Vector frequency inv. DV6 (132 kW; 400 V

Part no. **DV6-340-132K**

Article no. **231413**

Powering Business Worldwide™

Delivery programme

Rated operational voltage			3 AC 342 - 528 V ± 0 %
Rated operational current	I_e	A	260
Rated power of motors at 3 AC			
at 400 V, 50 Hz	P	kW	132
Note for table header			
Rated operational current with a switching frequency of 5 kHz and an ambient temperature of +40 °C.			

General

Standards			EN 50178, IEC 61800-3, EN 61800-3 incl. A11
Ambient temperature		°C	
Operating temperature		°C	-10/+40 at rated current I_e without derating, up to 50 at a reduced pulse frequency of 2 kHz and output current reduced to 80 % I_e
Storage, transport	ϑ	°C	
Storage	ϑ	°C	-25 - +70
Shock resistance			Vibrations and shaking, maximum 2.94 m/s^2(0.3 g) at 10 to 55 Hz
Overvoltage category/pollution degree			VDE 0110 Part 2, pollution degree 2
Climatic proofing			Class 3K3 to EN 50178 (not condensing, medium relative humidity 20 - 90 %)
Altitude		m	0 - 1000 m above sea level
Mounting position			Vertically suspended
Free surrounding areas			100 mm above and below, 50 mm on each side
Emitted interference			IEC/EN 61800-3 (EN 55011 group 1 class B)
Interference immunity			IEC/EN 61800-3, industrial environment
Insulation resistance			Overvoltage category III according to VDE 0110
Discharge current to PE		mA	> 3.5 (to EN 50178)
Protection type			IP20 (NEMA 1)
Protection against direct contact			Finger and back-of-hand proof
Protective isolation against switching circuitry			
Insulation			Safe isolation from the mains. Double base insulation (to EN 50178)
Protective measures			Overcurrent, earth fault, overvoltage, undervoltage, overload, overtemperature, electronic overload protection: I^2t-monitoring and PTC input (thermistor or thermostat)
Power loss			
at 100 % I_e		W	
At 115 V		W	6500
at 70 % I_e		W	
At 230 V		W	4500
Efficiency		%	95.1
Dimensions (W x H x D)		mm	480 x 740 x 293.2
Weight		kg	80

Power section

Rated operating voltage	U_e	V AC	400
Rated voltage	U_e	V	3 AC 342 - 528 V ± 0 %
Supply frequency	f_{LN}	Hz	50/60 (47 -0 %…63 +0 %)
Mains current			
U_i = 3-phase 400 V AC	I	A	286

Alternative DC supply	U_{DC}	V DC	420…760
Modulation method			
actuation			Sensorless vector control, pulse width modulation (PWM)
Switching frequency			
Operating frequency at inductive load			5 kHz, can be selected between 0.5 and 15 kHz
Output voltage		V	
Rated output voltage		V	3 AC U_e
Output frequency		Hz	0.5…50, max. 400
Frequency resolution		Hz	
Frequency		Hz	0.1, with digital setpoint values/maximum frequency/1000 with analog setpoint values
Frequency error limit at 20 C ± 10 K			
Error indication			±0.01 % of the maximum frequency with digital setpoint values, ±0.2 % of the maximum frequency with analog setpoint values
Rated operational current	I_e	A	260
Permissible overcurrent			150 % for 60 s/200 % for 0.5 s, every 600 s
Torque during start			200 % at 0.5 Hz (sensorless vector control mode)
Apparent power at 400 V		kVA	180.1
Apparent power at 480 V		kVA	216.1
Standard operation at 150 % overload Assigned motor rating (4-pole ASM)			
400 V		kW	132
460 V	P	HP	175

