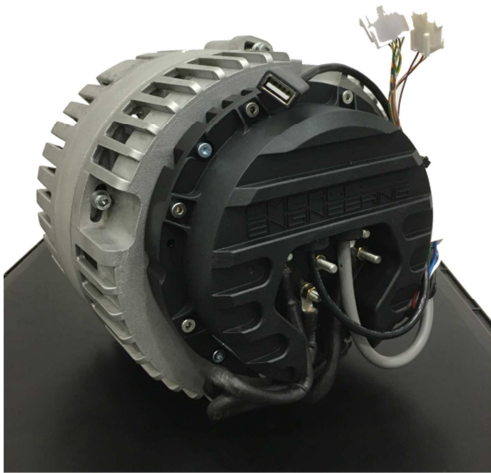


Emerge 6000 + ME0201013001 Drive Unit

Drive-unit solution



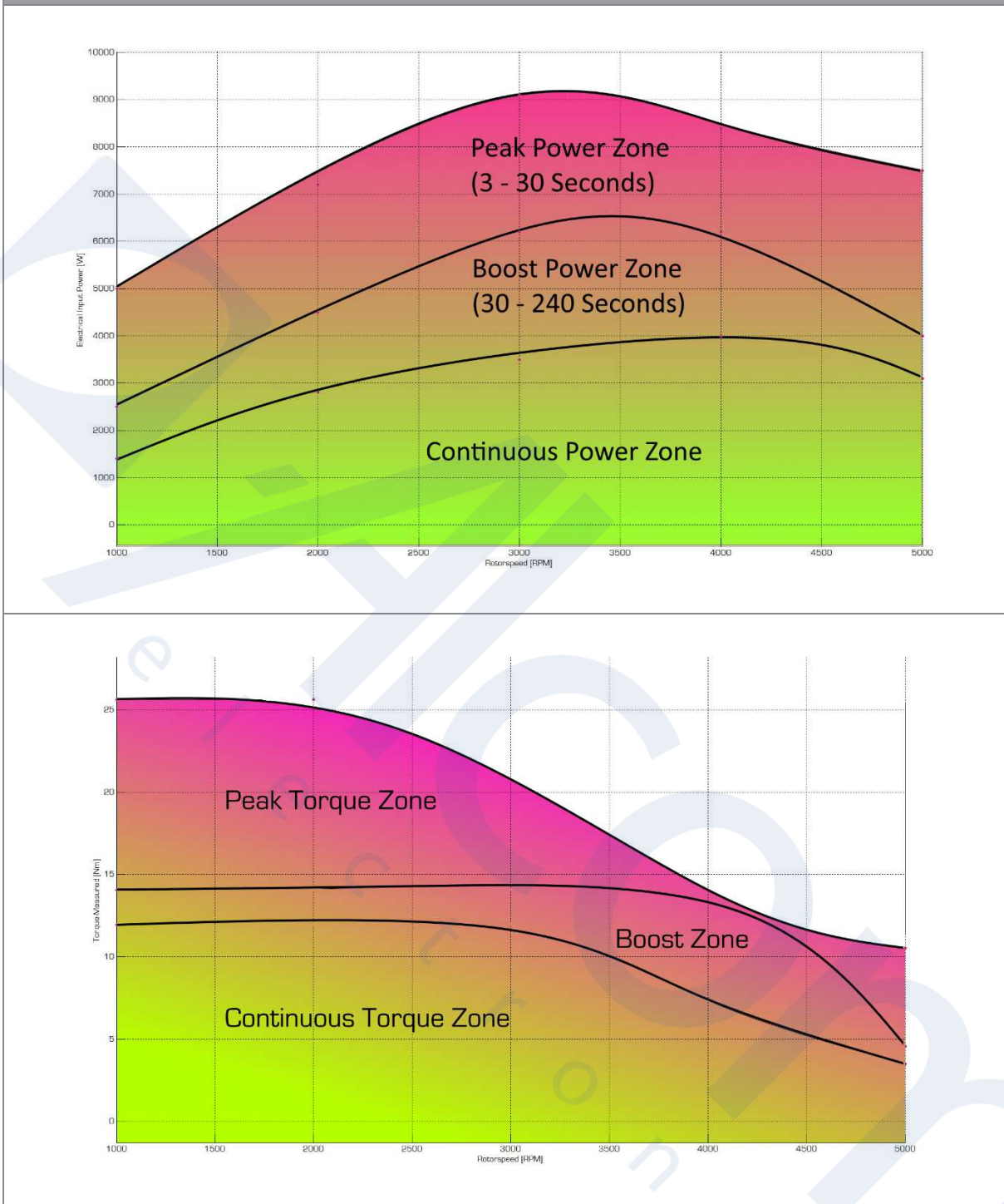
- Traction Applications up to 9kW
 - Light electric vehicles (LEV)
 - Electric Scooters
 - Go Kart, Golf Cart
- Interfaces¹
 - Automotive CAN-bus
 - Analog Throttle & brake
 - Reverse gear
 - Boost / Push to pass button
 - USB: Programming Interface
 - AUTOSAR / XCP on Request
- Features²
 - Bluetooth-LE (4.0) 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

