



## MATERIAL FACT SHEET

### 297578 FR-A840-00930-E2-60

#### General Data

Product Hierarchy	IAK24102
	INVERTER
	FR-A840 from 00770 to 01800
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	B (Limited Availability from Stock)

e-shop: <https://emea-fa.mitsubishielectric.com/fa/shop/material-page/000000000000297578>

#### Product Components

<a href="#">307163 / FR-AF840-00930-60</a>	1 pc required
<a href="#">307202 / FR-CA80-01-E2-60</a>	1 pc required

#### FA-Inverter: Inverter

Series	FR-A SERIES
Type	FR-A800-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)	93
Rated Output Current LD (A)	85
Rated Output Current ND (A)	71
Rated Output Current HD (A)	57
Rated Motor Capacity SLD (kW)	45
Rated Motor Capacity LD (kW)	45
Rated Motor Capacity ND (kW)	37
Rated Motor Capacity HD (kW)	30
Frequency Range (Hz)	0,2–590
Control Method	MAGNETIC FLUX VECTOR CONTROL
Control Method (2)	PM SENSORLESS VECTOR CONTROL
Control Method (3)	REAL SENSORLESS VECTOR CONTROL
Control Method (4)	SOFT-PWM/HIGH FREQUENCY PWM
Control Method (5)	V/F CONTROL
Control Method (6)	VECTOR CONTROL (WITH FR-A8AP)
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
RS-485	OPTIONAL
USB	1+1 MINI
Ethernet Port	1
Built-In Network	CC-LINK IE FIELD NETWORK BASIC

Built-In Network (2)	MODBUS/TCP
Built-In Network (3)	SLMP
Built-In Network (4)	iQSS
Leakage Current (mA)	35(DELTA) / 2(STAR)
Power Loss SLD (W)	1110
Power Loss LD (W)	1020
Power Loss ND (W)	840
Power Loss HD (W)	700
Standby Power Consumption (W)	28
Protection Class	IP00

### Product Dimensions & Weight

Width (mm)	435
Height (mm)	550
Depth (mm)	250
Weight (kg)	41

### Logistic Dimensions & Gross Weight

Length (cm)	60,0
Width (cm)	57,0
Height (cm)	39,0
Gross Weight (kg)	46,000
Volume (cdm)	133,380

### Stock Data

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

Sales Start	30.05.2016
Predecessor	266753 / FR-A840-00930-2-60

### 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	ABS,BV,DNV GL,LR,NK
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-A840-00930-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-A840-00930-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-A840-00930-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-A840-00930-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-A840-00930-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-A840-00930-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-A840-00930-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-A840-00930-E2-60&amp;doc-lang=en</a>

### Product Packaging

Cardboard (g)	4908,8
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Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	0
Other plastic (g)	155
Wood (g)	0
Glass (g)	0
Others (g)	0

### Spare parts

Material	Description	Quantity	Unit
<a href="#">282888</a>	FR-A840-00930-01160-2-60 PCB MA	1	PC
<a href="#">282906</a>	FR-A840-00930-01800-2-60 PCB AUX	1	PC
<a href="#">307202</a>	FR-CA80-01-E2-60	1	PC
<a href="#">282932</a>	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
<a href="#">282940</a>	FR-A840/842/CC2-ALL CASE CPU	1	PC
282941	FR-A840-77A-116A BALANCE RESISTOR	6	PC
<a href="#">283435</a>	FR-A840-00930-01800-2-60 Diode module	3	PC
<a href="#">283439</a>	FR-A840-00930-01800-2-60 THYRISTORMODULE	1	PC
<a href="#">676513</a>	FR-A840-00930-01800 BREAKING IGBT	1	PC
<a href="#">283442</a>	FR-A840-00930-01160-2-60 IGBT 2MBI200VB	3	PC
<a href="#">283450</a>	FR-A840-00470-01800-2-60 FAN	3	PC
<a href="#">283462</a>	FR-A840-00930-01800-2-60 INRUSH RES.	1	PC
<a href="#">283469</a>	FR-A840-00930-2-60 DCCT Current Transf.	1	PC
<a href="#">283484</a>	FR-A840-00770-2-60 OR BIGGER CBL MA-CPU	1	PC
<a href="#">283589</a>	FR-A840-00930-2-60 CAPACITOR	4	PC
<a href="#">283707</a>	FR-A840-00930-12120-2-60 COVER	1	PC
<a href="#">283708</a>	FR-A840-00930-01800-2-60 CASE FAN	3	PC
<a href="#">283709</a>	FR-A840-00930-01800-2-60 COVER FAN	3	PC
<a href="#">283710</a>	FR-A840-00930-01800-2-60 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 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="#">87249</a>	FR-BAL-B-37K Input Reactor 3ph; 400V; for 45kW Class 100100406: FA-Inverter: Choke
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="#">193682</a>	FFR-BS-00930-120A-SF100 Radio Noise Filter for FR-A&F-00930; C1 20m; C2 100m Class 100100404: FA-Inverter: Filter
<a href="#">209742</a>	FFR-SI-77A-SS1 Sinusfilter for 200/400V Inverters; max. 77A; FT=4-16kHz; (W*H*D) 300*345*210mm Class 100100404: FA-Inverter: Filter
<a href="#">209758</a>	FFR-DT-93A-SS1 du/dt Filter for 400V Inverters; max. 93A; FT=2-16kHz; (W*H*D) 190*240*100mm Class 100100404: FA-Inverter: Filter
<a href="#">212210</a>	RUFC40 (000100) Brake Resistor Class 100100403: FA-Inverter: External Option
<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

