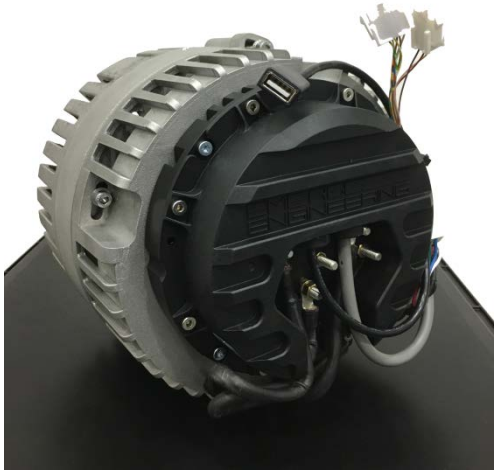
Emerge 6000 + ME0201013001 Drive Unit

Drive-unit solution



- ☐ Traction Applications up to 9kWP
  - ☐ Light electric vehicles (LEV)
  - ☐ Electric Scooters
  - ☐ Go Kart, Golf Cart
- ☐ Interfaces[1]
  - ☐ Automotive CAN-bus
  - ☐ Analog Throttle & brake
  - ☐ Reverse gear
  - ☐ Boost / Push to pass button
  - ☐ USB: Programming Interface
  - ☐ AUTOSAR / XCP on Request
- ☐ Features[2]
  - ☐ Smartphone Connectivity-smartphone app (Display solution + data-logging)
  - ☐ Four different setups from 3kW to 6.3kW (mechanical output power) including Boost-Control (selectable via smartphone app)