Emerge 6000 + ME0201013001 Drive Unit

Repetitive Continuous, Boost and Peak Performance Data ^{3 4 5}



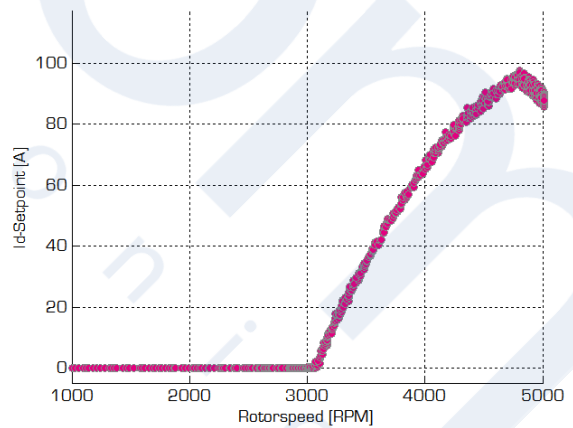
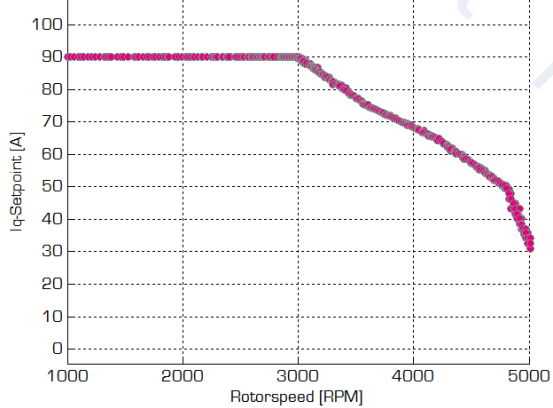
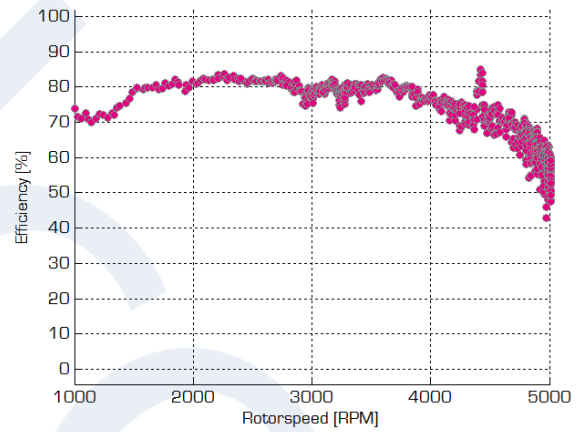
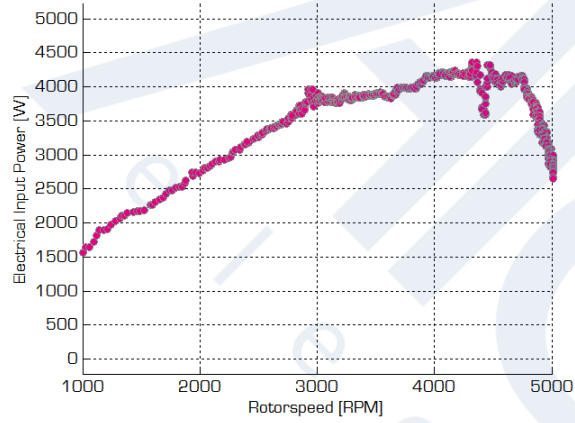
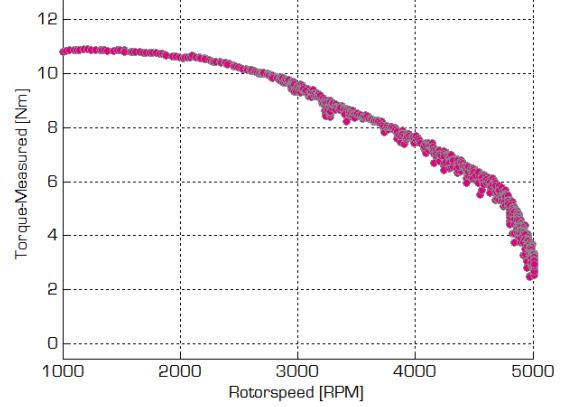
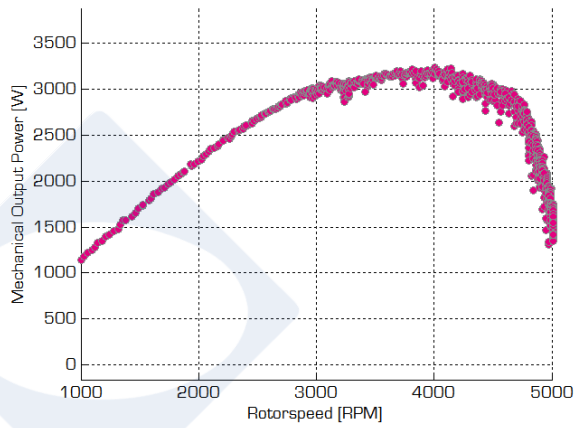
³ Boost power available each 60 seconds in continuous power zone

