### **Gen7 POW-R Steer EPAS Actuator**

# Electric Power-Assisted Steering Actuator with Integrated Electronics Speed- or Steering Based Assist, and Kickback Damping Control

Allied Motion's POW-R STEER Electric Power-Assisted Steering (EPAS) actuator comes complete with a low-cogging torque, permanent magnet synchronous motor, non-contacting torque sensor and integrated controller and motor power electronics.

Feature and function programming during the OEM development process is easy with our PC based, graphical user interface (GUI).

Simple installation and interfacing means you are able to have your steering system up and running faster.

Our worm reduction plus Space Vector Pulse Width Modulation (SVPWM) motor control means that operation is smooth and quiet.

Low inductance windings and high energy magnets enable very fast response times, high steering torque assist and greater power density.

Torque control parameters include: basic assist as a function of vehicle speed, assist as a function of steering speed, and kickback damping control.

Applications for the Allied Motion POW-R Steer<sup>TM</sup> include marine, agricultural, recreational sport vehicles, construction equipment, material handling equipment, and autonomous transporter vehicles.

### **Features & Benefits**

- Integral electronics and software simplify wiring and minimizes vehicle space claim
- CAN programming and diagnostics for easy set-up and monitoring
- PC-based GUI streamlines actuator characterization and setup during development
- Aluminum die-cast housings for robustness and mechanical protection
- Splined input and output shafts for uniform torque transfer and loading
  Piloted mount with bolt retention to
- ease assemblyKickback damping and worm drive
- reduction for smooth, quiet operationLow-cog, low ripple torque motor for exceptional steering smoothness
- Long-life brushless motor driven by efficient, integrated space-vector PWM controller
- Smaller and lighter than previous POW-R STEER Generations.

### **Options & Accessories**

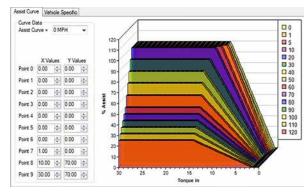
- Long life, non-contacting steering torque sensor options, including absolute steering position capability
- Alternate system voltage designs
- Alternate mechanical and electrical vehicle interfaces
- Can be configured with or without pinch bolt groove, inboard and outboard connector locations, and steering stiffness options



- Complete compact electronic power-assist steering actuator
- Assist Torque up to 65 Nm
- Rotational Output Speed up to 845 deg/sec
- Rugged die-cast housing, splined shafts and IP67 and IP69K sealing
- Integrated control electronics and software
- SAE J1939 CAN Communication standard

## Allied Motion POW-R Steer™ EPAS Actuator – Specification Summary

Description	PS-1267
Operating Supply Voltage	9 – 16 VDC
Operating Ambient Temperature	-40 to 90 deg C
Environmental Rating	IP67 and IP69K
Total Weight	4.3 kg / 9.5lbs
MAX Assisted Torque	65 Nm
MAX Assisted Output Speed	845 deg/sec
Quiescent Current	< 100 μΑ
Integral Connectors	Power Connector: Batt (+) and Batt (-) Signal Connector: CAN High, CAN Low, Ign



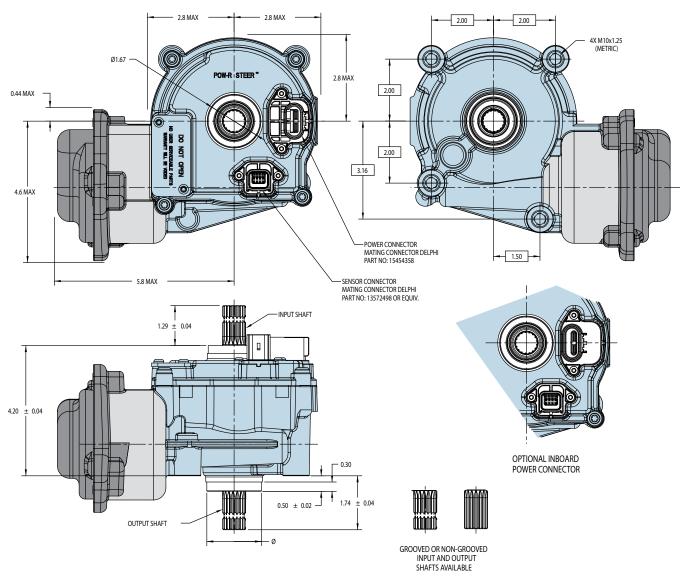
**Milied Motion** 

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### Allied Motion POW-R Steer™ EPAS Actuator – Dimensions



<sup>\*</sup>Allied Motion POW-R Steer $^{\text{IM}}$  EPAS options include with or without pinch bolt groove, inboard and outboard connector locations, and steering stiffness.

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### **Allied Motion Solution Centers**

Allied Motion Solution Centers provide support to customers around the world from five geographically-strategic locations. Each facility is staffed by experienced application engineers and customer service teams to assist you with all aspects of your motion control needs. We also have a global network of factory-trained Allied Motion Sales Partners to serve you. For contact information on the location nearest you, please see below or visit our website.



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