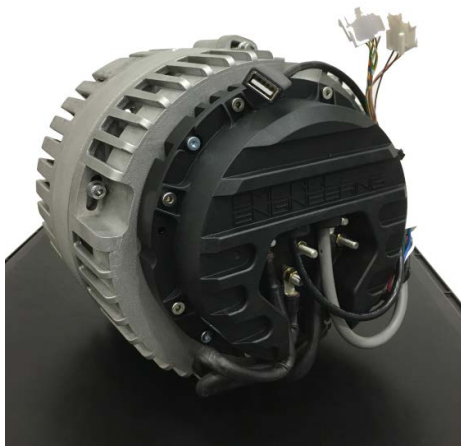


# Emerge 6000 + ME0201013001 Drive Unit

## Drive-unit solution



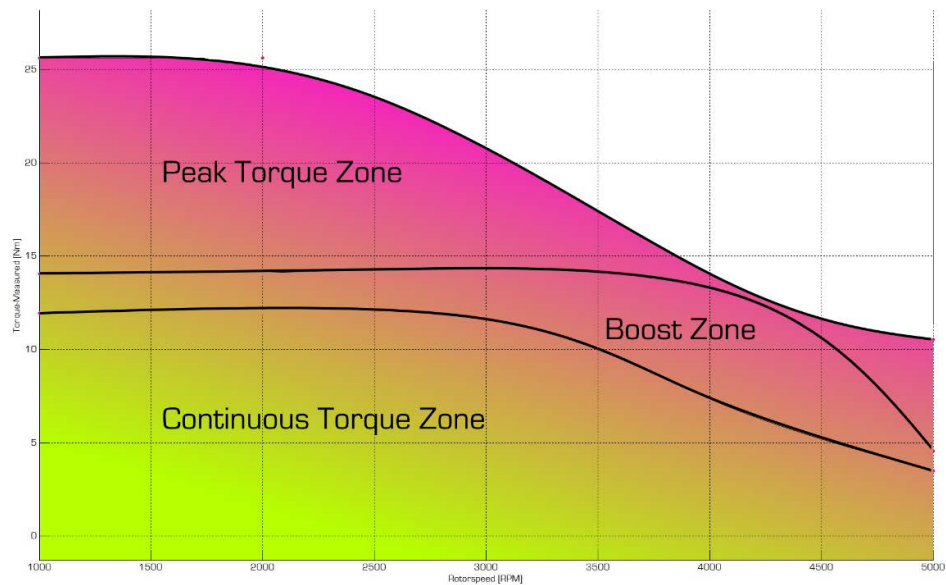
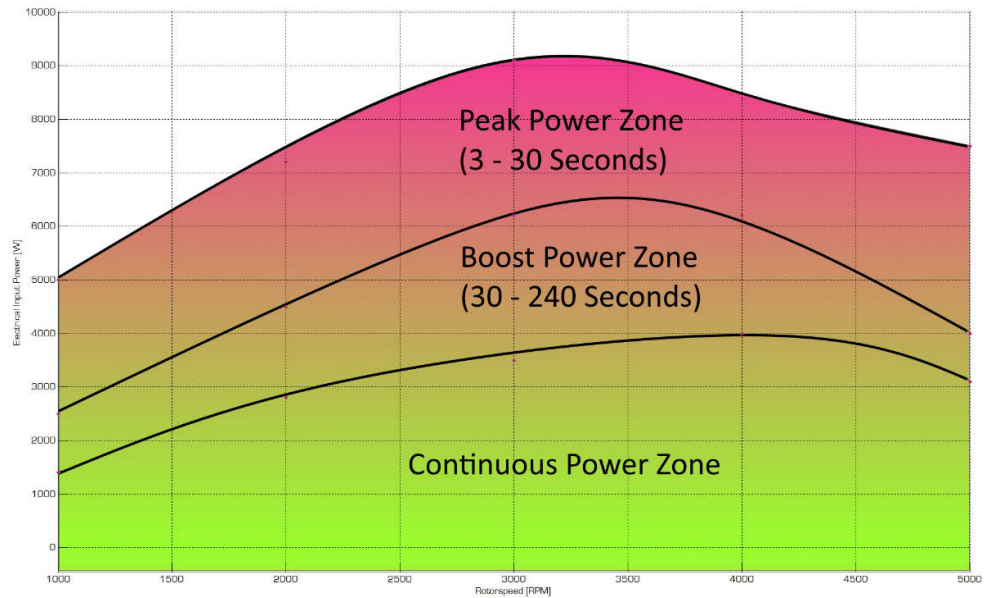
- Traction Applications up to 9kW
  - Light electric vehicles (LEV)
  - Electric Scooters
  - Go Kart, Golf Cart
- Interfaces<sup>1</sup>
  - Automotive CAN-bus
  - Analog Throttle & brake
  - Reverse gear
  - Boost / Push to pass button
  - USB: Programming Interface
  - AUTOSAR / XCP on Request
- Features<sup>2</sup>
  - 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

