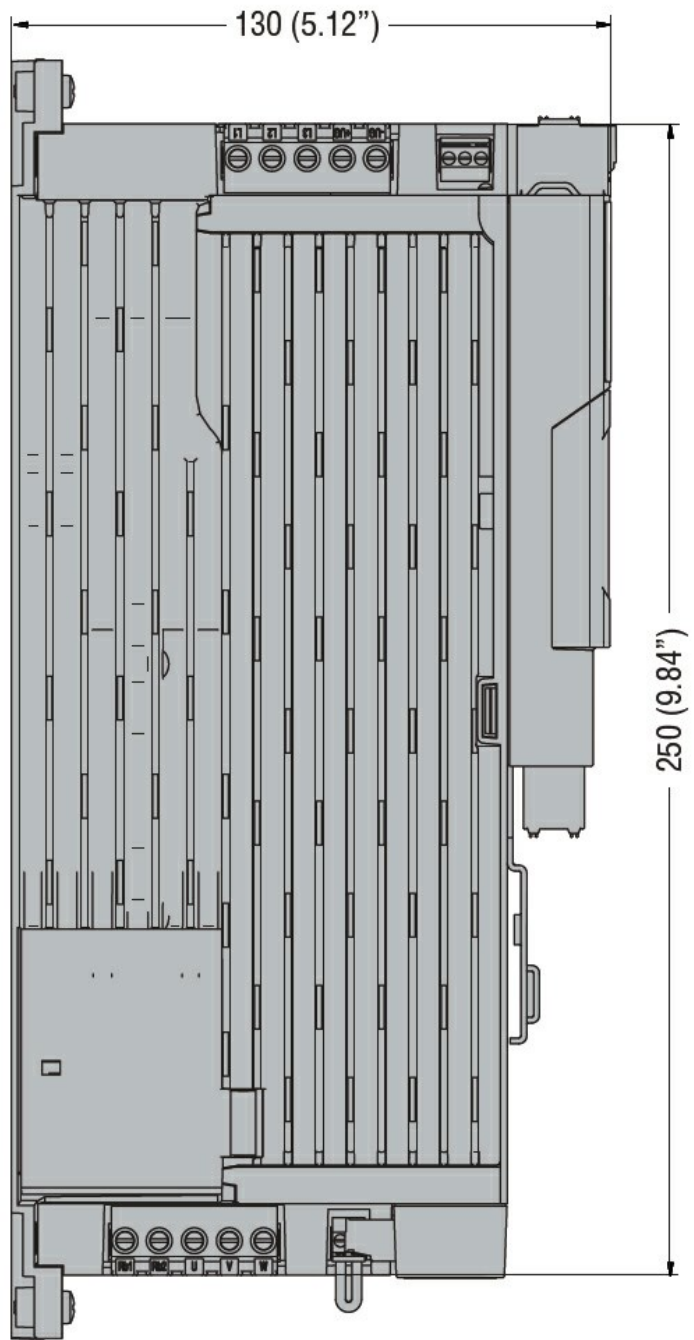
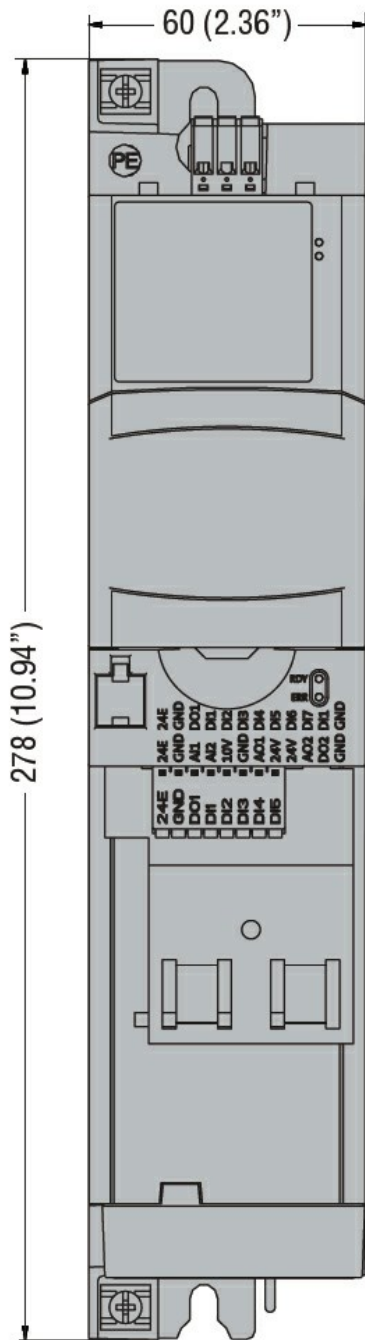




