



## MATERIAL FACT SHEET

### 297589 FR-A840-06830-E2-60

#### General Data

Product Hierarchy	IAK24103
	INVERTER
	FR-A840 from 2160
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	C (Non-Stock Material / Make-to-Order)

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_IA/EUR/en/p/000000000000297589](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000297589)

#### Product Components

<a href="#">307194 / FR-AF840-06830-60</a>	1 pc required
<a href="#">307203 / FR-CA80-02-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)	683
Rated Output Current LD (A)	610
Rated Output Current ND (A)	547
Rated Output Current HD (A)	481
Rated Motor Capacity SLD (kW)	355
Rated Motor Capacity LD (kW)	315
Rated Motor Capacity ND (kW)	280
Rated Motor Capacity HD (kW)	250
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

Built-In Network (2)	CC-LINK IE FIELD NETWORK BASIC
Built-In Network (3)	MODBUS/TCP
Leakage Current (mA)	35(Delta) / 2(Star)
Power Loss SLD (W)	7550
Power Loss LD (W)	6600
Power Loss ND (W)	5900
Power Loss HD (W)	5050
Standby Power Consumption (W)	125
Protection Class	IP00

### Product Dimensions & Weight

Width (mm)	680
Height (mm)	1010
Depth (mm)	380
Weight (kg)	166

### Logistic Dimensions & Gross Weight

Length (cm)	115,0
Width (cm)	82,0
Height (cm)	52,0
Gross Weight (kg)	200,000
Volume (cdm)	490,360

### Stock Data

Planned Delivery Time (Days)	300
------------------------------	-----

### Life Cycle

Sales Start	30.05.2016
Predecessor	266764 / FR-A840-06830-2-60

### 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	YES
REACH Substance CAS Number	<a href="#">127-19-5</a>
REACH Substance CAS Number (2)	<a href="#">1317-36-8</a>
REACH Substance CAS Number (3)	<a href="#">13560-89-9</a>
REACH Substance CAS Number (4)	<a href="#">15571-58-1</a>
REACH Substance CAS Number (5)	<a href="#">540-97-6</a>
REACH Substance CAS Number (6)	<a href="#">541-02-6</a>
REACH Substance CAS Number (7)	<a href="#">556-67-2</a>
REACH Substance CAS Number (8)	<a href="#">7439-92-1</a>
REACH Substance CAS Number (9)	<a href="#">84-61-7</a>
Dangerous Goods Class	NO
Dangerous Goods Identifier	NO
WEEE	B2B

### Conformity

CE	COMPLIANT
UL/cUL	COMPLIANT
EAC	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-A840-06830-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-A840-06830-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-A840-06830-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-A840-06830-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-A840-06830-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-A840-06830-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-A840-06830-E2-60&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-A840-06830-E2-60&amp;doc-lang=en</a>

### Product Packaging

Cardboard (g)	21000
---------------	-------

Other paper (g)	0
Aluminum (g)	0
Steel (g)	15
Styrofoam (g)	0
Other plastic (g)	120
Wood (g)	0
Glass (g)	0
Others (g)	400

### Spare parts

Material	Description	Quantity	Unit
<a href="#">282892</a>	FR-A840-04320-06830-2-60 PCB MA	1	PC
<a href="#">307203</a>	FR-CA80-02-E2-60	1	PC
<a href="#">282925</a>	FR-A840-04320-2-60 PCB POWER	1	PC
<a href="#">282926</a>	FR-A840-03250-2-60 PCB AUX	1	PC
<a href="#">282928</a>	FR-A840-03250-12120/CC2 DM	12	PC
<a href="#">282929</a>	FR-A840-04320-12120/CC2 FUSE HOLDER	2	PC
<a href="#">282930</a>	FR-A840-04320-12120/CC2 FUSE	2	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
<a href="#">282942</a>	FR-A840-03250-12120 BALANCE RESISTOR	16	PC
<a href="#">283444</a>	FR-A840-03250-12120-2-60 IGBT CM450DY207	12	PC
<a href="#">283466</a>	FR-A840-05470-06830-2-60/CC2 INRUSH RES.	1	PC
<a href="#">283480</a>	FR-A840-06830-2-60 DCCT	3	PC
<a href="#">283484</a>	FR-A840-00770-2-60 OR BIGGER CBL MA-CPU	1	PC
<a href="#">283593</a>	FR-A840-03610-2-60 CAPACITOR	8	PC
<a href="#">283707</a>	FR-A840-00930-12120-2-60 COVER	1	PC
<a href="#">283679</a>	FR-A840-04320-06830-2-60/ FR-CC2 ALL FAN	4	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="#">104666</a>	FN 3359-1000-99 f.A-280-375K/F-375K Radio Noise Filter for FR-A&F-06830-09620; C2 100m; C4 100m Class 100100404: FA-Inverter: Filter
<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="#">209749</a>	FFR-SI-683A-SS1 Sinusfilter for 400V Inverters; max. 683A; FT=2-16kHz; (W*H*D) 620*745*max.550mm Class 100100404: FA-Inverter: Filter
<a href="#">209763</a>	FFR-DT-610A-SS1 du/dt Filter for 400V Inverters; max. 610A; FT=2-16kHz; (W*H*D) 240*325*230mm 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="#">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

Material	Description / Price List Text / Classification
<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="#">273312</a>	FR-HEL-H280K DC Link choke for 400V Inverter with 280kW Motor Class 100100406: FA-Inverter: Choke
<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>	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="#">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
<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="#">296233</a>	FR-BAL-B3-250K Input reactor 3ph, 400V, In= 481A, Pn=250kW, L1=0,046mH Class 100100406: FA-Inverter: Choke
<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 Incremental 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

Material	Description / Price List Text / Classification
<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="#">307194</a>	FR-AF840-06830-60 Inverter Body AC; Pn: 250-355kW; 3x380-500V;In max: 683A;(280kW; 547A); IP00 Class 100100401: FA-Inverter: Inverter
<a href="#">307203</a>	FR-CA80-02-E2-60 Control Card for FR-A840-02160 up to 12120 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
<a href="#">594983</a>	S-N600AB AC100V 2A2B Magnetic contactor. 330kW; 2NO + 2NC; Us = AC 100V, 50Hz; Non-Reversing Class 100101001: FA-MC: Magnetic Contactor
<a href="#">594984</a>	S-N600AB AC200V 2A2B Magnetic contactor. 330kW; 2NO + 2NC; Us = AC 200V, 50Hz; Non-Reversing Class 100101001: FA-MC: Magnetic Contactor
<a href="#">594987</a>	S-N600AB AC400V 2A2B Magnetic contactor. 330kW; 2NO + 2NC; Us = AC 400V, 50Hz; Non-Reversing Class 100101001: FA-MC: Magnetic Contactor
<a href="#">594988</a>	S-N600AB AC500V 2A2B Magnetic contactor. 330kW; 2NO + 2NC; Us = AC 500V, 50Hz; Non-Reversing Class 100101001: FA-MC: Magnetic Contactor
<a href="#">596891</a>	RHF-5P 315-400-50-00-S High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;315kW Class 100100404: FA-Inverter: Filter
<a href="#">596908</a>	RHF-8P 315-400-50-00-S High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;315kW Class 100100404: FA-Inverter: Filter