



## MATERIAL FACT SHEET

### 307218 FR-F840-00310-E2-60

#### General Data

Product Hierarchy	IAK24201
	INVERTER
	FR-F840 from 00023 to 00620
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	A (Available from Stock)

e-shop: <https://emea.mitsubishielectric.com/fa/shop/material-page/000000000000307218>

#### 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)	31
Rated Output Current LD (A)	29
Rated Motor Capacity SLD (kW)	15
Rated Motor Capacity LD (kW)	15
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(Delta) / 2(Star)
Power Loss SLD (W)	370
Power Loss LD (W)	345
Standby Power Consumption (W)	20
Protection Class	IP20

**Product Dimensions & Weight**

Width (mm)	220
Height (mm)	300
Depth (mm)	190
Weight (kg)	8,3

**Logistic Dimensions & Gross Weight**

Length (cm)	46,0
Width (cm)	36,0
Height (cm)	38,0
Gross Weight (kg)	9,945
Volume (cdm)	62,928

**Stock Data**

Planned Delivery Time (Days)	119
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**Life Cycle**

Sales Start	15.02.2017
Predecessor	156596 / FR-F740-00310-EC

**Additional Product Information**

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

**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	NON-COMPLIANT
Shipping Approvals	DNV,ABS
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-F840-00310-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-F840-00310-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-F840-00310-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F840-00310-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-F840-00310-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F840-00310-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-F840-00310-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F840-00310-E2-60&amp;doc-lang=en</a>

**Product Packaging**

Cardboard (g)	1518,9
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	266
Other plastic (g)	6,768
Wood (g)	0
Glass (g)	0
Others (g)	0

**Spare parts**

Material	Description	Quantity	Unit
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Material	Description	Quantity	Unit
<a href="#">282885</a>	FR-A840-00310-00380-2-60 PCB MA	1	PC
<a href="#">282894</a>	FR-A840-00310-2-60 PCB GA	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
<a href="#">283447</a>	FR-A840-00310/00380/00770-2-60 FAN	2	PC
<a href="#">283459</a>	FR-A840-00310-00380-2-60 INRUSH RES.	1	PC
<a href="#">283482</a>	FR-A840-00310-00380-2-60 CBL MA-CPU	1	PC
<a href="#">283554</a>	FR-A840-00310-2-60 CAPACITOR	2	PC
<a href="#">283685</a>	FR-A840-00170-00380-2-60 COVER UPPER FR.	1	PC
<a href="#">283689</a>	FR-A840-00310/00380-2-60 CHASSIS	1	PC
<a href="#">283690</a>	FR-A840-00310/00380-2-60 CASE	1	PC
<a href="#">283691</a>	FR-A840-00310/00380-2-60 COVER LOWER FR.	1	PC
<a href="#">283692</a>	FR-A840-00310/00380-2-60 COVER WIRING	1	PC
<a href="#">283693</a>	FR-A840-00310/00380-2-60 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 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="#">71053</a>	FR-BAL-B-11/15K Input Reactor 3ph; 400V; for 11/15kW 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="#">127948</a>	BU-UFS 40 Brake Unit 400V; Contin. Braking Current 34A; 10sec peak current 55A 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
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
<a href="#">193679</a>	FFR-BS-00380-55A-SF100 Radio Noise Filter for FR-A&F-00310-00380; C1 20m; C2 100m Class 100100404: FA-Inverter: Filter
<a href="#">209739</a>	FFR-SI-32A-SS1 Sinusfilter for 200/230/400V Inverters; max. 32A; FT=4-16kHz; (W*H*D) 210*260*135mm Class 100100404: FA-Inverter: Filter
<a href="#">209757</a>	FFR-DT-47A-SS1 du/dt Filter for 400V Inverters; max. 47A; FT=2-16kHz; (W*H*D) 155*195*110mm 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="#">238350</a>	FFR-HEL-H15K-E DC Link choke for 400V Inverter; 15kW; 1,97mH; 27,5A Class 100100406: FA-Inverter: Choke
<a href="#">253073</a>	NF63-SV 3P 50A Circuit breaker 3pole. In = 50A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254750</a>	NF63-SV 3P 60A Circuit breaker 3pole. In = 60A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker

Material	Description / Price List Text / Classification
<a href="#">254786</a>	NF63-HV 3P 50A Circuit breaker 3pole. In = 50A; Icu / Ics = 10 / 8kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254787</a>	NF63-HV 3P 60A Circuit breaker 3pole. In = 60A; Icu / Ics = 10 / 8kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254837</a>	NF125-SV 3P 50A Circuit breaker 3pole. In = 50A; Icu = Ics = 25kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<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="#">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="#">270287</a>	FR-HC2-H15K KIT Harmonic Converter 15 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="#">277882</a>	FR-A8CN03 Heatsink Protrusion Attachment for FR-F/A840-00310/00380; for FR-A820-00630 Class 100100403: FA-Inverter: External Option
<a href="#">279239</a>	S-T21 AC24V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">279241</a>	S-T21 AC100V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 100V, 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="#">279244</a>	S-T21 AC400V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">283940</a>	FR-A8AZ Analog Input/ output, Thermistor interface Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
<a href="#">284809</a>	A8NECT_2P Ethercat 2port Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
288440	MMP-T32LF 32A Motor prot. switch. 15kW; Ir=24,0 ~ 32,0A; 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="#">291925</a>	BHW-T10 3P Type B 63A MCB 3-pole, Rated current 63A, Operating characteristic B Class 100100801: FA-MCB: Miniature Circuit Breaker
<a href="#">291997</a>	BHW-T10 3P Type C 63A MCB 3-pole, Rated current 63A, Operating characteristic C Class 100100801: FA-MCB: Miniature Circuit Breaker
<a href="#">292087</a>	BHW-T10 3P Type D 63A MCB 3-pole, Rated current 63A, 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="#">298657</a>	S-T35 AC200V Magnetic contactor. 18,5kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298658</a>	S-T35 AC24V Magnetic contactor. 18,5kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">307170</a>	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication 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="#">307170</a>	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication 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="#">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="#">409895</a>	FR-XC-H15K Multifunction Regeneration Conv.;400V class;15kW Class 100100403: FA-Inverter: External Option
<a href="#">409916</a>	FR-XCL-H15K Standalone reactor for FR-XC regeneration converter;400V;15 kW;Common bus reg. 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="#">500832</a>	FR-XCG-H15K Standalone reactor for FR-XC regeneration converter; 400V class; 15kW;Reg.mode Class 100100403: FA-Inverter: External Option
<a href="#">591575</a>	RHF-5P 15-400-50-20-C High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;15kW Class 100100404: FA-Inverter: Filter
<a href="#">591595</a>	RHF-8P 15-400-50-20-C High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;15kW Class 100100404: FA-Inverter: Filter

Material	Description / Price List Text / Classification
600202	MMP-T32 32A Motor circuit breaker;200-690V; 15kW(at 400V);50/60Hz; 24-32A; without UL Class 100101101: FA-MMS: Manual Motor Starter