



MATERIAL FACT SHEET

307220 FR-F840-00470-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/00000000000307220>

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)	47
Rated Output Current LD (A)	43
Rated Motor Capacity SLD (kW)	22
Rated Motor Capacity LD (kW)	22
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)	565
Power Loss LD (W)	520
Standby Power Consumption (W)	20
Protection Class	IP20

Product Dimensions & Weight

Width (mm)	250
Height (mm)	400
Depth (mm)	190
Weight (kg)	15

Logistic Dimensions & Gross Weight

Length (cm)	56,0
Width (cm)	40,0
Height (cm)	36,0
Gross Weight (kg)	16,778
Volume (cdm)	80,640

Stock Data

Planned Delivery Time (Days)	119
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Life Cycle

Sales Start	15.02.2017
Predecessor	156598 / FR-F740-00470-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-F840-00470-E2-60&doc-lang=en
Certificates URL Indicator	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=FR-F840-00470-E2-60&doc-lang=en
CAD URL Indicator	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=FR-F840-00470-E2-60&doc-lang=en
Network configuration file URL	https://emea-fa.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blte8cf990c7c524b4e&q=FR-F840-00470-E2-60&doc-lang=en

Product Packaging

Cardboard (g)	1855
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	482
Other plastic (g)	14,476
Wood (g)	0
Glass (g)	0
Others (g)	0

Spare parts

Material	Description	Quantity	Unit
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Material	Description	Quantity	Unit
282886	FR-A840-00470-00620-2-60 PCB MA	1	PC
282896	FR-A840-00470-00770-2-60 PCB GA	1	PC
282904	FR-A840-00470-00620-2-60 PCB AUX	1	PC
307205	FR-CF80-01-E2-60	1	PC
282932	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
283438	FR-A840-00470-00770-2-60 THYRISTORMODULE	1	PC
283450	FR-A840-00470-01800-2-60 FAN	2	PC
283460	FR-A840-00470-00620-2-60 INRUSH RES.	1	PC
283483	FR-A840-00470-00620-2-60 CBL MA-CPU	1	PC
283586	FR-A840-00470-2-60 CAPACITOR	4	PC
283694	FR-A840-00470/00620-2-60 CHASSIS	1	PC
283695	FR-A840-00470/00620-2-60 CASE	1	PC
283696	FR-A840-00470/00620-2-60 COVER UPPER FR.	1	PC
283697	FR-A840-00470/00620-2-60 COVER LOWER FR.	1	PC
283698	FR-A840-00470/00620-2-60 COVER WIRING	1	PC
283699	FR-A840-00470/00620-2-60 COVER FAN	1	PC
734507	FR-A840-00470/00620-2-60 COVER TERMINAL	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 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
87247	FR-BAL-B-22K Input Reactor 3ph; 400 V; for 22kW 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
127948	BU-UFS 40 Brake Unit 400V; Contin. Braking Current 34A; 10sec peak current 55A 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
193680	FFR-BS-00620-75A-SF100 Radio Noise Filter for FR-A&F-00470-00620; C1 20m; C2 100m Class 100100404: FA-Inverter: Filter
209740	FFR-SI-48A-SS1 Sinusfilter for 200/400V Inverters; max. 48A; FT=4-16kHz; (W*H*D) 240*290*210mm Class 100100404: FA-Inverter: Filter
209757	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
221540	USB-CAB-5M USB 2.0 connection cabel, plug USB A to plug USB B (mini), 5m Class 100100303: FA-HMI: Cable
238367	FFR-HEL-22K-E DC Link choke for 200V Inverter; 22kW; 0,3mH; 95A Class 100100406: FA-Inverter: Choke
254840	NF125-SV 3P 75A Circuit breaker 3pole. In = 75A; Icu = Ics = 25kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker

Material	Description / Price List Text / Classification
254842	NF125-SV 3P 100A Circuit breaker 3pole. In = 100A; 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
269432	FR-A8ND DeviceNet Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
270288	FR-HC2-H30K KIT Harmonic Converter 30 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
277883	FR-A8CN04 Heatsink Protrusion Attachment for FR-F/A840-00470/00620; for FR-A820-00770/0125 Class 100100403: FA-Inverter: External 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
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
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
298657	S-T35 AC200V Magnetic contactor. 18,5kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
298658	S-T35 AC24V Magnetic contactor. 18,5kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor

Material	Description / Price List Text / Classification
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
409896	FR-XC-H22K Multifunction Regeneration Conv.;400V class;22kW Class 100100403: FA-Inverter: External Option
409917	FR-XCL-H22K Standalone reactor for FR-XC regeneration converter;400V;22 kW;Common bus reg. Class 100100403: FA-Inverter: External Option
409925	FR-XCB-H18.5K Reactor box-type 18,5 kW for FR-XC-H18,5K-PWM;400V;Harmonic suppression mode 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
500833	FR-XCG-H22K Standalone reactor for FR-XC regeneration converter; 400V class; 22kW;Reg.mode Class 100100403: FA-Inverter: External Option
591577	RHF-5P 22-400-50-20-C High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;22kW Class 100100404: FA-Inverter: Filter
591597	RHF-8P 22-400-50-20-C High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;22kW Class 100100404: FA-Inverter: Filter
758553	EFR-HAL-H22K Input reactor, In=50A, L=0.59mH, voltage drop 4%; for drives Pn=22kW Class 100100408: FA-Inverter: Other Option
758587	EFR-DU-H22K Output du/dt limiting reactor, In=46A, fkmin=2kHz; for drives Pn=22kW Class 100100406: FA-Inverter: Choke
758612	EFR-SI-H22K Output sinus filter, In=46A, fkmin=4kHz; for drives Pn=22kW Class 100100404: FA-Inverter: Filter