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

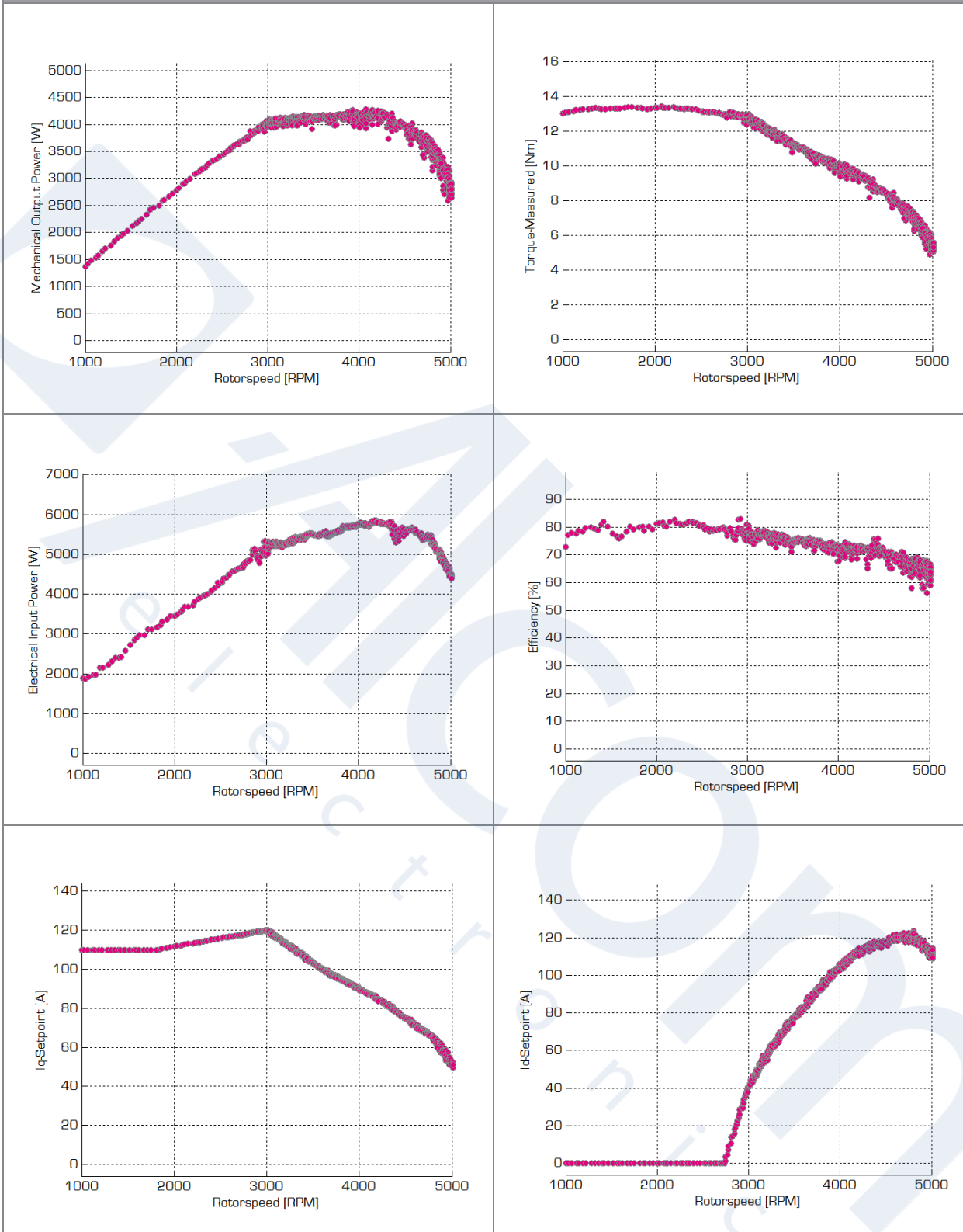
Emerge 6000 + ME0201013001 Drive Unit

