

## UNIDRIVE M100/M101 SPECIFICATIONS

### Environment

|                               |  |
|-------------------------------|--|
| Ambient Operating Temperature | -20°C to 40°C (-4°F to 104°F) @ 3 kHz carrier freq. Operation to 60°C (140°F) with de-rating                                   |
| Cooling method                | Convection and forced convection, model dependent  |
| Humidity                      | 95% maximum non-condensing at 40°C (104°F)   |
| Storage Temperature           | -40°C to 60°C (-40°F to 140°F) — 24 months Max.  |
| Altitude                      | Derate the continuous output current by 1% for every 100 m (328 ft) above 1000 m (3,280 ft) to a maximum of 3000 m (9,840 ft). |
| Vibration                     | Tested in accordance with IEC 60068-2-64 and IEC 60068-2-6   |
| Mechanical Shock              | Tested in accordance with IEC 60068-2-27 and IEC 60068-2-29  |
| Enclosure                     | IP20, NEMA 1 conduit kits available  |
| Electromagnetic               | In compliance with IEC/EN61000-4-2/3/4/5/6/11, IEC/EN61000-6-1/2/3, IEC/EN61800-3 Immunity                                     |
| RoHS                          | Meets the EU directive 2002-95-EC  |

### AC Supply Requirements

|                                 |  |
|---------------------------------|--|
| Voltage                         | 100V models: 100 to 120 Vac ±10% (size 1 to 2)<br>200V models: 200 to 240 Vac ±10% (size 1 to 4)<br>400V models: 380 to 480 Vac ±10% (size 2 to 4) |
| Phase                           | 1Ø and 3Ø (Model dependent)  |
| Maximum Supply Imbalance        | 2% negative phase sequence, 3% voltage imbalance between phases.   |
| Input Frequency                 | 45 to 66 Hz  |
| Input Displacement Power Factor | 0.97   |

### Control

|                         |                                      |
|-------------------------|--------------------------------------|
| Carrier Frequency       | 0.667, 1, 2, 3, 4, 6, 8, 12 & 16 kHz |
| Output Frequency        | Up to 550 Hz                         |
| Frequency Accuracy      | ±0.02% of full scale                 |
| Frequency Resolution    | 0.01 Hz                              |
| Analog Input Resolution | Voltage mode: 11 bits (unipolar)     |

Current mode: 11 bits

Braking DC injection braking standard. Dynamic braking transistor included, requires external resistor.

### Protection

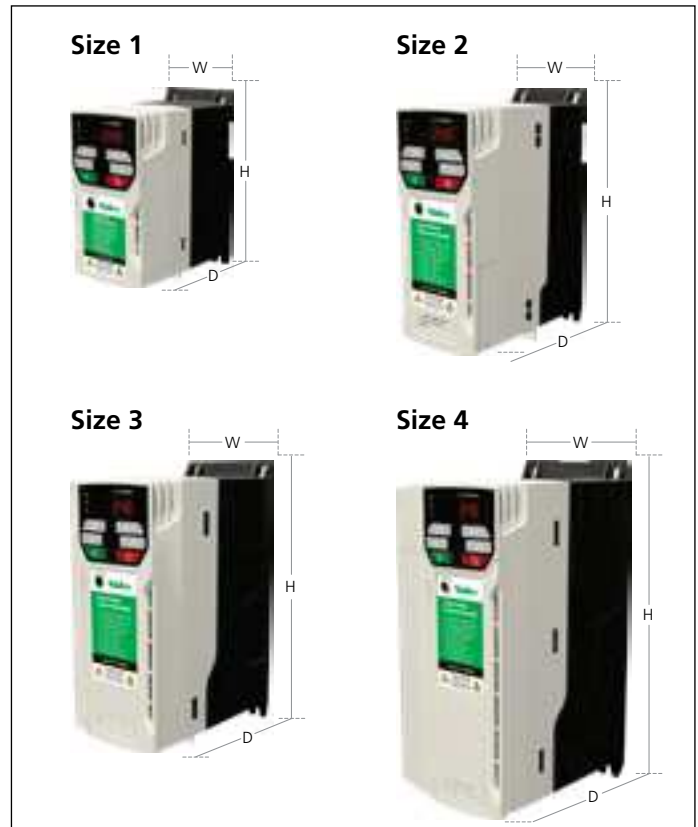
|                                |   |
|--------------------------------|---|
| DC Bus Undervoltage Trip       | 100 V model: 175 Vdc (approx. 61 Vac line voltage)<br>200 V model: 175 Vdc (approx. 123 Vac line voltage)<br>400 V model: 330 Vdc (approx. 233 Vac line voltage)  |
| DC Bus Overvoltage Trip        | 100 V model: 510 Vdc (approx. 180 Vac line voltage)<br>200 V model: 510 Vdc (approx. 361 Vac line voltage)<br>400 V model: 870 Vdc (approx. 615 Vac line voltage) |
| Drive Overload Trip            | Current overload value is exceeded. Programmable to allow up to 150% of drive current for 60 seconds.   |
| Instantaneous Overcurrent Trip | 220% of rated drive current.  |

|                      |   |
|----------------------|---|
| Phase Loss Trip      | DC bus ripple threshold exceeded.   |
| Overtemperature Trip | Drive heatsink temperature exceeds 95°C (203°F).                              |
| Short Circuit Trip   | Protects against output phase-to-phase fault.                                 |
| Ground Fault Trip    | Protects against output phase-to-ground fault.                                |
| Motor Thermal Trip   | Electronically protects the motor from overheating due to loading conditions. |

### Approval & Listings

|         |                  |
|---------|------------------|
| UL, cUL | UL File #E171230 |
| CE      | CE approval      |
| ✓       | N1652            |
| ISO     | 9001:2015, 14001 |
| RoHS    | RoHS Compliant   |

## Unidrive M100/M101 DIMENSIONS



| Frame size | H    |     | W   |     | D   |     | Weight |      |
|------------|------|-----|-----|-----|-----|-----|--------|------|
|            | in   | mm  | in  | mm  | in  | mm  | lbs    | kg   |
| 1          | 6.3  | 160 | 3.0 | 75  | 5.1 | 130 | 1.7    | .75  |
| 2          | 8.1  | 205 | 3.1 | 78  | 5.9 | 150 | 2.2    | 1.0  |
| 3          | 8.9  | 226 | 3.5 | 90  | 6.3 | 160 | 3.3    | 1.5  |
| 4          | 10.9 | 277 | 4.5 | 115 | 6.9 | 175 | 6.9    | 3.13 |

To accommodate the added depth with a potentiometer add 0.43 in (11 mm) to the depth of the M101 drives. See Fig #1 page 23. For NEMA Kit dimensions see page 30.