## Eaton 185781

Eaton DC1 Variable frequency drive, 400 V AC, 3-phase, 39 A, 18.5 kW, IP20/NEMA 0, Radio interference suppression filter, Brake chopper, FS4 DC1-34039FB-A20CE1

PRODUCT NAME	Eaton DC1 Variable frequency drive
CATALOG NUMBER	185781
PRODUCT LENGTH/DEPTH	211 mm
PRODUCT HEIGHT	418.5 mm
PRODUCT WIDTH	173 mm
PRODUCT WEIGHT	8.4 kg
CERTIFICATIONS	UL Category Control No.: NMMS, NMMS7 IEC/EN 61800-3 Safety requirements: IEC/EN 61800-5-1 EAC UL 508C RCM IEC/EN61800-3 UL Certified by UL for use in Canada CSA-C22.2 No. 14 ROHS, ISO 9001 UkrSEPRO IEC/EN61800-5 CUL CE UL report applies to both US and Canada Specification for general requirements: IEC/EN 61800-2 UL File No.: E172143
CATALOG NOTES	<ul> <li>Environmental class: 3C2, 3S2</li> <li>Overload cycle for 60 s every 600 s</li> </ul>



FEATURES	Parameterization: drivesConnect Parameterization: drivesConnect mobile (App) Parameterization: Fieldbus Parameterization: Keypad
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.
40.2.4 DECISTANCE TO	
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
ULTRA-VIOLET (UV)	· · · · · · · · · · · · · · · · · · ·

DECLARATIONS OF CONFORMITY	eaton-variable-frequency- drive-declaration-of- conformity- uk251078en.pdf
INSTALLATION VIDEOS	<u>Video PowerXL DA1</u>
	<u>IL040024ZU</u>
	eaton-powerxl-variable- frequency-drives-dc1-da1- brochure-br040001en-en- us.pdf
	eaton-frequency-inverter- dimensions-011.eps
	eaton-frequency-inverter- 3d-drawing-019.eps
	<u>The OP System Bus -</u> <u>Parameterizing - Control</u>
	DX-COM- STICK3 Connection
	How does the internal motor protection work?

IMPACT	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.
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	ls the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	ls the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	ls the panel builder's responsibility.
FITTED WITH:	IGBT inverter Control unit Brake chopper Internal DC link PC connection Breaking resistance 7-digital display assembly Radio interference suppression filter Additional PCB protection
CLIMATIC PROOFING	< 95 average relative humidity (RH), no condensation, no corrosion
CONNECTION TO SMARTWIRE-DT	In conjunction with DX- NET-SWD3 SmartWire DT module Yes
OPERATING MODE	U/f control Sensorless vector control (SLV) Speed control with slip compensation

