

*** SPARE PART*** SIMATIC DP, DISTRIBUTED I/O ET200X:
EM148-FC, FREQUENCY CONVERTER, 1.5KW INTEGR.
NETWORK FILTER, CONNECTION TO DESINA, IP65

Supply voltage	
Input voltage acc. to VDE	
• permissible range, lower limit (AC)	340 V
• permissible range, upper limit (AC)	500 V
Input voltage acc. to UL	
• permissible range, lower limit (AC)	340 V
• permissible range, upper limit (AC)	480 V
Line frequency	
• permissible range, lower limit	47 Hz
• permissible range, upper limit	63 Hz
Mains filter	
• integrated	Yes; Type A (to EN 55011)
Operations for mains buffering time (20 ms)	
• Maximum current for $U_e < 380\text{ V}$	1.85 A; at 3.8 A approx. 8 ms
• Maximum current for $U_e \geq 380\text{ V}$	2.1 A; at 3.8 A approx. 8 ms
Input current	
from load voltage L+ (without load), max.	125 mA
from backplane bus 5 V DC, max.	50 mA
Continuous current on continued looping of the supply voltage, max.	16 A
Output current	
Continuous output current at 40 °C	
• at 2 kHz and 4 kHz, max.	3.8 A; Continuous currents > 1.9 A are only permissible if at least one of the following conditions is met: - Ambient temperature < 50 °C - Input continuous current when looping through the load supply voltage < 8 A
• at 8 kHz, max.	3 A; Continuous currents > 1.9 A are only permissible if at least one of the following conditions is met: - Ambient temperature < 50 °C - Input continuous current when looping through the load supply voltage < 8 A
• at 16 kHz, max.	1.45 A
Continuous output current at 55 °C	
• at 2 kHz and 4 kHz, max.	2.1 A; Continuous currents > 1.9 A are only permissible if at least one of the following conditions is met: - Ambient temperature < 50 °C - Input continuous current when looping through the load supply voltage < 8 A

- at 8 kHz, max.
- at 16 kHz, max.

1.7 A

1.05 A

Power

Efficiency	97 %
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Power loss

in intermittent operation, max.	70 W
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in continuous operation, max.	42 W
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Interrupts/diagnostics/status information

Diagnostics	Yes
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Alarms

• Diagnostic alarm	Yes
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Diagnostics indication LED

• Group error SF (red)	Yes
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• Status indicator STAT (yellow)	Yes
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• Monitoring the power supply, power module PWR (green)	Yes
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Drive technology

Motor output, cable length max.	10 m
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Overload capability	150 %; for 60 s, relative to rated current
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Output frequency, min.	0 Hz
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Output frequency, max.	300 Hz
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Output frequency, resolution	0.01 Hz
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Control/mode

• V/f characteristic	Yes
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• four quadrants	Yes
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Motor

Power factor (cos phi), min.	0.7
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Number of poles	2, 4 or 6
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Motor brake	AC (rated voltage according to infeed supply voltage) / max. 1 A
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• short-circuit proof	No; internal fuse 4 A provided
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Thermistor	Response range about 4 to 5 kohms; channel-related error message: overload
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Rated motor power at 3 x 400 V AC

• acc. to VDE, max.	1.5 kW
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• acc. to UL, max.	2 hp
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Potential separation

between the load voltages	Yes
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between load voltage and all other switching components	Yes
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Degree and class of protection

Protection against	Overtemperature in the converter; overtemperature in the motor; overvoltage and undervoltage; short-circuit and ground fault protection; motor stalling protection, no-load protection (interrupt)
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Dimensions

Width	120 mm
Height	265 mm
Depth	181 mm

Weights

Weight, approx.	3 kg
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last modified: 03/11/2017