<sup>1</sup> Features depending on variant

<sup>2</sup> Interfaces depending on variant

# Emerge 6000 + ME0201013001 Drive Unit

## Repetitive Continuous, Boost and Peak Performance Data <sup>3 4 5</sup>



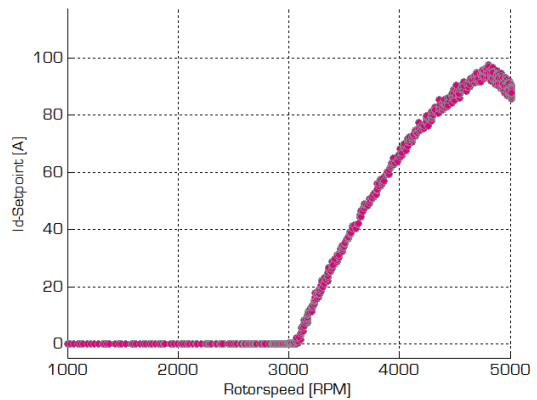
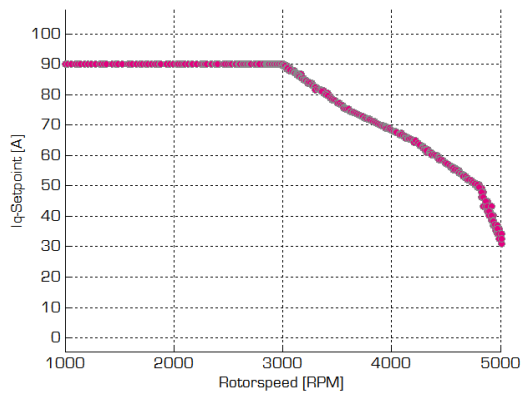
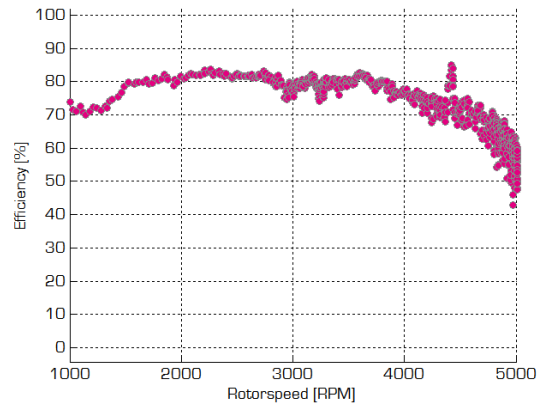
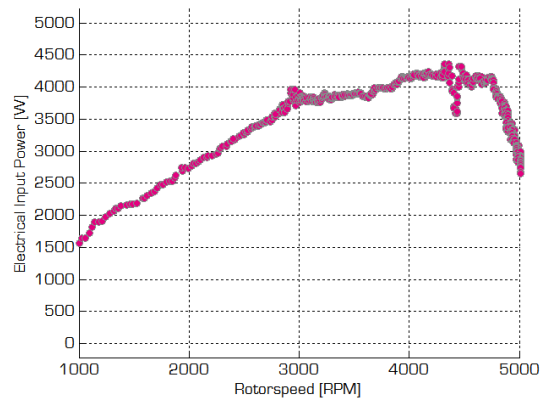
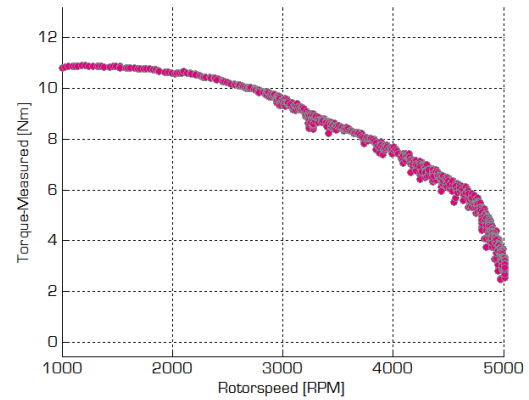
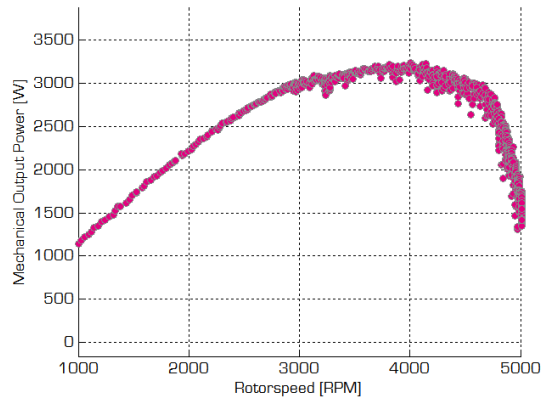
<sup>3</sup> Boost power available each 60 seconds in continuous power zone