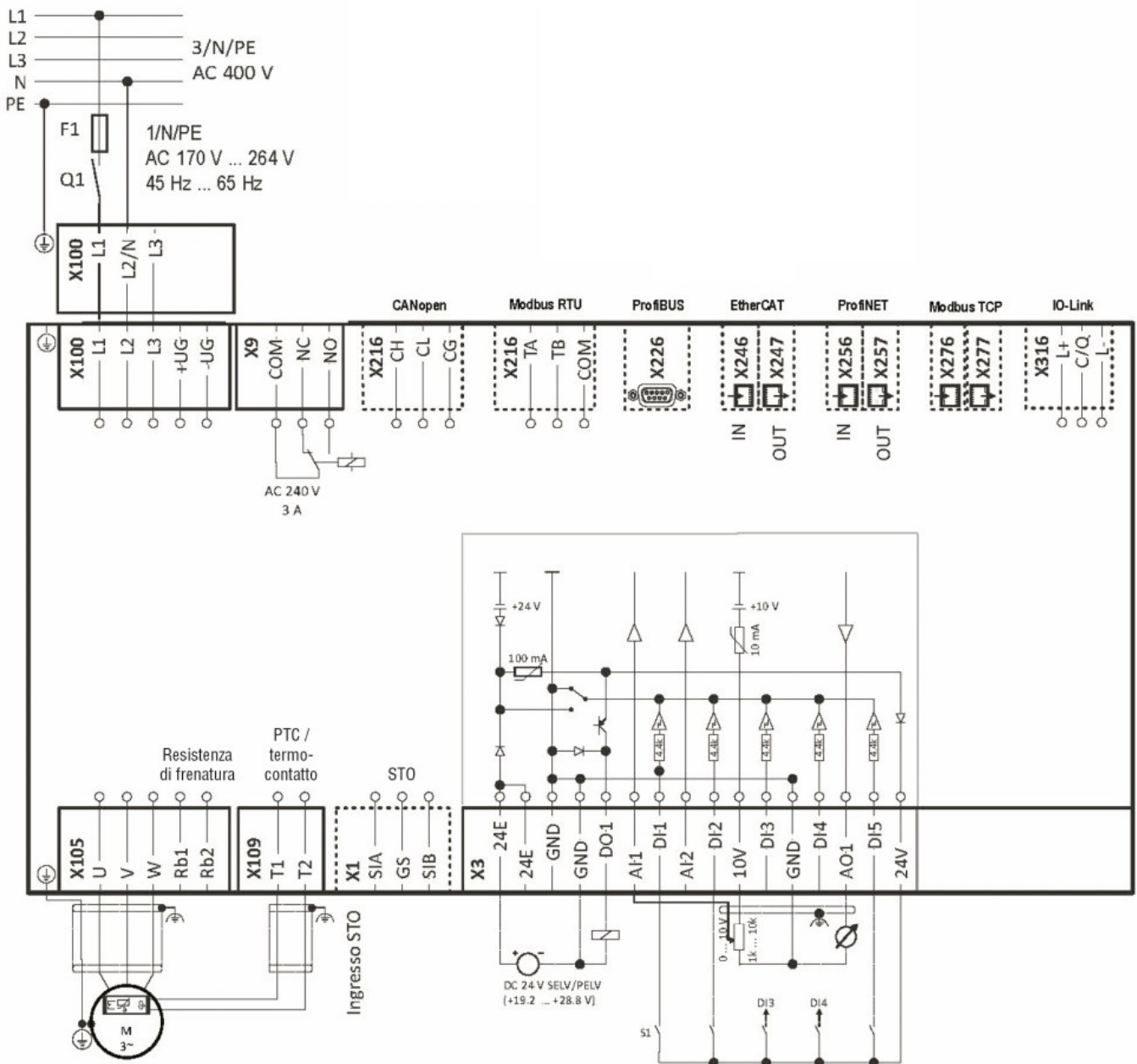
Product designation	Variable speed drives		
Product type designation	VLB1		
General characteristics			
Rated power supply voltage	200...240VAC 50/60Hz		
Rated output current	A	9.6	
Rated output power	kW	2.2	
EMC filter	Built-in EMC suppressor cat. C1/C2		
Technical features			
Input type	Single-phase		
Rated mains voltage	VAC	200...240	
Operating mains voltage range	VAC	170...264	
Rated mains frequency	Hz	50/60	
Operating mains frequency range	Hz	45...65	
Rated mains current without mains choke	22.5		
Rated mains current with mains choke	16.9		
Output type	Three-phase		
Output voltage range	VAC	0...240	
Output frequency range	Hz	0...599	
Current overload	%/s	150% for 60s; 200% for 3s	
Apparent output power	3.6		
Power loss	4kHz: 60W		
Brake chopper	Yes		
Switching frequency	2...16kHz		
Max motor cable length			
Shielded			
Without EMC category	m	50	
Category C1	m	3	
Category C2	m	20	
Category C3	m	35	
Unshielded			
Without EMC category	m	100	
Functions			

