



## MATERIAL FACT SHEET

### 318072 FR-F846-02160-E2-60L2

#### General Data

Price List Text (EN)	Inverter AC; Pn: 90kW; 3x380-500V;In max: 180A; IP55
Price List Text (DE)	Umrichter AC; Pn: 90kW; 3x380-500V;In max: 180A; IP55
Product Hierarchy	IAK24500 INVERTER FR-F846 IP55
Ext. Material Group	10 STANDARD ITEM
ABC Indicator	A (Available from Stock)

e-shop: [https://mitsubishi-electric-eshop.mee.com/mee/FA\\_IA/EUR/en/p/000000000000318072](https://mitsubishi-electric-eshop.mee.com/mee/FA_IA/EUR/en/p/000000000000318072)

#### FA-Inverter: Inverter

Series	FR-F800 SERIES
Type	FR-F846-E2 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 LD (A)	180
Rated Motor Capacity LD (kW)	90
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
Safe Torque Off (STO)	YES
Regenerative (4Q)	NO
Integrated DC Choke	YES
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)	2
Power Loss SLD (W)	2520
Standby Power Consumption (W)	46
Protection Class	IP55

### Product Dimensions & Weight

Width (mm)	420
Height (mm)	1360
Depth (mm)	456,6
Weight (kg)	150

### Logistic Dimensions & Gross Weight

Length (cm)	150,0
Width (cm)	55,0
Height (cm)	67,0
Gross Weight (kg)	195,000
Volume (cdm)	552,750

### Stock Data

Planned Delivery Time (Days)	128
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### Life Cycle

Sales Start	01.03.2018
Predecessor	No Predecessor

### 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	<a href="#">12626-81-2</a>
REACH Substance CAS Number (2)	<a href="#">127-19-5</a>
REACH Substance CAS Number (3)	<a href="#">1317-36-8</a>
REACH Substance CAS Number (4)	<a href="#">13560-89-9</a>
REACH Substance CAS Number (5)	<a href="#">15571-58-1</a>
REACH Substance CAS Number (6)	<a href="#">540-97-6</a>
REACH Substance CAS Number (7)	<a href="#">541-02-6</a>
REACH Substance CAS Number (8)	<a href="#">556-67-2</a>
REACH Substance CAS Number (9)	<a href="#">7439-92-1</a>
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	<a href="https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-F846-02160-E2-60L2&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=bltdae25c2bd5f2ff94&amp;q=FR-F846-02160-E2-60L2&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-F846-02160-E2-60L2&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt8050dd1408c11cc2&amp;q=FR-F846-02160-E2-60L2&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-F846-02160-E2-60L2&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blt26ecc97a31a841c1&amp;q=FR-F846-02160-E2-60L2&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-F846-02160-E2-60L2&amp;doc-lang=en">https://emea.mitsubishielectric.com/fa/advanced-search?ct=document&amp;doc-cats=blte8cf990c7c524b4e&amp;q=FR-F846-02160-E2-60L2&amp;doc-lang=en</a>

### Product Packaging

Cardboard (g)	17500
Other paper (g)	0
Aluminum (g)	0
Steel (g)	15
Styrofoam (g)	0
Other plastic (g)	150
Wood (g)	0
Glass (g)	0
Others (g)	0

**Spare parts**

<b>Material</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>
<a href="#">283444</a>	FR-A840-03250-12120-2-60 IGBT CM450DY207	3	PC
<a href="#">282932</a>	FR-A840/842/846-ALL TERMINAL BLOCK A80TA	1	PC
<a href="#">282933</a>	FR-A840-00170-00250/A846-ALL CBL MA-CPU	1	PC
<a href="#">283472</a>	FR-A840-02160-2-60 DCCT	3	PC
<a href="#">282942</a>	FR-A840-03250-12120 BALANCE RESISTOR	8	PC
282943	FR-A842-07700-08660 / CC2 ALL THERMISTOR	1	PC
<a href="#">283715</a>	FR-A846-2-60C2 ALL RJ45 ADAPTER 846ADP	1	PC
<a href="#">498581</a>	FR-F846-E2 PCB CPU	1	PC
<a href="#">487412</a>	FR-A846-01800-03610-55K-132K PCB MA	1	PC
<a href="#">282925</a>	FR-A840-04320-2-60 PCB POWER	1	PC
<a href="#">498461</a>	FR-F846-00620-03610 FAN	3	PC
<a href="#">283450</a>	FR-A840-00470-01800-2-60 FAN	2	PC