



MATERIAL FACT SHEET

404451 FR-A870-02300-E2-60

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://mitsubishi-electric-eshop.mee.com/mee/FA_1A/EUR/en/p/000000000000404451

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)	185
Rated Motor Capacity ND (kW)	110/160
Frequency Range (Hz)	50/60
Control Method	SOFT-PWM/HIGH FRQ PWM/VECTOR
Motor Type	INDUCTION MOTOR, PM MOTOR
Integrated EMC Filter	YES
Safe Torque Off (STO)	YES
Regenerative (4Q)	NO
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 BASIC
Built-In Network (2)	MODBUS/TCP
Leakage Current (mA)	-
Power Loss SLD (W)	3700
Power Loss ND (W)	3000
Standby Power Consumption (W)	-
Protection Class	IP20

Product Dimensions & Weight

Width (mm)	380
Height (mm)	900
Depth (mm)	410
Weight (kg)	120

Logistic Dimensions & Gross Weight

Length (cm)	117,0
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Width (cm)	65,0
Height (cm)	58,0
Gross Weight (kg)	138,000
Volume (cdm)	441,090

Stock Data

Planned Delivery Time (Days)	212
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Life Cycle

Sales Start	10.08.2018
Predecessor	No Predecessor

Additional Product Information

Binding Tariff Information	DEBTI-21865/22-1
BTI validity date	01.01.2026
Battery included	NO
Forecast Breakdown	FR-A870

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	COMPLIANT
UKCA	COMPLIANT

Documentation & Media Data

Manual URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=b1tdae25c2bd5f2ff94&q=FR-A870-02300-E2-60&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=b1t8050dd1408c11cc2&q=FR-A870-02300-E2-60&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=b1t26ecc97a31a841c1&q=FR-A870-02300-E2-60&doc-lang=en

Product Packaging

Cardboard (g)	20000
Other paper (g)	0
Aluminum (g)	0
Steel (g)	15
Styrofoam (g)	0
Other plastic (g)	150
Wood (g)	0
Glass (g)	0
Others (g)	0

Spare parts

Material	Description	Quantity	Unit
498604	FR-A800-Series-E2 PCB CPU	1	PC
591442	FR-A870-E 160K-200K PCB MA	1	PC
591444	FR-A870-E 160K-200K PCB POWER	1	PC
591446	FR-A870&A872-E 160K-560K PCB AY	1	PC
591449	FR-A870-E160K-200K PCB GA	3	PC
591451	FR-A870-E 37K-200K PCB AUX	1	PC
591454	FR-A870-160K-E CAPACITOR	6	PC
591458	FR-A870-160K-200K-E DIODE MODULE	1	PC
488132	FR-A870-02300/02860 FAN	2	PC
591464	FR-A870-E160K-200K-E SCRM	3	PC
282932	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
591466	FR-DU08 PARAMETER-UNIT ALL	1	PC

Material	Description	Quantity	Unit
591468	FR-A870-160K-200K-E DAMPING CAPACITOR	3	PC
282933	FR-A840-00170-00250/A846-ALL CBL MA-CPU	1	PC
591470	FR-A870 CABLE ALL BKO-CA1972H01	1	PC
591471	FR-A870 CABLE ALL BKO-CA1972H02	1	PC
591475	FR-A870-160K-E DCCT	3	PC
591483	FR-A870-160K-E DC REACTOR	2	PC
282940	FR-A840/842/CC2-ALL CASE CPU	1	PC
591485	FR-A870 COVER CA PCB PRINT ALL	1	PC
591486	FR-A870 COVER INTERFACE ALL	1	PC
591488	FR-A870-160K-200K-E COVER BKO-CA2522H73	9	PC
591489	FR-A870-160K-200K-E IP20 COVER	1	PC
591491	FR-A870-160K-200K-E RESISTOR 3.6OHM	1	PC
591492	FR-A870-160K-200K-E RESISTOR TCR20W473JC	12	PC
591493	FR-A870-160K-200K-E TERMINAL BLOCK	1	PC
591494	FR-A870 GROUND WIRE ETH ALL	1	PC
591495	FR-A870-160K-200K-E-60 WIRING HARNESS	1	PC

