

**AC Drive
(ACD)**



**AC Compact
(ACC)**



**AC Super
(ACS)**



Mobile Propulsion AC Drives up to 1000 Amps

Description

The Kollmorgen family of motor controllers incorporates a number of features and capabilities important to the electric system designer. The controllers are compact, proven, and environmentally hardened for use in the mobile propulsion marketplace.

Features

The Kollmorgen family of AC motor control products provides solutions for voltage ranges from 24 to 80 volts. All of the controllers are CAN based therefore easily integrated into a mobile propulsion system.

The family of drives uses modern AC control techniques for improved performance and operating efficiency. Integral mounting flanges and integrated connectors are used to ensure simple installation and reliable operation.

The internal software is highly configurable which provides systems engineers with the ability to rapidly integrate their systems. All modules have features like hill-hold, rollback, Best Performance Curve (BPC), and braking.



OPERATING ENVIRONMENT

Operating temperature	-6.6°C to +55°C (+20°F to +131°F)
Storage temperature	-29°C to +60°C (-20°F to +140°F), ambient humidity of 95%
Humidity	95% condensing according to IEC68-2-3D, Db
Thermal resistance	0.3 °C/W
Sealing	IP 65

I/O CONNECTIONS

Connector:

- AMP-SEAL, 23pin

General I/O:

- Up to 6 digital inputs (low<2V, high>8V)
- Up to 3 analog inputs(0.5-4.5V)
- Up to 4 Open drain outputs (sink 1A cont.)

Motor speed interface:

- Two channel digital encoder
- Two (sin/cos) or three channel analog

Motor temperature sensor:

- KTY 84

Other interface (application specific):

- Stepper motor
- Dual digital encoder (with safety supervision)

Communication:

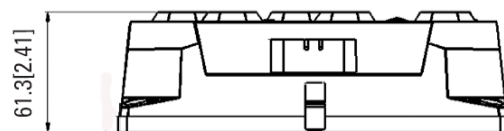
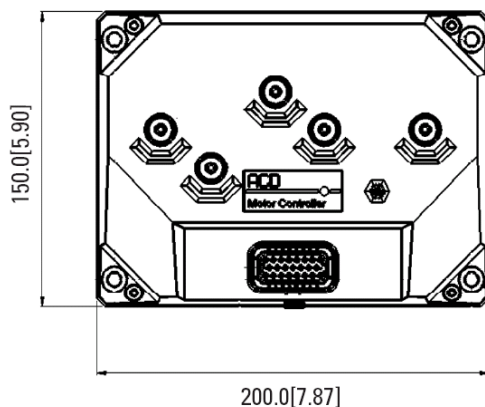
- CANopen

POWER CONNECTIONS

Terminal	Description
B+	Supplies battery power for the power stage
B-	Battery return connection.
U,V,W	Phase currents for the three-phase motor

ACD PRELIMINARY RATINGS

Model	Voltage	Current 2min	Current 1H
2405	24/36	225	100
4805	48	175	75
4802	48	70	30



mm[inch]

