



## MATERIAL FACT SHEET

### 307220 FR-F840-00470-E2-60

#### General Data

Price List Text (EN)	Inverter; Rated Power: 22kW; 3x380-500V;In max: 47A;(22kW; 47A);IP20
Price List Text (DE)	Umrichter AC; Pn: 22kW; 3x380-500V;In max: 47A;(22kW; 47A);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/000000000000307220](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000307220)

#### 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(DELTAA) / 2(STAR)
Power Loss SLD (W)	565
Power Loss LD (W)	520
Standby Power Consumption (W)	20

Protection Class	IP20
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### 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)	296
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### Life Cycle

Sales Start	15.02.2017
Predecessor	156598 / FR-F740-00470-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-F840-00470-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd512ff94&amp;q=FR-F840-00470-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-F840-00470-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F840-00470-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-F840-00470-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F840-00470-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-F840-00470-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F840-00470-E2-60&amp;doc-lang=en</a>

### Product Packaging

Cardboard (g)	1650
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	0
Other plastic (g)	20
Wood (g)	0
Glass (g)	0
Others (g)	0

### Spare parts

Material	Description	Quantity	Unit
<a href="#">282904</a>	FR-A840-00470-00620-2-60 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
<a href="#">283438</a>	FR-A840-00470-00770-2-60 THYRISTORMODULE	1	PC
<a href="#">283450</a>	FR-A840-00470-01800-2-60 FAN	2	PC

Material	Description	Quantity	Unit
<a href="#">283460</a>	FR-A840-00470-00620-2-60 INRUSH RES.	1	PC
<a href="#">282934</a>	FR-A840-00470-2-60/A846-00470-2-60 DCCT	1	PC
<a href="#">283483</a>	FR-A840-00470-00620-2-60 CBL MA-CPU	1	PC
<a href="#">283586</a>	FR-A840-00470-2-60 CAPACITOR	4	PC
<a href="#">282886</a>	FR-A840-00470-00620-2-60 PCB MA	1	PC
<a href="#">282896</a>	FR-A840-00470-00770-2-60 PCB GA	1	PC
<a href="#">283694</a>	FR-A840-00470/00620-2-60 CHASSIS	1	PC
<a href="#">283695</a>	FR-A840-00470/00620-2-60 CASE	1	PC
<a href="#">283696</a>	FR-A840-00470/00620-2-60 COVER UPPER FR.	1	PC
<a href="#">283697</a>	FR-A840-00470/00620-2-60 COVER LOWER FR.	1	PC
<a href="#">283698</a>	FR-A840-00470/00620-2-60 COVER WIRING	1	PC
<a href="#">283699</a>	FR-A840-00470/00620-2-60 COVER FAN	1	PC
283700	FR-A840-00470/00620-2-60 COVER TERMINAL	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="#">87247</a>	FR-BAL-B-22K Input Reactor 3ph; 400 V; for 22kW 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
<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="#">193680</a>	FFR-BS-00620-75A-SF100 Radio Noise Fiter for FR-A&F-00470-00620; C1 20m; C2 100m Class 100100404: FA-Inverter: Filter
<a href="#">209740</a>	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
<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="#">238367</a>	FFR-HEL-22K-E DC Link choke for 200V Inverter; 22kW; 0,3mH; 95A Class 100100406: FA-Inverter: Choke
<a href="#">254840</a>	NF125-SV 3P 75A Circuit breaker 3pole. In = 75A; Icu = Ics = 25kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
<a href="#">254842</a>	NF125-SV 3P 100A Circuit breaker 3pole. In = 100A; 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

Material	Description / Price List Text / Classification
<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="#">270288</a>	FR-HC2-H30K KIT Harmonic Converter 30 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="#">277883</a>	FR-A8CN04 Heatsink Protrusion Attachment for FR-F/A840-00470/00620; for FR-A820-00770/0125 Class 100100403: FA-Inverter: External Option
<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="#">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="#">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="#">403133</a>	FR-A8AVP Phase detection option board of FR-A/F800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
<a href="#">403134</a>	FR-A8VPB-H Phase detection transformer box for FR-A8AVP Class 100100403: FA-Inverter: External Option
<a href="#">409896</a>	FR-XC-H22K Multifunction Regeneration Conv.;400V class;22kW Class 100100403: FA-Inverter: External Option
<a href="#">409917</a>	FR-XCL-H22K Reactor 22 kW for FR-XC-H22K Class 100100403: FA-Inverter: External Option
<a href="#">409925</a>	FR-XCB-H18.5K Reactor box-type 18,5 kW for FR-XC-H18,5K-PWM 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="#">500833</a>	FR-XCG-H22K Standalone reactor for FR-XC regeneration converter; 400V class; 22kW Class 100100403: FA-Inverter: External Option
<a href="#">591577</a>	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
<a href="#">591597</a>	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