RATED IMPULSE WITHSTAND VOLTAGE (UIMP) FRAME SIZE  ALTITUDE  APPLICATION IN DOMESTIC AND COMMERCIAL AREA PERMITTED  MAINS SWITCH-ON FREQUENCY  AMBIENT OPERATING TEMPERATURE - MIN AUST YOUTH AGE TOLERANCE  RELATIVE SYMMETRIC NET FREQUENCY  AMBIENT OPERATING TOLERANCE  RELATIVE SYMMETRIC NET FREQUENCY  TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN AMBIENT STORAGE TEMPERATURE AT 150% OVERLOAD - MIN AMBIENT TORAGE TEMPERATURE AT 150% OVERLOAD - MIN AMBIENT STORAGE TEMPERATURE AT 150% OVERLOAD - MIN APPARENT POWER AT 400 V  APPARENT POWER A		
WITHSTAND VOLTAGE (UIMP)  FRAME SIZE  FS4  Above 1000 m with 1 % derating per 100 m Max. 4000 m  APPLICATION IN DOMESTIC AND COMMERCIAL AREA PERMITTED  MAINS SWITCH-ON FREQUENCY  MAINS SWITCH-ON FREQUENCY  MAINS OUTPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET PREQUENCY TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  Operation (with 150 %		PM motors Synchronous reluctance
ALTITUDE  Above 1000 m with 1 % derating per 100 m Max. 4000 m  APPLICATION IN  DOMESTIC AND COMMERCIAL AREA PERMITTED  MAINS SWITCH-ON FREQUENCY  AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  ON MAX AND MAX AND	WITHSTAND VOLTAGE	2000 V
ALTITUDE derating per 100 m Max. 4000 m  APPLICATION IN DOMESTIC AND COMMERCIAL AREA PERMITTED  MAINS SWITCH-ON FREQUENCY  AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  FRELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  OMAX  AMBIENT SSIPATION  OPERATION (with 150 %	FRAME SIZE	FS4
DOMESTIC AND COMMERCIAL AREA PERMITTED  MAINS SWITCH-ON Maximum of one time every 30 seconds  AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  FELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TO WAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 °C  APPARENT POWER AT 480 V  OPERATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION Operation (with 150 %	ALTITUDE	derating per 100 m
AMBIENT OPERATING TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  OC  C  C  C  C  C  C  C  C  C  C  C  C	DOMESTIC AND COMMERCIAL AREA	Yes
TEMPERATURE - MAX  AMBIENT OPERATING TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  FELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  OUTPUT VOLTAGE -10 °C  10 °C  -10		
TEMPERATURE - MIN  MAINS VOLTAGE - MAX  OUTPUT VOLTAGE - MAX  FRELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 400 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  OVERLOAD - (with 150 %)		50 °C
OUTPUT VOLTAGE - MAX 500 V  RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE 10 % TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION Operation (with 150 %		-10 °C
RELATIVE SYMMETRIC NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  10 %  TO W  TO W	MAINS VOLTAGE - MAX	480 V
NET FREQUENCY TOLERANCE  RELATIVE SYMMETRIC NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 400 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  10 %  TO %  TO %  TO %  TO C	OUTPUT VOLTAGE - MAX	500 V
NET VOLTAGE TOLERANCE  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  10 %  -10 %  -10 °C  -10 °C  -40 °C  -40 °C  15.6 kVA  APPARENT POWER AT 480 V  Operation (with 150 %	NET FREQUENCY	10 %
TEMPERATURE AT 150% OVERLOAD - MAX  AMBIENT OPERATING TEMPERATURE AT 150% -10 °C OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION Operation (with 150 %	NET VOLTAGE	10 %
TEMPERATURE AT 150% OVERLOAD - MIN  AMBIENT STORAGE TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  -10 °C  -10 °C  -10 °C  -10 °C  -10 °C  -10 °C  -40 °C	TEMPERATURE AT 150%	50 °C
TEMPERATURE - MAX  AMBIENT STORAGE TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  60 °C  -40 °C  15.6 kVA  18.72 kVA  Operation (with 150 %	TEMPERATURE AT 150%	-10 °C
TEMPERATURE - MIN  APPARENT POWER AT 400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  -40 °C  15.6 kVA  18.72 kVA  Pes  Operation (with 150 %		60 °C
400 V  APPARENT POWER AT 480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  15.6 kVA  18.72 kVA  Ves  Operation (with 150 %		-40 °C
480 V  APPLICATION IN INDUSTRIAL AREA PERMITTED  HEAT DISSIPATION  18.72 kVA  Yes  Operation (with 150 %		15.6 kVA
INDUSTRIAL AREA Yes PERMITTED  HEAT DISSIPATION Operation (with 150 %		18.72 kVA
•	INDUSTRIAL AREA	Yes
		•

