



## MATERIAL FACT SHEET

### 406378 FR-A870-00890-E2-60B

#### General Data

Product Hierarchy	IAK24107
	INVERTER
	FR-A870
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	C (Non-Stock Material / Make-to-Order)

e-shop: <https://emea-fa.mitsubishielectric.com/fa/shop/material-page/000000000000406378>

#### FA-Inverter: Inverter

Series	FR-A SERIES
Type	FR-A800-E INVERTER
Minimum Rated Voltage (V)	525/600
Min. Permissible Voltage (V)	472/540
Maximum Rated Voltage (V)	600/690
Max. Permissible Voltage (V)	660/759
Current Type	AC
Phases	3
Rated Output Current ND (A)	66
Rated Motor Capacity ND (kW)	55
Frequency Range (Hz)	50/60
Control Method	SOFT-PWM/HIGH FRQ PWM/VECTOR
Motor Type	INDUCTION MOTOR, PM MOTOR
Brake Chopper ED (%)	-
Integrated EMC Filter	YES
Safe Torque Off (STO)	YES
Regenerative (4Q)	YES
Integrated DC Choke	YES
Display	FR-DU08
Display Type	5 DIGITS LED
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	CC-LINK IE FIELD NETWORK BASIC
Built-In Network (2)	MODBUS/TCP
Built-In Network (3)	SLMP
Built-In Network (4)	iQSS
Leakage Current (mA)	-
Power Loss SLD (W)	1400
Power Loss ND (W)	900
Standby Power Consumption (W)	-
Protection Class	IP20

#### Product Dimensions & Weight

Width (mm)	250
Height (mm)	685
Depth (mm)	410
Weight (kg)	59

**Logistic Dimensions & Gross Weight**

Length (cm)	89,0
Width (cm)	61,0
Height (cm)	49,0
Gross Weight (kg)	71,000
Volume (cdm)	266,021

**Stock Data**

Planned Delivery Time (Days)	273
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**Life Cycle**

Sales Start	01.09.2019
Predecessor	No Predecessor

**Additional Product Information**

Binding Tariff Information	DEBTI-21865/22-1
BTI validity date	01.01.2026
Battery included	NO
Product Code	INV(EXCEPT VECTOR INV)

**Export Data**

Commodity Code	85371091
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	NON-COMPLIANT
UKCA	COMPLIANT

**Documentation & Media Data**

Manual URL Indicator	<a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2f94&amp;q=FR-A870-00890-E2-60B&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2f94&amp;q=FR-A870-00890-E2-60B&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-A870-00890-E2-60B&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-A870-00890-E2-60B&amp;doc-lang=en</a>

**Spare parts**

Material	Description	Quantity	Unit
<a href="#">498604</a>	FR-A800-Series-E2 PCB CPU	1	PC
<a href="#">591281</a>	FR-A870-E 37K-55K PCB MA	1	PC
<a href="#">591447</a>	FR-A870-E 37K-55K PCB AY	1	PC
<a href="#">591448</a>	FR-A870-E 37K-55K PCB GA	3	PC
<a href="#">591451</a>	FR-A870-E 37K-200K PCB AUX	2	PC
<a href="#">591453</a>	FR-A870-55K-E CAPACITOR	3	PC
<a href="#">591457</a>	FR-A870-37K-55K-E DIODE MODULE	1	PC
<a href="#">676273</a>	FR-A870-00590-00890 FAN	1	PC
<a href="#">591463</a>	FR-A870-37K-55K-E SCRUM	3	PC
<a href="#">591465</a>	FR-A870-37K-55K-E TRM	1	PC
<a href="#">282932</a>	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
591466	FR-DU08 PARAMETER-UNIT ALL	1	PC
<a href="#">591467</a>	FR-A870-37K-55K/400K-560K CAPACITOR	4	PC
<a href="#">282933</a>	FR-A840-00170-00250/A846-ALL CBL MA-CPU	1	PC
<a href="#">591470</a>	FR-A870 CABLE ALL BKO-CA1972H01	1	PC
<a href="#">591471</a>	FR-A870 CABLE ALL BKO-CA1972H02	1	PC
<a href="#">591474</a>	FR-A870-55K-E DCCT	1	PC
<a href="#">591482</a>	FR-A870-55K-E DC REACTOR	1	PC
<a href="#">282940</a>	FR-A840/842/CC2-ALL CASE CPU	1	PC
<a href="#">591485</a>	FR-A870 COVER CA PCB PRINT ALL	1	PC
<a href="#">591486</a>	FR-A870 COVER INTERFACE ALL	1	PC
<a href="#">591487</a>	FR-A870-37K-55K-E COVER BKO-CA2720H72	9	PC
<a href="#">591490</a>	FR-A870-37K-55K-E RESISTOR 3.6OHM	1	PC

