



STARS CO., LTD.

Datasheet

PM250

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Description:

PM250 - Series controllers are designed in high end driving technology and reliable hardware which provide the silent and smooth operation for the DC permanent magnet motor. This high performance motor controller is simple to install, light weigh, efficient and cost effective. The PM250 - series motor controller operate voltage from 12 to 48VDC and output current from 100 to 180Amps, the controller is sutiable for 800 – 1500W PMDC motors.

Applications:

PM250 - series motor controllers are designed to control DC permanent magnet brush motor in battery power traction and pump applications. The applications include pallet truck, scissor lift, stackers, sweeper/ scrubber machines, industrial vehicles, person carrier, electric tricycle, agricultural machine.

General Features include:

- CANbus communication available(by model)
- Suitable for DC Permanent Magnet brush motor
- Low noise, high efficient and newest driving technology
- Full bridge power MOSFET design, providing
 - ✓ infinitely variable forward, reverse, drive, and brake control
 - ✓ silent high frequency operation
 - ✓ high efficiency
- Simple size and high weight/power density
- Driving direction change without other device.
- Four quadrant motor control technology
- Regenerative braking allows shorter stopping distances, increases battery charge, and reduces motor heating
- Flywheel protect control
- PWM driver technology for Main contactor and EMB
- Real time current control
- Building DC contactor (by model)
- Speed limit throttle function
- Brake throttle function
- Inhibit input disables the controller and puts the vehicle in a safe state during charging, etc.
- Main contactor and electronic magnetic brake control by motor controller
- EMR/Belly switch available



PM250

Cont. General Features

- Available for 0-5K Ω , 0-5V, switch, wig-wag throttles
- Undervoltage cutback function protects against operation at low battery voltage
- Overvoltage protection shorts the motor and disables driving in the event of excessive battery voltage
- Motor temperature protect
- High pedal disable function
- Real time status LED
- Compatibility with Stars handheld programmers for quick and easy testing, diagnostics, and parameter adjustment.

Models :

Model	PM250-1220	PM250-2420R	PM250-2420	PM250-4815
Voltage(VDC)	12	24	24	48
Max. Voltage (VDC)	16	32	32	60
Min. Voltage (VDC)	8	16	16	36
Max. Current (A)	180	180	180	150
Rating Cur. (A)	50	50	50	30
Buind-in Relay	Yes	Yes	No	No

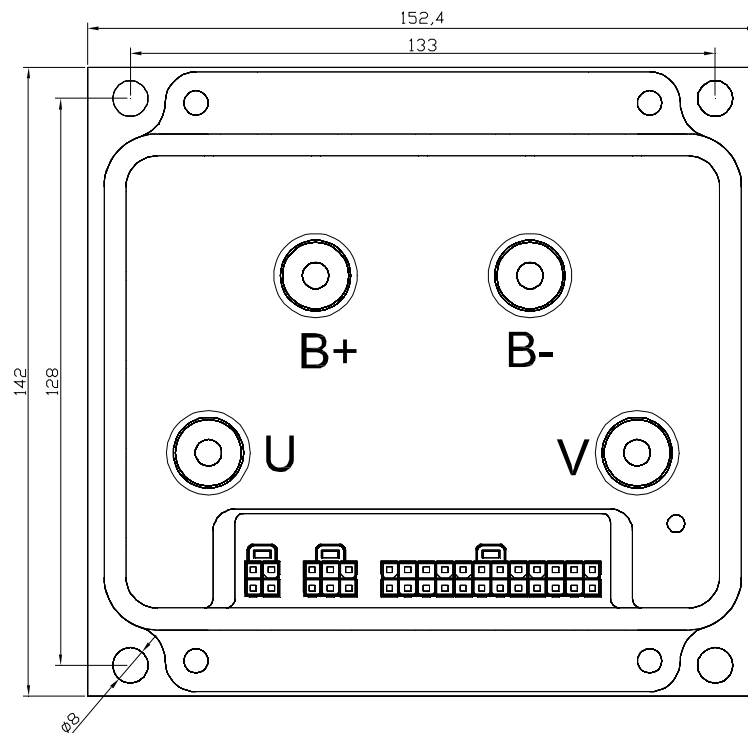
Technical Data:

Dimension(mm)	152.4 X 142 X 76 mm
Weight(kg)	1
Efficiency	98%
Connector	Mini-Fit Jr. Vertical Header, 4.20mm Pitch, Dual Row, 24/6/4 Circuits
Algorithm	PWM
Communication	CAN open (by model option)
Contacting coil	Line contactor coil control by controller
EM brake coil	Motor EM brake control by controller
IP rating	IP53
Function	Programmable controller
Drive throttle type	0-5k, 0-5V, wigwag, CAN
Speed limit throttle type	0-5k, 0-5V, wigwag, CAN
Install position	Clean and dry