Compatible products

Material	Description / Price List Text / Classification
70727	FR-A5 CBL 1 Cable for connecting Inverter and Programming panel; 1m Class 100100405: FA-Inverter: Cable
70728	FR-A5 CBL 2,5 Cable for connecting Inverter and Programming panel; 2,5m Class 100100405: FA-Inverter: Cable
70729	FR-A5 CBL 5 Cable for connecting Inverter and Programming panel; 5m Class 100100405: FA-Inverter: Cable
88426	SC-FR-PC CONNECTION CABLE PC>INVERTER Programming Cable RS 232>RS485/422; 5m Class 100100405: FA-Inverter: Cable
157514	FR-DU07 Parameter Unit for inverter type FR-A700-NA Class 100100403: FA-Inverter: External Option
157515	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
167613	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
242151	FR-PU07-01 Programming panel with LCD-Display for FR-700-NA series Class 100100403: FA-Inverter: External Option
262948	A8NDPV1 Profibus DPV1 with Dsub Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
262949	A8NPRT_2P Profinet 2port Interface for FR-A/F800 with Drive Profile Class 100100402: FA-Inverter: Internal Option
262950	A8NEIP_2P EtherNet/IP 2port Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
269426	FR-A8AX 16-Bit-Digital-Input; BCD/Binary-Code; 24V DC; 5mA for FR-F/A800 Class 100100402: FA-Inverter: Internal Option
269427	FR-A8AY Digital-/Analog Output; Output load: 24V DC; 0,1A for FR-F/A800 Class 100100402: FA-Inverter: Internal Option
269428	FR-A8AR Relay output; 3 additional output relays for FR-A/F800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
269429	FR-A8AP Incremental Encoder Feedback for FR-A800 Class 100100402: FA-Inverter: Internal Option
269430	FR-A8AL Incremental encoder feedback terminal block for FR-A800 Class 100100402: FA-Inverter: Internal Option
269431	FR-A8NC CC-Link Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
269432	FR-A8ND DeviceNet Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
273102	FR-A8NCE CC-Link IE Field Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
274514	FR-A8NP ProfibusDP Interface for FR-A/F800 with FR-A/F700 PPO types Class 100100402: FA-Inverter: Internal Option
274525	FR-LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External Option
274526	FR-A8TAT Adapter for control terminal of A/F700 to A/F800 Class 100100402: FA-Inverter: Internal Option
275503	FR Configurator-M+FR-Configurator2 FR-Configurator for 700 series; multi I + FR-Configurator2 for 800 series Class 100101203: FA-Software: Software Inverter
283939	FR-A8APR Resolver interface/orientation control/Resolver feedback control/vector control Class 100100402: FA-Inverter: Internal Option
283940	FR-A8AZ Analog Input/ output, Thermistor interface Class 100100402: FA-Inverter: Internal Option
284809	A8NECT_2P Ethercat 2port Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
285244	FR-A8TP Incremental Encoder Feedback Terminal Block for FR-A800 Class 100100402: FA-Inverter: Internal Option
289335	FR-A8NS SSCNet Interface for FR-A800 Class 100100402: FA-Inverter: Internal Option
290115	FR-A8NCN Control Net Interface for FR-A800 series Class 100100402: FA-Inverter: Internal Option
290117	FR-A8AN Isolated analog current input (1x)/output(2x) function for FR-A800 Class 100100402: FA-Inverter: Internal Option
290118	FR-A8AC Digital Input (120V); 2 x ABC Relays , for Fr-A800 Class 100100402: FA-Inverter: Internal Option
294939	FR-D-Sub9-A8NP-01 D-Sub9 Connection Adapter for FR-A8NP + Cover Class 100100402: FA-Inverter: Internal Option
296613	FR-LU08-01 Clear text LCD Parameter unit for all units of 800 Series (IP55) Class 100100403: FA-Inverter: External Option
297422	FR-A8APS Absolute Encoder Feedback for FR-A800 (EnDat) Class 100100402: FA-Inverter: Internal Option
298153	FR-A8NCA CANopen Interface for FR-A800 Class 100100402: FA-Inverter: Internal Option
307170	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
487882	FR-A8NCG Plug-in Option for CC-Link IE TSN Communication Function Class 100100402: FA-Inverter: Internal Option