



MATERIAL FACT SHEET

738915 FR-D820-3.7K-165-60

General Data

Product Hierarchy	IAK24902
	INVERTER
	FR-D820
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	B (Limited Availability from Stock)

e-shop: <https://emea.mitsubishielectric.com/fa/shop/material-page/000000000000738915>

FA-Inverter: Inverter

Series	FR-D800 SERIES
Type	FR-D800 COMPACT 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	3
Rated Output Current SLD (A)	23,8
Rated Output Current LD (A)	-
Rated Output Current ND (A)	16,5
Rated Output Current HD (A)	-
Rated Motor Capacity SLD (kW)	5,50
Rated Motor Capacity LD (kW)	-
Rated Motor Capacity ND (kW)	3,7
Rated Motor Capacity HD (kW)	-
Frequency Range (Hz)	0,2 TO 590 HZ
Control Method	Adv. magnetic flux vector
Control Method (2)	PM sensorless vector control
Control Method (3)	V/F control
Motor Type	INDUCTION MOTOR
Brake Chopper ED (%)	100
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	NO
Integrated Digital Inputs	5
Digital Outputs (Transistor)	1
Digital Outputs (Relay)	1
Integrated Analogue Inputs	-
Integrated Analogue Outputs	-
IO Type of Terminal Block	SPRING CLAMP
Expandable	NO
RS-485	1
USB	TYPE C
Ethernet Port	-
Built-In Network	CC-Link IE Field Network Basic
Built-In Network (2)	CC-Link IE TSN
Built-In Network (3)	MODBUS RTU
Leakage Current (mA)	-
Protection Class	IP20

Product Dimensions & Weight

Width (mm)	108
Height (mm)	128

Depth (mm)	142,5
Weight (kg)	1,4

Logistic Dimensions & Gross Weight

Length (cm)	20,0
Width (cm)	12,5
Height (cm)	20,0
Gross Weight (kg)	1,600
Volume (m3)	0,005

Stock Data

Planned Delivery Time (Days)	147
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Life Cycle

Sales Start	10.02.2025
Predecessor	217415 / FR-D720-3.7K

Additional Product Information

Battery included	NO
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Export Data

Commodity Code	85044095
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	1303-86-2
REACH Substance CAS Number (2)	68-12-2
REACH Substance CAS Number (3)	693-98-1
REACH Substance CAS Number (4)	71868-10-5
REACH Substance CAS Number (5)	7439-92-1
REACH Substance CAS Number (6)	79-94-7
Dangerous Goods Class	NO
Dangerous Goods Identifier	NO
RoHS Compliance	COMPLIANT
WEEE	B2B

Conformity

CE	COMPLIANT
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Documentation & Media Data

Manual URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=bltdae25c2bd5f2ff94&q=FR-D820-3.7K-165-60&doc-lang=en
Certificates URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt8050dd1408c11cc2&q=FR-D820-3.7K-165-60&doc-lang=en
CAD URL Indicator	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blt26ecc97a31a841c1&q=FR-D820-3.7K-165-60&doc-lang=en
Network configuration file URL	https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&doc-cats=blte8cf990c7c524b4e&q=FR-D820-3.7K-165-60&doc-lang=en

Spare parts

Material	Description	Quantity	Unit
591470	FR-A870 CABLE ALL BKO-CA1972H01	1	PC
754155	FR-D800S Adjustment wheel parameters	1	PC
754158	FR-D800S Front cover below	1	PC
754221	FR-D800 PCB Control Board D80CA15B-60	1	PC

Compatible products

Material	Description / Price List Text / Classification
46604	FR-ABR-3.7K External High-Duty Brake Resistor; 3,7kW; 230V; 40 Ohm; 10%ED Class 100100407: FA-Inverter: Brake Option
70727	FR-A5 CBL 1 Cable for connecting Inverter and Programming panel; 1m Class 100100405: FA-Inverter: Cable

Material	Description / Price List Text / Classification
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
157515	FR-ADP Adaptor Module for Operator Panel FR-DU07 Class 100100403: FA-Inverter: External Option
166134	FR-PU07 Programming panel with LCD-Display for all units of FR-700 series Class 100100403: FA-Inverter: External 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
253701	FR-HC2-7.5K Harmonic Converter 7,5 kW for Power Factor correction, 200 V Class Class 100100403: FA-Inverter: External Option
270271	FR-HC2-7.5K KIT Harmonic Converter 7,5 kW for Power Factor correction; 200V Class; KIT Class 100100403: FA-Inverter: External Option
274525	FR-LU08 Clear text LCD Parameter unit for all units of 800 Series Class 100100403: FA-Inverter: External Option
296613	FR-LU08-01 Clear text LCD Parameter unit for all units of 800 Series (IP55) Class 100100403: FA-Inverter: External Option