



## MATERIAL FACT SHEET

### 587770 FR-E840-0380EPA-60

#### General Data

|                     |                                     |
|---------------------|-------------------------------------|
| Product Hierarchy   | IAK24802                            |
|                     | INVERTER                            |
|                     | FR-E840                             |
| Ext. Material Group | 10 STANDARD ITEM                    |
| ABC Indicator       | B (Limited Availability from Stock) |

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_1A/EUR/en/p/000000000000587770](https://mitsubishi-electric-eshop.mee.com/mee/FA_1A/EUR/en/p/000000000000587770)

#### FA-Inverter: Inverter

|                               |                                |
|-------------------------------|--------------------------------|
| Series                        | FR-E800 SERIES                 |
| Type                          | FR-E800-ETH INVERTER           |
| Minimum Rated Voltage (V)     | 380                            |
| Min. Permissible Voltage (V)  | 323                            |
| Maximum Rated Voltage (V)     | 480                            |
| Max. Permissible Voltage (V)  | 528                            |
| Current Type                  | AC                             |
| Phases                        | 3                              |
| Rated Output Current LD (A)   | 45                             |
| Rated Output Current ND (A)   | 38                             |
| Rated Motor Capacity LD (kW)  | 22                             |
| Rated Motor Capacity ND (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)            | REAL SENSORLESS VECTOR CONTROL |
| Control Method (4)            | V/F CONTROL                    |
| Motor Type                    | INDUCTION MOTOR, PM MOTOR      |
| Brake Chopper ED (%)          | 100                            |
| Integrated EMC Filter         | NO                             |
| Safe Torque Off (STO)         | YES                            |
| Regenerative (4Q)             | NO                             |
| Integrated DC Choke           | NO                             |
| Display                       | BUILT-IN                       |
| Display Type                  | 4 DIGITS LED                   |
| PLC Function                  | YES                            |
| Program Memory                | 2K                             |
| Program Memory Unit           | STEPS                          |
| Integrated Digital Inputs     | 2                              |
| Digital Outputs (Transistor)  | 0                              |
| Digital Outputs (Relay)       | 1                              |
| Integrated Analogue Inputs    | 2                              |
| Integrated Analogue Outputs   | 0                              |
| IO Type of Terminal Block     | SPRING CLAMP                   |
| Expandable                    | YES                            |
| RS-485                        | NO                             |
| USB                           | 1 (MINI B)                     |
| Ethernet Port                 | 2                              |
| Built-In Network              | BACNET/IP                      |
| Built-In Network (2)          | CC-LINK IE FIELD BASIC         |
| Built-In Network (3)          | CC-LINK IE TSN                 |
| Built-In Network (4)          | ETHERNET/IP                    |
| Built-In Network (5)          | MODBUS/TCP                     |
| Leakage Current (mA)          | 1,2                            |
| Power Loss LD (W)             | 511                            |
| Power Loss ND (W)             | 349                            |
| Standby Power Consumption (W) | -                              |
| Protection Class              | IP20                           |

### Product Dimensions & Weight

|             |     |
|-------------|-----|
| Width (mm)  | 220 |
| Height (mm) | 350 |
| Depth (mm)  | 190 |
| Weight (kg) | 11  |

### Logistic Dimensions & Gross Weight

|                   |        |
|-------------------|--------|
| Length (cm)       | 46,0   |
| Width (cm)        | 31,0   |
| Height (cm)       | 31,0   |
| Gross Weight (kg) | 11,947 |
| Volume (cdm)      | 44,206 |

### Stock Data

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

### Life Cycle

|             |                |
|-------------|----------------|
| Sales Start | 12.01.2021     |
| Predecessor | No Predecessor |

### Additional Product Information

|                  |    |
|------------------|----|
| Battery included | NO |
|------------------|----|

### Export Data

|                                          |            |
|------------------------------------------|------------|
| Commodity Code                           | 85044095   |
| Legal Control (Dual Use List)            | Not Listed |
| Country of Origin                        | Japan (JP) |
| Preference Status (Supplier Declaration) | Non EU     |

### Environmental

|                            |           |
|----------------------------|-----------|
| 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-E840-0380EPA-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-E840-0380EPA-60&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-E840-0380EPA-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-E840-0380EPA-60&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-E840-0380EPA-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-E840-0380EPA-60&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-E840-0380EPA-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-E840-0380EPA-60&amp;doc-lang=en</a> |

### Product Packaging

|                   |      |
|-------------------|------|
| Cardboard (g)     | 1950 |
| Other paper (g)   | 0,0  |
| Aluminum (g)      | 0,0  |
| Steel (g)         | 0,0  |
| Styrofoam (g)     | 0,0  |
| Other plastic (g) | 6,0  |
| Wood (g)          | 0,0  |
| Glass (g)         | 0,0  |
| Others (g)        | 0,0  |