  - ☐ Regenerative braking (recuperation / regeneration)
  - ☐ Automatic flux-weakening for higher speeds
  - ☐ USB-based configuration and programming tool
  - ☐ Self-protection and graceful degradation in overload conditions
- ☐ Special Software available on request
  - ☐ CAN-Bus based synchronized 2WD & 4WD-controller
  - ☐ All wheel drive torque control with rear axle LSD and base torque distribution

[1] Features depending on variant

[2] Interfaces depending on variant

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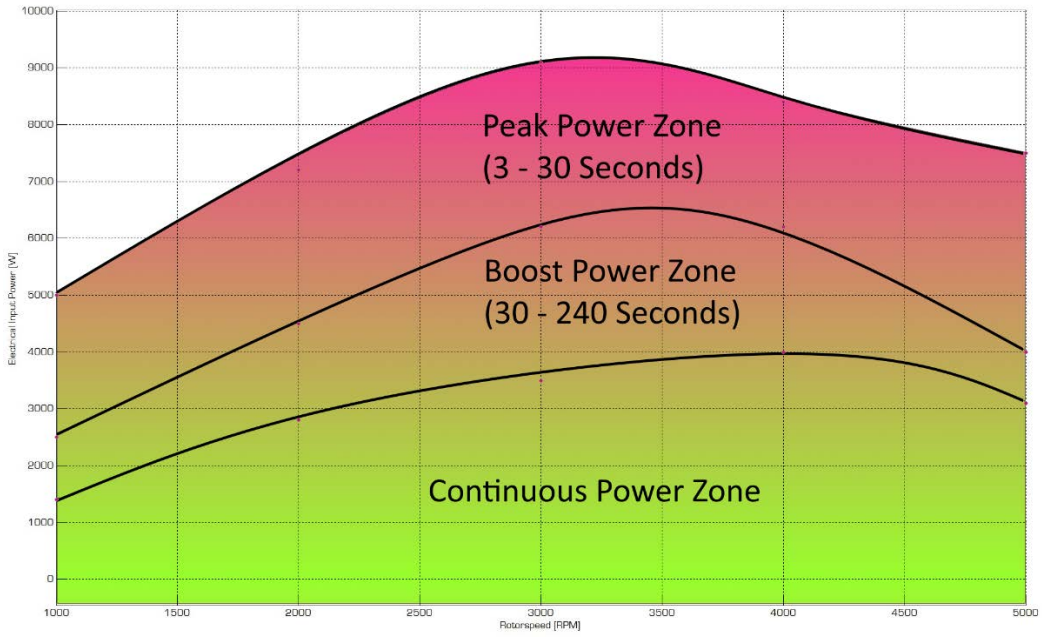
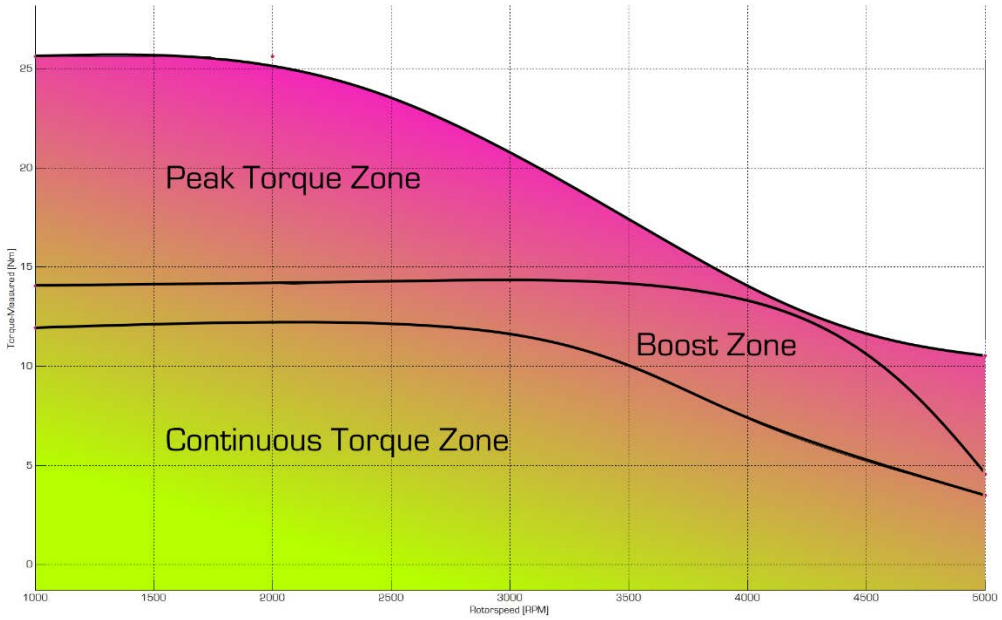
Repetitive Continuous, Boost and Peak Performance Data [3] [4] [5]