Material	Description	Quantity	Unit
282941	FR-A840-77A-116A BALANCE RESISTOR	6	PC
591494	FR-A870 GROUND WIRE ETH ALL	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 3 Cable for connecting Inverter and Programming panel; 3m 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="#">88426</a>	SC-FR-PC CONNECTION CABLE PC>INVERTER Programming Cable RS 232>RS485/422; 5m Class 100100405: FA-Inverter: Cable
<a href="#">157514</a>	FR-DU07 Parameter Unit for inverter type FR-A700-NA Class 100100403: FA-Inverter: External Option
<a href="#">157515</a>	FR-ADP Adaptor Module for Operator Panel FR-DU07 Class 100100403: FA-Inverter: External Option
167612	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
167614	FR-RJ45-TR Terminal Resistor Plug RJ45 Class 100100403: FA-Inverter: External Option
207067	FR-DU07 FOR F746-IP54 Parameter Unit for inverter type FR-F746 Class 100100403: FA-Inverter: External Option
<a href="#">242151</a>	FR-PU07-01 Programming panel with LCD-Display for FR-700-NA series Class 100100403: FA-Inverter: External Option
<a href="#">262948</a>	A8NDPV1 Profibus DPV1 with Dsub Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">262949</a>	A8NPRT_2P Profinet 2port Interface for FR-A/F800 with Drive Profile Class 100100402: FA-Inverter: Internal Option
<a href="#">262950</a>	A8NEIP_2P EtherNet/IP 2port Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269426</a>	FR-A8AX 16-Bit-Digital-Input; BCD/Binary-Code; 24V DC; 5mA for FR-F/A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269427</a>	FR-A8AY Digital-/Analog Output; Output load: 24V DC; 0,1A for FR-F/A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269428</a>	FR-A8AR Relay output; 3 additional output relays for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269429</a>	FR-A8AP Incremental Encoder Feedback for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269430</a>	FR-A8AL Incremental encoder feedback terminal block for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269431</a>	FR-A8NC CC-Link Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269432</a>	FR-A8ND DeviceNet Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
<a href="#">273102</a>	FR-A8NCE CC-Link IE Field Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">274514</a>	FR-A8NP ProfibusDP Interface for FR-A/F800 with FR-A/F700 PPO types Class 100100402: FA-Inverter: Internal Option
<a href="#">274525</a>	FR-LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External Option
<a href="#">274526</a>	FR-A8TAT Adapter for control terminal of A/F700 to A/F800 Class 100100402: FA-Inverter: Internal 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="#">283939</a>	FR-A8APR Resolver interface/orientation control/Resolver feedback control/vector control Class 100100402: FA-Inverter: Internal Option
<a href="#">283940</a>	FR-A8AZ Analog Input/ output, Thermistor interface Class 100100402: FA-Inverter: Internal Option
<a href="#">284809</a>	A8NECT_2P Ethercat 2port Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">285244</a>	FR-A8TP Incremental Encoder Feedback Terminal Block for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">289335</a>	FR-A8NS SSCNet Interface for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">290115</a>	FR-A8NCN Control Net Interface for FR-A800 series Class 100100402: FA-Inverter: Internal Option
<a href="#">290117</a>	FR-A8AN Isolated analog current input (1x)/output(2x) function for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">290118</a>	FR-A8AC Digital Input (120V); 2 x ABC Relays , for Fr-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">294939</a>	FR-D-Sub9-A8NP-01 D-Sub9 Connection Adapter for FR-A8NP + Cover Class 100100402: FA-Inverter: Internal Option
<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="#">297422</a>	FR-A8APS Absolute Encoder Feedback for FR-A800 (EnDat) Class 100100402: FA-Inverter: Internal Option
<a href="#">298153</a>	FR-A8NCA CANopen Interface for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">307170</a>	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
<a href="#">487882</a>	FR-A8NCG Plug-in Option for CC-Link IE TSN Communication Function Class 100100402: FA-Inverter: Internal Option