safety system reducing the need for traditional isolation circuits

Technical specifications

-Output: 0.1 – 7.5kW
 -Frequency: 0.5 - 400 Hz
 -Supply: 1Ph 200-240V AC
 3Ph 380-480V AC
 -Overload: Up to 200%
 -Built in RS485/Modbus
 -Input and output chokes available

FR-D720S Single Phase 220-240V 50Hz input

| | | |
|--------------------|---|---------|
| FR-D720S-008SC-EC | 0.1kW Single phase high performance micro inverter, 0.8A (source logic safety) | £111.00 |
| FR-D720S-014SC-EC | 0.2kW Single phase high performance micro inverter, 1.4A (source logic safety) | £121.00 |
| FR-D720S-025SC-EC | 0.4kW Single phase high performance micro inverter, 2.5A (source logic safety) | £132.50 |
| FR-D720S-042SC-EC | 0.75kW Single phase high performance micro inverter, 4.2A (source logic safety) | £154.00 |
| FR-D720S-070SC-EC | 1.5kW Single phase high performance micro inverter, 7A (source logic safety) | £188.00 |
| FR-D720S-100SC-EC | 2.2kW Single phase high performance micro inverter, 10A (source logic safety) | £264.50 |
| RFI Filters | | |
| FFR-CS-050-14A-RF1 | Radio Filter for FR-D720S-008-EC, 014-EC, 025-EC & 042-EC | £13.50 |
| FFR-CS-080-20A-RF1 | Radio Filter for FR-D720S-070-EC | £19.50 |
| FFR-CS-110-26A-RF1 | Radio Filter for FR-D720S-100-EC | £25.50 |

FR-D740 Three Phase 380-480V 50Hz input

| | | |
|---------------------|--|---------|
| FR-D740-012SC-EC | 0.4kW Three phase high performance micro inverter, 1.2A (source logic safety) | £170.50 |
| FR-D740-022SC-EC | 0.75kW Three phase high performance micro inverter, 2.2A (source logic safety) | £188.00 |
| FR-D740-036SC-EC | 1.5kW Three phase high performance micro inverter, 3.6A (source logic safety) | £212.50 |
| FR-D740-050SC-EC | 2.2kW Three phase high performance micro inverter, 5A (source logic safety) | £305.50 |
| FR-D740-080SC-EC | 3.7kW Three phase high performance micro inverter, 8A (source logic safety) | £417.50 |
| FR-D740-120SC-EC | 5.5kW Three phase high performance micro inverter, 12A (source logic safety) | £578.00 |
| FR-D740-160SC-EC | 7.5kW Three phase high performance micro inverter, 16A (source logic safety) | £793.00 |
| RFI Filters | | |
| FFR-CSH-036-8A-RF1 | Radio Filter for FR-D740-012-EC, 022-EC & 036EC | £27.50 |
| FFR-CSH-080-16A-RF1 | Radio Filter for FR-D740-050-EC & 080-EC | £36.00 |
| FFR-MSH-170-30A-RF1 | Radio Filter for FR-D740-120-EC & 160-EC | £41.00 |

FR-E700SC High Performance Micro Drives



Features

- Ultra compact footprint
- Exceptional energy saving for all applications
- High starting torque for demanding applications
- Greater overload and torque performance than the D700
- Simple to use built in keypad
- Built in 485/Modbus for networking
- Built in safety stop function
- High Speed Communications options

Sales information

The FR-E700 builds on the strength of the FR-D700 providing even more torque performance and extends the power ratings up to 15kW.

The facility to add a high speed communications card or additional I/O cards make the drive ideal for process related applications

Programmable brake logic makes it ideal for small hoist applications

Technical specifications

- Output: 0.1kW -15kW
- Frequency: 0.5 - 400 Hz
- Supply: 1Ph 200-240V AC
3PH 380-480V AC
- Overload: Up to 200%
- Protection IP20
- Built in RS485/Modbus
- Other fieldbus cards available
- Extension I/O cards available
- Input and output chokes available