<sup>4</sup> Peak power requires a relatively cool drive unit (below continuous power limit)

<sup>5</sup> Performance data evaluated at: 48V DC-link voltage, 25 °C ambient temperature

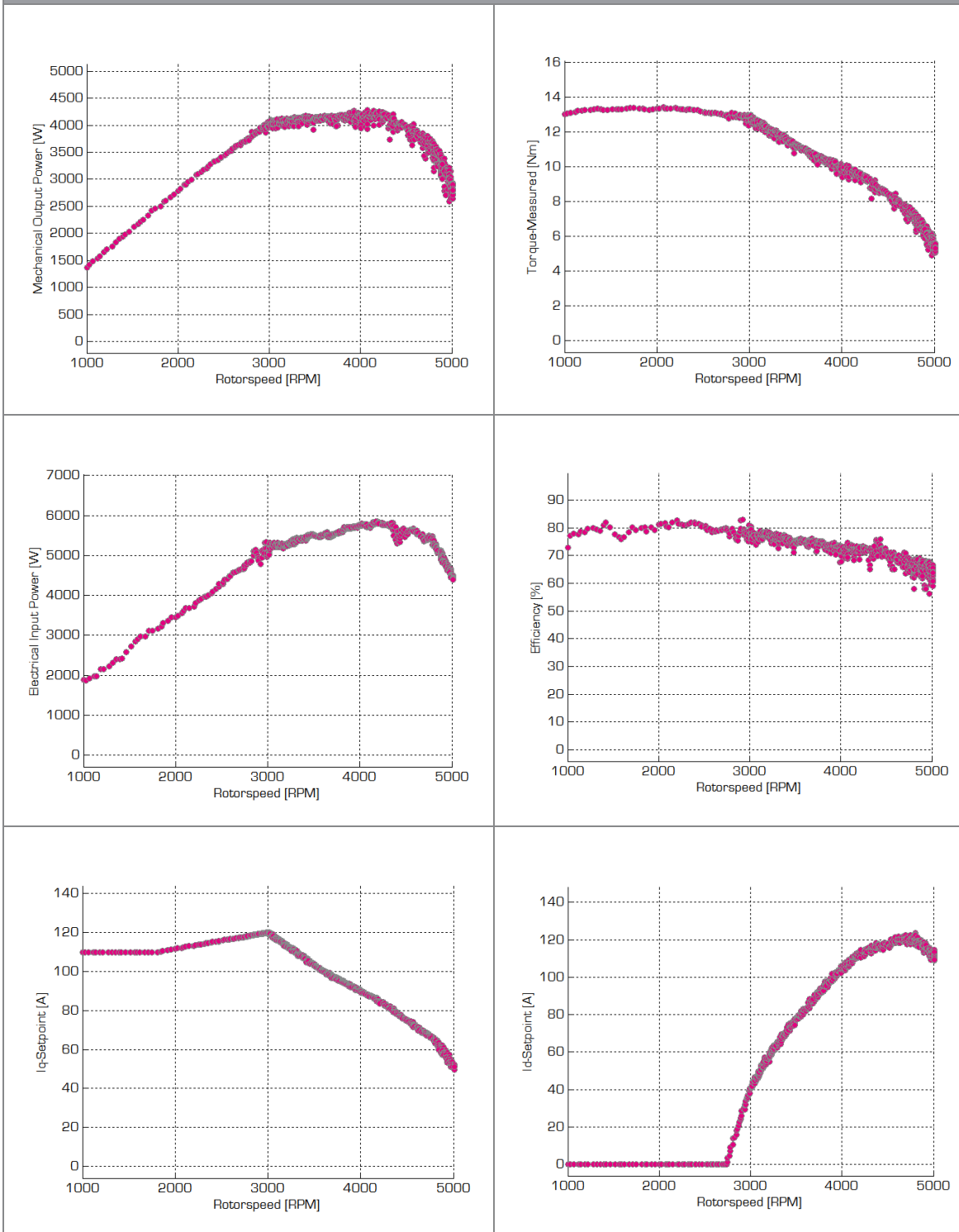