Material	Description / Price List Text / Classification
<a href="#">238369</a>	FFR-HEL-37K-E DC Link choke for 200V Inverter; 37kW; 0,2mH; 158A Class 100100406: FA-Inverter: Choke
<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
<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="#">269429</a>	FR-A8AP Incremental Encoder Feedback for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">269430</a>	FR-A8AL Incremental encoder feedback terminal block for FR-A800 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="#">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="#">274525</a>	FR-LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External 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="#">277945</a>	FR-A8CN06 Heatsink Protrusion Attachment for FR-F/A840-00930 bis 01800; for FR-A820-01870/ Class 100100403: FA-Inverter: External Option
<a href="#">283939</a>	FR-A8APR Resolver interface/orientation control/Resolver feedback control/vector control Class 100100402: FA-Inverter: Internal 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="#">285244</a>	FR-A8TP Incremental Encoder Feedback Terminal Block for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">289335</a>	FR-A8NS SSCNet Interface for FR-A800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
<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="#">297422</a>	FR-A8APS Absolute Encoder Feedback for FR-A800 (EnDat) Class 100100402: FA-Inverter: Internal Option
<a href="#">298153</a>	FR-A8NCA CANopen Interface for FR-A800 Class 100100402: FA-Inverter: Internal Option
<a href="#">298663</a>	S-T50 AC100V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 100V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298664</a>	S-T50 AC200V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298665</a>	S-T50 AC24V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298666</a>	S-T50 AC300V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 300V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298667</a>	S-T50 AC400V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298668</a>	S-T50 AC48V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 48V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298669</a>	S-T50 AC500V Magnetic contactor. 22kW; 2NO + 2NC; Us = AC 500V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298670</a>	S-T65 AC100V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 100V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298671</a>	S-T65 AC200V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298672</a>	S-T65 AC24V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 24V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298673</a>	S-T65 AC300V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 300V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298674</a>	S-T65 AC400V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298675</a>	S-T65 AC48V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 48V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">298676</a>	S-T65 AC500V Magnetic contactor. 30kW; 2NO + 2NC; Us = AC 500V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
<a href="#">307163</a>	FR-AF840-00930-60 Inverter Body AC; Pn: 30-45kW; 3x380-500V; In max: 93A;(37kW; 71A); IP00 Class 100100401: FA-Inverter: Inverter
<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="#">307202</a>	FR-CA80-01-E2-60 Control Card for FR-A840-00770 -01800 Ethernet Version Class 100100402: FA-Inverter: Internal Option
<a href="#">403614</a>	FR-A8APA SinCos Encoder Feedback for FR-A800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
<a href="#">591578</a>	RHF-5P 37-400-50-20-C High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;37kW Class 100100404: FA-Inverter: Filter
<a href="#">591599</a>	RHF-8P 37-400-50-20-C High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;37kW Class 100100404: FA-Inverter: Filter