| Single Phase input 200-240V AC | | |
|--------------------------------|---|-----------|
| FR-E720S-008SC-EC | 0.1kW Single phase, high performance, compact inverter, 0.8A | £138.50 |
| FR-E720S-015SC-EC | 0.2kW Single phase, high performance, compact inverter, 1.5A | £145.00 |
| FR-E720S-030SC-EC | 0.4kW Single phase, high performance, compact inverter, 3.0A | £151.00 |
| FR-E720S-050SC-EC | 0.75kW Single phase, high performance, compact inverter, 5.0A | £175.50 |
| FR-E720S-080SC-EC | 1.5kW Single phase, high performance, compact inverter, 8.0A | £277.00 |
| FR-E720S-110SC-EC | 2.2kW Single phase, high performance, compact inverter, 11A | £325.00 |
| Single phase RFI Filters | | |
| FFR-CS-050-14A-RF1 | Radio Filter for FR-D720S-008-EC, 014-EC, 025-EC & 042-EC | £13.50 |
| FFR-CS-080-20A-RF1 | Radio Filter for FR-D720S-070-EC | £19.50 |
| FFR-CS-110-26A-RF1 | Radio Filter for FR-E720S-110-EC | £25.50 |
| Three phase input 380-480V AC | | |
| FR-E740-016SC-EC | 0.4kW Three phase, high performance, compact inverter, 1.6A | £271.00 |
| FR-E740-026SC-EC | 0.75kW Three phase, high performance, compact inverter, 2.6A | £287.00 |
| FR-E740-040SC-EC | 1.5kW Three phase, high performance, compact inverter, 4A | £309.00 |
| FR-E740-060SC-EC | 2.2kW Three phase, high performance, compact inverter, 6A | £427.50 |
| FR-E740-095SC-EC | 3.7kW Three phase, high performance, compact inverter, 9.5A | £568.00 |
| FR-E740-120SC-EC | 5.5kW Three phase, high performance, compact inverter, 12A | £689.00 |
| FR-E740-170SC-EC | 7.5kW Three phase, high performance, compact inverter, 17A | £950.00 |
| FR-E740-230SC-EC | 11kW Three phase, high performance, compact inverter, 23A | £1,004.00 |
| FR-E740-300SC-EC | 15kW Three phase, high performance, compact inverter, 30A | £1,174.00 |
| Three Phase RFI Filters | | |
| FFR-MSH-040-8A-RF1 | Radio Filter for E740-0.4K, 0.75, 1.5K inverters | £32.00 |
| FFR-MSH-095-16A-RF1 | Radio Filter for E740-2.2K, 3.7K inverters | £41.00 |
| FFR-MSH-170-30A-RF1 | Radio Filter for FR-D740-120-EC & 160-EC | £41.00 |
| FFR-MSH-300-50A-RF1 | Radio Filter for E740-11K, 15K inverters | £91.00 |

Mitsubishi Electric UK Frequency Inverters



FR-F840 High Performance Pump & Fan Inverters



Features

- Exceptional real time energy saving for all applications
- Sizes from 0.75kW to 630kW
- Full range of communication options
- Built in EMC filter
- Built in PLC logic
- Built in Safety stop terminals
- Intelligent Predictive maintenance
- Built in 485/Modbus for networking

Sales information

The F800 drives are designed to run pump and fan applications when in standard SLD mode. They are user selectable as SLD (super light duty) and LD light duty giving 120% and 150% overload capacity respectively. The user can specify constant or variable torque. If sized correctly the drives can be fitted to constant torque applications such as conveyors and compressors. For correct sizing please contact your Mitsubishi representative or refer to the FR Family Brochure.

Extra Energy saving can be gained by Mitsubishi's unique Optimum Excitation Control (OEC).

The FR-F800 has a built-in RFI whilst still maintaining its compact size. The removable keypad with rotary selection dial simplifies set-up and commissioning of the drive.

Technical specifications

- Output: 0.75 - 630 kW
- Frequency: 0.5 - 590 Hz
- Supply: 3Ph 380-500V AC
- Overload: 120% or 150%
- IP20 to 22kW, IP00 from 30kW
- Built in RFI filter
- Built in RS485/Modbus
- Other fieldbus cards available
- Extension I/O cards available
- Input and output chokes available

