MITSUBISHI ELECTRIC EUROPE B.V.

Industrial Automation
Mitsubishi-Electric-Platz 1 40882 Ratingen Deutschland
Telefon +49 (0) 2102 486-0 Fax +49 (0) 2102 486-1120
https://emea.mitsubishielectric.com/fa



MATERIAL FACT SHEET

409336 FR-A840-04320-E2-60CRN

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/000000000000409336

FA-Inverter: Inverter

Series	FR-A800 PLUS SERIES
Type	FR-A800-CRN (FOR CRANES)
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)	432
Rated Output Current LD (A)	361
Rated Output Current ND (A)	325
Rated Output Current HD (A)	260
Rated Motor Capacity ND (kW)	160
Rated Motor Capacity HD (kW)	132
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
Brake Chopper ED (%)	-
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	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)	4650
Power Loss LD (W)	3800
Power Loss ND (W)	3450

Power Loss HD (W)	2650
Standby Power Consumption (W)	96
Protection Class	IP00

Product Dimensions & Weight

Width (mm)	498
Height (mm)	1010
Depth (mm)	380
Weight (kg)	117

Logistic Dimensions & Gross Weight

Length (cm)	0,0
Width (cm)	0,0
Height (cm)	0,0
Gross Weight (kg)	128,700
Volume (cdm)	0,000

Stock Data

Planned Delivery Time (Days)	268

Life Cycle

Sales Start	01.12.2018
Predecessor	No Predecessor

Additional Product Information

Difference to Standard 1	CRANE CONTROL
Binding Tariff Information	DEBTI-21865/22-1
BTI validity date	01.01.2026

Export Data

Legal Control (Dual Use List)	Not Listed
Country of Origin	Japan (JP)
Preference Status (Supplier Declaration)	Non EU

Environmental

Dangerous Goods Class	NO
Dangerous Goods Identifier	NO
RoHS Compliance	COMPLIANT
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	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=bltdae25c2bd5f2ff94&q=FR-A840-04320-E2-60CRN&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=FR-A840-04320-E2-60CRN&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=FR-A840-04320-E2-60CRN&doc-lang=en
Network configuration file URL	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blte8cf990c7c524b4e&q=FR-A840-04320-E2-60CRN&doc-lang=en

Product Packaging

Cardboard (g)	18000
Other paper (g)	0
Aluminum (g)	0
Steel (g)	15
Styrofoam (g)	0
Other plastic (g)	100
Wood (g)	0
Glass (g)	0
Others (g)	0