[3] Boost power available each 60 seconds in continuous power zone

[4] Peak power requires a relatively cool drive unit (below continuous power limit)

[5] Performance data evaluated at: 48V DC-link voltage, 25 °C ambient temperature

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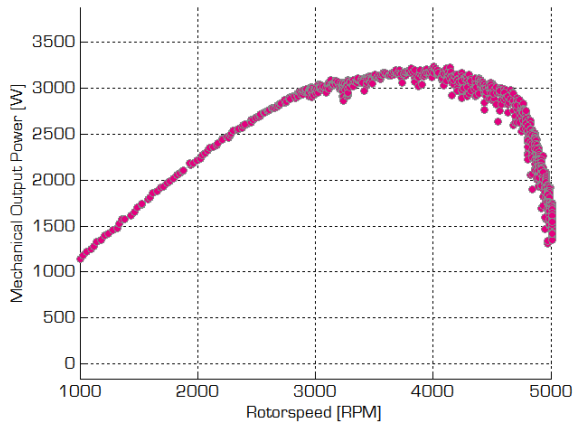
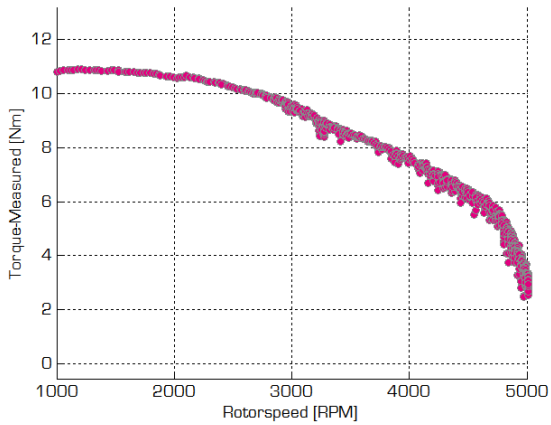
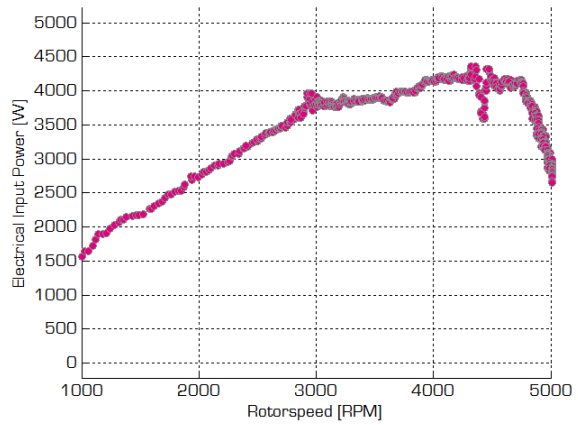
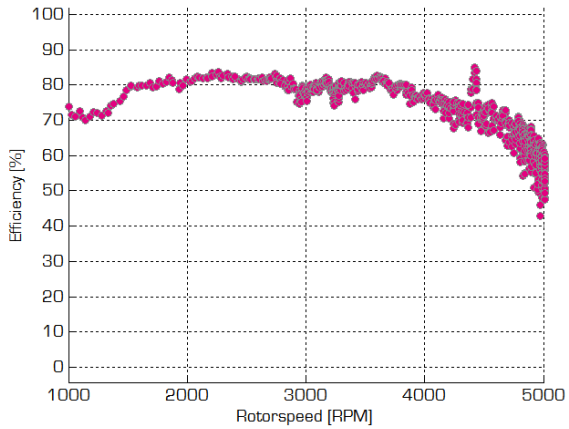
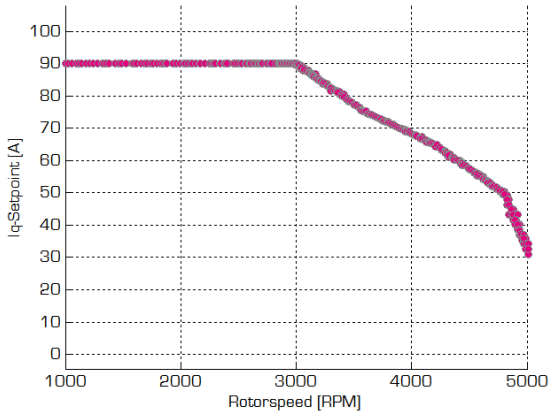
3kW Mode: Measured Performance Data