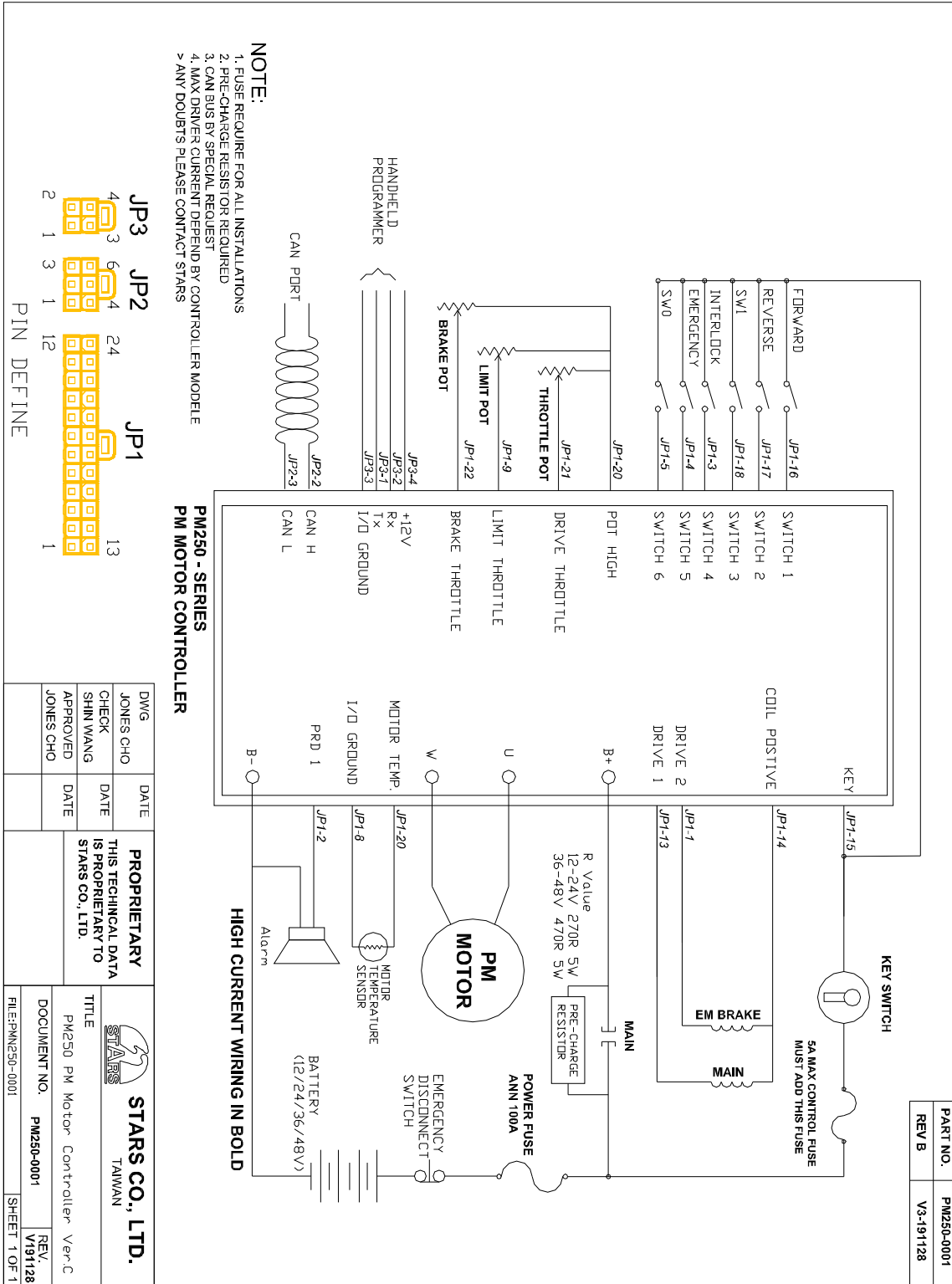
Cont. Technical Data

Cooling	Air Cooling
Isolation	Electrical isolation to heatsink: 500 V ac (minimum)
Storage Temp.	-40oC to 80 oC
Operation Temp.	-20oC to 80 oC
Motor Temp.	-20oC to 120 oC
Motor Temp. Sen.	KTY-84/PT1000

Dimensions:



Typical wiring:



PART NO.	PM250-0001
REV B	V3-191128