| Part number | Description | List Price |
|--------------------|--|------------|
| FR-F840-00023-2-60 | F800 Inverter Three Phase Rated Power, 2.3 A (0.75kW) | £522.00 |
| FR-F840-00038-2-60 | F800 Three phase, standard duty inverter, 3.8A (1.5kW) | £556.00 |
| FR-F840-00052-2-60 | F800 Three phase, standard duty inverter, 5.2A (2.2kW) | £615.00 |
| FR-F840-00083-2-60 | F800 Three phase, standard duty inverter, 8.3A (3.7kW) | £703.00 |
| FR-F840-00126-2-60 | F800 Three phase, standard duty inverter, 12.6A (5.5kW) | £786.00 |
| FR-F840-00170-2-60 | F800 Three phase, standard duty inverter, 17A (7.5kW) | £915.00 |
| FR-F840-00250-2-60 | F800 Three phase, standard duty inverter, 25A (11kW) | £1,033.00 |
| FR-F840-00310-2-60 | F800 Three phase, standard duty inverter, 31A (15kW) | £1,282.00 |
| FR-F840-00380-2-60 | F800 Three phase, standard duty inverter, 38A (18.5kW) | £1,571.00 |
| FR-F840-00470-2-60 | F800 Three phase, standard duty inverter, 47A (22kW) | £2,097.00 |
| FR-F840-00620-2-60 | F800 Three phase, standard duty inverter, 62A (30kW) | £2,621.00 |
| FR-F840-00770-2-60 | F800 Three phase, standard duty inverter, 77A (37kW) | £3,258.00 |
| FR-F840-00930-2-60 | F800 Three phase, standard duty inverter, 93A (45kW) | £3,953.00 |
| FR-F840-01160-2-60 | F800 Three phase, standard duty inverter, 116A (55kW) | £4,689.00 |
| FR-F840-01800-2-60 | F800 Three phase, standard duty inverter, 180A (90kW) *Select DC link Choke FR-HEL for motor kW mandatory | £4,630.00 |
| FR-F840-02160-2-60 | F800 Three phase, standard duty inverter, 216A (110kW) *Select DC link Choke FR-HEL for motor kW mandatory | £4,856.00 |
| FR-F840-02600-2-60 | F800 Three phase, standard duty inverter, 260A (132kW) * Select DC Link choke FR-HEL for motor kW mandatory | £5,499.00 |
| FR-F840-03250-2-60 | F800 Three phase, standard duty inverter, 325A (160kW) * Select DC Link Choke for motor kW mandatory | £6,882.00 |
| FR-F840-03610-2-60 | F800 Three phase, standard duty inverter, 361A (185kW) * Select DC Link Choke for motor kW mandatory | £7,748.00 |
| FR-F840-04320-2-60 | F800 Three phase, standard duty inverter, 432A (220kW) * Select DC Link Choke for motor kW mandatory | £10,047.11 |
| FR-F840-04810-2-60 | F800 Three phase, standard duty inverter, 481A (250kW) * Select DC Link Choke for motor kW mandatory | £11,014.00 |
| FR-F840-05470-2-60 | F800 Three phase, standard duty inverter, 547A (280kW) * Select DC Link Choke for motor kW mandatory | £11,969.00 |
| FR-F840-06100-2-60 | F800 Three phase, standard duty inverter, 610A (315kW) * Select DC Link Choke for motor kW mandatory | £14,825.48 |
| FR-F840-06830-2-60 | F800 Three phase, standard duty inverter, 683A (355kW) * Select DC Link Choke for motor kW mandatory | £14,905.12 |

* A DC link choke must be selected for The FR-F840-01800 and above (see selection chart on next but one page).

For drive sizes above 355kW please consult your sales engineer

All current ratings shown are continuous and allowing for a 120% overload for 3 secs and 110% overload for 60 secs

Prices valid from June 2015

Mitsubishi Electric UK Frequency Inverters



FR-A840 High Performance High Torque Inverters



Features

- Exceptional Motor shaft Performance with Sensorless Vector or closed loop Vector with addition of encoder card.
- Sizes from 0.4kW to 500kW
- Full range of communication options
- Built in EMC filter
- Built in PLC logic
- Built in Safety stop terminals
- Built in Brake transistor to 55kW
- Intelligent Predictive maintenance
- Built in 485/Modbus for networking

Sales information

The A800 drives are designed to run High Torque, heavy duty applications such as Crushers, Hoisting or where accurate speed, Torque or positioning is required.

The in-built positioning table and ability to connect to Mitsubishi servo network gives the drive servo like performance.

The drive can be rated for a number of different applications depending on overload requirement. Please consult your sales engineer for details

The FR-A800 has a built-in RFI whilst still maintaining its compact size. The removable keypad with rotary selection dial simplifies set-up and commissioning of the drive.