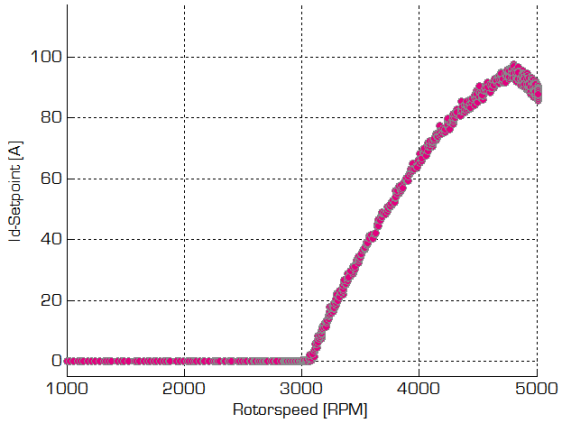












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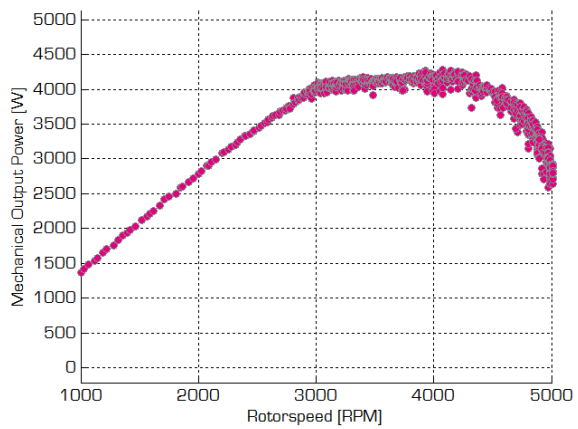
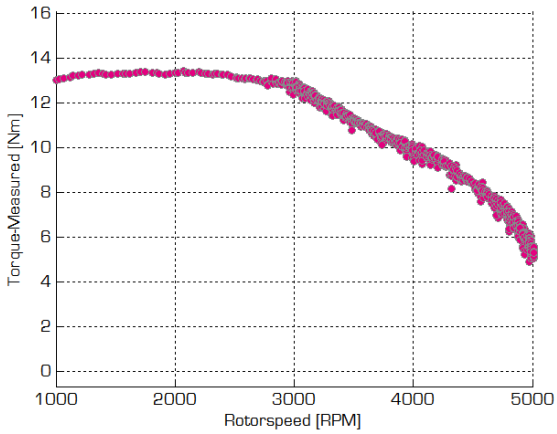
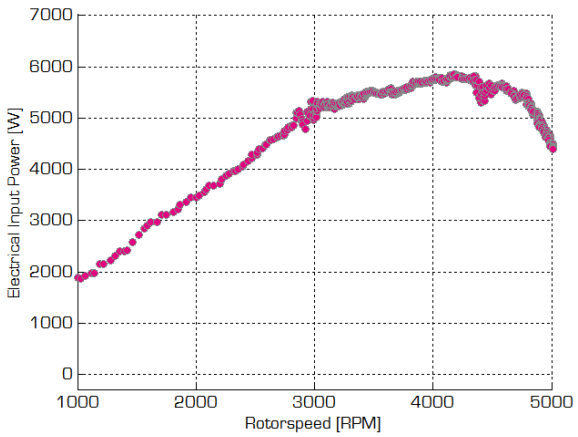
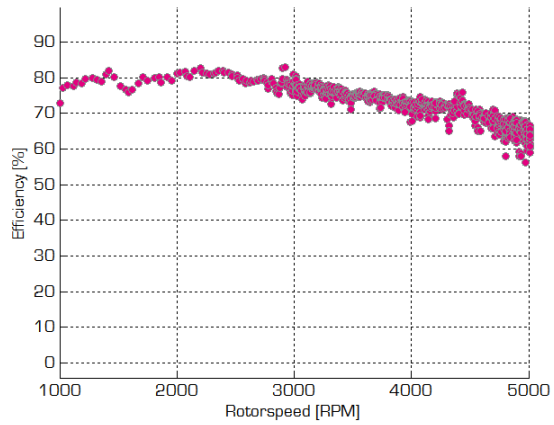
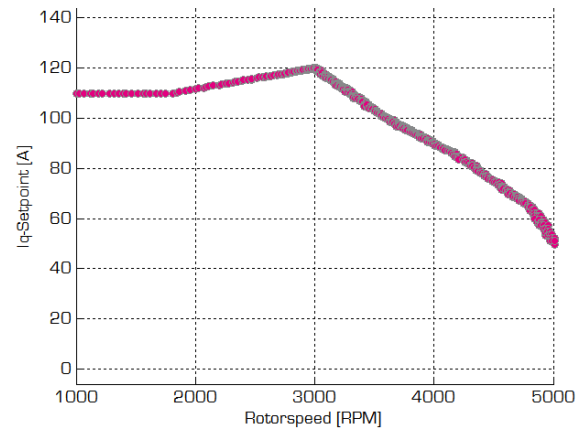
4kW Mode: Measured Performance Data