Control circuit

Relay			
Protection of an output relay			1 x changeover contact, 230 V AC/0.2 A inductive load/2.5 A resistive load or 24 V DC/0.7 A inductive load/3 A resistive load
Serial interface			RS 422, RS485
Control voltage			
Output setpoint voltage		V	
On 1 signal with I_e = 0.5 A		V	+10 DC, 20 mA
Output control voltage		V	+24 DC, 100 mA
Parameterization			3 parameter sets (online/offline parameterization), parameter protection (programmable)
Inputs			
Thermistor input			1 x PTC thermistor, temperature switch
Clockwise rotating field enable (FWD)			1 x +24 V DC (input impedance 4.7 kΩ)
digital (parameters can be defined)			
Digital input count			8 x +24 V DC (input impedance 4.7 kΩ)
analog, 12 bit resolution		Number	
Analog		Number	3 x 0…+10 V DC, ±10 V DC (input impedance 10 kΩ), 4…20 mA (load impedance 100 Ω)
Outputs			
Digital			
Analog output count			5 x 24 V DC Transistor (open-collector, max. 50 mA per output, configurable)
analog (parameters can be defined), 8 bit resolution			
analog (parameters can be defined)			3 x 0…+10 V DC (max. 2 mA), 4…20 mA (max. load resistance 250 Ω)
PWM (parameters can be defined)			1 x 0…10 V, max. 1.2 mA

Terminal capacities

Cable lengths			
		mm^2	2 x 70
		AWG	2 x 2/0
Relay connection			
		mm^2	0.14…1.5
		AWG	26…16
Control circuit			

		mm^2	0.14…1.5
		AWG	26…16

Notes

If the frequency inverter is to be installed in a control panel, enclosure or similar installation, the prevalent ambient temperature within these enclosures or control panels is considered to be the ambient temperature T_a.

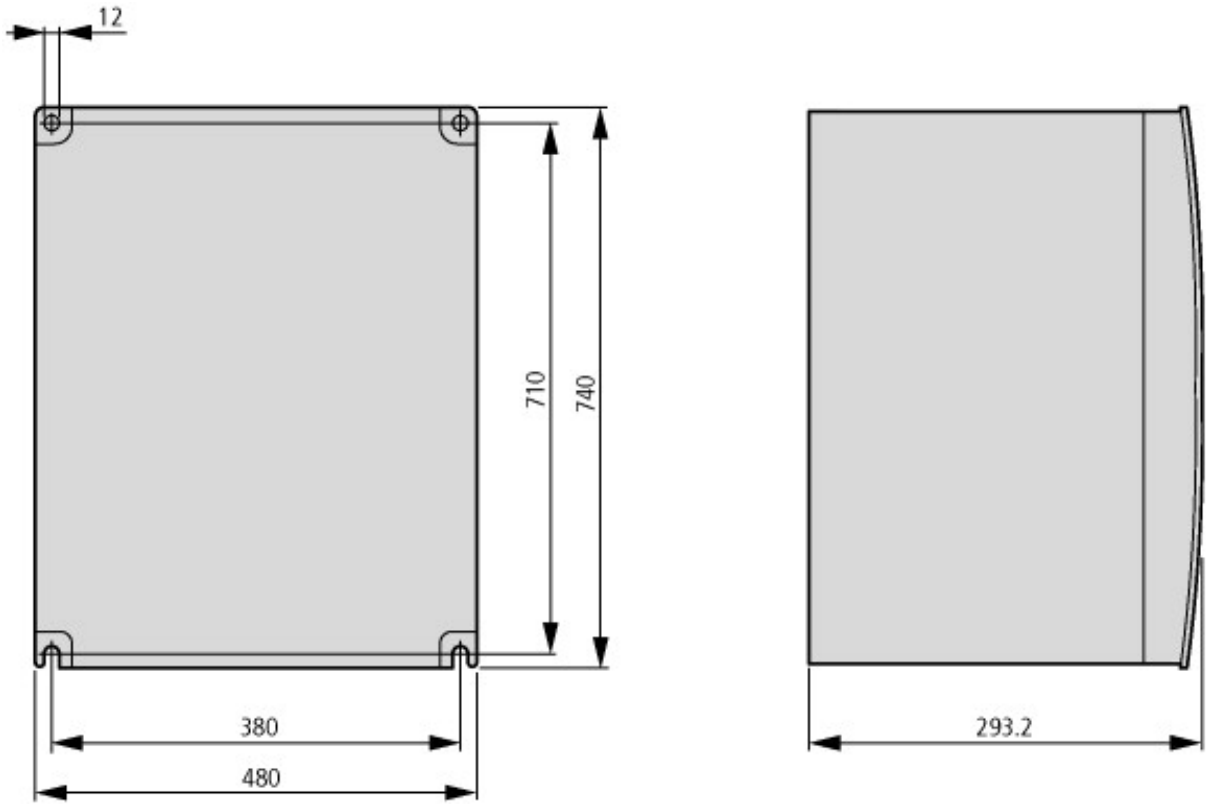
All rating data of the power section are based on a switching frequency of 5 kHz (default setting) and an ambient temperature of +40 °C, with operation of a four pole three-phase asynchronous motor.