Spare parts

Material	Description	Quantity	Unit
282892	FR-A840-04320-06830-2-60 PCB MA	1	PC
282925	FR-A840-04320-2-60 PCB POWER	1	PC
282926	FR-A840-03250-2-60 PCB AUX	1	PC
282927	FR-A840/CC2-325A-432A-547A-DC CAPACITOR	6	PC
282928	FR-A840-03250-12120/CC2 DM	9	PC
282929	FR-A840-04320-12120/CC2 FUSE HOLDER	2	PC
282930	FR-A840-04320-12120/CC2 FUSE	2	PC
283679	FR-A840-04320-06830-2-60/ FR-CC2 ALL FAN	3	PC
283444	FR-A840-03250-12120-2-60 IGBT CM450DY207	9	PC
282932	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
591466	FR-DU08 PARAMETER-UNIT ALL	1	PC
283484	FR-A840-00770-2-60 OR BIGGER CBL MA-CPU	1	PC
591470	FR-A870 CABLE ALL BKO-CA1972H01	1	PC
591471	FR-A870 CABLE ALL BKO-CA1972H02	1	PC
283476	FR-A840-04320-2-60 DCCT	3	PC
591486	FR-A870 COVER INTERFACE ALL	1	PC
591485	FR-A870 COVER CA PCB PRINT ALL	1	PC
283465	FR-A840-04320-04810-2-60 INRUSH RES.	1	PC
282942	FR-A840-03250-12120 BALANCE RESISTOR	12	PC
591494	FR-A870 GROUND WIRE ETH ALL	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 2,5 Cable for connecting Inverter and Programming panel; 2,5m Class 100100405: FA-Inverter: Cable
70729	FR-A5 CBL 5 Cable for connecting Inverter and Programming panel; 5m Class 100100405: FA-Inverter: Cable
104664	FN 3359-400-99 f. A-110-132K/F-132-185K Radio Noise Filter for FR-A&F-03250-04320; C2 100m; C4 100m Class 100100404: FA-Inverter: Filter
113662	S-N300 AC100V Magnetic contactor. 160kW; 2NO + 2NC; Us = AC 100V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
113663	S-N300 AC200V Magnetic contactor. 160kW; 2NO + 2NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
113664	S-N300 AC400V Magnetic contactor. 160kW; 2NO + 2NC; Us = AC 400V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
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
204780	NF400-SEW 3P 400A Circuit breaker 3pole. Ir = 200 - 400A; Icu = Ics = 42kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
209747	FFR-SI-432A-SS1 Sinusfilter for 200/400V Inverters;max 432A;FT=2-16kHz;(W*H*D) 480*640*max.680mm Class 100100404: FA-Inverter: Filter
209761	FFR-DT-330A-SS1 du/dt Filter for 400V Inverters; max. 330A; FT=2-16kHz; (W*H*D) 240*220*240mm 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
262948	A8NDPV1 Profibus DPV1 with Dsub Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
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
269429	FR-A8AP Incremental Encoder Feedback for FR-A800 Class 100100402: FA-Inverter: Internal Option
269430	FR-A8AL Incremental encoder feedback terminal block for FR-A800 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
273102	FR-A8NCE CC-Link IE Field Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
273308	FR-HEL-H160K DC Link choke for 400V Inverter with 160kW Motor Class 100100406: FA-Inverter: Choke
274514	FR-A8NP ProfibusDP Interface for FR-A/F800 with FR-A/F700 PPO types Class 100100402: FA-Inverter: Internal Option
274525	FR-LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External 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 l + FR-Configurator2 for 800 series Class 100101203: FA-Software: Software Inverter
283939	FR-A8APR Resolver interface/orientation control/Resolver feedback control/vector control Class 100100402: FA-Inverter: Internal 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
285244	FR-A8TP Incremental Encoder Feedback Terminal Block for FR-A800 Class 100100402: FA-Inverter: Internal Option
289335	FR-A8NS SSCNet Interface for FR-A800 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
296230	FR-BAL-B3-160K Input reactor 3ph, 400V, In= 325A, Pn=160kW, L1=0,068mH Class 100100406: FA-Inverter: Choke
296613	FR-LU08-01 Clear text LCD Parameter unit for all units of 800 Series (IP55) Class 100100403: FA-Inverter: External Option

Material	Description / Price List Text / Classification
297422	FR-A8APS Absolute Encoder Feedback for FR-A800 (EnDat) Class 100100402: FA-Inverter: Internal Option
298153	FR-A8NCA CANopen Interface for FR-A800 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
307190	FR-AF840-04320-60 Inverter Body AC; Pn: 132-220kW; 3x380-500V;In max: 432A;(160kW; 325A); IP00 Class 100100401: FA-Inverter: Inverter
307203	FR-CA80-02-E2-60 Control Card for FR-A840-02160 up to 12120 Ethernet Version Class 100100402: FA-Inverter: Internal Option
403614	FR-A8APA SinCos Encoder Feedback for FR-A800 Class 100100402: FA-Inverter: Internal Option
591585	RHF-5P 160-400-50-20-C High efficient double-stage passive harmonic filter for THDi <5%;400V;50Hz;160kW Class 100100404: FA-Inverter: Filter
591606	RHF-8P 160-400-50-20-C High efficient double-stage passive harmonic filter for THDi <8%;400V;50Hz;160kW Class 100100404: FA-Inverter: Filter