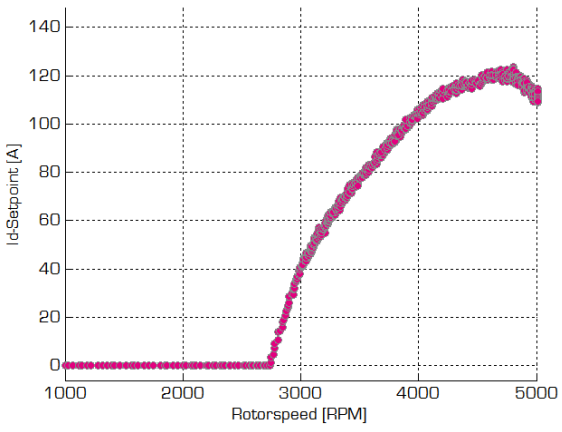












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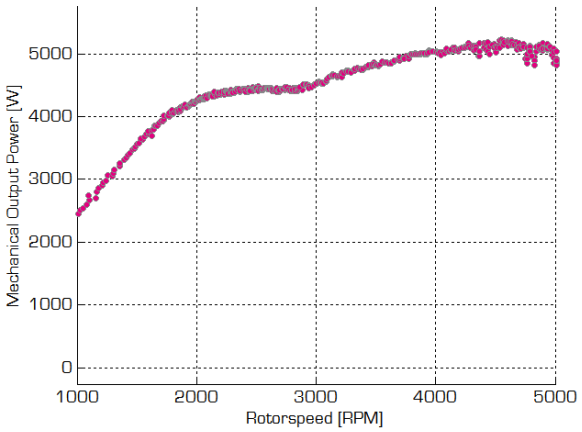
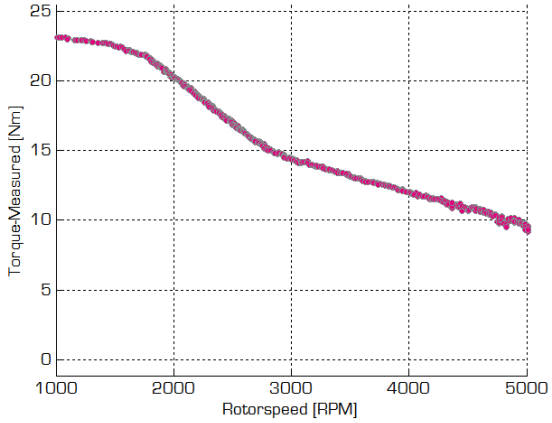
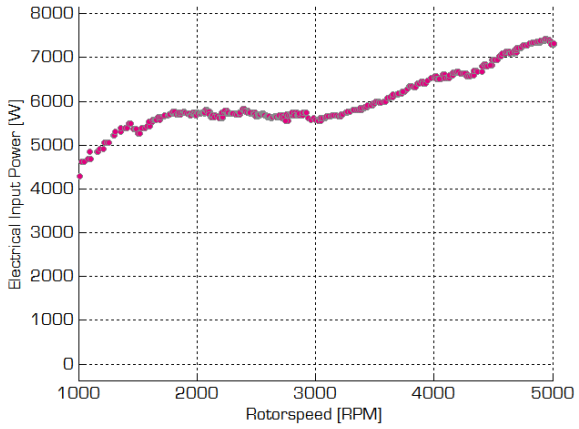
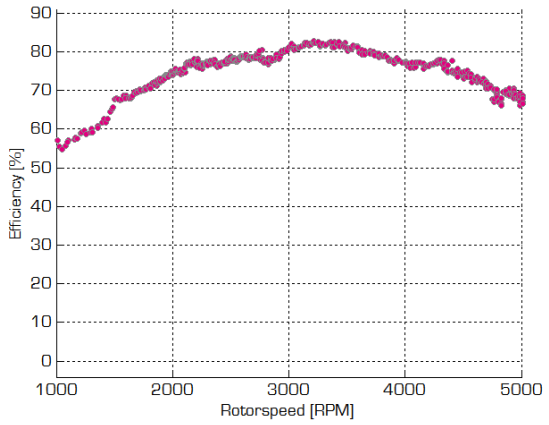
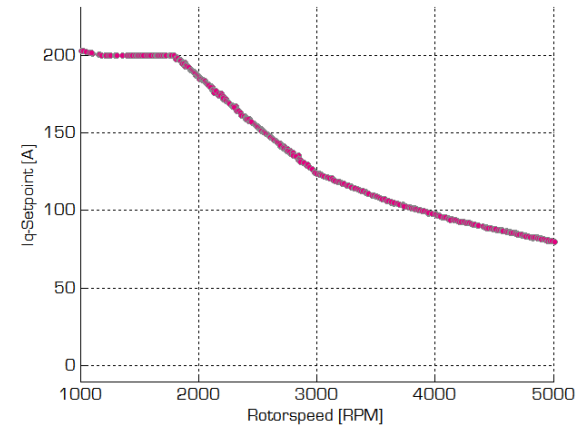
5kW Mode: Measured Performance Data