PRODUCT CATEGORY         Variable frequency drives           PROTECTION         Finger and back-of-hand proof, Protection against direct contact (BGV A3, VBG4)           RESOLUTION         0.1 Hz (Frequency resolution, setpoint value)           STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS         0 W           SWITCH-ON THRESHOLD FOR THE BRAKING TRANSISTOR         780 VDC           VOLTAGE RATING - MAX         240 V           MOUNTING POSITION         Vertical           OVERVOLTAGE CATEGORY         III           COMMUNICATION INTERFACE         U converter           DEGREE OF PROTECTION         U converter           DEGREE OF PROTECTION         U converter           DEGREE OF PROTECTION         25 HP           ASSIGNED MOTOR POWER AT 460/480 V, 60 Hz, 3-PHASE         25 HP           BRAKING RESISTANCE         22 Ω           EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID         0 W           HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID         0 W           INPUT CURRENT ILN AT 150% OVERLOAD         44.1 A           MAINS CURRENT DISTORTION         120 %           CAN MODBUS Other bus systems EtherNet/IP         58.5 A           RATED FREQUENCY -         62 Hz		
PROTECTION       proof, Protection against direct contact (BGV A3, VBG4)         RESOLUTION       0.1 Hz (Frequency resolution, setpoint value)         STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS       0 W         SWITCH-ON THRESHOLD FOR THE BRAKING TRANSISTOR       780 VDC         VOLTAGE RATING - MAX       240 V         MOUNTING POSITION       Vertical         OVERVOLTAGE CATEGORY       III         COMMUNICATION INTERFACE       CANopen®, built in SmartWire-DT, optional OP-Bus (RS485), built in Modbus RTU, built in         CONVERTER TYPE       U converter         DEGREE OF PROTECTION       IP20 NEMA Other         ASSIGNED MOTOR POWER AT 460/480 V, 60 Hz, 3-PHASE       25 HP         BRAKING RESISTANCE       22 Ω         EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID       728 W         HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID       0 W         INPUT CURRENT ILN AT 150% OVERLOAD       44.1 A         MAINS CURRENT DISTORTION       120 %         PROTOCOL       CAN MODBUS Other bus systems EtherNet/IP         OVERLOAD CURRENT IL AT 150% OVERLOAD       58.5 A	PRODUCT CATEGORY	Variable frequency drives
STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS  SWITCH-ON THRESHOLD FOR THE BRAKING TRANSISTOR  VOLTAGE RATING - MAX MOUNTING POSITION  COMMUNICATION INTERFACE  CONVERTER TYPE  DEGREE OF PROTECTION  ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE  BRAKING RESISTANCE  EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID  HEAT DISSIPATION CAPACITY PDISS  HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID  INPUT CURRENT- DEPENDENT PVID  INPUT CURRENT- DEPENDENT PVID  MAINS CURRENT DISTORTION  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  OW  OVERLOAD CURRENT IL AT 150% OVERLOAD  OVERLOAD CURRENT IL AT 150% OVERLOAD  SWOOD  OW  OVERLOAD CURRENT IL AT 150% OVERLOAD  SSISTANCE  OW  OVERLOAD  OVERLOAD  SSISTANCE  OW  OVERLOAD  OVER	PROTECTION	proof, Protection against direct contact (BGV A3,
DISSIPATION, NON-CURRENT-DEPENDENT PVS  SWITCH-ON THRESHOLD FOR THE BRAKING TRANSISTOR  VOLTAGE RATING - MAX  MOUNTING POSITION  OVERVOLTAGE CATEGORY  COMMUNICATION INTERFACE  DEGREE OF PROTECTION  ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE  BRAKING RESISTANCE  EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID  HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID  INPUT CURRENTILN AT 150% OVERLOAD  PROTOCOL  OVERLOAD CURRENT IL AT 150% OVERLOAD  SENTENCE OF WORD AND ADDRESSED ADDRESSED AND ADDRESSED A	RESOLUTION	
FOR THE BRAKING TRANSISTOR  VOLTAGE RATING - MAX 240 V  MOUNTING POSITION Vertical  OVERVOLTAGE CATEGORY III  COMMUNICATION SmartWire-DT, optional OP-Bus (RS485), built in Modbus RTU, built in Modbu	DISSIPATION, NON- CURRENT-DEPENDENT	0 W
MOUNTING POSITION       Vertical         OVERVOLTAGE CATEGORY       III         COMMUNICATION INTERFACE       CANopen®, built in SmartWire-DT, optional OP-Bus (RS485), built in Modbus RTU, built in Modbus RTU, built in         CONVERTER TYPE       U converter         DEGREE OF PROTECTION       IP20 NEMA Other         ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE       25 HP         BRAKING RESISTANCE       22 Ω         EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID       0 W         HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID       0 W         INPUT CURRENTILN AT 150% OVERLOAD       44.1 A         MAINS CURRENT DISTORTION       120 %         CAN MODBUS Other bus systems EtherNet/IP       OVERLOAD CURRENT IL AT 150% OVERLOAD         OVERLOAD CURRENT IL AT 150% OVERLOAD       58.5 A	FOR THE BRAKING	780 VDC
OVERVOLTAGE CATEGORY  COMMUNICATION INTERFACE  CONVERTER TYPE  DEGREE OF PROTECTION  ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE  BRAKING RESISTANCE  EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID  HEAT DISSIPATION CAPACITY PDISS  HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID  INPUT CURRENTILN AT 150% OVERLOAD  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  CAN MODBUS Other bus systems EtherNet/IP	VOLTAGE RATING - MAX	240 V
CATEGORY  CANopen®, built in SmartWire-DT, optional OP-Bus (RS485), built in Modbus RTU, bui	MOUNTING POSITION	Vertical
COMMUNICATION INTERFACESmartWire-DT, optional OP-Bus (RS485), built in Modbus RTU, built in 		Ш
DEGREE OF PROTECTIONIP20 NEMA OtherASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE25 HPBRAKING RESISTANCE22 ΩEQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID728 WHEAT DISSIPATION CAPACITY PDISS0 WHEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID0 WINPUT CURRENT ILN AT 150% OVERLOAD44.1 AMAINS CURRENT DISTORTION120 %PROTOCOLCAN MODBUS Other bus systems EtherNet/IPOVERLOAD CURRENT IL AT 150% OVERLOAD58.5 A		SmartWire-DT, optional OP-Bus (RS485), built in
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE  BRAKING RESISTANCE  EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID  HEAT DISSIPATION CAPACITY PDISS  HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID  INPUT CURRENT ILN AT 150% OVERLOAD  MAINS CURRENT DISTORTION  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  NEMA Other  25 HP  25 HP  27 AV  44.1 A  AV  CAN  MODBUS Other bus systems EtherNet/IP	CONVERTER TYPE	U converter
POWER AT 460/480 V, 60 HZ, 3-PHASE25 HPBRAKING RESISTANCE22 ΩEQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID728 WHEAT DISSIPATION 	DEGREE OF PROTECTION	
EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID  HEAT DISSIPATION CAPACITY PDISS  HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID  INPUT CURRENT ILN AT 150% OVERLOAD  MAINS CURRENT DISTORTION  PROTOCOL  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  58.5 A	POWER AT 460/480 V, 60	25 HP
DISSIPATION, CURRENT- DEPENDENT PVID  HEAT DISSIPATION CAPACITY PDISS  HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID  INPUT CURRENT ILN AT 150% OVERLOAD  MAINS CURRENT DISTORTION  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  728 W  0 W  CAN MODBUS Other bus systems EtherNet/IP	BRAKING RESISTANCE	22 Ω
CAPACITY PDISS  HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT PVID  INPUT CURRENT ILN AT 150% OVERLOAD  MAINS CURRENT DISTORTION  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  OW  0 W  CAN MODBUS Other bus systems EtherNet/IP	DISSIPATION, CURRENT-	728 W
POLE, CURRENT-DEPENDENT PVID  INPUT CURRENT ILN AT 150% OVERLOAD  MAINS CURRENT 120 %  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  Section 120 %		0 W
150% OVERLOAD  MAINS CURRENT DISTORTION  120 %  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  44.1 A  120 %	POLE, CURRENT-	0 W
PROTOCOL  CAN MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  120 %  CAN MODBUS Other bus systems EtherNet/IP		44.1 A
PROTOCOL  MODBUS Other bus systems EtherNet/IP  OVERLOAD CURRENT IL AT 150% OVERLOAD  58.5 A		120 %
AT 150% OVERLOAD 58.5 A	PROTOCOL	MODBUS Other bus systems
RATED FREQUENCY - 62 Hz		58.5 A

