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MATERIAL FACT SHEET

307217 FR-F840-00250-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)

Shop: https://emea-fa.mitsubishielectric.com/fa/shop/material-page/000000000000307217

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)	25
Rated Output Current LD (A)	23
Rated Motor Capacity SLD (kW)	11
Rated Motor Capacity LD (kW)	11
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)	345
Power Loss LD (W)	315
Standby Power Consumption (W)	20
Protection Class	IP20

Product Dimensions & Weight

Width (mm)	220
Height (mm)	260
Depth (mm)	170
Weight (kg)	6,7

Logistic Dimensions & Gross Weight

Length (cm)	37,0
Width (cm)	34,0
Height (cm)	27,0
Gross Weight (kg)	7,103
Volume (cdm)	33,966

Stock Data

Planned Delivery Time (Days)	119

Life Cycle

Sales Start	15.02.2017
Predecessor	156595 / FR-F740-00250-EC

Additional Product Information

Binding Tariff Information	DEBTI-1209/26-1
BTI validity date	17.05.2029
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	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=bltdae25c2bd5f2ff94&q=FR-F840-00250-E2-60&doc-lang=en
Certificates URL Indicator	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=FR-F840-00250-E2-60&doc-lang=en
CAD URL Indicator	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=FR-F840-00250-E2-60&doc-lang=en
Network configuration file URL	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blte8cf990c7c524b4e&q=FR-F840-00250-E2-60&doc-lang=en

Product Packaging

Cardboard (g)	677
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	195
Other plastic (g)	6,768
Wood (g)	0
Glass (g)	0
Others (g)	0

Spare parts

Material	Description	Quantity	Unit

Material	Description	Quantity	Unit
282884	FR-A840-00250-2-60 PCB MA	1	PC
307205	FR-CF80-01-E2-60	1	PC
282932	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
282933	FR-A840-00170-00250/A846-ALL CBL MA-CPU	1	PC
736384	FR-A800 BREAK RESISTOR	1	PC
283458	FR-A840-00170-00250-2-60 INRUSH RES.	1	PC
283553	FR-A840-00250-2-60 CAPACITOR	2	PC
283663	FR-A840-00170/00250-2-60 CHASSIS	1	PC
283664	FR-A840-00170/00250-2-60 CASE	1	PC
283685	FR-A840-00170-00380-2-60 COVER UPPER FR.	1	PC
283686	FR-A840-00170/00250-2-60 COVER LOWER FR.	1	PC
283687	FR-A840-00170/00250-2-60 COVER WIRING	1	PC
283688	FR-A840-00170/00250-2-60 COVER FAN	1	PC
732821	FR-A800/F800 FAN MMF-06L24SS-CX1	2	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 3 Cable for connecting Inverter and Programming panel; 3m Class 100100405: FA-Inverter: Cable
70729	FR-A5 CBL 5 Cable for connecting Inverter and Programming panel; 5m Class 100100405: FA-Inverter: Cable
71053	FR-BAL-B-11/15K Input Reactor 3ph; 400V; for 11/15kW Class 100100406: FA-Inverter: Choke
88426	SC-FR-PC CONNECTION CABLE PC>INVERTER Programming Cable RS 232>RS485/422; 5m Class 100100405: FA-Inverter: Cable
127947	BU-UFS 22 Brake Unit 400V; Contin. Braking Current 22A; 10sec peak current 34A Class 100100407: FA-Inverter: Brake 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
193678	FFR-BS-00250-30A-SF100 Radio Noise Filter for FR-A&F-00170/00250-EC; C1 20m; C2 100m Class 100100404: FA-Inverter: Filter
209738	FFR-SI-25A-SS1 Sinusfilter for 200/230/400V Inverters;max. 25A;FT=4-16kHz;(W*H*D) 210*260*125mm Class 100100404: FA-Inverter: Filter
209756	FFR-DT-25A-SS1 du/dt Filter for 400V Inverters; max. 25A; FT=2-16kHz; (W*H*D) 125*140*80mm Class 100100404: FA-Inverter: Filter
221540	USB-CAB-5M USB 2.0 connection cabel, plug USB A to plug USB B (mini), 5m Class 100100303: FA-HMI: Cable
238349	FFR-HEL-H11K-E DC Link choke for 400V Inverter; 11kW; 2,58mH; 20,5A Class 100100406: FA-Inverter: Choke
247896	BH-D10 3P 50A TYPE C N Miniature circuit breaker 50 A, 3 pole, Type C Class 100100801: FA-MCB: Miniature Circuit Breaker
253073	NF63-SV 3P 50A Circuit breaker 3pole. In = 50A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker

Material	Description / Price List Text / Classification
254749	NF63-SV 3P 40A Circuit breaker 3pole. In = 40A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
254785	NF63-HV 3P 40A Circuit breaker 3pole. In = 40A; Icu / Ics = 10 / 8kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
254786	NF63-HV 3P 50A Circuit breaker 3pole. In = 50A; Icu / Ics = 10 / 8kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
254837	NF125-SV 3P 50A Circuit breaker 3pole. In = 50A; Icu = Ics = 25kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
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
269431	FR-A8NC CC-Link Interface for FR-A/F800 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
270287	FR-HC2-H15K KIT Harmonic Converter 15 kW for Power Factor correction; 400V Class; KIT Class 100100403: FA-Inverter: External 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
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
277881	FR-A8CN02 Heatsink Protrusion Attachment for FR-F/A840-00170/00250; for FR-A820-00340/0049 Class 100100403: FA-Inverter: External Option
279239	S-T21 AC24V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279239	S-T21 AC24V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279241	S-T21 AC100V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 100V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279241	S-T21 AC100V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 100V, 50Hz Class 100101001: FA-MC: Magnetic Contactor

Material	Description / Price List Text / Classification
279242	S-T21 AC200V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279242	S-T21 AC200V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279244	S-T21 AC400V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279244	S-T21 AC400V 2A2B Magnetic contactor. 11kW; 2NO + 2NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
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
290115	FR-A8NCN Control Net Interface for FR-A800 series Class 100100402: FA-Inverter: Internal Option
290116	FR-A8TR Screw Terminal Block for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
291924	BHW-T10 3P Type B 50A MCB 3-pole, Rated current 50A, Operating characteristic B Class 100100801: FA-MCB: Miniature Circuit Breaker
291996	BHW-T10 3P Type C 50A MCB 3-pole, Rated current 50A, Operating characteristic C Class 100100801: FA-MCB: Miniature Circuit Breaker
292086	BHW-T10 3P Type D 50A MCB 3-pole, Rated current 50A, Operating characteristic D Class 100100801: FA-MCB: Miniature Circuit Breaker
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
307170	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
307170	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
307170	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
307170	FR-A8ERS-60 Optioncard to change Ethernet board to serial communication Class 100100402: FA-Inverter: Internal Option
403133	FR-A8AVP Phase detection option board of FR-A/F800 Class 100100402: FA-Inverter: Internal Option
403134	FR-A8VPB-H Phase detection transformer box for FR-A8AVP Class 100100403: FA-Inverter: External Option
409894	FR-XC-H11K Multifunction Regeneration Conv.;400V class;11kW Class 100100403: FA-Inverter: External Option
409915	FR-XCL-H11K Standalone reactor for FR-XC regeneration converter;400V;11 kW;Common bus reg. Class 100100403: FA-Inverter: External Option
487882	FR-A8NCG Plug-in Option for CC-Link IE TSN Communication Function Class 100100402: FA-Inverter: Internal Option
500831	FR-XCG-H11K Standalone reactor for FR-XC regeneration converter; 400V class; 11kW;Reg.mode Class 100100403: FA-Inverter: External Option

Material	Description / Price List Text / Classification
591574	RHF-5P 11-400-50-20-C High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;11kW Class 100100404: FA-Inverter: Filter
591594	RHF-8P 11-400-50-20-C High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;11kW Class 100100404: FA-Inverter: Filter
600201	MMP-T32 25A Motor circuit breaker;200-690V; 11kW(at 400V);50/60Hz; 18-25A; without UL Class 100101101: FA-MMS: Manual Motor Starter
736654	MMS2-25 Motor Protective Circuit Breaker MMS; IEC/EN60947; Ir=20 to 25A; 12.5kW Class 100101101: FA-MMS: Manual Motor Starter
758550	EFR-HAL-H11K Input reactor, In=25A, L=1.2mH, voltage drop 4%; for drives Pn=11kW Class 100100408: FA-Inverter: Other Option
758584	EFR-DU-H11K Output du/dt limiting reactor, In=24A, fkmin=2kHz; for drives Pn=11kW Class 100100406: FA-Inverter: Choke
758609	EFR-SI-H11K Output sinus filter, In=24A, fkmin=4kHz; for drives Pn=11kW Class 100100404: FA-Inverter: Filter