



# M700

## DC PUMP MOTOR CONTROLLER

M700 is a high-power hydraulic pump controller, it can provide fully programmable control of DC series wound motors. It features microprocessor-based logic with programmable parameters and offers maximum flexibility for minimum cost.



### Features

- Programmable and flexible
- Configurable parameters
- MOSFET short-circuit protection function
- Support multiple throttle types and high pedal disable (HPD)
- Short duration boost capability
- CAN communication with controller
- External status LED for system troubleshooting
- High efficiency, silent operation
- Child MCU monitor

### Applications

- Battery power vehicle applications using pump motor
- Personnel carriers
- Mobile elevating work platforms
- DC wound motors used in Hydraulic Pump Scissor Lifts



## SPECIFICATIONS

### Electrical

<b>Nominal Input Voltage</b>	14V and 24V	
<b>Voltage Range</b>	14V ~ 46.5V	
<b>PWM Operating Frequency</b>	15.6kHz	
<b>Electrical Isolation to Heatsink (no Contactors engaged)</b>	500V AC (minimum)	
<b>KSI Input Current</b>	100mA	
<b>Logic Input current</b>	< 2mA	
<b>Status LED Output Current (Max)</b>	< 2mA	
<b>Throttle types</b>	2-wire Rheostats: 0-5kΩ, 5kΩ-0	
	Voltage Throttles: 0-5V	
	CANopen	
<b>Current Rating</b>	2 Minute	300A
	5 Minute	250A
	1 Hour	150A

## Environmental

<b>Operating Temperature</b>	-40 °C to 50 °C
<b>Storage Temperature</b>	-40 °C to 85 °C
<b>Humidity</b>	70%R.H
<b>Protection Level</b>	IP54
<b>Mechanical Shock</b>	50g@12s for 3 times for each direction
<b>Random Vibration</b>	10Hz to 2000Hz, 5.58g @2h at each axis
<b>EMC</b>	EN 55022 EN 61000-3-2 EN 61000-3-3 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11

- Redundant hardware and software
- J4: ADMA TECH DMF-04-R-N.
- J6: ADMA TECH DMM-04-R-N-P-MT-V0
- Two Driver output with max 2A

## Connections

<b>B+</b>	Positive pole of battery		
<b>B-</b>	Negative pole of battery		
<b>M-</b>	Negative pole of motor		
<b>J1</b>	Key switch connection		
<b>J2</b>	Connection to wire 1 of 2-wire rheostat		
<b>J3</b>	Connection to wire 2 of 2-wire rheostat, or voltage throttle input		
<b>J4</b>	Pin 1	RX	
	Pin 2	GND	
	Pin 3	TX	
	Pin 4	+12.7V	
	<b>J6</b>	Pin 1	DRIVER OUTPUT
		Pin 2	Interlock
		Pin 3	CANL
		Pin 4	CANH

