



## MATERIAL FACT SHEET

### 504751 FR-E820S-0110-4-60

#### General Data

Price List Text (EN)	Inverter; Pn:2,2kW; 1x200-240V; In max: 11A; (2,2kW;11A); RS-485; IP20
Price List Text (DE)	Umrichter; Pn:2,2kW; 1x200-240V; In max: 11A; (2,2kW;11A); RS-485; IP20
Product Hierarchy	IAK24801 INVERTER FR-E820
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	A (Available from Stock)

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_IA/EUR/en/p/000000000000504751](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000504751)

#### FA-Inverter: Inverter

Series	FR-E800 SERIES
Type	FR-E800 RS485 INVERTER
Minimum Rated Voltage (V)	200
Min. Permissible Voltage (V)	170
Maximum Rated Voltage (V)	240
Max. Permissible Voltage (V)	264
Current Type	AC
Phases	1
Rated Output Current ND (A)	11
Rated Motor Capacity ND (kW)	2,2
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-DIGIT LED
PLC Function	YES
Program Memory	2K
Program Memory Unit	STEPS
Integrated Digital Inputs	7
Digital Outputs (Transistor)	2
Digital Outputs (Relay)	1
Integrated Analogue Inputs	2
Integrated Analogue Outputs	1
IO Type of Terminal Block	SPRING CLAMP
Expandable	YES
RS-485	1
USB	1 (MINI B)
Ethernet Port	NO
Built-In Network	MODBUS RTU
Leakage Current (mA)	1,2
Power Loss LD (W)	-
Power Loss ND (W)	95
Standby Power Consumption (W)	-
Protection Class	IP20

#### Product Dimensions & Weight

Width (mm)	140
Height (mm)	128

Depth (mm)	142,5
Weight (kg)	1,9

### Logistic Dimensions & Gross Weight

Length (cm)	21,0
Width (cm)	16,5
Height (cm)	21,0
Gross Weight (kg)	2,148
Volume (cdm)	7,277

### Stock Data

Planned Delivery Time (Days)	300
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### Life Cycle

Sales Start	09.11.2020
Predecessor	<a href="#">240979 / FR-E720S-110SC-E6</a>

### Export Data

Commodity Code	85044095
Legal Control (Dual Use List)	Not Listed
Country of Origin	China (CN)
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-E820S-0110-4-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-E820S-0110-4-60&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-E820S-0110-4-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-E820S-0110-4-60&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-E820S-0110-4-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-E820S-0110-4-60&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-E820S-0110-4-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-E820S-0110-4-60&amp;doc-lang=en</a>

### Product Packaging

Cardboard (g)	290
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	0
Other plastic (g)	10
Wood (g)	0
Glass (g)	0
Others (g)	0

### Spare parts

Material	Description	Quantity	Unit
<a href="#">600706</a>	FR-E840-0.4K-7.5K 1-60/0-60 PCB CPU	1	PC
<a href="#">611134</a>	FR-E840-4(5)-60 PCB TA	1	PC
<a href="#">611136</a>	FR-E840-0040-0095 FAN	1	PC
<a href="#">611138</a>	FR-E800 UNIT DU	1	PC
<a href="#">611140</a>	FR-E800-3,7K CBL CA	1	PC
<a href="#">591470</a>	FR-A870 CABLE ALL BKO-CA1972H01	1	PC
<a href="#">611144</a>	FR-E800 COVER TOP ALL	1	PC
<a href="#">611143</a>	FR-E840-0040-0095 COVER FAN	1	PC

