



MATERIAL FACT SHEET

504748 FR-E820S-0030-4-60

General Data

Product Hierarchy	IAK24801
	INVERTER
	FR-E820
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	A (Available from Stock)

e-shop: <https://emea-fa.mitsubishielectric.com/fa/shop/material-page/00000000000504748>

FA-Inverter: Inverter

Series	FR-E800 SERIES
Type	FR-E800 RS485 INVERTER
Minimum Rated Voltage (V)	200
Min. Permissible Voltage (V)	170
Maximum Rated Voltage (V)	240
Max. Permissible Voltage (V)	264
Current Type	AC
Phases	1
Rated Output Current ND (A)	3
Rated Motor Capacity ND (kW)	0.4
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)	V/F CONTROL
Motor Type	INDUCTION MOTOR, PM MOTOR
Brake Chopper ED (%)	30
Integrated EMC Filter	NO
Safe Torque Off (STO)	YES
Regenerative (4Q)	NO
Integrated DC Choke	NO
Display	BUILT-IN
Display Type	4 DIGITS LED
PLC Function	YES
Program Memory	2K
Program Memory Unit	STEPS
Integrated Digital Inputs	7
Digital Outputs (Transistor)	2
Digital Outputs (Relay)	1
Integrated Analogue Inputs	2
Integrated Analogue Outputs	1
IO Type of Terminal Block	SPRING CLAMP
Expandable	YES
RS-485	1
USB	1 (MINI B)
Ethernet Port	NO
Built-In Network	MODBUS-RTU
Leakage Current (mA)	1,2
Power Loss LD (W)	-
Power Loss ND (W)	32
Standby Power Consumption (W)	-
Protection Class	IP20

Product Dimensions & Weight

Width (mm)	68
Height (mm)	128
Depth (mm)	142,5
Weight (kg)	0.8

Logistic Dimensions & Gross Weight

Length (cm)	21,0
Width (cm)	15,0
Height (cm)	13,0
Gross Weight (kg)	0,969
Volume (cdm)	4,095

Stock Data

Planned Delivery Time (Days)	98
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Life Cycle

Sales Start	09.11.2020
Predecessor	240976 / FR-E720S-030SC-E6

Additional Product Information

Battery included	NO
Product Code	INV(O/O MDI)

Export Data

Commodity Code	85044095
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	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=bltdae25c2bd5f2ff94&q=FR-E820S-0030-4-60&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=FR-E820S-0030-4-60&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=FR-E820S-0030-4-60&doc-lang=en
Network configuration file URL	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blte8cf990c7c524b4e&q=FR-E820S-0030-4-60&doc-lang=en

Product Packaging

Cardboard (g)	168
Other paper (g)	0
Aluminum (g)	0
Steel (g)	0
Styrofoam (g)	0
Other plastic (g)	10
Wood (g)	0
Glass (g)	0
Others (g)	0

