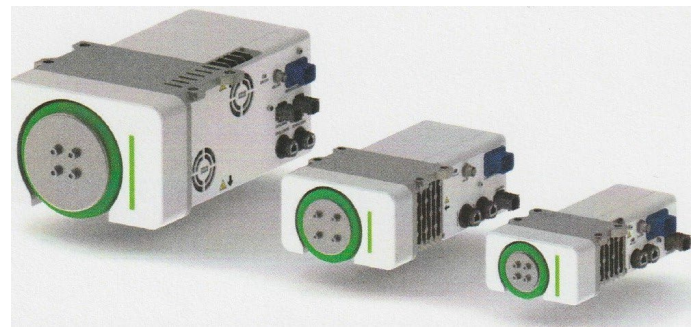


AGV Platform

DVP Series

Wheel | Gearbox | Motor | Drive Integrated



Turn-Key Vehicle Drive Solution

Servo drive, motor, encoder, planetary gearbox and wheel are all built in. User only needs to connect DC input power and communication to the DVP unit. All in one compact package.

High Resolution Control

Existing market proven DMM servo drive control is used. The resolution of the encoder is 65,536ppr at the motor with 1Mhz torque control loop and real-time tuning algorithm ensures smooth performance.

Integrated Safety

STO, FSoE, integrated brake, integrated regenerative circuit ensure safe operation. Dedicated safety circuit and connectors for reliable safety operation.

Versatile Performance

The motor size, brake option and gearbox ratio can all be selected to fit every vehicle's needs. Multiple mounting options allow flexible product integration.

Specifications

Model#	DVP-75	DVP-100	DVP-160
Wheel Diameter	75mm	100mm	160mm
Supply Voltage	24~100VDC	24~100VDC	24~100VDC
Motor Power	200Wor400W	750Wor 1kW	1.5kW-2kW
Gear Ratio Option	9, 12, 15, 16, 20,25, 32,40,64		
Peak Motor Speed	5,000rpm	5,000rpm	3,000rpm
Max Payload* ¹	625kg	883kg	2,200kg
Max Speed * ₂	2.18m/s	2.9m/s	2.79m/s
Max. Continuous Torque* ¹	76.40Nm	144.38Nm	691.84Nm
Max. Peak Torque* ¹	229.81Nm	433.15Nm	1,726.59Nm
Acceleration* ³	9.8m/s ²	7.2m/s ²	4.7m/s ²
Encoder Resolution	65,536ppr Absolute Position (At motor shaft)		
Communication Option	Pulse, Analog, Modbus TCP, EtherCAT (CoE402), EtherNet/IP, CANbus		
Environment	IP54, 1.5G Vibration, -20 - 65°C Operating Temperature, 95RH% (no dew) Humidity		

* All Specifications calculated at one drive wheel per vehicle

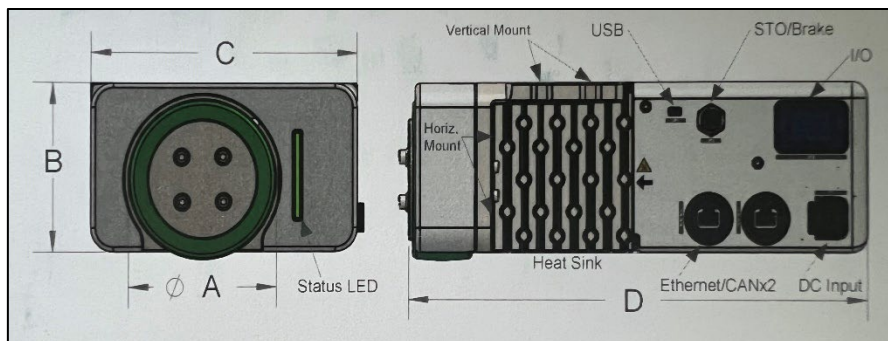
*¹ Max Load, Max Continuous Torque and Max Peak Torque calculated at largest motor with largest reduction (64:1), also considering 94% gearbox efficiency

*² Max speed calculated at peak motor speed with lowest reduction (9:1)

*³ Acceleration calculated at 0.5 Max Payload

Dimensions

All Dimensions m (mm) DVP-100 Model Shown



Dim.	DVP-75	DVP-100	DVP-160
A	75	100	160
B	79	105	168
C	145	180	255
D	278	308	409



ModuSystems

Modusystems, Inc. 357 Piercy Rd, San Jose, CA 951 (408) 708-5883 www.Modusystems.com 10-24.01