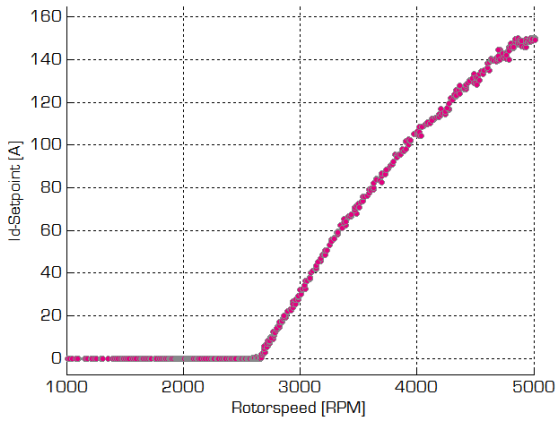






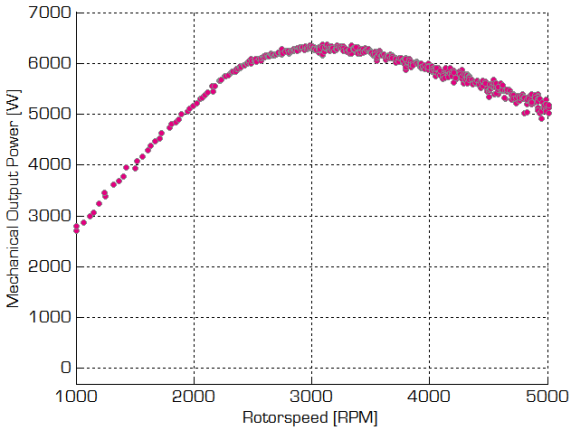


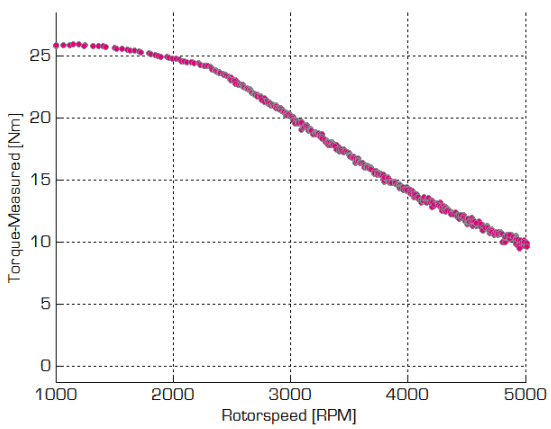


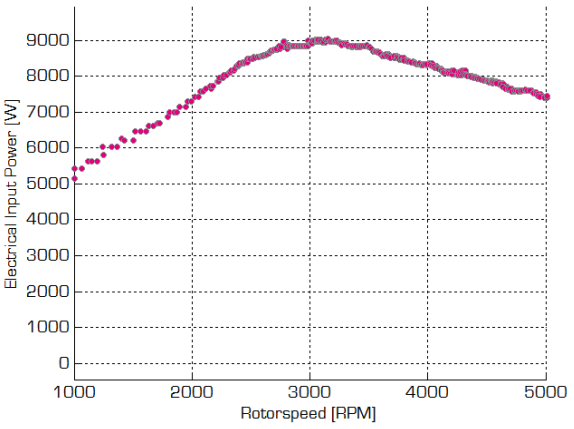


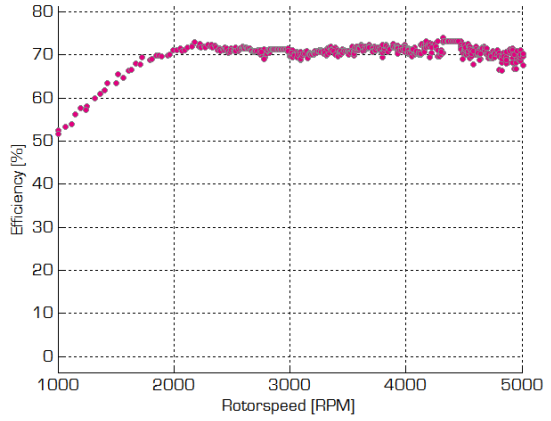
Emerge 6000 + ME0201013001 Drive Unit

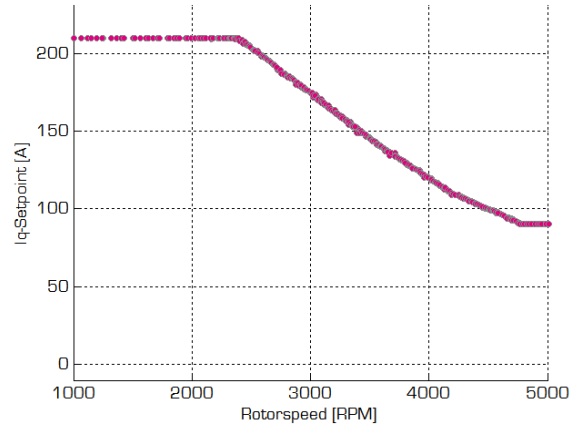
6kW Mode: Measured Performance Data

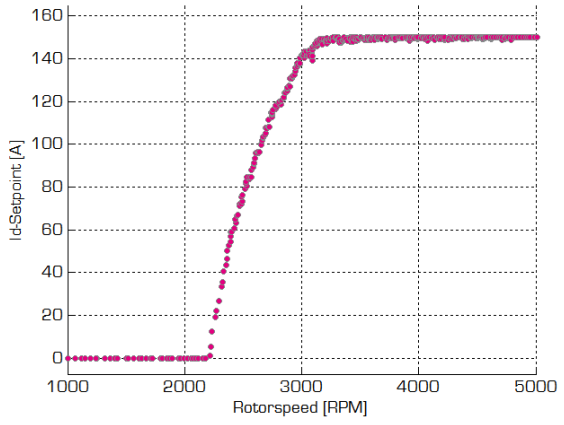






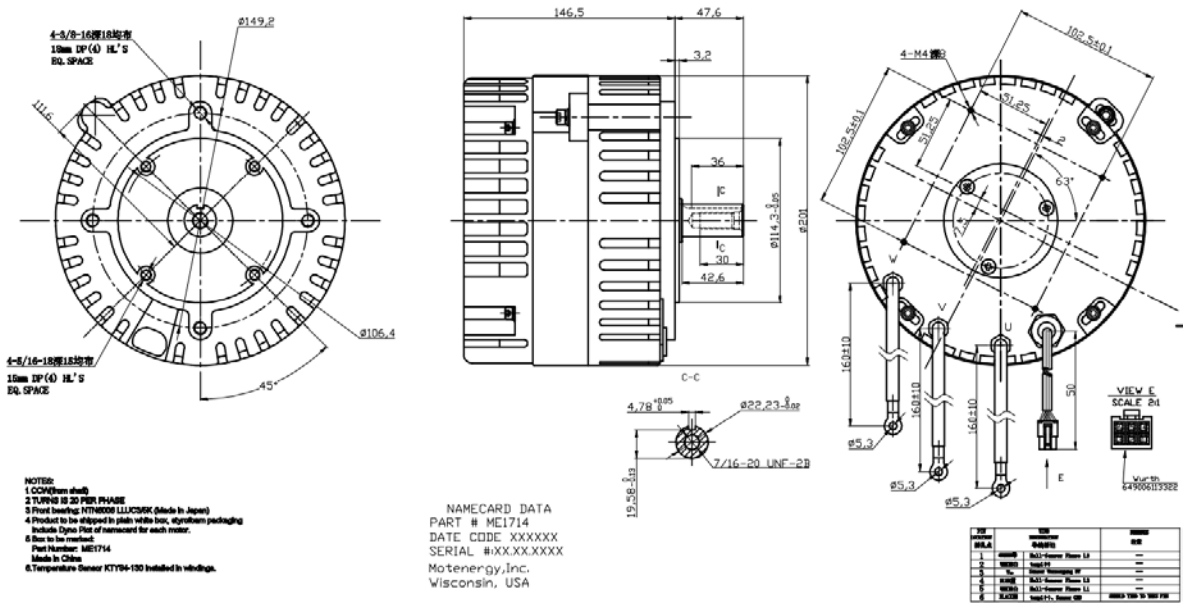






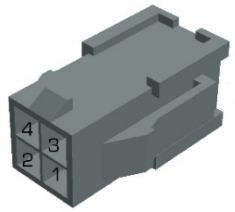
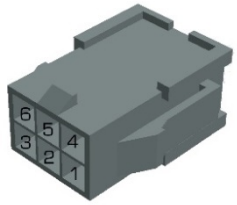
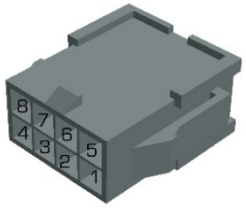
Emerge 6000 + ME0201013001 Drive Unit

Mech. Parameters



Diameter	mm	201
Height	mm	146.5 (Motor) + 52.0 (Controller)
Weight	kg	10.9
Shaft diameter (different versions available in metric / inches)	mm	24

Emerge 6000 + ME0201013001 Drive Unit

Installation Signal Connector Cable (grey) [6] with standard hall-sensor setup			
Connector (Controller Side)	**Pin / Color**	**Function**	**Additional Info**
Throttle Connector MPC4 Würth 64900421822 4 pole male 	1	NC	Not connected
	2 / Pink	5V	Throttle supply