MAX	
RATED FREQUENCY - MIN	48 Hz
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	39 A
RATED OPERATIONAL POWER AT 380/400 V, 50 HZ, 3-PHASE	18.5 kW
ASSIGNED MOTOR CURRENT IM AT 400 V, 50 HZ, 150% OVERLOAD	39 A
ASSIGNED MOTOR CURRENT IM AT 440 - 480 V, 60 HZ, 150% OVERLOAD	39 A
SYSTEM CONFIGURATION TYPE	AC supply systems with earthed center point
BRAKING CURRENT	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake
ELECTROMAGNETIC COMPATIBILITY	1st and 2nd environments (according to EN 61800-3)
BRAKING TORQUE	Max. 100 % of rated operational current le, variable, DC - Main circuit
CABLE LENGTH	300 m, unscreened, with motor choke, maximum permissible, Motor feeder 200 m, screened, with motor choke, maximum permissible, Motor feeder 150 m, unscreened, maximum permissible, Motor feeder C3 ≤ 25 m, Radio interference level, maximum motor cable length 100 m, screened, maximum permissible, Motor feeder C2 ≤ 5 m, Radio interference level, maximum motor cable length 100 m, screened, maximum permissible, Motor feeder C2 ≤ 5 m, Radio interference level, maximum motor cable length
FUNCTIONS	4-quadrant operation possible
OUTPUT VOLTAGE (U2)	480 V AC, 3-phase 400 V AC, 3-phase
OUTPUT VOLTAGE (U2)  DELAY TIME	•

