



## MATERIAL FACT SHEET

### 333234 FR-F820-00770-E3-N6

#### General Data

|                     |                                        |
|---------------------|----------------------------------------|
| Product Hierarchy   | IAK24204                               |
|                     | INVERTER                               |
|                     | FR-F820                                |
| Ext. Material Group | 10 STANDARD ITEM                       |
| ABC Indicator       | C (Non-Stock Material / Make-to-Order) |

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_IA/EUR/en/p/00000000000033234](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/00000000000033234)

#### FA-Inverter: Inverter

|                               |                                |
|-------------------------------|--------------------------------|
| Series                        | FR-F800 SERIES                 |
| Type                          | FR-F800 PUMP AND FAN           |
| Minimum Rated Voltage (V)     | 200                            |
| Min. Permissible Voltage (V)  | 170                            |
| Maximum Rated Voltage (V)     | 240                            |
| Max. Permissible Voltage (V)  | 264                            |
| Current Type                  | AC                             |
| Phases                        | 3                              |
| Rated Output Current SLD (A)  | 77                             |
| Rated Output Current LD (A)   | 70,5                           |
| Rated Motor Capacity SLD (kW) | 18,5                           |
| Rated Motor Capacity LD (kW)  | 18,5                           |
| Frequency Range (Hz)          | 0,2-590                        |
| Control Method                | MAGNETIC FLUX VECTOR CONTROL   |
| Control Method (2)            | PM SENSORLESS VECTOR CONTROL   |
| Control Method (3)            | SOFT-PWM/HIGH FREQUENCY PWM    |
| Control Method (4)            | V/F CONTROL                    |
| Motor Type                    | INDUCTION MOTOR, PM MOTOR      |
| Integrated EMC Filter         | YES (OFF ON INITIAL SETTINGS)  |
| Safe Torque Off (STO)         | YES                            |
| Regenerative (4Q)             | NO                             |
| Integrated DC Choke           | NO                             |
| Display                       | FR-DU08                        |
| Display Type                  | 5 DIGITS LED (12 SEGMENT)      |
| PLC Function                  | YES                            |
| Program Memory                | 6K                             |
| Program Memory Unit           | STEPS                          |
| Integrated Digital Inputs     | 12                             |
| Digital Outputs (Transistor)  | 5                              |
| Digital Outputs (Relay)       | 2                              |
| Integrated Analogue Inputs    | 3                              |
| Integrated Analogue Outputs   | 2                              |
| IO Type of Terminal Block     | SPRING CLAMP                   |
| Expandable                    | YES                            |
| USB                           | 1+1 MINI                       |
| Ethernet Port                 | 1                              |
| Built-In Network              | BACNET/IP                      |
| Built-In Network (2)          | CC-LINK IE FIELD NETWORK BASIC |
| Built-In Network (3)          | MELSOFT/FA                     |
| Built-In Network (4)          | MODBUS/TCP                     |
| Built-In Network (5)          | SLMP                           |
| Built-In Network (6)          | iQSS                           |
| Leakage Current (mA)          | 22(EMC ON)/1(EMC OFF)          |
| Power Loss SLD (W)            | 770                            |
| Power Loss LD (W)             | 700                            |
| Standby Power Consumption (W) | -                              |
| Protection Class              | IP20                           |

**Product Dimensions & Weight**

|             |     |
|-------------|-----|
| Width (mm)  | 250 |
| Height (mm) | 400 |
| Depth (mm)  | 190 |
| Weight (kg) | 15  |

**Logistic Dimensions & Gross Weight**

|                   |        |
|-------------------|--------|
| Length (cm)       | 63,0   |
| Width (cm)        | 30,5   |
| Height (cm)       | 26,0   |
| Gross Weight (kg) | 19,641 |
| Volume (cdm)      | 49,959 |

**Stock Data**

|                              |     |
|------------------------------|-----|
| Planned Delivery Time (Days) | 296 |
|------------------------------|-----|

**Life Cycle**

|             |                             |
|-------------|-----------------------------|
| Sales Start | 01.04.2018                  |
| Predecessor | 286808 / FR-F820-00770-2-60 |

**Additional Product Information**

|                            |                  |
|----------------------------|------------------|
| Binding Tariff Information | DEBTI-21865/22-1 |
| BTI validity date          | 01.01.2026       |
| Battery included           | NO               |

**Export Data**

|                                          |            |
|------------------------------------------|------------|
| Legal Control (Dual Use List)            | Not Listed |
| Country of Origin                        | Japan (JP) |
| Preference Status (Supplier Declaration) | Non EU     |

**Environmental**

|                                 |                            |
|---------------------------------|----------------------------|
| REACH Limit Exceeded            | YES                        |
| REACH Substance CAS Number      | <a href="#">10141-05-6</a> |
| REACH Substance CAS Number (2)  | <a href="#">12626-81-2</a> |
| REACH Substance CAS Number (3)  | <a href="#">127-19-5</a>   |
| REACH Substance CAS Number (4)  | <a href="#">1317-36-8</a>  |
| REACH Substance CAS Number (5)  | <a href="#">13560-89-9</a> |
| REACH Substance CAS Number (6)  | <a href="#">540-97-6</a>   |
| REACH Substance CAS Number (7)  | <a href="#">541-02-6</a>   |
| REACH Substance CAS Number (8)  | <a href="#">556-67-2</a>   |
| REACH Substance CAS Number (9)  | <a href="#">7439-92-1</a>  |
| REACH Substance CAS Number (10) | <a href="#">80-05-7</a>    |
| Dangerous Goods Class           | NO                         |
| Dangerous Goods Identifier      | NO                         |
| WEEE                            | B2B                        |

**Conformity**

|        |           |
|--------|-----------|
| CE     | COMPLIANT |
| UL/cUL | COMPLIANT |
| EAC    | COMPLIANT |
| UKCA   | COMPLIANT |

**Documentation & Media Data**

|                                |                                                                                                                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manual URL Indicator           | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en</a> |
| Certificates URL Indicator     | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en</a> |
| CAD URL Indicator              | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en</a> |
| Network configuration file URL | <a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F820-00770-E3-N6&amp;doc-lang=en</a> |

**Product Packaging**

|                   |      |
|-------------------|------|
| Cardboard (g)     | 2700 |
| Other paper (g)   | 0    |
| Aluminum (g)      | 0    |
| Steel (g)         | 0    |
| Styrofoam (g)     | 0    |
| Other plastic (g) | 20   |
| Wood (g)          | 0    |

|            |   |
|------------|---|
| Glass (g)  | 0 |
| Others (g) | 0 |

**Spare parts**

| Material               | Description                              | Quantity | Unit |
|------------------------|------------------------------------------|----------|------|
| 487563                 | FR-A820-00770-01250-15K-22K PCB AUX      | 1        | PC   |
| <a href="#">282932</a> | FR-A840/842/846-ALL TERMINAL BLOCK A80TA | 1        | PC   |