Technical specifications

- Output: 0.4 - 630 kW
- Frequency: 0.2 - 590 Hz
- Supply: 3Ph 380-500V AC
- Overload: 200% as listed
- IP20 to 22kW, IP00 from 30kW
- Built in RFI filter
- Built in RS485/Modbus
- Other fieldbus cards available
- Extension I/O cards available
- Input and output chokes available

| | | |
|--------------------|---|------------|
| FR-A840-00023-2-60 | FR-A800 0.4kW Rated Current: 1,5A | £596.00 |
| FR-A840-00038-2-60 | FR-A800 0.75kW Rated Current: 2,5A | £628.00 |
| FR-A840-00052-2-60 | FR-A800 1.5kW Rated Current: 4A | £687.00 |
| FR-A840-00083-2-60 | FR-A800 2.2kW Rated Current: 6A | £772.00 |
| FR-A840-00126-2-60 | FR-A800 3.7kW Rated Current: 9A | £853.00 |
| FR-A840-00170-2-60 | FR-A800 5.5kW Rated Current: 12A | £978.00 |
| FR-A840-00250-2-60 | FR-A800 7.5kW Rated Current: 17A | £1,091.00 |
| FR-A840-00310-2-60 | FR-A800 11kW Rated Current: 23A | £1,333.00 |
| FR-A840-00380-2-60 | FR-A800 15kW Rated Current: 31A | £1,618.00 |
| FR-A840-00470-2-60 | FR-A800 18.5kW Rated Current: 38A | £2,131.00 |
| FR-A840-00620-2-60 | FR-A800 22kW Rated Current: 44A | £2,643.00 |
| FR-A840-00770-2-60 | FR-A800 30kW Rated Current: 57A | £3,688.00 |
| FR-A840-00930-2-60 | FR-A800 37kW Rated Current: 71A | £4,368.00 |
| FR-A840-01160-2-60 | FR-A800 45kW Rated Current: 86A | £5,084.00 |
| FR-A840-01800-2-60 | FR-A800 55kW Rated Current: 110A | £5,320.00 |
| FR-A840-02160-2-60 | FR-A800 75kW Rated Current: 144A *select DC Link Choke for Motor rating | £5,970.00 |
| FR-A840-02600-2-60 | FR-A800 90kW Rated Current: 180A *select DC Link Choke for Motor rating | £6,691.00 |
| FR-A840-03250-2-60 | FR-A800 110kW Rated Current: 216A *select DC Link Choke for Motor rating | £7,684.00 |
| FR-A840-03610-2-60 | FR-A800 132kW Rated Current: 260A *select DC Link Choke for Motor rating | £8,643.00 |
| FR-A840-04320-2-60 | FR-A800 160kW Rated Current: 325A *select DC Link Choke for Motor rating | £10,136.00 |
| FR-A840-04810-2-60 | FR-A800 185kW Rated Current: 361A *select DC Link Choke for Motor rating | £11,873.00 |
| FR-A840-05470-2-60 | FR-A800 220kW Rated Current: 432A *select DC Link Choke for Motor rating | £12,827.00 |
| FR-A840-06100-2-60 | FR-A800 250kW Rated Current: 481A *select DC Link Choke for Motor rating | £15,551.00 |
| FR-A840-06830-2-60 | FR-A800 280kW Rated Current: 547A *select DC Link Choke for Motor rating | £15,579.00 |

A DC link choke must be selected for The FR-A840-02160 and above.(see selection chart on next page).

For drive sizes above 280kW please consult your sales engineer

All current ratings shown are continuous and allowing for a 200% overload for 3 secs and 150% overload for 60 secs

Prices valid from June 2015



FR-F840 and FR-A840 DC Link Chokes for Higher Power Drives

* Please Select DC link Choke below based on motor kW When selecting FR-F840-01800-2-60 and above or FR-A840-02160-2-60 and above. The Drive will require this to work.