3kW Mode: Measured Performance Data



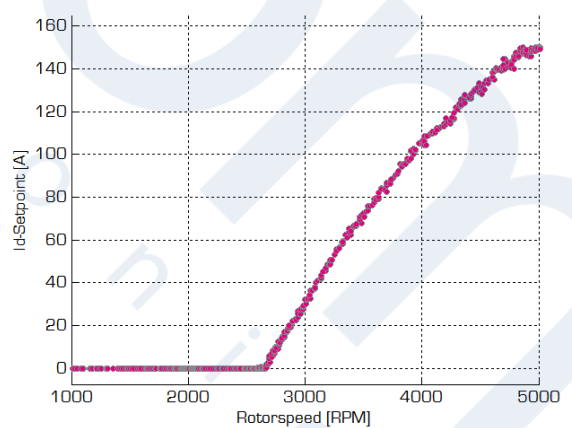
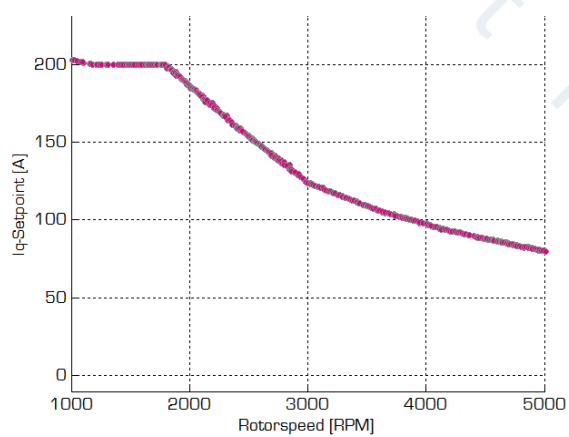
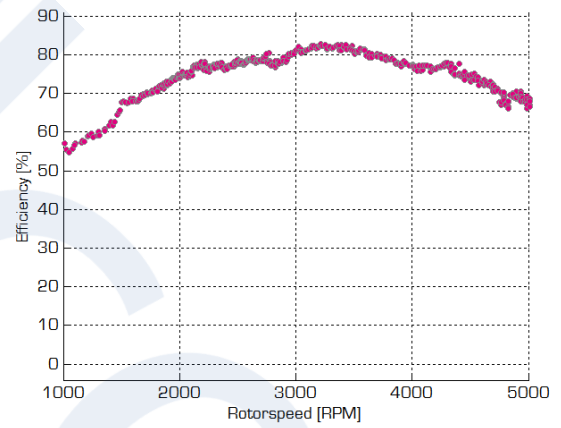