	3 / Purple	Throttle	Throttle signal
	4 / Brown	GND	Throttle ground
Motor Connector MPC4 Würth 64900621822 6 pole male 	1 / Green	Hall L3	Hall sensor Phase L3
	2 / Gray-Pink	Temp IN	Temperature sensor motor
	3 / Red	5V	5V sensor supply (50mA max)
	4 / Blue	Hall L2	Hall sensor Phase L2
	5 / Yellow	Hall L1	Hall sensor Phase L1
	6 / Black	GND	Hall sensor GND
Aux Connector MPC4 Würth 64900821822 8 pole male 	1 / Yellow-Brown	SP2	Ridemode select (connect to GND)
	2 / White-Green	SP1	Reverse gear (connect to GND)
	3 / Red-Blue	5V	5V sensor supply (50mA max)
	4 / Grey	CAN Low	
	5	NC	Not connected
	6 / White-Yellow	AUX IN	Brake signal
	7 / Brown-Green	GND	GND
	8 / White	CAN-High	

Order numbers of matching connectors for your vehicle wiring harness:

- crimp connectors (female): Würth 64900712722DEC
- housing 4 pole (female): Würth 649004113322
- housing 6 pole (female): Würth 649006113322
- housing 8 pole (female): Würth 649008113322

[6] (Warning: If not declared separatly, all I/O will not survive short against any voltage greater than +5V or reverse voltage).

