

COMBIACEX NEW GENERATION

THE COMBI DRIVE FOR THE LOW RANGE



INFORMATION

COMBIACEX NEW GENERATION is suitable for controlling several types of motors (AC induction, SPM, IPM, SRM, SRPM), in the range from 1 kW to 3.5 kW continuous power adopted in battery-powered electric and hybrid vehicles. An additional DC section is available for applications with one DC series-excited pump motor up to 5 kW. The I/Os accommodate a wide range of vehicle controls and sensors. COMBIACEX NEW GEN can also interface with a wide range of external devices via CAN bus.

APPLICATIONS



Material handling
and AGV



Aerial-access
equipment (AWP)



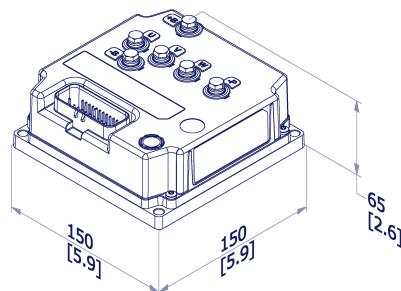
E-mobility



Cleaning

DIMENSIONS

mm [in]



Available with or without power fuse.

COMBIACEX NEW GENERATION

THE COMBI DRIVE FOR THE LOW RANGE

FEATURES

Description	Premium	Standard
Connector	35 pins Ampseal	23 pins Ampseal
Digital inputs, active high	11	6
Digital inputs, active low	2	-
Analog inputs	4	2
High-side output	1	1
PWM voltage-controlled outputs	8	3
PWM current-controlled output	2	1
Auxiliary supply output (+12/+5V)	2 (max 150 mA each)	
CAN bus interface	1	1
Input for motor thermal sensor	1	1
Encoder interface	1	1
Sin-cos/ 3 Hall/ Resolver interface	1 on demand	1 on demand
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⁾	S2 60-min AC current rating [Arms] ²⁾	DC maximum current [A]
24 V	11 V ÷ 35 V	240, 200, 165, 120, 100, 80	120, 100, 80, 60, 50, 40	270
36/48 V	11 V ÷ 72.5V	210, 180, 140, 90, 70	90, 85, 70, 45, 35	240

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.

REGULATIONS

UL certificate	UL 583 compliant (AU3503)
EMC	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