**Compatible products**

Material	Description / Price List Text / Classification
<a href="#">70727</a>	FR-A5 CBL 1 Cable for connecting Inverter and Programming panel; 1m Class 100100405: FA-Inverter: Cable
<a href="#">70728</a>	FR-A5 CBL 2,5 Cable for connecting Inverter and Programming panel; 2,5m Class 100100405: FA-Inverter: Cable
<a href="#">70729</a>	FR-A5 CBL 5 Cable for connecting Inverter and Programming panel; 5m Class 100100405: FA-Inverter: Cable
<a href="#">130832</a>	FR-UDA02 DIN-Rail Adaptor for FR-D720S-1,5k; FR-D740-0,4k-3,7k Class 100100403: FA-Inverter: External Option
<a href="#">166134</a>	FR-PU07 Programming panel with LCD-Display for all units of FR-700 series Class 100100403: FA-Inverter: External Option
<a href="#">167612</a>	FR-RJ45-HUB10 Distribution Module for RJ45; 10 way Class 100100403: FA-Inverter: External Option
<a href="#">167613</a>	FR-RJ45-HUB4 Distribution Module for RJ45; 4 way Class 100100403: FA-Inverter: External Option
<a href="#">167614</a>	FR-RJ45-TR Terminal Resistor Plug RJ45 Class 100100403: FA-Inverter: External Option
<a href="#">202426</a>	FR-BU2-H7.5K Brake Unit without Brake Resistor for all Inverters with DC-Bus Terminals; 400V Class 100100407: FA-Inverter: Brake Option
<a href="#">209052</a>	FR-PU07BB-L Programming Panel with Copy Function; batterypowered; all FR-700 units; w/o bat. Class 100100403: FA-Inverter: External Option
<a href="#">214795</a>	FR-PA07 Simple Parameter Unit for mounting on enclosure surface; for all FR-E700 Class 100100403: FA-Inverter: External Option
<a href="#">238360</a>	FFR-HEL-2.2K-E DC Link choke for 200V Inverter; 2,2kW; 3,1mH; 10,5A Class 100100406: FA-Inverter: Choke
<a href="#">254749</a>	NF63-SV 3P 40A Circuit breaker 3pole. In = 40A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254785</a>	NF63-HV 3P 40A Circuit breaker 3pole. In = 40A; Icu / Ics = 10 / 8kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">274525</a>	LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External Option
<a href="#">275503</a>	FR Configurator-M+FR-Configurator2 FR-Configurator for 700 series; multi I + FR-Configurator2 for 800 series Class 100101203: FA-Software: Software Inverter
<a href="#">279143</a>	S-T10 AC200V 1A Magnetic contactor. 4kW; 1NO; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279200</a>	S-T10 AC200V 1B Magnetic contactor. 4kW; 1NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279242</a>	S-T21 AC200V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">296613</a>	FR-LU08-01 Clear text LCD Parameter unit for all units of 800 Series (IP55) Class 100100403: FA-Inverter: External Option
<a href="#">506377</a>	FR-A8AX-60 E-KIT 16-Bit-Digital-Input; BCD/Binary-Code; 24V DC; 5mA; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
<a href="#">506378</a>	FR-A8AY-60 E-KIT Digital-/Analog Output; Output load: 24V DC; 0,1A; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
<a href="#">506379</a>	FR-A8AR-60 E-KIT Relay output; 3 additional output relays; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
<a href="#">506380</a>	FR-A8NP-60 E-KIT Profibus Network connection; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
<a href="#">506381</a>	FR-A8ND-60 E-KIT DeviceNet Network connection; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
<a href="#">506412</a>	FR-A8NC-60 E-KIT CC-Link Network connection; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
<a href="#">572856</a>	FFR-E-CS-110-26A-SF Radio Noise Filter for FR-E820S-110; C1: 20m, C2:50m Class 100100404: FA-Inverter: Filter
<a href="#">572857</a>	FFR-E-CS-110-26A-SF1-LL Radio Noise Filter for FR-E820S-110; C1: 10m Class 100100404: FA-Inverter: Filter
<a href="#">573101</a>	FR-A8AP-60 E-KIT Incremental Encoder Feedback; E-KIT for FR-E800; Coated Class 100100402: FA-Inverter: Internal Option