

DUALACE2 NEW GENERATION

THE DUAL WITH GREAT PERFORMANCE



INFORMATION

DUALACE2 NEW GENERATION is suitable for controlling two 3-phase motors of several types (AC induction, SPM, IPM, SRM, SRPM), in the range from 4 kW to 12 kW continuous power, adopted in battery-powered electric and hybrid vehicles. Speed or torque control are available. The I/Os accommodate a wide range of vehicle controls and sensors. DUALACE2 NEW GEN can also interface with a wide range of external devices via CAN bus.

APPLICATIONS



Material handling
and AGV



Aerial-access equipment
(AWP)



Agriculture



Construction equipment



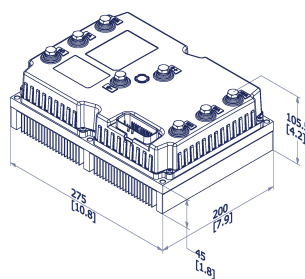
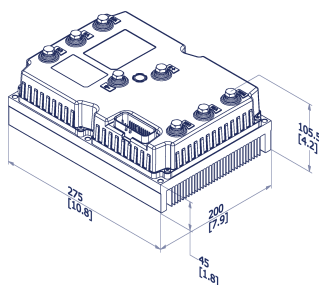
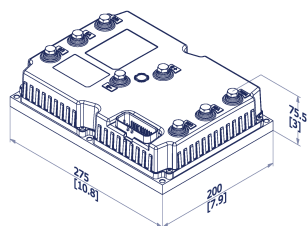
Tow tractors and airport
ground support vehicles



Hybrid solutions
and e-mobility

DIMENSIONS

mm [in]



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FEATURES

| Description | Standard | Premium |
|------------------------------------|---------------------|-------------------|
| Connectors | 23-pins Ampseal | 35-pins Ampseal |
| Digital inputs active high | 2 | 3 |
| Digital inputs active low | 1 | 5 |
| Analog inputs | 2 | 6 |
| PWM voltage-controlled outputs | 3 | 3 |
| PWM current-controlled output | 1 | 1 |
| CAN bus interface | 1 | 1 |
| Input for motor thermal sensor | 2 | 2 |
| Encoder interface | 2 | 2 |
| Sin-cos / 3-Hall interface | - | 2 on demand |
| Auxiliary supply outputs (+12/+5V) | 2 (max 200 mA each) | |
| Microcontrollers | 2 | |
| Ambient temperature, operating | 40 °C ÷ +40 °C | (-40 °F ÷ 104 °F) |
| Ambient temperature, storage | 40 °C ÷ +85 °C | (-40 °F ÷ 185 °F) |

Speed/position sensor interfaces different from single incremental encoder reduce the number of available digital/analog inputs.

MODEL CHART

| Nominal DC voltage | DC Voltage range | Maximum AC current rating (2') [Arms] ^{1) 3)} | S2 60-min AC current rating [Arms] ^{2) 3)} |
|--------------------|------------------|--|---|
| 24 V | 10 V ÷ 35 V | 350, 400, 450, 500, 550 | 175, 200, 225, 250, 275 |
| 36/48 V | 10 V ÷ 72.5 V | 350, 400, 450, 500, 550 | 175, 200, 225, 250, 275 |
| 72/80 V | 30 V ÷ 115 V | 230, 300, 350, 400 | 115, 150, 175, 180 |
| 96 V | 30 V ÷ 125 V | 230, 300, 350, 400 | 115, 150, 175, 180 |

Current ratings are based on an initial heat sink temperature of 40 °C (104 °F) and a maximum heat sink temperature of 85 °C (185 °F).

¹⁾ No airflow through the heat sink.

²⁾ 100 m3/h airflow through the heat sink.

³⁾ Each of the two AC sections.

REGULATIONS

| | |
|-------------------|---|
| UL certificate | UL 583 compliant (AU3503) |
| EMC | Designed to achieve requirements of EN 12895:2015+A1:2019. |
| Functional safety | Designed to fulfill EN1175-2020 requirements. Design architecture based on CATEGORY 2 according to EN13849; CATEGORY 3 achievable. Designed to achieve requirements of EN280. |
| IP code | IP65 |