NUMBER OF INPUTS (ANALOG)	2 (parameterizable, 0 - 10 V DC, 0/4 - 20 mA)
NUMBER OF INPUTS (DIGITAL)	4 (parameterizable, 10 - 30 V DC)
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. Optional external radio interference suppression filter for longer motor cable lengths and for use in different EMC environments
NUMBER OF OUTPUTS (DIGITAL)	1
STARTING CURRENT - MAX	175 %, IH, max. starting current (High Overload), For 2.5 seconds every 600 seconds, Power section
NUMBER OF PHASES (INPUT)	3
NUMBER OF RELAY OUTPUTS	1 (parameterizable, N/O, 6 A (250 V, AC-1) / 5 A (30 V, DC-1))
NUMBER OF PHASES (OUTPUT)	3
POWER CONSUMPTION	728 W
RATED CONTROL SUPPLY VOLTAGE	10 V DC (Us, max. 10 mA)
SUPPLY FREQUENCY	50/60 Hz
LEAKAGE CURRENT AT GROUND IPE - MAX	12.9 mA
MAINS VOLTAGE - MIN	380 V
NOMINAL OUTPUT CURRENT I2N	39 A
NUMBER OF HW- INTERFACES (INDUSTRIAL ETHERNET)	0
NUMBER OF HW- INTERFACES (OTHER)	0
NUMBER OF HW- INTERFACES (PARALLEL)	0
NUMBER OF HW-	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	18.5 kW
OUTPUT AT QUADRATIC LOAD AT RATED OUTPUT VOLTAGE - MAX	18.5 kW
OUTPUT FREQUENCY - MAX	500 Hz
OUTPUT FREQUENCY - MIN	0 Hz
SHORT-CIRCUIT PROTECTION (EXTERNAL OUTPUT CIRCUITS)	Type 1 coordination via the power bus' feeder unit, Main circuit
SUITABLE FOR	Branch circuits, (UL/CSA)
SWITCHING FREQUENCY	8 kHz, 4 - 24 kHz adjustable (audible), fPWM, Power section, Main circuit
RATED OPERATIONAL CURRENT (IE)	39 A at 150% overload (at an operating frequency of 16 kHz and an ambient air temperature of +50 °C)
RATED OPERATIONAL VOLTAGE	480 V AC, 3-phase 400 V AC, 3-phase
SHORT-CIRCUIT PROTECTION RATING	60 A, UL (Class CC or J), Safety device (fuse or miniature circuit-breaker), Power Wiring
HEAT DISSIPATION AT CURRENT/SPEED	198 W at 25% current and 0% speed 198 W at 25% current and 50% speed 198 W at 50% current and 0% speed 214 W at 50% current and 50% speed 227 W at 50% current and 90% speed

363 W at 100% current and 0% speed 413 W at 100% current and 50% speed 460 W at 100% current and 90% speed

**PROJECT NAME:** 

**PROJECT NUMBER:** 

**PREPARED BY:** 



Eaton House 30 Pembroke Road Dublin 4, Eaton.com

latest product and support information.







Follow us on social media to get the



