

- **36V AC traction controller, particularly suitable for ride-on floorcare machines**
- **200Arms motor output**
- **Compatible with all AC induction motors**
- **Versatile throttle & brake pedal inputs**
- **Three coil outputs**
- **Intelligent Hill-Hold function**
- **Programmable start-up sequence options**
- **Low battery management**
- **CANopen comms**
- **On-board Status LEDs**
- **Integrated service timers**
- **Sealed to IPx5**
- **Designed to the requirements of EN60335-2-72 and UL583**

Although primarily intended as an advanced, cost-effective, AC traction controller for floorcare machines, the 36V variant of PGDT's C3 range is equally suitable for other small, ride-on vehicles. Flexible, yet simple programming means the controller is compatible with all types of AC induction motor, while a dedicated thermistor input allows motor temperature and the power to the motor to be reduced if it is becoming too warm.

The 36V C3 features up to eight dedicated digital inputs that can be individually switched to 0V, open-circuit, B+ or a combination of these options to provide the active state. The controller also accepts multiple throttle and brake pedal types, including 2- or 3-wire resistive and voltage. CANopen hardware is provided as standard, offering vehicle OEMs maximum input flexibility.

Three, 2A outputs allow for control of a line contactor, electro-magnetic brake and reversing alarm. All outputs are protected against wiring errors and contain coil suppression circuits, meaning external diodes are not required.



To ensure maximum efficiency, the 36V C3 employs an intelligent Hill-Hold function that only takes power from the battery if the vehicle starts to roll. As soon as it is detected that Hill-Hold is not required, then no further power will be consumed. Traditionally, application of a brake switch has been needed to provide this function.

In addition to on-board LEDs that can communicate basic status and diagnostic information, the controller includes two service timers – one for keyswitch hours and one for operational 'active' hours. These can be set by an OEM or service agent, thereby ensuring an appropriate maintenance regime. After a service is complete, the timers can be set to the next service interval.

The innovative construction methods employed by the 36V C3 ensure reliable and repeatable assembly of the electronic enclosure, which results in consistent protection of the electronic circuits from the environment and efficient transfer of heat to the baseplate. The design is compliant with all relevant international floorcare vehicle standards, e.g. EN60335-2-72 and uses UL approved materials throughout, taking into account the critical dimensions defined in UL583.

SPECIFICATIONS

ELECTRICAL

SUPPLY VOLTAGE	24-45Vdc
PEAK VOLTAGE	52.5Vdc
REVERSE BATTERY VOLTAGE	60Vdc
PWM FREQUENCY	10kHz or 20kHz
COIL OUTPUTS	3x 2A, protected
TRACTION MOTOR OUTPUT – 2 MINS	200Arms
TRACTION MOTOR OUTPUT – 1 HR	80Arms min.

MECHANICAL

POWER CONNECTIONS	M6
CONTROL CONNECTIONS	Molex® Mini-Fit, Jr.
LENGTH	172mm / 6.77"
WIDTH	146mm / 5.75"
HEIGHT	63mm / 2.48"

ENVIRONMENTAL

MOISTURE RESISTANCE	IPx5
OPERATING TEMPERATURE	-30°C to 55°C
STORAGE TEMPERATURE	-40°C to 70°C
EMC	Tested to EN12895

PRODUCT CODES

CONTROLLERS

C3-200-CAN 36V	200Arms traction drive
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DISPLAYS

iGAUGE	52mm diameter, LCD gauge
TRUCHARGE	10 segment, LED gauge

PROGRAMMERS

DTT	Diagnostic Test Tool, hand-held programmer
C3 PCP SERVICE	PC Programmer, service access
C3 PCP OEM	PC Programmer, OEM and manufacturing access