Motor control modes	V/f linear, V/f quadratic, V/f multipoint, sensorless vector control, ECO mode, servo control with encoder feedback, torque setpoint, sensorless control for synchronous motors
3-wire control	Yes
S-shape curves	Yes
Slip compensation	Yes
Flying restart	Yes
Access to DC bus	-
DC braking	Yes
DC injection at start	Yes
PID control	Yes
Sequencer (programmable frequency/time cycles)	Yes
Preset speeds	Yes
Motorpotentiometer	Yes
Different parameter configuration sets	Yes
Parameters changeover function	Yes
Favorite parameters menu	Yes
Autotuning	Yes
Safe torque Off (STO) safety function	Optional
PTC probe input	Yes
Protections	Overcurrent Output short circuit and earth/ground leakage Overvoltage Undervoltage Phase loss Motor heat overload (i2t) Overspeed Speed reverse
Special funct.	Multi-pump PID control (1 main pump frequency regulated + 2 auxiliary pumps activated in direct mode in case of necessity)
Input and Output	
Number of digital input	Nr. 5
Digital input type	Selectable PNP or NPN logic
Number of digital output	Nr. 1

Digital output arrangement				1 relay output with changeover contact (C/O-SPDT) + 1 digital output
Output contacts ratings				Relay output: 3A 250VAC Digital output: 100mA max 30VDC
Number of analog input		Nr.		2
Analog input type				Configurable 0/2...10VDC, -10...+10VDC, 0...5VDC, 0/4...20mA
Number of analog output		Nr.		1
Analog output type				configurable as 0...10VDC, 0...5VDC, 2...10VDC, 0/4...20mA
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-10
		max	°C	+60 (with derating over +45°C)
	Current derating			Switching frequency 2 or 4kHz: 2.5%/°C over 45°C switching frequency 8 or 16kHz: 2.5%/°C over 40°C
	Storage temperature			
		min	°C	-25
		max	°C	+60
Max altitude			m	4000m (over 1000m derate the rated current by 5%/1000m)
Maximum Pollution degree				2
Overvoltage category				III up to 2000m altitude (II above 2000m)
Housing				
Installation position				Vertical
IP degree of protection				IP20
Dimensions (W x H x D)		mm		60 x 278 x 130
Weight		Kg		1.35
Dimensions				



Wiring diagrams



Certifications and compliance

Compliance

CSA 22.2 No. 274

EN/BS 61800-5-1

UL 61800-5-1

Certificates

cULus

RCM

ETIM classification

ETIM 8.0

EC001857 -
Frequency
converter =< 1 kV