



## MATERIAL FACT SHEET

### 307172 FR-F840-00038-E2-60

#### General Data

Price List Text (EN)	Inverter; Rated Power: 1,5kW; 3x380-500V;In max: 3,8A;(1,5kW; 3,8A);IP20
Price List Text (DE)	Umrichter AC; Pn: 1,5kW; 3x380-500V;In max: 3,8A;(1,5kW; 3,8A);IP20
Product Hierarchy	IAK24201 INVERTER
Ext. Material Group	FR-F840 from 00023 to 00620 10 STANDARD ITEM
ABC Indicator	A (Available from Stock)

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_IA/EUR/en/p/000000000000307172](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000307172)

#### FA-Inverter: Inverter

Series	FR-F800 SERIES
Type	FR-F800-E INVERTER
Minimum Rated Voltage (V)	380
Min. Permissible Voltage (V)	323
Maximum Rated Voltage (V)	500
Max. Permissible Voltage (V)	550
Current Type	AC
Phases	3
Rated Output Current SLD (A)	3,8
Rated Output Current LD (A)	3,5
Rated Motor Capacity SLD (kW)	1,5
Rated Motor Capacity LD (kW)	1,5
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
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)	35(DELTAA) / 2(STAR)
Power Loss SLD (W)	75
Power Loss LD (W)	70
Standby Power Consumption (W)	19

Protection Class	IP20
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### Product Dimensions & Weight

Width (mm)	150
Height (mm)	260
Depth (mm)	140
Weight (kg)	2,8

### Logistic Dimensions & Gross Weight

Length (cm)	35,0
Width (cm)	21,0
Height (cm)	18,0
Gross Weight (kg)	3,400
Volume (cdm)	13,230

### Stock Data

Planned Delivery Time (Days)	296
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### Life Cycle

Sales Start	15.02.2017
Predecessor	156570 / FR-F740-00038-EC

### Export Data

Commodity Code	85371091
Legal Control (Dual Use List)	Not Listed
Country of Origin	China (CN)
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=bltdae25c2bd512ff94&amp;q=FR-F840-00038-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd512ff94&amp;q=FR-F840-00038-E2-60&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-F840-00038-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F840-00038-E2-60&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-F840-00038-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F840-00038-E2-60&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-F840-00038-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F840-00038-E2-60&amp;doc-lang=en</a>

### Product Packaging

Cardboard (g)	388
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	0
Other plastic (g)	6,768
Wood (g)	0
Glass (g)	0
Others (g)	0

### Spare parts

Material	Description	Quantity	Unit
<a href="#">282879</a>	FR-A840-00038-2-60 PCB MA	1	PC
<a href="#">282900</a>	FR-A840-00038-2-60 PCB AUX	1	PC
<a href="#">307205</a>	FR-CF80-01-E2-60	1	PC
<a href="#">282932</a>	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
283453	FR-A840-00038-2-60 BREAK RESISTOR	1	PC

Material	Description	Quantity	Unit
<a href="#">283481</a>	FR-A840-00023-00126-2-60 CBL MA-CPU	1	PC
<a href="#">283658</a>	FR-A840-00023-00126-2-60 CASE	1	PC
<a href="#">283659</a>	FR-A840-00023-00126-2-60 COVER UPPER FR.	1	PC
<a href="#">283660</a>	FR-A840-00023-00126-2-60 COVER LOWER FR.	1	PC
<a href="#">283661</a>	FR-A840-00023-00126-2-60 COVER WIRING	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="#">87244</a>	FR-BAL-B-4,0K Input Reactor 3ph; 400V; for 4,0kW Class 100100406: FA-Inverter: Choke
<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="#">127947</a>	BU-UFS 22 Brake Unit 400V; Contin. Braking Current 22A; 10sec peak current 34A Class 100100407: FA-Inverter: Brake Option
<a href="#">157515</a>	FR-ADP Adaptor Module for Operator Panel FR-DU07 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="#">193677</a>	FFR-BS-00126-18A-SF100 Radio Noise Fiter for FR-A&F-00023-00126; C1 20m; C2 100m Class 100100404: FA-Inverter: Filter
<a href="#">209735</a>	FFR-SI-4.5A-SS1 Sinusfilter for 200/230/400V Inverters;max. 4,5A;FT=4-16kHz;(W*H*D) 125*180*75mm Class 100100404: FA-Inverter: Filter
<a href="#">209755</a>	FFR-DT-10A-SS1 du/dt Filter for 400V Inverters; max. 10A; FT=2-16kHz; (W*H*D) 100*120*65mm Class 100100404: FA-Inverter: Filter
<a href="#">221540</a>	USB-CAB-5M USB 2.0 connection cabel, plug USB A to plug USB B (mini), 5m Class 100100303: FA-HMI: Cable
<a href="#">238344</a>	FFR-HEL-H1.5K-E DC Link choke for 400V Inverter; 1,5kW; 20,5mH; 3,1A Class 100100406: FA-Inverter: Choke
<a href="#">247642</a>	BH-D6 3P 10A TYPE C N MCB 3-poles, Rated current 10A, Operating characteristic C Class 100100801: FA-MCB: Miniature Circuit Breaker
<a href="#">247889</a>	BH-D10 3P 10A TYPE C N Miniature circuit breaker 10 A, 3 pole, Type C Class 100100801: FA-MCB: Miniature Circuit Breaker
<a href="#">254684</a>	NF32-SV 3P 10A Circuit breaker 3pole. In = 10A; Icu = Ics = 2,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254743</a>	NF63-SV 3P 10A Circuit breaker 3pole. In = 10A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254778</a>	NF63-HV 3P 10A Circuit breaker 3pole. In = 10A; Icu / Ics = 10 / 8kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker

