

EPS ACW

THE INTEGRATED STEERING
CONTROLLER



INFORMATION

EPS ACW is an integrated electrical steering unit that includes a driving inverter and an induction motor for implementing a steer-by-wire solution. This integrated solution minimizes the wiring, reduces the installation time and improves reliability. It can easily interface with a wide range of external devices via CAN bus. Redundancy of microcontrollers and sensors makes possible to fulfill ISO13849 category #3 and performance level requirements.

APPLICATIONS



Tow tractors and airport ground support vehicles



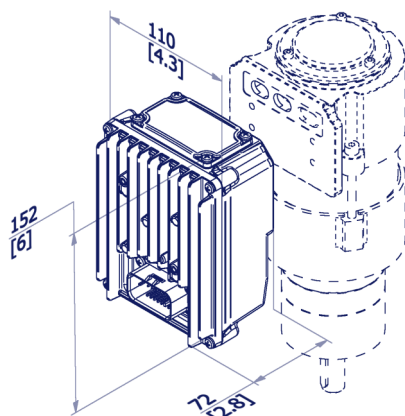
Material handling and AGV



Aerial-access equipment (AWP)

DIMENSIONS

mm [in]



r.r. 1:79



r.r. 1:45



r.r. 1:43



for bidirectional pump

Motor and gearbox sections can vary on application basis

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FEATURES

Connector	23 - pins Ampseal
Setpoint input	Crossed analog / Triangle PWM / CAN operated*
Safety feedback	Crossed analog / Straight ahead switch**
PWM voltage-controlled output	1
Torque feedback device (TFD) output	1
CAN bus interfaces	2
Auxiliary supply outputs (+12/+5V)	2
Microcontrollers	2
Ambient temperature, operating	-30 °C ÷ +40 °C (-22 °F ÷ 104 °F)
Ambient temperature, storage	-30 °C ÷ +80 °C (-22 °F ÷ 176 °F)
Maximum motor speed	3000 rpm (gearbox limited)
Maximum motor torque	4 ÷ 7 Nm
Gearbox reduction ratio	1:79 / 1:45 / 1:43 (multiple brands available)
Steering transmission	Machanical / Hydraulic with bidirectional pump (pump not included)

* AGV-hybrid ready

** only in combination with 3-channel embedded motor encoder

MODEL CHART

Nominal DC voltage	DC Voltage range	Maximum AC current rating (2') [Arms]
24/36 V	17 V ÷ 47 V	70
36/48 V	25 V ÷ 62 V	50, 70
72/80 V	51 V ÷ 104 V	40, 50

Current ratings are based on an initial heat sink temperature of 40 °C (104 °F) and a maximum heat sink temperature of 80 °C (176 °F).

REGULATIONS

UL certificate	UL 583 compliant (AU3503)
EMC	EN 12895:2015+A1:2019
Functional safety	Designed to achieve EN1175-2020 requirements. Designed to achieve CATEGORY 3 according to EN13849.
IP code	IP65