



## MATERIAL FACT SHEET

### 333262 FR-F820-04750-E3-U6

#### 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/000000000000333262](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000333262)

#### 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)  | 475                            |
| Rated Output Current LD (A)   | 432                            |
| Rated Motor Capacity SLD (kW) | 132                            |
| Rated Motor Capacity LD (kW)  | 110                            |
| 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)            | 3960                           |
| Power Loss LD (W)             | 3530                           |
| Standby Power Consumption (W) | -                              |
| Protection Class              | IP20                           |

Product Dimensions & Weight

|             |     |
|-------------|-----|
| Width (mm)  | 465 |
| Height (mm) | 740 |
| Depth (mm)  | 360 |
| Weight (kg) | 74  |

Logistic Dimensions & Gross Weight

|                   |        |
|-------------------|--------|
| Length (cm)       | 0,0    |
| Width (cm)        | 0,0    |
| Height (cm)       | 0,0    |
| Gross Weight (kg) | 99,000 |
| Volume (cdm)      | 0,000  |

Stock Data

|                              |     |
|------------------------------|-----|
| Planned Delivery Time (Days) | 156 |
|------------------------------|-----|

Life Cycle

|             |                             |
|-------------|-----------------------------|
| Sales Start | 01.04.2018                  |
| Predecessor | 286881 / FR-F820-04750-2-60 |

Additional Product Information

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

Export Data

|                                          |            |
|------------------------------------------|------------|
| Commodity Code                           | 85371091   |
| Legal Control (Dual Use List)            | Not Listed |
| Country of Origin                        | Japan (JP) |
| Preference Status (Supplier Declaration) | Non EU     |

Environmental

|                            |           |
|----------------------------|-----------|
| REACH Limit Exceeded       | NO        |
| Dangerous Goods Class      | NO        |
| Dangerous Goods Identifier | NO        |
| RoHS Compliance            | COMPLIANT |
| 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-F820-04750-E3-U6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-F820-04750-E3-U6&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-F820-04750-E3-U6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F820-04750-E3-U6&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-F820-04750-E3-U6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F820-04750-E3-U6&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-F820-04750-E3-U6&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F820-04750-E3-U6&amp;doc-lang=en</a> |

Product Packaging

|                   |      |
|-------------------|------|
| Cardboard (g)     | 8500 |
| Other paper (g)   | 0    |
| Aluminum (g)      | 0    |
| Steel (g)         | 15   |
| Styrofoam (g)     | 0    |
| Other plastic (g) | 95   |
| Wood (g)          | 0    |
| Glass (g)         | 0    |
| Others (g)        | 0    |

Spare parts

| Material | Description                         | Quantity | Unit |
|----------|-------------------------------------|----------|------|
| 487558   | FR-A820-03800 - 4750 PCB MA         | 1        | PC   |
| 487565   | FR-A820-03800-04750-75K-90K PCB AUX | 1        | PC   |

| Material               | Description                              | Quantity | Unit |
|------------------------|------------------------------------------|----------|------|
| <a href="#">283449</a> | FR-A840-02160-03610-2-60 FAN             | 3        | PC   |
| <a href="#">282932</a> | FR-A840/842/846-ALL TERMINAL BLOCK A80TA | 1        | PC   |

#### Compatible products

| Material               | Description / Price List Text / Classification                                                                               |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">70727</a>  | FR-A5 CBL 1<br>Cable for connecting Inverter and Programming panel; 1m<br>Class 100100405: FA-Inverter: Cable                |
| <a href="#">70728</a>  | FR-A5 CBL 2,5<br>Cable for connecting Inverter and Programming panel; 2,5m<br>Class 100100405: FA-Inverter: Cable            |
| <a href="#">70729</a>  | FR-A5 CBL 5<br>Cable for connecting Inverter and Programming panel; 5m<br>Class 100100405: FA-Inverter: Cable                |
| <a href="#">157515</a> | FR-ADP<br>Adaptor Module for Operator Panel FR-DU07<br>Class 100100403: FA-Inverter: External Option                         |
| <a href="#">242151</a> | FR-PU07-01<br>Programming panel with LCD-Display for FR-700-NA series<br>Class 100100403: FA-Inverter: External Option       |
| <a href="#">262948</a> | A8NDPV1<br>Profibus DPV1 with Dsub Interface for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                  |
| <a href="#">262949</a> | A8NPRT_2P<br>Profinet 2port Interface for FR-A/F800 with Drive Profile<br>Class 100100402: FA-Inverter: Internal Option      |
| <a href="#">262950</a> | A8NEIP_2P<br>EtherNet/IP 2port Interface for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                      |
| <a href="#">269426</a> | FR-A8AX<br>16-Bit-Digital-Input; BCD/Binary-Code; 24V DC; 5mA for FR-F/A800<br>Class 100100402: FA-Inverter: Internal Option |
| <a href="#">269427</a> | FR-A8AY<br>Digital-/Analog Output; Output load: 24V DC; 0,1A for FR-F/A800<br>Class 100100402: FA-Inverter: Internal Option  |
| <a href="#">269428</a> | FR-A8AR<br>Relay output; 3 additional output relays for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option           |
| <a href="#">269431</a> | FR-A8NC<br>CC-Link Interface for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                                  |
| <a href="#">269432</a> | FR-A8ND<br>DeviceNet Interface for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                                |
| <a href="#">273102</a> | FR-A8NCE<br>CC-Link IE Field Interface for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                        |
| <a href="#">274514</a> | FR-A8NP<br>ProfibusDP Interface for FR-A/F800 with FR-A/F700 PPO types<br>Class 100100402: FA-Inverter: Internal Option      |
| <a href="#">274526</a> | FR-A8TAT<br>Adapter for control terminal of A/F700 to A/F800<br>Class 100100402: FA-Inverter: Internal Option                |
| <a href="#">283940</a> | FR-A8AZ<br>Analog Input/ output, Thermistor interface<br>Class 100100402: FA-Inverter: Internal Option                       |
| <a href="#">284809</a> | A8NECT_2P<br>Ethercat 2port Interface for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                         |
| <a href="#">290115</a> | FR-A8NCN<br>Control Net Interface for FR-A800 series<br>Class 100100402: FA-Inverter: Internal Option                        |
| <a href="#">290116</a> | FR-A8TR<br>Screw Terminal Block for FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                               |
| <a href="#">294939</a> | FR-D-Sub9-A8NP-01<br>D-Sub9 Connection Adapter for FR-A8NP + Cover<br>Class 100100402: FA-Inverter: Internal Option          |

| Material               | Description / Price List Text / Classification                                                                                  |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">296613</a> | FR-LU08-01<br>Clear text LCD Parameter unit for all units of 800 Series (IP55)<br>Class 100100403: FA-Inverter: External Option |
| <a href="#">298153</a> | FR-A8NCA<br>CANopen Interface for FR-A800<br>Class 100100402: FA-Inverter: Internal Option                                      |
| <a href="#">307170</a> | FR-A8ERS-60<br>Optioncard to change Ethernet board to serial communication<br>Class 100100402: FA-Inverter: Internal Option     |
| <a href="#">403133</a> | FR-A8AVP<br>Phase detection option board of FR-A/F800<br>Class 100100402: FA-Inverter: Internal Option                          |
| <a href="#">403134</a> | FR-A8VPB-H<br>Phase detection transformer box for FR-A8AVP<br>Class 100100403: FA-Inverter: External Option                     |
| <a href="#">487882</a> | FR-A8NCG<br>Plug-in Option for CC-Link IE TSN Communication Function<br>Class 100100402: FA-Inverter: Internal Option           |