# Emerge 6000 + ME0201013001 Drive Unit

## 3kW Mode: Measured Performance Data



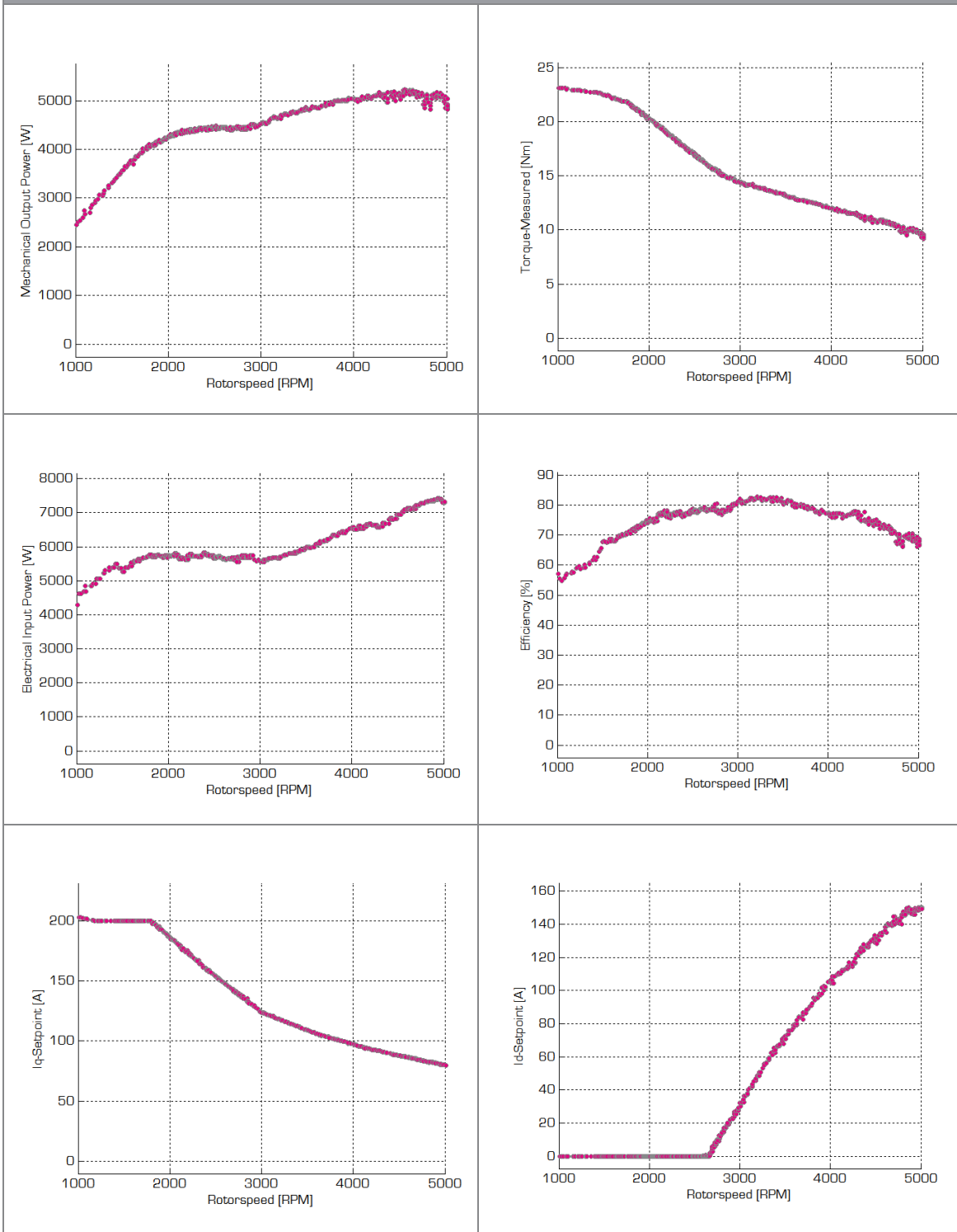
# Emerge 6000 + ME0201013001 Drive Unit

## 4kW Mode: Measured Performance Data