Technical data ETIM 4.0

Number of HW-interfaces serial TTY			0
Depth		mm	293.2
Supporting protocol for PROFIBUS			No
Integrated braking resistance			YES
Supporting protocol for AS-Interface Safety at Work			No
Relative symmetric net current tolerance		%	0
Number of HW-interfaces parallel			0
With PC connection			YES
Supporting protocol for DeviceNet			No
Supporting protocol for PROFINET IO			No
Number of HW-interfaces other			0
Supporting protocol for SafetyBUS p			No
Application in industrial environment permitted			YES
Supporting protocol for TCP/IP			No
Number of HW-interfaces RS232			0
Number of phases input			3
Supporting protocol for MODBUS			No
Output power at rated output voltage		kWh	132
Supporting protocol for Foundation Fieldbus			No
Supporting protocol for LON			No
Type of converter			U converter
Height		mm	740
With operating element			YES
Width		mm	480
Number of Industrial Ethernet HW interfaces			0
Rated output current		A	260
Supporting protocol for CAN			No
Mains frequency (value)			50/60 Hz
Supporting protocol for SUCONET			No
Number of HW-interfaces PROFINET			0
Supporting protocol for EIB			No
4-quadrant operation possible			No
Supporting protocol for EtherNet/IP			No
Supporting protocol for other bus systems			No
With optical interface			No
Supporting protocol for PROFIsafe			No
Supporting protocol for SERCOS			No
Relative symmetric net frequency tolerance		%	0
Supporting protocol for Data-Highway			No
Number of HW-interfaces USB			0
Supporting protocol for AS-Interface			No
Supporting protocol for PROFINET CBA			No
Max. output at linear load at rated output voltage		kWh	132
Max. output frequency		Hz	400
Supporting protocol for DeviceNet Safety			No
Supporting protocol for INTERBUS			No
Mains voltage from/to		V	528

Rated output voltage		V	400
Supporting protocol for INTERBUS-Safety			No
Max. output at quadratic load at rated output voltage		kWh	132
Number of HW-interfaces RS422			0
Protection type (IP)			IP20
Application in domestic- and commercial environment permitted			YES
Number of phases output			3
Number of HW-interfaces RS485			1

Dimensions



Additional product information (links)

AWA8230-1938 Vector Frequency inverter	
	AWA8230-1938 Vector Frequency inverter
AWB8230-1415 Vector Frequency Inverters	
	AWB8230-1415 Vector Frequency Inverters - Deutsch
	AWB8230-1415 Vector Frequency Inverters - English
	AWB8230-1415 Vector Frequency Inverters - italiano
AWB8230-1450 Vector Frequency Inverter Training Guide	
	AWB8230-1450 Vector Frequency Inverter Training Guide - Deutsch
	AWB8230-1450 Vector Frequency Inverter Training Guide - English
	AWB8230-1450 Vector Frequency Inverter Training Guide - français
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