

For vehicle propulsion purposes the high torque motors of Magnetic Innovations are perfectly suited to function as a hub motor. In the HT series the magnetic design is optimized to reach the highest torque output available in the market today. Two versions with different torque capability are available. The outer runner motor concept enables a seamless integration of the motor into the hub of the wheel.

The control of the hub motor is ideally suited for sensor-less control for further cost saving and increased reliability. The control electronics is highly efficient and is located outside the hub motor housing. To make full use of the available supply voltage the current control is based on space vector modulation.

For series production the hub motor design is adapted for automated winding in order to minimize production costs. Furthermore the so called cogging of the motor that is associated with permanent magnet motors is minimized without the traditional and cost increasing skewing of the stator lamination.

Key features are:

- Direct drive, no transmission gears
- Highest torque density
- High efficiency
- High reliability and lifetime
- Quiet operation
- Maintenance free
- Cost efficient design

Technical Data HT series		
Motor Type	Standard Version	High Torque
OD Body [mm]	115	115
Length [mm]	67	81
Shaft OD [mm]	12	12
Fork width (inside) [mm]	100	100
Weight [kg]	3.3	4
Rated voltage [V]	36	36
Max. torque [Nm]	25	35
Max. power @ 200 RPM [W]	420	620
Peak Efficiency [%]	>83	>85
Protection degree	IP 55	



Consult us for more information.