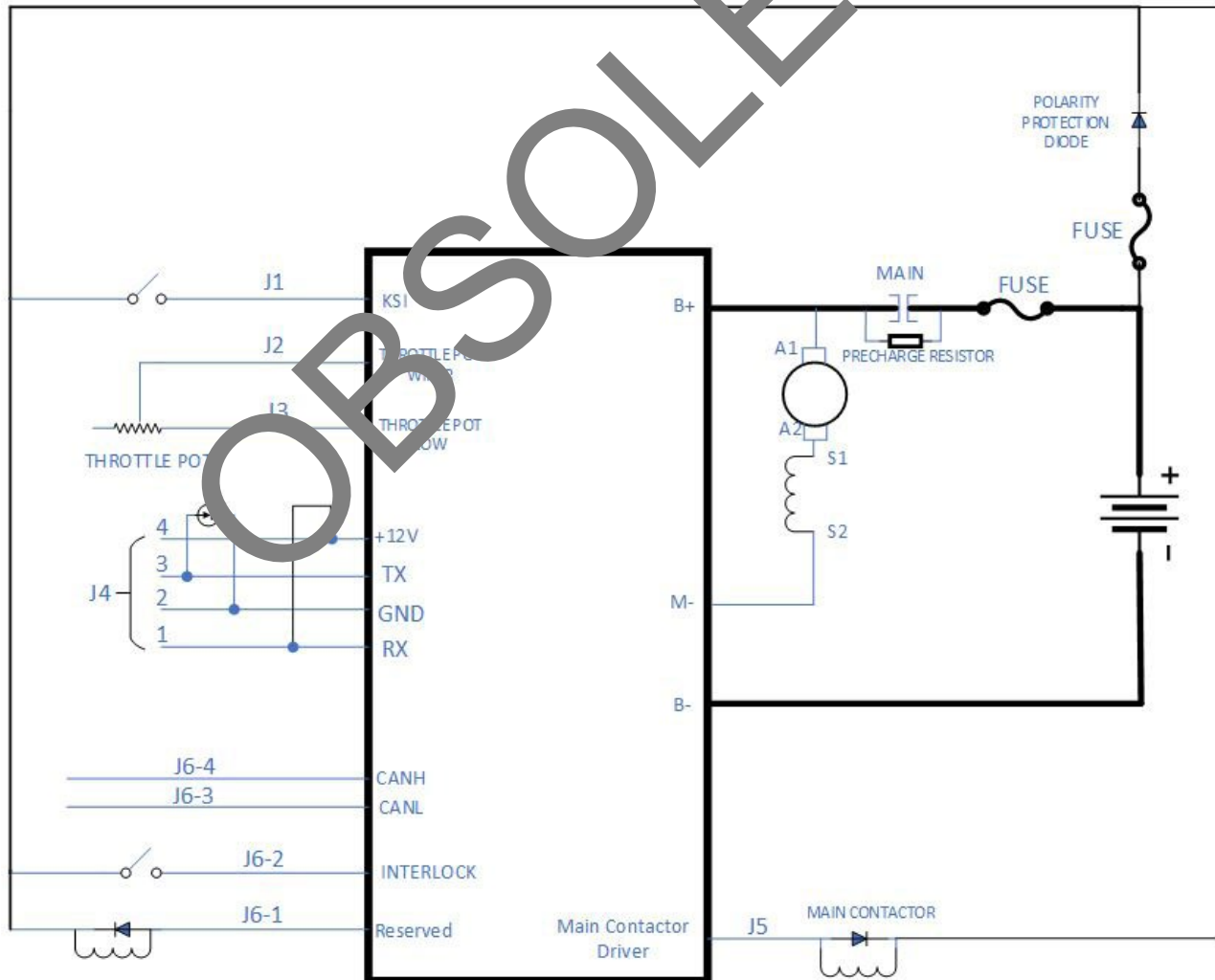
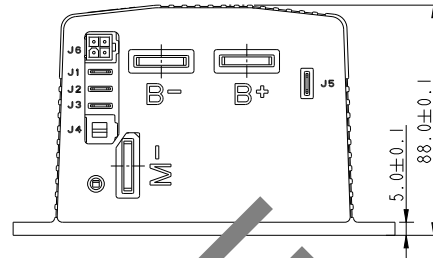
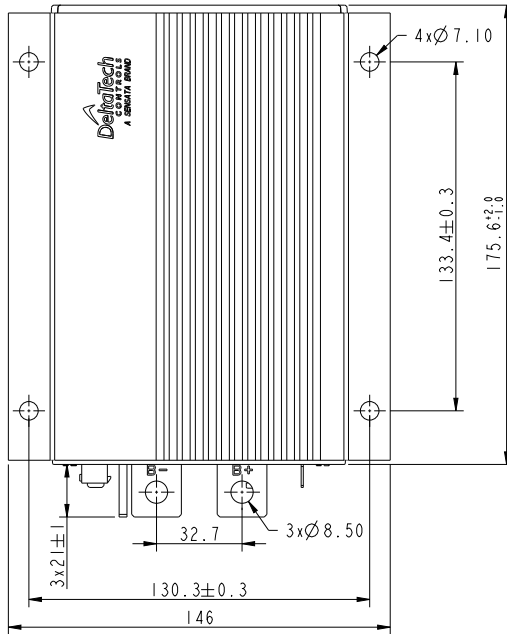
## Compliance

- EMC: Designed to the requirements of EN12895.
- Safety: Designed to the requirements of EN1175
- Accord with UL 583



# DIMENSIONS

Dimensions in mm





Recommend to choose a kit product K310, K500, K520 series including Sensata Platform Control Unit (PCU), Electronic Control Unit (ECU) and Motor Controller (MC) for reliable application.

Part Number	Product	Description
M700-VR1	M700	Motor Controller

OBSOLETE

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