

- 150 A Traction output
- 100 A Brush output
- 50 A Vacuum output
- Programmable for 24V or 36V operation
- Self-protecting outputs
- Low impedance inputs
- Auto squeegee & brush deck actuator control
- Solution Pump and Valve control
- Programmable battery lockout
- System log offering comprehensive diagnostics
- Hours run timer feature
- M6 bolt connector system
- Optional LCD command & control module



The Trio+ HD integrated floorcare motor control system performs all the functions required of large pedestrian and small-to-medium ride-on scrubber dryers. The powerful configuration software offers a huge amount of programmable parameters, which allow the operation of the various output devices to be defined exactly. This approach provides the flexibility that floorcare OEMs require to incorporate the functionality unique to their machines, and effectively create their own bespoke control system using an established product.

Trio+ HD is easily the most popular integrated control system on the market today, and is used by the vast majority of the world's floorcare machine manufacturers.

Since its introduction in 2000, nearly every new ride-on auto scrubber design has used the Trio+ HD controller to provide reliable, solid state control of all vehicle functions. On most applications, no other electronic components at all are required.

The Trio+ HD variant uses M6 threaded bolts for all motor connectors as an alternative to the push-fit crimp system still available on the original Trio+. This allows the use of low-cost, commonly available ring crimps and lowers the overall installation height required, as there is no need to allow for the bend radius of the cables.

All other functionality remains the same as Trio+.

SPECIFICATIONS

ELECTRICAL

SUPPLY VOLTAGE	24-36 Vdc
OPERATING VOLTAGE	16-48 Vdc
PEAK VOLTAGE	50 Vdc
REVERSE BATTERY VOLTAGE	40 Vdc
TRACTION OUTPUT	50 A / 100 A / 150 A (full bridge)
TRACTION PWM FREQUENCY	15 kHz \pm 1%
BRAKE VOLTAGE	24 / 36 Vdc
BRAKE CURRENT	2 A max. continuous
BRUSH OUTPUT	100 A, Fully programmable
VACUUM OUTPUT	50 A, Fully programmable
AUXILIARY 1 & 2 OUTPUT	7 A, Fully programmable for actuator control
AUXILIARY 3 & 4 OUTPUT	Fully programmable, 5 A sink
REVERSE ALARM OUTPUT	12 / 24 / 36 Vdc, 2 A sink
WARNING LAMP OUTPUT	12 / 24 / 36 Vdc, 2 A sink

MECHANICAL

BATTERY CONNECTOR	M6 threaded brass pillars
TRACTION MOTOR CONNECTOR	M6 threaded brass pillars
BRUSH MOTOR CONNECTOR	M6 threaded brass pillars
VACUUM MOTOR CONNECTOR	M6 threaded brass pillars
CONTROL CONNECTOR	Molex® Mini-Fit, Jr.™

ENVIRONMENTAL

MOISTURE RESISTANCE	Electronics to IP56
OPERATING TEMPERATURE	-20°C to 55°C
STORAGE TEMPERATURE	-30°C to 55°C
SAFETY	Multiple hardware & software strategy. Designed to EN60335/2/67
SUSCEPTIBILITY (on sample machine)	Tested at 30V/m
EMISSIONS	To EN55022 Class B
ESD	IEC801 part 2

PRODUCT CODES

TRIO+HD 50	50 A Drive
TRIO+HD 100	100 A Drive
TRIO+HD 150	150 A Drive
