Eaton 125672

Eaton SPX Variable frequency drive, 400 V AC, 3-phase, 160 kW, IP54, Radio interference suppression filter, OLED display, FR10

PRODUCT NAME	Eaton SPX variable frequency drive
CATALOG NUMBER	125672
PRODUCT LENGTH/DEPTH	602 mm
PRODUCT HEIGHT	2018 mm
PRODUCT WIDTH	595 mm
PRODUCT WEIGHT	275 kg
CERTIFICATIONS	UL File No.: E134360 UL report applies to both US and Canada IEC/EN 61800-3 CSA-C22.2 No. 14 Specification for general requirements: IEC/EN 61800-2 CE Certified by UL for use in Canada RoHS, ISO 9001 UL Category Control No.: NMMS, NMMS2, NMMS7. NMMS8 CUL CSA Class No.: 3211-06 RCM Safety: EN 61800-5-1: 2003 IEC/EN61800-5 DNV IEC/EN61800-3 UL 508C UL

Powering Business Worldwide

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PRODUCT CATEGORY	Variable frequency drives
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.

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10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be evaluated.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
FITTED WITH:	Radio interference suppression filter Control unit OLED display IGBT inverter Internal DC link DC link choke PC connection
CLIMATIC PROOFING	< 95 % relative humidity, no condensation, no corrosion, no dripping water
CONNECTION TO SMARTWIRE-DT	No
OPERATING MODE	U/f control Sensorless vector control (SLV) Optional: Vector control with feedback (CLV)
FRAME SIZE	FR10
ALTITUDE	Max. 1000 m Max. 3000 m Above 1000 m with 1 % performance reduction per 100 m
APPLICATION IN DOMESTIC AND COMMERCIAL AREA PERMITTED	Yes
APPLICATION IN INDUSTRIAL AREA PERMITTED	Yes
AMBIENT OPERATING TEMPERATURE - MAX	50 °C

AMBIENT OPERATING TEMPERATURE - MIN	-10 °C
AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX	50 °C
AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN	-10 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
ASSIGNED MOTOR CURRENT IM AT 400 V, 50 HZ, 110% OVERLOAD	349 A
ASSIGNED MOTOR CURRENT IM AT 400 V, 50 HZ, 150% OVERLOAD	279 A
MOUNTING POSITION	Vertical
RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE	10 %
RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE	10 %
PROTECTION	Finger and back-of-hand proof, Protection against direct contact (BGV A3, VBG4)
HEAT DISSIPATION DETAILS	Operation (with 150 % overload)
RESOLUTION	0.01 Hz (Frequency resolution, setpoint value)
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
VOLTAGE RATING - MAX	480 VAC
COMMUNICATION INTERFACE	Modbus-TCP, optional LonWorks, optional CANopen®, optional PROFIBUS-DP DeviceNet, optional BACnet/IP, optional BACnet MS/TP, optional EtherCAT, optional Ethernet IP, optional Modbus-RTU, optional PROFINET, optional
CONVERTER TYPE	U converter
DEGREE OF PROTECTION	IP54 NEMA 12

PROTOCOL	LON Other bus systems PROFIBUS TCP/IP CAN Data-Highway DeviceNet
ASSIGNED MOTOR CURRENT IM AT 440 - 480 V, 60 HZ, 150% OVERLOAD	302 A
ASSIGNED MOTOR CURRENT IM AT 440/480 V, 60 HZ, 110% OVERLOAD	361 A
SYSTEM CONFIGURATION TYPE	AC supply systems with earthed center point
ELECTROMAGNETIC COMPATIBILITY	1st and 2nd environments (according to EN 61800-3)
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	250 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE, 110 % OVERLOAD	300 HP
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	4000 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
FUNCTIONS	4-quadrant operation possible
OUTPUT VOLTAGE (U2)	400 V AC, 3-phase 480 V AC, 3-phase 500 V AC, 3-phase
NUMBER OF INPUTS (ANALOG)	2
NUMBER OF INPUTS (DIGITAL)	6
RADIO INTERFERENCE CLASS	C2, C3: depending on the motor cable length, the connected load, and ambient conditions. External radio interference suppression filters (optional) may be necessary.
NUMBER OF OUTPUTS (DIGITAL)	1

NUMBER OF PHASES (INPUT)	3
NUMBER OF RELAY OUTPUTS	2 (parameterizable, N/O, 8 A (24 V DC) / 8 A (250 V AC) / 0,4 A (125 V DC))
NUMBER OF PHASES (OUTPUT)	3
RATED CONTROL SUPPLY VOLTAGE	10 V DC (Us, max. 10 mA)
RATED CONTROL VOLTAGE (UC)	24 V DC (external, max. 250 mA)
SUPPLY FREQUENCY	50/60 Hz
MAINS VOLTAGE - MAX	500 V
MAINS VOLTAGE - MIN	380 V
NOMINAL OUTPUT CURRENT I2N	385 A
NUMBER OF HW-INTERFACES (INDUSTRIAL ETHERNET)	0
NUMBER OF HW-INTERFACES (OTHER)	1
NUMBER OF HW-INTERFACES (PARALLEL)	0
NUMBER OF HW-INTERFACES (RS-232)	0
NUMBER OF HW-INTERFACES (RS-422)	0
NUMBER OF HW-INTERFACES (RS-485)	1
NUMBER OF HW-INTERFACES (SERIAL TTY)	0
NUMBER OF HW-INTERFACES (USB)	0
NUMBER OF INTERFACES (PROFINET)	0
NUMBER OF OUTPUTS (ANALOG)	1
OUTPUT AT LINEAR LOAD AT RATED OUTPUT VOLTAGE - MAX	160 kW
OUTPUT AT QUADRATIC LOAD AT RATED OUTPUT VOLTAGE - MAX	200 kW
OUTPUT FREQUENCY - MAX	320 Hz
OUTPUT FREQUENCY - MIN	0 Hz
OUTPUT VOLTAGE - MAX	500 V
SUITABLE FOR	Branch circuits, (UL/CSA)

SWITCHING FREQUENCY	3.6 kHz, 1 - 6 kHz adjustable, fPWM, Power section, Main circuit
RATED OPERATIONAL VOLTAGE	400 V AC, 3-phase 480 V AC, 3-phase 500 V AC, 3-phase
RATED FREQUENCY - MAX	66 Hz
RATED FREQUENCY - MIN	45 Hz
RATED OPERATIONAL CURRENT (IE) AT 110% OVERLOAD	385 A
RATED OPERATIONAL CURRENT (IE) AT 150% OVERLOAD	300 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	300 A
RATED OPERATIONAL POWER AT 380/400 V, 50 HZ, 3-PHASE	160 kW
RATED OPERATIONAL POWER AT 380/400 V, 50 HZ, 3-PHASE, 110% OVERLOAD	200 kW

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