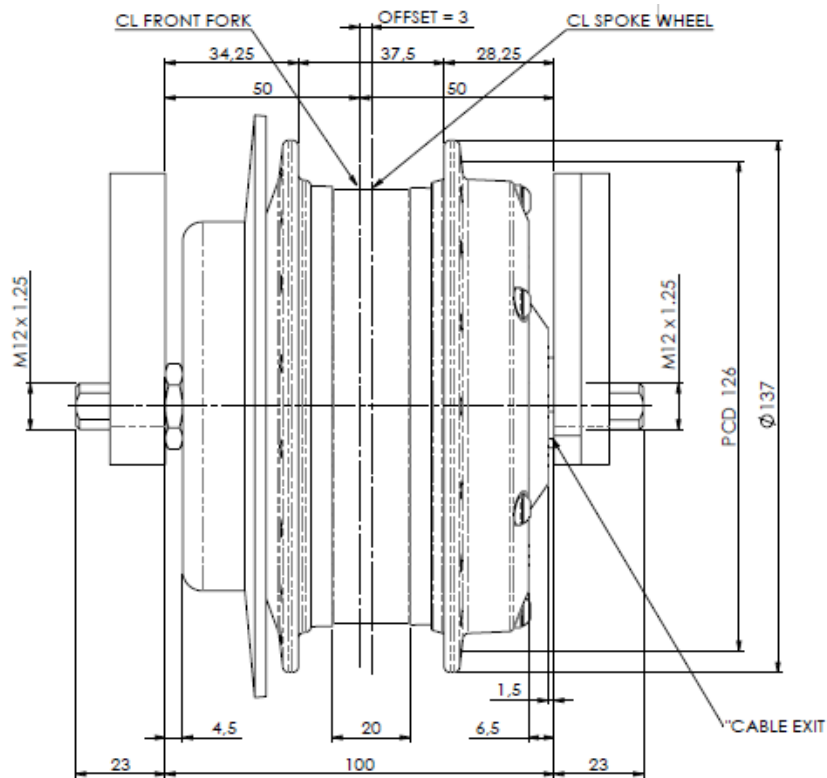


Figure 1 Standard Front Wheel version with roller brake

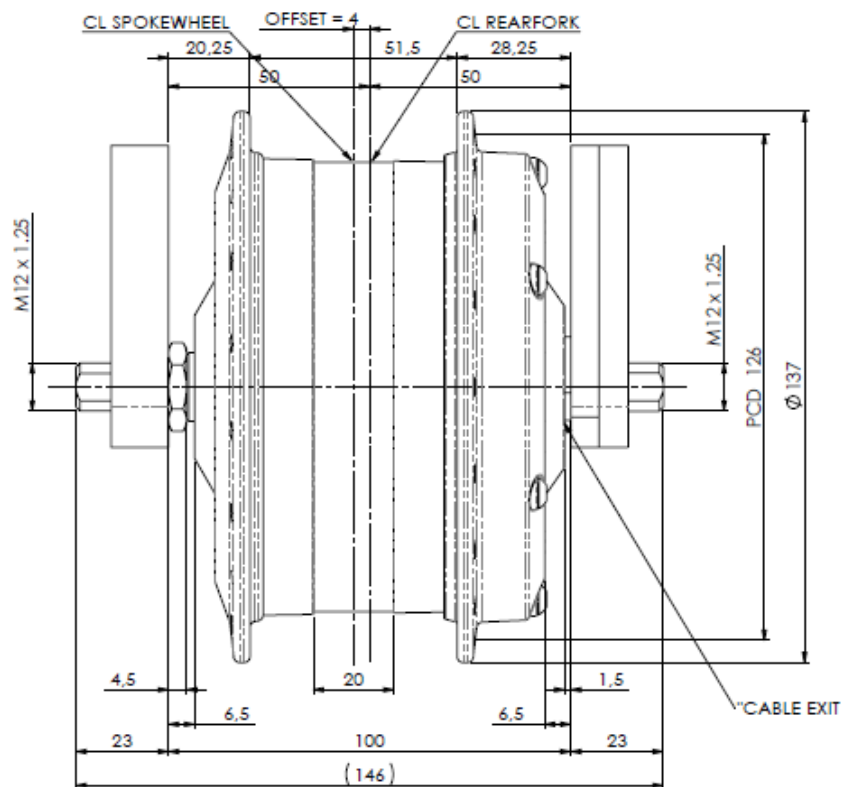


Figure 2 High Torque Front Wheel version for use with V-Brake

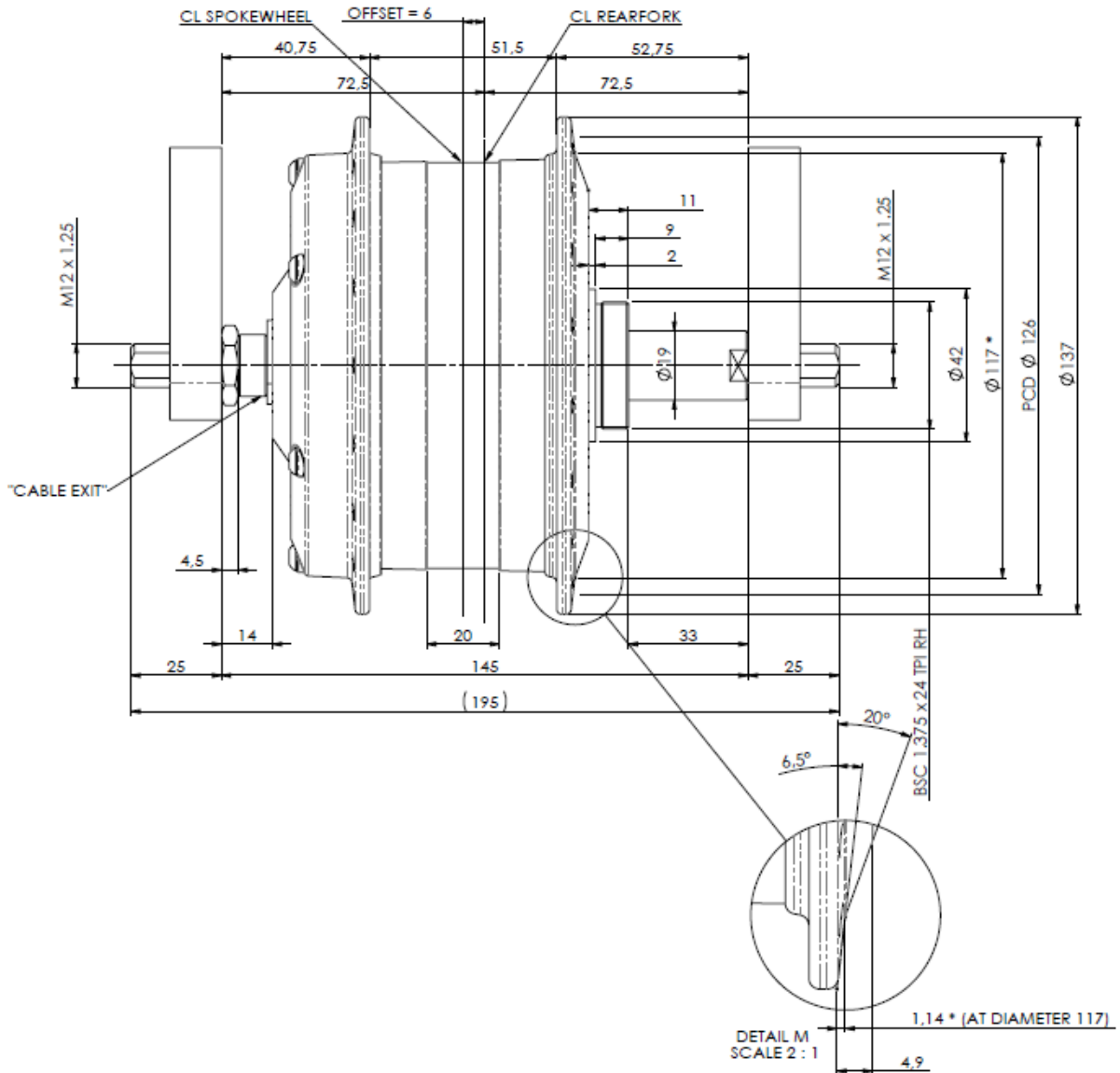


Figure 3 High Torque Rear Wheel version with Sprocket Cassette interface