### Spare parts

| Material               | Description                          | Quantity | Unit |
|------------------------|--------------------------------------|----------|------|
| <a href="#">606265</a> | FR-E840-0.4K-7.5KEPA-60 PCB CPU      | 1        | PC   |
| <a href="#">606267</a> | FR-E840-0.4K-7.5KEPA-60 PCB TERMINAL | 1        | PC   |
| <a href="#">611164</a> | FR-E820-0240-0330 FAN                | 2        | PC   |
| <a href="#">611139</a> | FR-E800-(SC)EPA(B) UNIT DU           | 1        | PC   |

| Material               | Description                     | Quantity | Unit |
|------------------------|---------------------------------|----------|------|
| <a href="#">591470</a> | FR-A870 CABLE ALL BKO-CA1972H01 | 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="#">87247</a>  | FR-BAL-B-22K<br>Input Reactor 3ph; 400 V; for 22kW<br>Class 100100406: FA-Inverter: Choke                                                                          |
| <a href="#">130832</a> | FR-UDA02<br>DIN-Rail Adaptor for FR-D720S-1,5k; FR-D740-0,4k-3,7k<br>Class 100100403: FA-Inverter: External Option                                                 |
| <a href="#">167612</a> | FR-RJ45-HUB10<br>Distribution Module for RJ45; 10 way<br>Class 100100403: FA-Inverter: External Option                                                             |
| <a href="#">167613</a> | FR-RJ45-HUB4<br>Distribution Module for RJ45; 4 way<br>Class 100100403: FA-Inverter: External Option                                                               |
| <a href="#">167614</a> | FR-RJ45-TR<br>Terminal Resistor Plug RJ45<br>Class 100100403: FA-Inverter: External Option                                                                         |
| <a href="#">191579</a> | FR-ABR-H22K<br>External High-Duty Brake Resistor; 400V; 22kW; 52 Ohm; 6%ED<br>Class 100100407: FA-Inverter: Brake Option                                           |
| <a href="#">202428</a> | FR-BU2-H30K<br>Brake Unit without Brake Resistor for all Inverters with DC-Bus Terminals; 400V<br>Class 100100407: FA-Inverter: Brake Option                       |
| <a href="#">209739</a> | FFR-SI-32A-SS1<br>Sinusfilter for 200/230/400V Inverters;max. 32A;FT=4-16kHz;(W*H*D) 210*260*135mm<br>Class 100100404: FA-Inverter: Filter                         |
| <a href="#">209757</a> | FFR-DT-47A-SS1<br>du/dt Filter for 400V Inverters; max. 47A; FT=2-16kHz; (W*H*D) 155*195*110mm<br>Class 100100404: FA-Inverter: Filter                             |
| <a href="#">221540</a> | USB-CAB-5M<br>USB 2.0 connection cabel, plug USB A to plug USB B (mini), 5m<br>Class 100100303: FA-HMI: Cable                                                      |
| <a href="#">254750</a> | NF63-SV 3P 60A<br>Circuit breaker 3pole. In = 60A; Icu = Ics = 7,5kA at AC 440V<br>Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker                          |
| <a href="#">254787</a> | NF63-HV 3P 60A<br>Circuit breaker 3pole. In = 60A; Icu / Ics = 10 / 8kA at AC 440V<br>Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker                       |
| <a href="#">254840</a> | NF125-SV 3P 75A<br>Circuit breaker 3pole. In = 75A; Icu = Ics = 25kA at AC 440V<br>Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker                          |
| <a href="#">275503</a> | FR Configurator-M+FR-Configurator2<br>FR-Configurator for 700 series; multi I + FR-Configurator2 for 800 series<br>Class 100101203: FA-Software: Software Inverter |
| <a href="#">283571</a> | FFR-HEL-H18.5K-E1<br>DC Link choke for 400V Inverter; 18,5kW; 1,76mH; 34A<br>Class 100100406: FA-Inverter: Choke                                                   |
| <a href="#">298657</a> | S-T35 AC200V<br>Magnetic contactor. 18,5kW; 2NO + 2NC; Us = AC 200V, 50Hz<br>Class 100101001: FA-MC: Magnetic Contactor                                            |
| <a href="#">298658</a> | S-T35 AC24V<br>Magnetic contactor. 18,5kW; 2NO + 2NC; Us = AC 24V, 50Hz<br>Class 100101001: FA-MC: Magnetic Contactor                                              |
| <a href="#">506377</a> | FR-A8AX-60 E-KIT<br>16-Bit-Digital-Input; BCD/Binary-Code; 24V DC; 5mA; Coated; E-KIT for FR-E800<br>Class 100100402: FA-Inverter: Internal Option                 |
| <a href="#">506378</a> | FR-A8AY-60 E-KIT<br>Digital-/Analog Output; Output load: 24V DC; 0,1A; Coated; E-KIT for FR-E800<br>Class 100100402: FA-Inverter: Internal Option                  |

| Material               | Description / Price List Text / Classification                                                                                           |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">506379</a> | FR-A8AR-60 E-KIT<br>Relay output; 3 additional output relays; Coated; E-KIT for FR-E800<br>Class 100100402: FA-Inverter: Internal Option |
| <a href="#">573101</a> | FR-A8AP-60 E-KIT<br>Incremental Encoder Feedback; E-KIT for FR-E800; Coated<br>Class 100100402: FA-Inverter: Internal Option             |
| <a href="#">593979</a> | FFR-E-MSH-440-75A-SF1<br>Radio Noise Filter for FR-E840-380/440; C1 20m, C2 100m<br>Class 100100404: FA-Inverter: Filter                 |