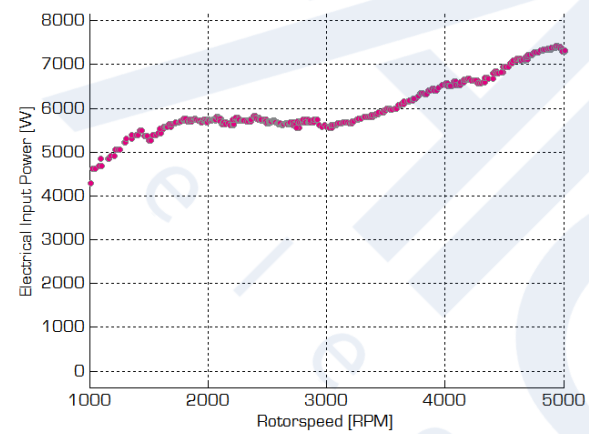
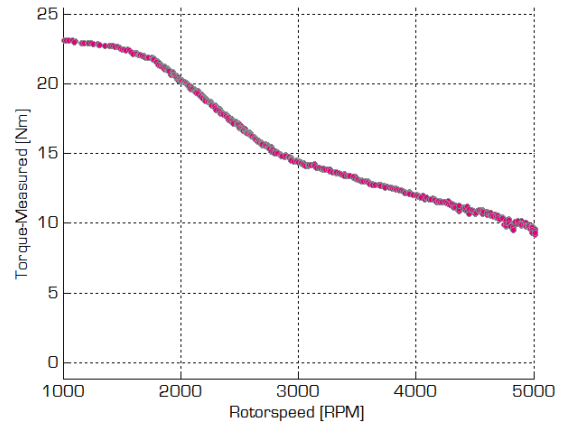
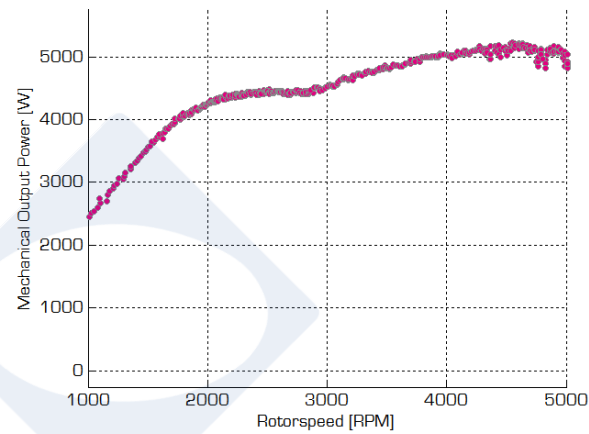
Emerge 6000 + ME0201013001 Drive Unit