| | | |
|--------------|--|-----------|
| FR-HEL-H75K | DC Link choke for 400V Inverter with 75kW Motor | £299.00 |
| FR-HEL-H90K | DC Link choke for 400V Inverter with 90kW Motor | £335.00 |
| FR-HEL-H110K | DC Link choke for 400V Inverter with 110kW Motor | £757.00 |
| FR-HEL-H132K | DC Link choke for 400V Inverter with 132kW Motor | £891.00 |
| FR-HEL-H160K | DC Link choke for 400V Inverter with 160kW Motor | £958.00 |
| FR-HEL-H185K | DC Link choke for 400V Inverter with 185kW Motor | £1,210.00 |
| FR-HEL-H220K | DC Link choke for 400V Inverter with 220kW Motor | £1,414.00 |
| FR-HEL-H250K | DC Link choke for 400V Inverter with 250kW Motor | £1,583.00 |
| FR-HEL-H280K | DC Link choke for 400V Inverter with 280kW Motor | £1,816.00 |
| FR-HEL-H315K | DC Link choke for 400V Inverter with 315kW Motor | £1,922.52 |
| FR-HEL-H355K | DC Link choke for 400V Inverter with 355kW Motor | £2,108.88 |

A846 Enclosed IP55 version



Features

- Select either for High torque or Energy saving.
- Sizes from 0.4kW to 160kW
- Full range of communication options
- Built in EMC filter
- Built in PLC logic
- Built in Safety stop terminals
- Built in DC Link Choke
- Graphical Keypad
- Intelligent Predictive maintenance
- Built in 485/Modbus for networking

Sales information

The A846 is based on the versatile A800 drive. The IP55 enclosure is robust and allows excellent access for wiring.

The drive can be selected for either Normal Duty (ND rating) or Light Duty (LD Rating) making it suitable for many applications from high torque to HVAC applications

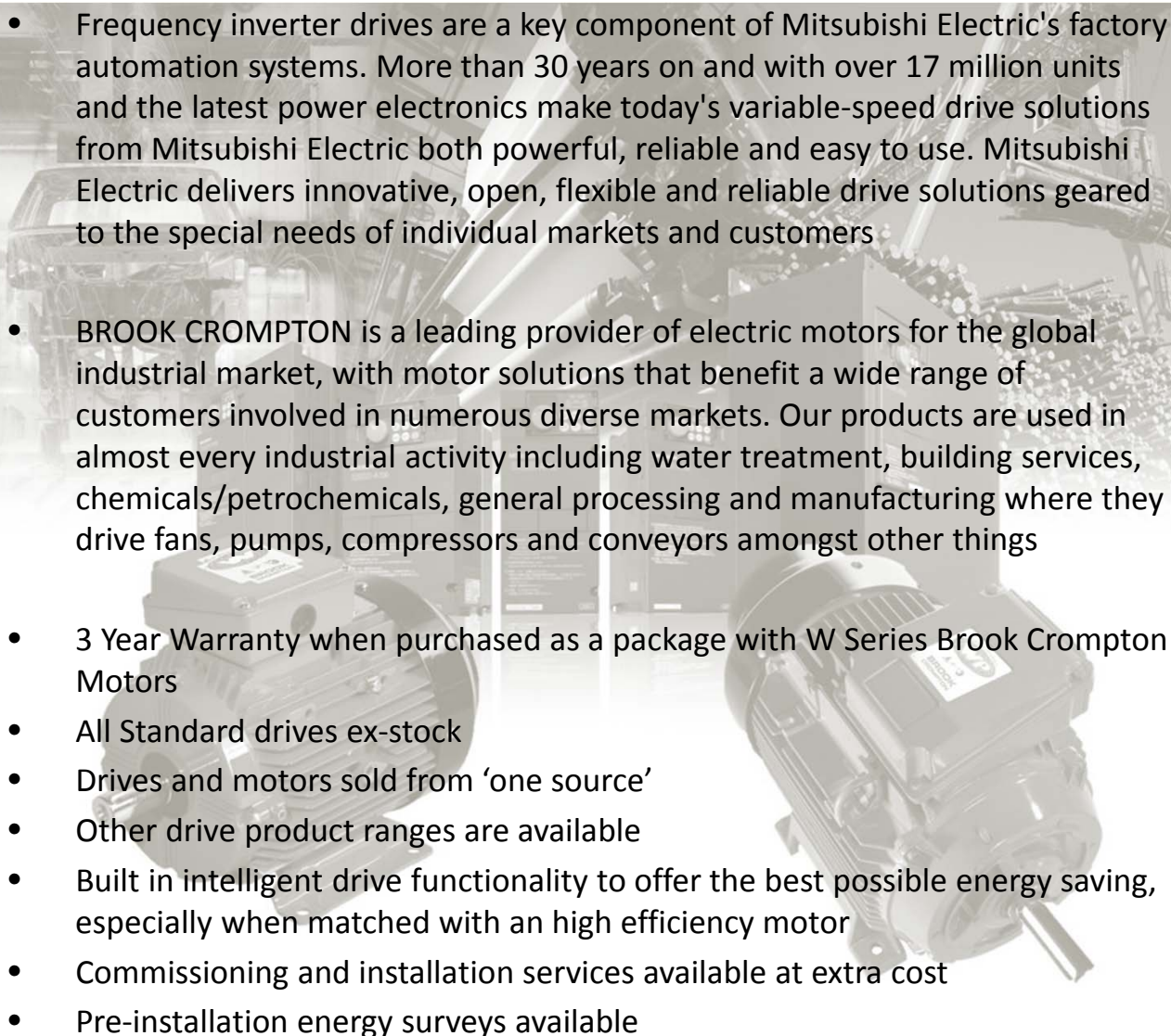
The built in RFI Filter and DC link choke meet high standards of compliance to noise regulations and the Graphical keypad allows for easy set up and monitoring