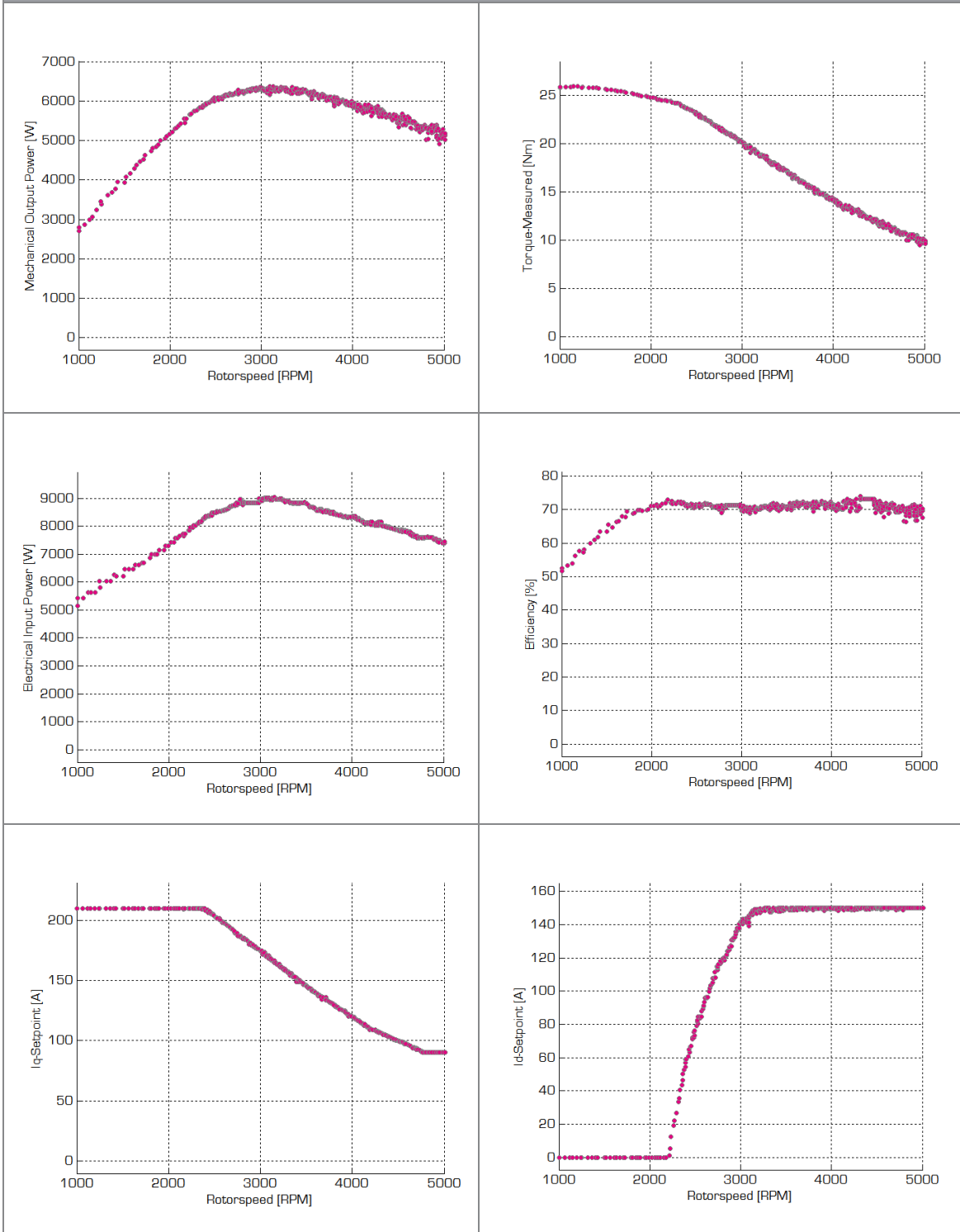
# Emerge 6000 + ME0201013001 Drive Unit

## 5kW Mode: Measured Performance Data



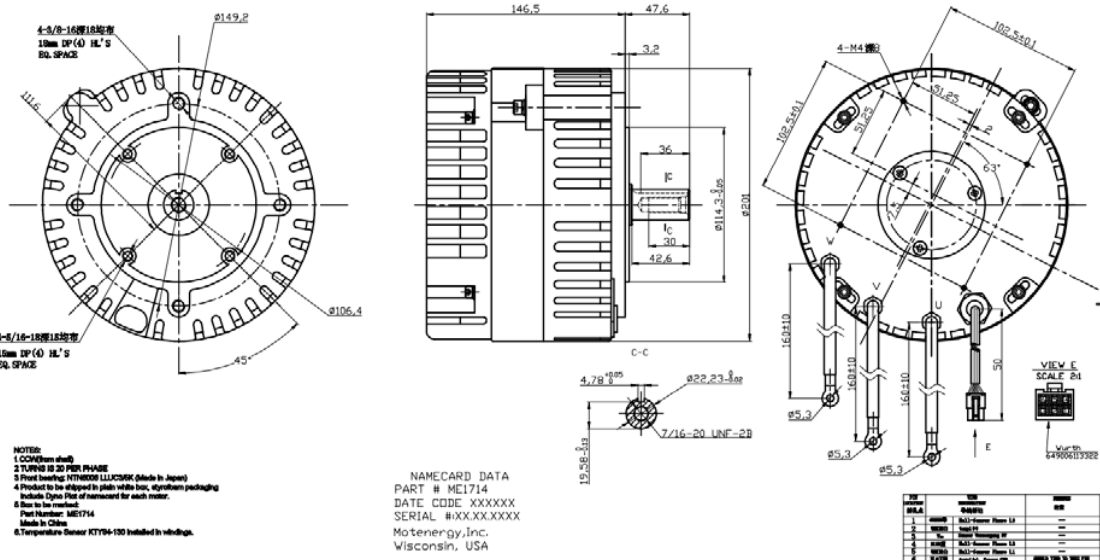
# Emerge 6000 + ME0201013001 Drive Unit

## 6kW Mode: Measured Performance Data



# Emerge 6000 + ME0201013001 Drive Unit

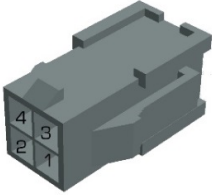
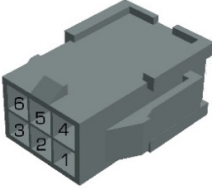
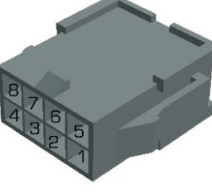
## Mech. Parameters



