



| Product designation | | Variable speed |
|---|-----|---------------------------------------|
| Draduat to a sharing ation | | drives |
| Product type designation | | VLA1 |
| General characteristics | | 000 040140 |
| Rated power supply voltage | | 200240VAC 50/60Hz |
| Rated output voltage | VAC | Three-phase 0240VAC 0- 599Hz |
| Rated output current | А | 9.6 |
| Rated output power | kW | 2.2 |
| Rated output power | HP | 3 |
| EMC filter | | Built-in EMC suppressor cat. C2 |
| Communication port | | None |
| Technical features | | |
| Input type | | Single-phase |
| Rated mains voltage | VAC | 200240 |
| Operating mains voltage range | VAC | 170264 |
| Rated mains frequency | Hz | 50/60 |
| Operating mains frequency range | Hz | 4565 |
| Rated mains current without mains choke | | 22.5 |
| Rated mains current with mains choke | | 16.9 |
| Output type | | Three-phase |
| Output voltage range | VAC | 0240 |
| Output frequency range | Hz | 0599 |
| Current overload | %/s | 150% for 60s, 200% for 3s |
| Power loss | | 70W |
| Brake chopper | | No |
| Switching frequency | | 216kHz |
| Max motor cable length | | |
| | | |

Shielded

| | Without EMC category | m | 50 |
|---------------------|----------------------|---|---|
| | Category C2 | m | 20 |
| Functions | | | |
| Motor control modes | | | V/f linear, quadratic torque, sensorless vector control, ECO mode |



VLA122A240 VARIABLE SPEED DRIVE, VLA1 TYPE, SINGLE-PHASE, SUPPLY 200...240VAC (50/60HZ). BUILT-IN EMC SUPPRESSOR, CAT. C2, 2.2KW

| Speed reference signals | | External potentiometer 010kΩ Voltage signals: 0 10VDC Current signals: 0/4 20mA Buttons on front keyboard Door-mount installation kit 15 preset speeds via digital inputs Motor |
|--|-----|---|
| | | potentiometer |
| 3-wire control | | Yes |
| S-shape curves | | Yes |
| Slip compensation | | Yes |
| Flying restart | | Yes |
| Access to DC bus | | No |
| DC braking | | Yes |
| DC injection at start | | Yes |
| PID control | | Yes, with sleep and rinse function |
| 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 | | No |
| Safe torque Off (STO) safety function | | No |
| PTC probe input | | No |
| 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. | 2 |

VLA122A240



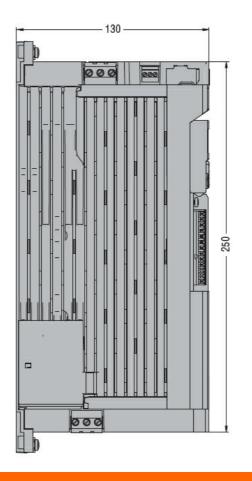
| Digital output arrangeme | nt | | | 1 relay output with changeover contact (C/O- SPDT) + 1 digital output |
|--------------------------|-----------------------|------------------|-----|--|
| Output contacts ratings | | | | Relay output: 3A 250VAC Digital output: 100mA max 30VDC |
| Number of analog input | | | Nr. | 2 |
| Analog input type | | | | Analog input 1: configurable 0/210VDC, 0 5VDC, 0/4 20mA Analog input 2: configurable 0/210VDC or 05VDC |
| Number of analog output | | | Nr. | 1 |
| Analog output type | | | | configurable as 010VDC, 0 5VDC, 2 10VDC, 0/4 20mA |
| Ambient conditions | | | | |
| Temperature | | | | |
| (| Operating temperature | | | |
| | | min | °C | -10 |
| | | max | °C | +55 |
| _ | | Current derating | | 2.5%/°C over 40°C |
| Ş | Storage temperature | | | |
| | | min | °C | -25 |
| | | max | °C | +60 |
| Relative humidity | | | % | 595% (with no condensing) |
| Max altitude | | | m | 4000m (over 1000m derate the rated current by 5%/1000m) |
| Maximum Pollution degre | 96 | | | 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 281 x 130 |
| Weight | | | Kg | 1.35 |
| Dimensions | | | | |

VLA122A240



60

VLA122A240 VARIABLE SPEED DRIVE, VLA1 TYPE, SINGLE-PHASE, SUPPLY 200...240VAC (50/60HZ). BUILT-IN EMC SUPPRESSOR, CAT. C2, 2.2KW



Wiring diagrams

VLA122A240



VLA122A240 VARIABLE SPEED DRIVE, VLA1 TYPE, SINGLE-PHASE, SUPPLY 200...240VAC (50/60HZ). BUILT-IN EMC SUPPRESSOR, CAT. C2, 2.2KW

L1 L2 L1 L2 L1 L2 3/N/PE 3/N/PE 2/N/PE L3 L3 AC 208 V ... 240 V AC 208 V ... 240 V AC 400 V N N N PE PE PE F1 ¢ Φ F1 Ψ F3 1/N/PE 2/PE 2/PE Q1 Q1 Q1 AC 170 V ... 264 V AC 170 V ... 264 V AC 170 V ... 264 V 45 Hz ... 65 Hz 45 Hz ... 65 Hz 45 Hz ... 65 Hz I Ι X100 X100 - 11 -11 L2/N L2/N 99 5 8 6X X100 X100 COM Q NC 99 Ċ AC 240 V 3 A Basic I/O +10 V +24 \ ŧ ΔΔ∇ 83 100 0 公司 公司 4 公司 0 9 9 C 0 X105 DI1 DI2 DI3 DI4 DI4 DI5 D01 GND GND A01 10V 24V AI1 X 2 ÷ Ø 0.01 1 55 . 020 .

Certifications and compliance

| Compliance | | |
|--------------------|------------------|--|
| | CSA 22.2 No. 274 | |
| | EN 61800-5-1 | |
| | UL61800-5-1 | |
| Certificates | | |
| | cULus | |
| | EAC | |
| | RCM | |
| ETIM classificatic | n | |

ETIM 8.0

EC001857 -Frequency converter =< 1 kV