



MATERIAL FACT SHEET

333256 FR-F820-01250-E3-N6

General Data

Product Hierarchy	IAK24204
	INVERTER
	FR-F820
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/000000000000333256

FA-Inverter: Inverter

Series	FR-F800 SERIES
Type	FR-F800 PUMP AND FAN
Minimum Rated Voltage (V)	200
Min. Permissible Voltage (V)	170
Maximum Rated Voltage (V)	240
Max. Permissible Voltage (V)	264
Current Type	AC
Phases	3
Rated Output Current SLD (A)	125
Rated Output Current LD (A)	114
Rated Motor Capacity SLD (kW)	30
Rated Motor Capacity LD (kW)	30
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 (OFF ON INITIAL SETTINGS)
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)	22(EMC ON)/1(EMC OFF)
Power Loss SLD (W)	1000
Power Loss LD (W)	950
Standby Power Consumption (W)	-
Protection Class	IP20

Product Dimensions & Weight

Width (mm)	250
Height (mm)	400
Depth (mm)	190
Weight (kg)	15

Logistic Dimensions & Gross Weight

Length (cm)	63,0
Width (cm)	30,0
Height (cm)	25,5
Gross Weight (kg)	19,800
Volume (cdm)	48,195

Stock Data

Planned Delivery Time (Days)	296
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Life Cycle

Sales Start	01.04.2018
Predecessor	286810 / FR-F820-01250-2-60

Additional Product Information

Binding Tariff Information	DEBTI-21865/22-1
BTI validity date	01.01.2026
Battery included	NO
Forecast Breakdown	FR-F820

Export Data

Commodity Code	85371091
Legal Control (Dual Use List)	Not Listed
Country of Origin	Japan (JP)
Preference Status (Supplier Declaration)	Non EU

Environmental

REACH Limit Exceeded	YES
REACH Substance CAS Number	10141-05-6
REACH Substance CAS Number (2)	12626-81-2
REACH Substance CAS Number (3)	127-19-5
REACH Substance CAS Number (4)	1317-36-8
REACH Substance CAS Number (5)	13560-89-9
REACH Substance CAS Number (6)	540-97-6
REACH Substance CAS Number (7)	541-02-6
REACH Substance CAS Number (8)	556-67-2
REACH Substance CAS Number (9)	7439-92-1
REACH Substance CAS Number (10)	80-05-7
Dangerous Goods Class	NO
Dangerous Goods Identifier	NO
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=bltdae25c2bd5f2f94&q=FR-F820-01250-E3-N6&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=FR-F820-01250-E3-N6&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=FR-F820-01250-E3-N6&doc-lang=en
Network configuration file URL	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blte8cf990c7c524b4e&q=FR-F820-01250-E3-N6&doc-lang=en

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
685222	FR-F820-30K-1-60 PCB GA	1	PC
487563	FR-A820-00770-01250-15K-22K PCB AUX	1	PC
283587	FR-A840-00620-2-60 CAPACITOR	4	PC
282932	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	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
157515	FR-ADP Adaptor Module for Operator Panel FR-DU07 Class 100100403: FA-Inverter: External Option
209744	FFR-SI-116A-SS1 Sinusfilter for 200/400V Inverters; max. 116A; FT=4-16kHz; (W*H*D) 300*345*237mm Class 100100404: FA-Inverter: Filter
242151	FR-PU07-01 Programming panel with LCD-Display for FR-700-NA series Class 100100403: FA-Inverter: External Option
262948	A8NDPV1 Profibus DPV1 with Dsub Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
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
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
270273	FR-HC2-30K KIT Harmonic Converter 30 kW for Power Factor correction; 200V Class; KIT Class 100100403: FA-Inverter: External Option
273102	FR-A8NCE CC-Link IE Field Interface for FR-A/F800 Class 100100402: FA-Inverter: Internal Option
274514	FR-A8NP ProfibusDP Interface for FR-A/F800 with FR-A/F700 PPO types Class 100100402: FA-Inverter: Internal Option
274526	FR-A8TAT Adapter for control terminal of A/F700 to A/F800 Class 100100402: FA-Inverter: Internal Option

Material	Description / Price List Text / Classification
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
290115	FR-A8NCN Control Net Interface for FR-A800 series Class 100100402: FA-Inverter: Internal Option
290116	FR-A8TR Screw Terminal Block for FR-A/F800 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
296613	FR-LU08-01 Clear text LCD Parameter unit for all units of 800 Series (IP55) Class 100100403: FA-Inverter: External 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
403133	FR-A8AVP Phase detection option board of FR-A/F800 Class 100100402: FA-Inverter: Internal Option
403134	FR-A8VPB-H Phase detection transformer box for FR-A8AVP Class 100100403: FA-Inverter: External Option
487882	FR-A8NCG Plug-in Option for CC-Link IE TSN Communication Function Class 100100402: FA-Inverter: Internal Option