4kW Mode: Measured Performance Data



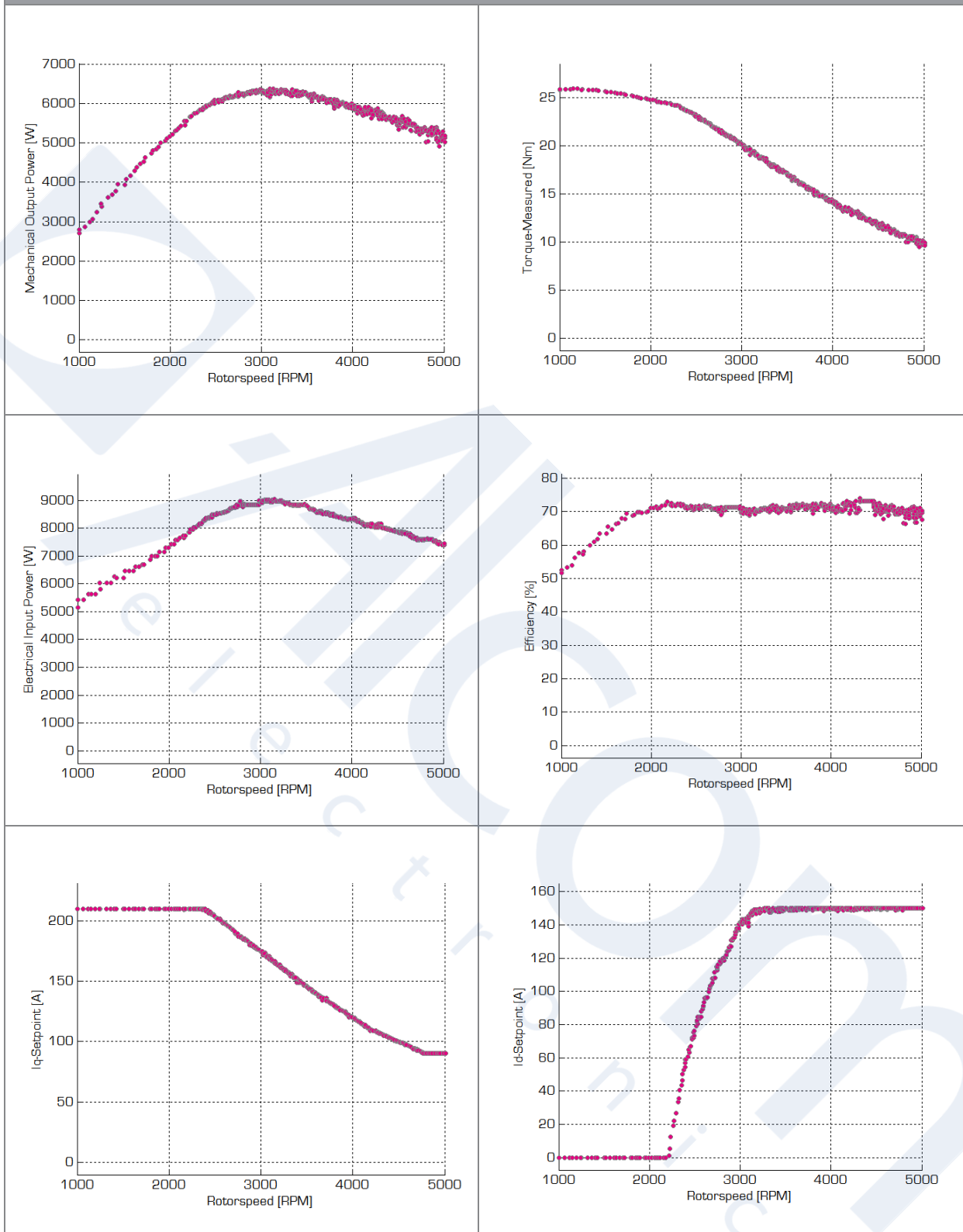
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5kW Mode: Measured Performance Data