Technical specifications

- Output: 0.4 - 160 kW
- Frequency: 0.2 - 590 Hz
- Supply: 3Ph 380-500 V
- Overload: 150 or 200%
- Built in PLC functionality
- Built in RFI filter
- Built in RS485/Modbus
- Other fieldbus cards available
- Extension I/O cards available

| Description | List Price | ND Rating | LD Rating |
|----------------------|------------|-----------|-----------|
| FR-A846-00023-2-60C2 | £668 | 0.4kW | 0.75kW |
| FR-A846-00038-2-60C2 | £703 | 0.75kW | 1.5kW |
| FR-A846-00052-2-60C2 | £769 | 1.5kW | 2.2kW |
| FR-A846-00083-2-60C2 | £865 | 2.2kW | 3.7kW |
| FR-A846-00126-2-60C2 | £955 | 3.7kW | 5.5kW |
| FR-A846-00170-2-60C2 | £1,095 | 5.5kW | 7.5kW |
| FR-A846-00250-2-60C2 | £1,222 | 7.5kW | 11kW |
| FR-A846-00310-2-60C2 | £1,493 | 11kW | 15kW |
| FR-A846-00380-2-60C2 | £1,812 | 15kW | 18.5kW |
| FR-A846-00470-2-60C2 | £2,387 | 18.5kW | 22kW |
| FR-A846-00620-2-60C2 | £2,960 | 22kW | 30kW |
| FR-A846-00770-2-60C2 | £4,131 | 30kW | 37kW |
| FR-A846-00930-2-60C2 | £4,892 | 37kW | 45kW |
| FR-A846-01160-2-60C2 | £5,694 | 45kW | 55kW |
| FR-A846-01800-2-60C2 | £5,958 | 55kW | 75kW |
| FR-A846-02160-2-60C2 | £7,021 | 75kW | 90kW |
| FR-A846-02600-2-60C2 | £7,869 | 90kW | 110kW |
| FR-A846-03250-2-60C2 | £9,454 | 110kW | 132kW |
| FR-A846-03610-2-60C2 | £10,678 | 132kW | 160kW |

Features and Benefits

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- Frequency inverter drives are a key component of Mitsubishi Electric's factory automation systems. More than 30 years on and with over 17 million units and the latest power electronics make today's variable-speed drive solutions from Mitsubishi Electric both powerful, reliable and easy to use. Mitsubishi Electric delivers innovative, open, flexible and reliable drive solutions geared to the special needs of individual markets and customers
 - BROOK CROMPTON is a leading provider of electric motors for the global industrial market, with motor solutions that benefit a wide range of customers involved in numerous diverse markets. Our products are used in almost every industrial activity including water treatment, building services, chemicals/petrochemicals, general processing and manufacturing where they drive fans, pumps, compressors and conveyors amongst other things
 - 3 Year Warranty when purchased as a package with W Series Brook Crompton Motors
 - All Standard drives ex-stock
 - Drives and motors sold from 'one source'
 - Other drive product ranges are available
 - Built in intelligent drive functionality to offer the best possible energy saving, especially when matched with an high efficiency motor
 - Commissioning and installation services available at extra cost
 - Pre-installation energy surveys available

Mitsubishi Electric UK Frequency Inverters



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