General

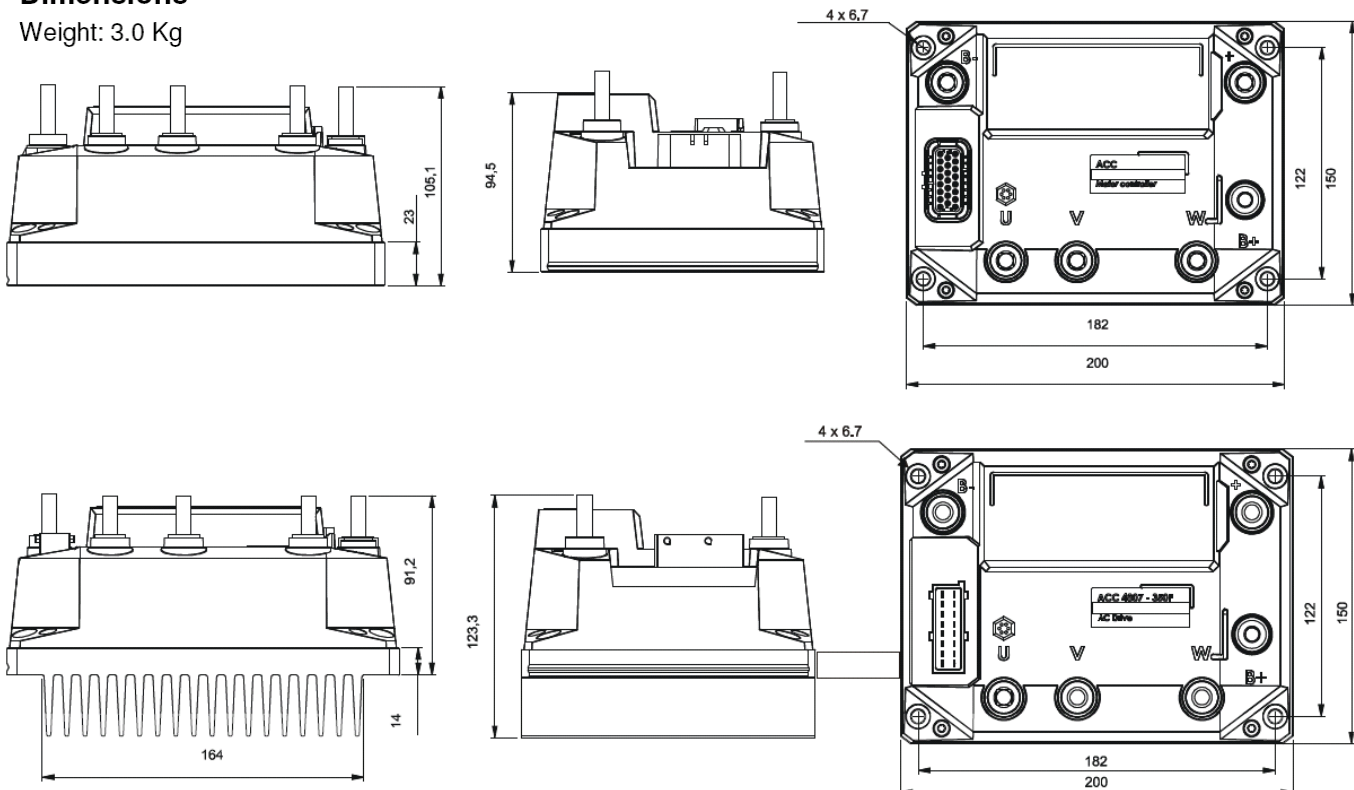
Motor type	3- phase induction motor with squirrel cage rotor
No. of quadrants	1, 2, 4 quadrant control. Regenerative braking (only 2-quadrant control for sensorless pump application)
Communication	CAN
Switching frequency	8, 12, 16 kHz (unit rated at 8kHz)
Operating stator current frequency	0-250 Hz
Control mode	Speed or torque control
Connector	AMP SEAL 23-pin or AMP Junior power timer 16-pin
Operating temperature	-40°C to +55°C (-40°F to +131°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F), ambient humidity of 95%
Protection class	IP 65
Safety standards	According to EN 1175-1. and UL 583

Current and Outputs Ratings

ACC Model Heatsink flat or with fins	Nominal DC supply voltage U _{dc}	Driving current (2 min. rating) Arms	Driving current (1 hour rating) Arms	Power output (2 min. rating) kVA	Power output (1 hour rating) kVA
ACC2407-500	24	500	215	12.9	5.5
ACC3607-450	24/36	450	200	18.2	8.1
ACC4807-350	48	350	150	19.3	8.3

Dimensions

Weight: 3.0 Kg



GENERAL

Motor type	3-phase induction motor with squirrel cage rotor
No. of quadrants	1,2,4 quadrant control. Regenerative braking
Communication	CAN
Switching frequency	8, 12, 16 kHz
Operating stator current frequency	0-250 Hz.
Control mode	Speed or torque control
Connector	AMP SEAL 23-pin
Operating temperature	-40°C to +55°C (-40°F to +131°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F), ambient humidity of 95%
Protection class	IP 54
Safety standards	According to EN 1175-1. and UL 583

CURRENT AND OUTPUTS RATINGS

AC SuperDrive model Heatsink flat or with fins	Nominal DC supply voltage U _{dc}	Driving current (2 min. rating) Arms	Driving current (1 hour rating) Arms	Power output (2 min. rating) kVA	Power output (1 hour rating) kVA
2410-450	24	450	200	11.6	5.1
2415-675	24	675	300	17.4	7.7
3610-450	24/36	450	200	18.2	8.1
3615-675	24/36	675	300	27.3	12.1
3620-900	36	900	400	36.4	16.2
4810-350	48	350	150	19.3	8.3
4815-525	48	525	225	28.9	12.4
4820-700	48	700	300	38.6	16.5
4825-875	48	875	375	48.2	20.7
4825-1000	48	1000	420	55.1	23.2
8010-220	80	220	100	20.7	9.4
8015-330	80	330	150	31.3	14.1
8020-440	80	440	200	41.5	18.9
8025-550	80	550	220	51.9	23.6

DIMENSIONS

AC SuperDrive model				
(Measures in mm)	ACS xx10	ACS xx15	ACS xx20	ACS xx25
Length	165	233.6	302.2	370.8
Width	Flat heatsink: 270 and 244 with fins			
Height	Flat heatsink: 91 and heatsink with fins 116			