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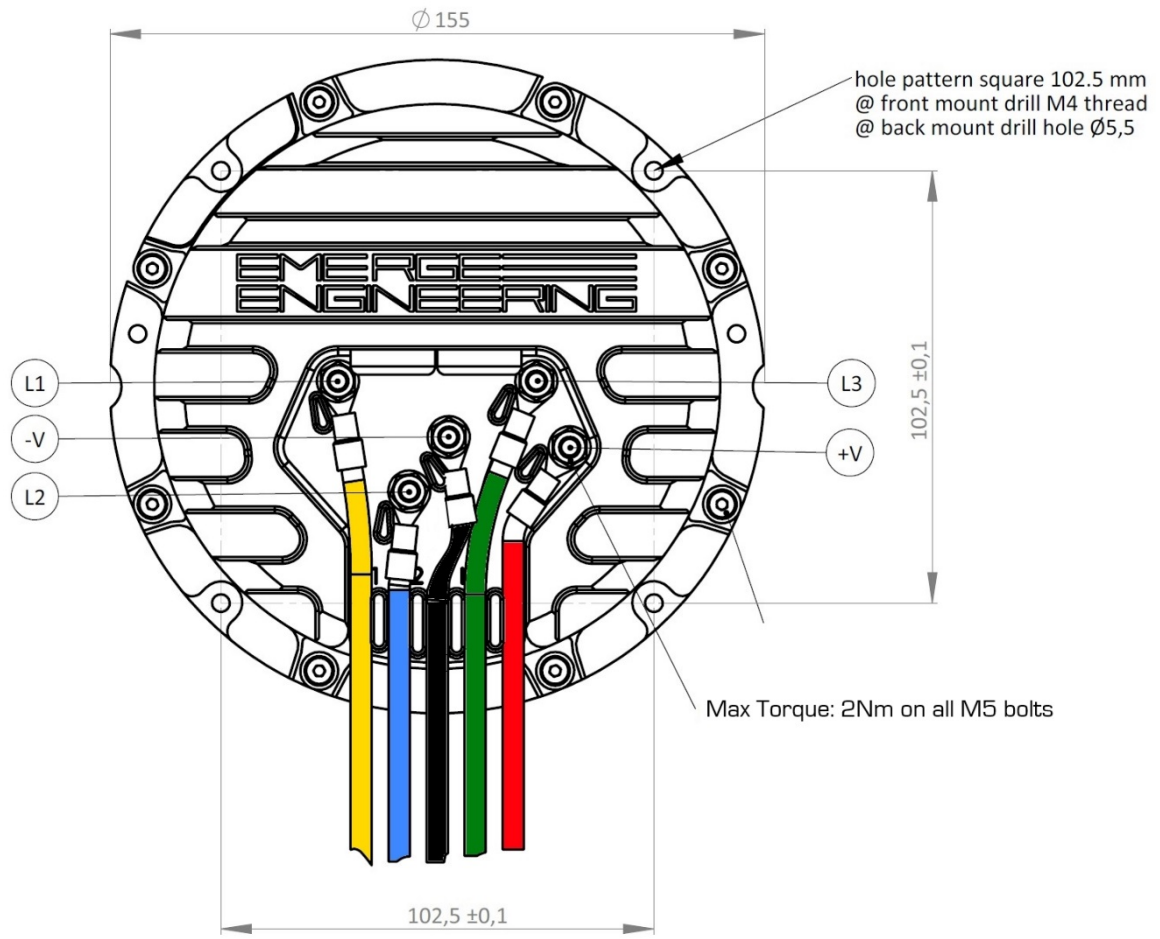
High-Current Screw Terminals [7]		
L1	Motor L1	
L2	Motor L2	
(-)	Battery -	Battery GND
L3	Motor L3	
(+)	Battery +	Do not exceed 65V



Attention: Do not exceed 3Nm on brass bolts.

[7] Terminal names are embosed on housing

Revision / History		
Version	Date	Change
V1.2	20180315	Updated Continuous and Boost Performance
V1.1	20180228	Updated Performance Data
V1.0	20170907	Preliminary draft