

High Voltage, High Power, High Efficiency Electrical Drive System by ULTRADRIVE Technology™



Benefits & Features

Compact 2-in-1 Integrated Design

The motor and controller are tightly integrated into a compact, optimized unit that delivers high performance with minimal size and weight.



Flat Wire Permanent Magnet Synchronous Motor

Advanced flat-wire winding increases slot fill factor of stator and reduces winding resistance, improving efficiency and power density.



High Output Performance

The high-output motor supports 45kW rated power and 90kW peak power, leading to high driving speed and acceleration.



Support Multiple Control Mode

Supporting speed control and torque control strategies. Providing adjustable speed limit, acceleration rate, and energy regenerative intensity.



Matured IGBT Chip and Packaging

Providing full power output with operating temperature -40~80 °C and high-accuracy and real-time thermal protection.



Leading SVPWM Control Algorithm

FOC control algorithm combined with MTPA control technology provides higher control efficiency and accuracy, and lower torque ripple of the system.



High Reliability and Robustness

Fully-sealed design, IP68 protection, and fully coating treatment provide excellent anti-corrosion protection.



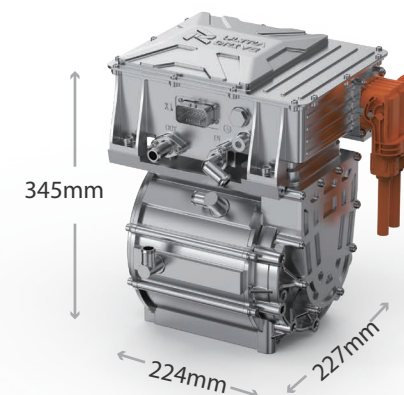
Simplified and Customized Interfaces

Customized flange and shaft interfaces fit various scenarios. Simplified plug-and-play harness for easy installation and flexible CAN compatibility with NEMA2000, CAN2.0B, and J1939 Protocol.



System Specification

Specification	GOY35090YD
Rated Power (kW)	45
Peak Power (kW)	90
Peak Torque (Nm) 0~5,000rpm	160
Full Power Output Operating Temperature (°C)	-40~80
Rated Operating Condition System Efficiency (%)	>95
Max. Speed (rpm)	13,000
Operating Voltage Range (V)	230~410
Peak Phase Current (Arms)	260
Torque Accuracy (Nm)	3
Type of Cooling	Liquid Cooling
Rated Phase Current (Arms)	130
Rated Torque (Nm)	60
Voltage Accuracy (V)	±1
Phase Current Accuracy (%)	±3
Busbar Current Accuracy (% Estimation)	±10
Speed Accuracy (rpm)	<100
Overvoltage Protection (V)	410
Low-voltage Protection (V)	230
Wake-up Type	KL15
Communication Mode	CAN2.0B
Weight (kg)	31.7
Ingress Rating	IP68
Inlet Temperature Limit (°C)	55
Liquid Flow Requirement (L/min)	>12
Liquid Volume (L)	0.4



All pictures shown are for reference only and data are based on ROYPOW standard test procedures. Actual performance may vary according to local conditions. Only authorized personnel are allowed to operate or make adjustments to the electrical drive system. We reserve the right to make revisions as well as product alterations and improvements at any time without prior notice. Technical data and illustrations are not binding. We assume no liability for misprints.

✉ sales@roypow.com, sales@ultradrivetech.com
🌐 www.roypow.com