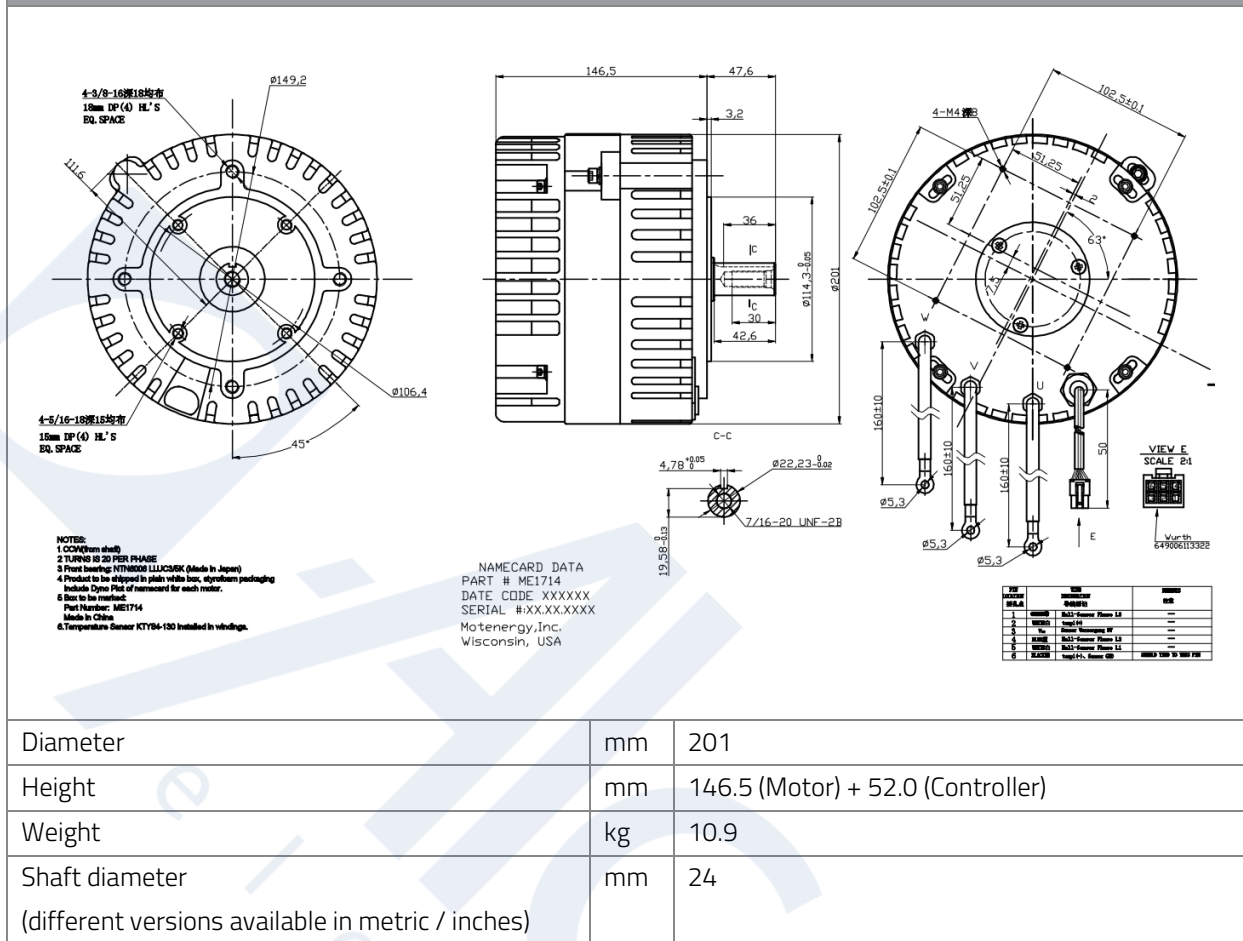
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6kW Mode: Measured Performance Data



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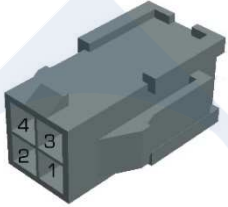
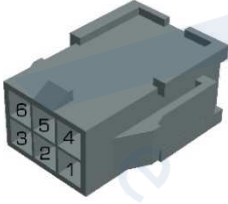
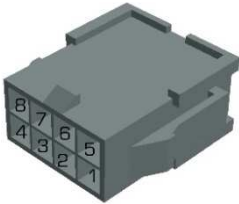
Mech. Parameters



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 / white	Temp	Temperature sensor
	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).

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