Spare parts

Material	Description	Quantity	Unit
600706	FR-E820/E840/E860 PCB CPU	1	PC
611134	FR-E840-4(5)-60 PCB TA	1	PC
611138	FR-E800 parameter unit	1	PC
591470	FR-A870 CABLE ALL BKO-CA1972H01	1	PC
611144	FR-E800 COVER TOP 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 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
130832	FR-UDA02 DIN-Rail Adaptor for FR-D720S-1,5k; FR-D740-0,4k-3,7k Class 100100403: FA-Inverter: External Option
134969	FR-BAL-S-B-0,4K Input Reactor; 1 ph.; 230 V; for 0,4 K Class 100100406: FA-Inverter: Choke
166134	FR-PU07 Programming panel with LCD-Display for all units of FR-700 series 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
202426	FR-BU2-H7.5K Brake Unit without Brake Resistor for all Inverters with DC-Bus Terminals; 400V Class 100100407: FA-Inverter: Brake Option
209052	FR-PU07BB-L Programming Panel with Copy Function; batterypowered; all FR-700 units; w/o bat. Class 100100403: FA-Inverter: External Option
214795	FR-PA07 Simple Parameter Unit for mounting on enclosure surface; for all FR-E700 Class 100100403: FA-Inverter: External Option
238357	FFR-HEL-0.4K-E DC Link choke for 200V Inverter; 0,4kW; 17mH; 2,1A Class 100100406: FA-Inverter: Choke
254684	NF32-SV 3P 10A Circuit breaker 3pole. In = 10A; Icu = Ics = 2,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
254743	NF63-SV 3P 10A Circuit breaker 3pole. In = 10A; Icu = Ics = 7,5kA at AC 440V Class 100100901: FA-MCCB: Moulded-Case Circuit Breaker
274525	FR-LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External 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
279143	S-T10 AC200V 1A Magnetic contactor. 4kW; 1NO; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
279200	S-T10 AC200V 1B Magnetic contactor. 4kW; 1NC; Us = AC 200V, 50Hz Class 100101001: FA-MC: Magnetic Contactor
288436	MMP-T32LF 10A Motor prot. switch. 4,0kW; Ir=6,0 ~ 10,0A; Icu AC 400V=15kA Class 100101101: FA-MMS: Manual Motor Starter
296613	FR-LU08-01 Clear text LCD Parameter unit for all units of 800 Series (IP55) Class 100100403: FA-Inverter: External Option
312348	FFR-CS-050-14A-SF1 Radio Noise Filter for FR-E820S-0008-0030/FR-D720S/FR-CS82S; C1: 20m, C2: 50m Class 100100404: FA-Inverter: Filter
312351	FFR-CS-050-14A-SF1-LL Radio Noise Filter for FR-E820S-0008-0030/FR-D720S; C1: 10m Class 100100404: FA-Inverter: Filter

Material	Description / Price List Text / Classification
506377	FR-A8AX-60 E-KIT 16-Bit-Digital-Input; BCD/Binary-Code; 24V DC; 5mA; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
506378	FR-A8AY-60 E-KIT Digital-/Analog Output; Output load: 24V DC; 0,1A; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
506379	FR-A8AR-60 E-KIT Relay output; 3 additional output relays; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
506380	FR-A8NP-60 E-KIT Profibus Network connection; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
506381	FR-A8ND-60 E-KIT DeviceNet Network connection; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
506412	FR-A8NC-60 E-KIT CC-Link Network connection; Coated; E-KIT for FR-E800 Class 100100402: FA-Inverter: Internal Option
573101	FR-A8AP-60 E-KIT Incremental Encoder Feedback; E-KIT for FR-E800; Coated Class 100100402: FA-Inverter: Internal Option
679090	EM-AMF 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; 3000r/min Class 100100410: FA-Inverter: Motor
679091	EM-AMFW 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; IP65; 3000r/min Class 100100410: FA-Inverter: Motor
679092	EM-AMFB 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; With brake; 3000r/min Class 100100410: FA-Inverter: Motor
679093	EM-AMFBW 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; With brake; IP65; 3000r/min Class 100100410: FA-Inverter: Motor
679094	EM-AMFK 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; With key; 3000r/min Class 100100410: FA-Inverter: Motor
679095	EM-AMFKW 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; With key; IP65; 3000r/min Class 100100410: FA-Inverter: Motor
679096	EM-AMFBK 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; With brake; With key; 3000r/min Class 100100410: FA-Inverter: Motor
679097	EM-AMFBKW 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; With brake; With key; IP65; 3000r/min Class 100100410: FA-Inverter: Motor
703052	EM-AMFT 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; Terminal Block; 3000r/min Class 100100410: FA-Inverter: Motor
703053	EM-AMFBT 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; Terminal Block; With brake; 3000r/min Class 100100410: FA-Inverter: Motor
703054	EM-AMFKT 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; Terminal Block; With key; 3000r/min Class 100100410: FA-Inverter: Motor
703055	EM-AMFBKT 0.4KW 160V 100HZ PM Motor; 0.4kW; Flange type; Terminal Block; With brake; With key; 3000r/min Class 100100410: FA-Inverter: Motor
757910	EFR-EFF-1A-11A EMC footprint filter; 1x230V; group A; C1:20m / C2:50m / C3:100m; Leakage <7mA Class 100100404: FA-Inverter: Filter