

AGA155 Series: Central-i 220 VAC Remote Amplifiers



Datasheet rev 04



The AGA155 series is a family of 220VAC Central-i remote power amplifiers. AGA amplifiers are controlled by AGM series Central-i master, which gets encoder reading and current samples from each amplifier, performs control loops calculation and generate PWM commands to each amplifier. Fast Central-i fieldbus is used to communicate between AGA amplifiers and AGM master, that allows 16kHz sample rate motion profiler and all servo loops. The AC powered remote amplifier is capable of driving motor up to 10 Arms continuous and 20 Arms peak current. The amplifier comes with heat sink and cooling fan, is ideal for high power motors, including big direct drive linear and rotary motors. Similar to the DC powered AGA10x amplifiers, the AGA155 amplifier also comes with digital and analog I/Os sufficient for a typical actuator and application. The digital outputs are capable of sourcing up to 300mA or sinking up 500mA. This is sufficient to drive most external devices, end effectors, etc, hence, eliminated the need to have an external relay circuit.



General Specifications

Description	AGA155-CI-2A03	AGA155-CI-2A06	AGA155-CI-2A10
Number of Axes	1		
Power Supply	110-240 VAC		
Continuous Current	3 Arms	6 Arms	10 Arms
Peak current	9 Arms	18 Arms	20 Arms
Isolated inputs ¹	9		
Isolated outputs ²	2		
Bi-Directional Differential I/Os (RS422)	1		
Analog inputs	2 (12-bit optional 16-bit)		
Analog outputs	0		
PT100/PT1000 Inputs ³	1		
Brake Output	1		
Regeneration Output	1		
Encoder Ports	1 software configurable as AquadB, Sin/Cos 1Vpp, Absolute Biss-C or EnDat2.2		
Motor Types	Voice Coil, Brushed or Brushless Linear or Rotary Motor. 2-Phase Steppers (Open and Closed Loop, micro-stepping)		
Communication	Central-i		
Sampling rate	16 KHz		

¹ Note 1: Digital isolated input can be configured as NPN or PNP, in groups of 3 or 4.

² Note 2: Digital isolated output can sink up to 500mA or source up to 300mA.

³ Note 3: Wiring of PT1000 different from PT100, refer to manual for details.

Ordering Information

Product Part Number	Description	Optional Accessories	Accessories Description
AGA155-CI-2A03	Central-i remote amplifier - 230Vac, 3Arms continuous, 9Arms peak	AGA155-CI-CK	AGA155-CI Connector Kit
AGA155-CI-2A06	Central-i remote amplifier - 230Vac, 6Arms continuous, 18Arms peak		
AGA155-CI-2A10	Central-i remote amplifier - 230Vac, 10Arms continuous, 20Arms peak		