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) <sup>6</sup> 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

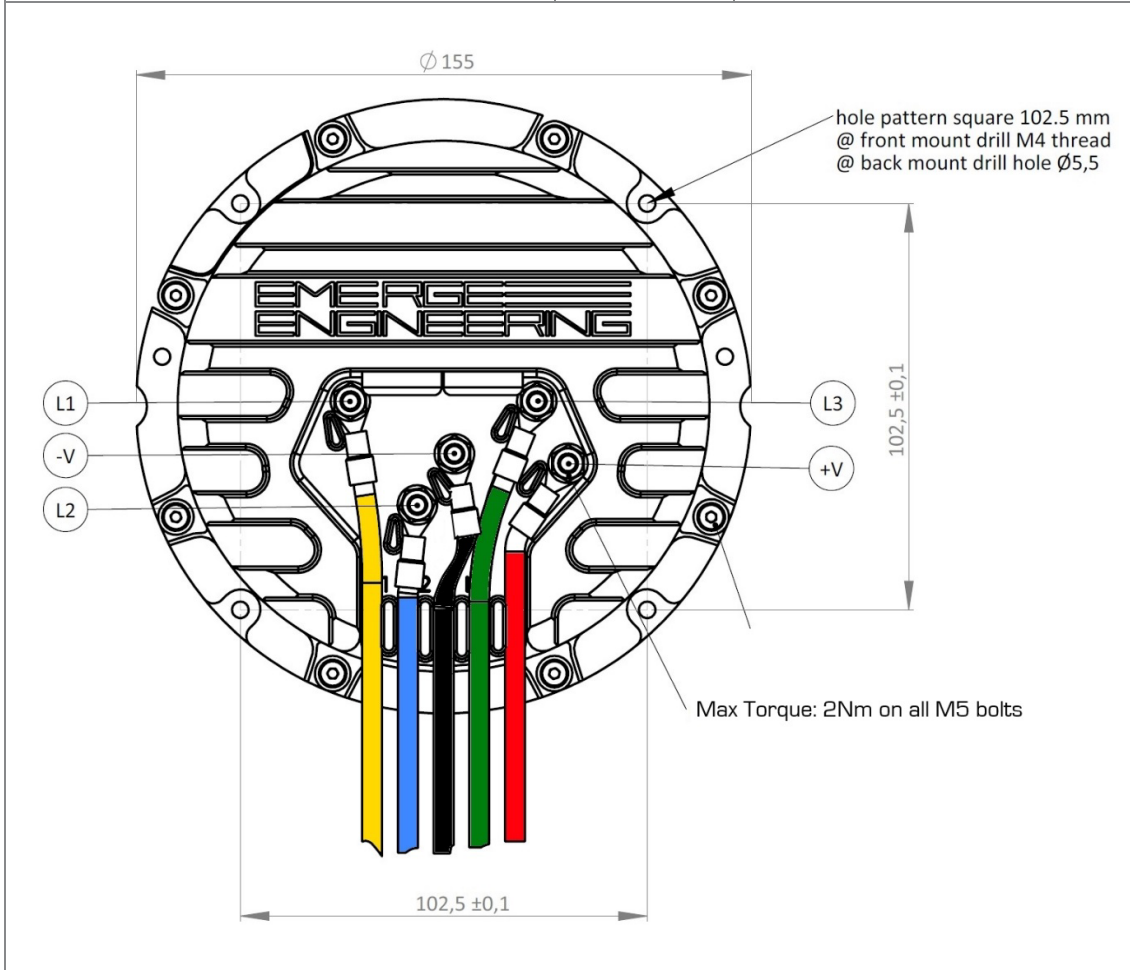
<sup>6</sup> (Warning: If not declared separately, all I/O will not survive short against any voltage greater than +5V or reverse voltage).



# Emerge 6000 + ME0201013001 Drive Unit

## High-Current Screw Terminals <sup>7</sup>

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.

<sup>7</sup> Terminal names are embossed on housing

## Emerge 6000 + ME0201013001 Drive Unit

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