Material	Description / Price List Text / Classification
<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="#">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
<a href="#">270286</a>	FR-HC2-H7.5K KIT Harmonic Converter 7,5 kW for Power Factor correction; 400V Class; KIT Class 100100403: FA-Inverter: External Option
<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="#">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="#">277880</a>	FR-A8CN01 Heatsink Protrusion Attachment for FR-F/A840 to 00126; for FR-A820-00105/00250 Class 100100403: FA-Inverter: External Option
<a href="#">279140</a>	S-T10 AC24V 1A Magnetic contactor. 4kW; 1NO; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279141</a>	S-T10 AC48V 1A Magnetic contactor. 4kW; 1NO; Us = AC 48V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279142</a>	S-T10 AC100V 1A Magnetic contactor. 4kW; 1NO; Us = AC 100V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279143</a>	S-T10 AC200V 1A Magnetic contactor. 4kW; 1NO; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279144</a>	S-T10 AC300V 1A Magnetic contactor. 4kW; 1NO; Us = AC 300V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279195</a>	S-T10 AC400V 1A Magnetic contactor. 4kW; 1NO; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279196</a>	S-T10 AC500V 1A Magnetic contactor. 4kW; 1NO; Us = AC 500V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279197</a>	S-T10 AC24V 1B Magnetic contactor. 4kW; 1NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279198</a>	S-T10 AC48V 1B Magnetic contactor. 4kW; 1NC; Us = AC 48V, 50Hz Class 100101001: FA-MC: Magnetic Contactor

Material	Description / Price List Text / Classification
<a href="#">279199</a>	S-T10 AC100V 1B Magnetic contactor. 4kW; 1NC; Us = AC 100V, 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="#">279201</a>	S-T10 AC300V 1B Magnetic contactor. 4kW; 1NC; Us = AC 300V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279202</a>	S-T10 AC400V 1B Magnetic contactor. 4kW; 1NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279203</a>	S-T10 AC500V 1B Magnetic contactor. 4kW; 1NC; Us = AC 500V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<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="#">288433</a>	MMP-T32LF 4.0A Motor prot. switch. 1,5kW; Ir=2,5 - 4,0A; Icu AC 400V=15kA Class 100101101: FA-MMS: Manual Motor Starter
<a href="#">290115</a>	FR-A8NCN Control Net Interface for FR-A800 series Class 100100402: FA-Inverter: Internal Option
<a href="#">290116</a>	FR-A8TR Screw Terminal Block for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">291918</a>	BHW-T10 3P Type B 10A MCB 3-pole, Rated current 10A, Operating characteristic B Class 100100801: FA-MCB: Miniature Circuit Breaker
<a href="#">291990</a>	BHW-T10 3P Type C 10A MCB 3-pole, Rated current 10A, Operating characteristic C Class 100100801: FA-MCB: Miniature Circuit Breaker
<a href="#">292080</a>	BHW-T10 3P Type D 10A MCB 3-pole, Rated current 10A, Operating characteristic D Class 100100801: FA-MCB: Miniature Circuit Breaker
<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="#">307170</a>	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
<a href="#">403133</a>	FR-A8AVP Phase detection option board of FR-A/F800 Class 100100402: FA-Inverter: Internal Option
<a href="#">403134</a>	FR-A8VPB-H Phase detection transformer box for FR-A8AVP Class 100100403: FA-Inverter: External Option
<a href="#">409893</a>	FR-XC-H7.5K Multifunction Regeneration Conv.;400V class;7,5kW Class 100100403: FA-Inverter: External Option
<a href="#">409914</a>	FR-XCL-H7.5K Reactor 7,5 kW for FR-XC-H7.5K Class 100100403: FA-Inverter: External Option
<a href="#">487882</a>	FR-A8NCG Plug-in Option for CC-Link IE TSN Communication Function Class 100100402: FA-Inverter: Internal Option
<a href="#">500830</a>	FR-XCG-H7.5K Standalone reactor for FR-XC regeneration converter; 400V class; 7,5kW Class 100100403: FA-Inverter: External Option
<a href="#">591572</a>	RHF-5P 5.5-400-50-20-C High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;5.5kW Class 100100404: FA-Inverter: Filter

Material	Description / Price List Text / Classification
<a href="#">591592</a>	RHF-8P 5.5-400-50-20-C High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;5.5kW Class 100100404: FA-Inverter: Filter
<a href="#">600196</a>	MMP-T32 4.0A Motor circuit breaker;200-690V; 1.5kW(at 400V);50/60Hz; 2.5-4A; without UL Class 100101101: FA-MMS: Manual Motor Starter