

Emerson - AMS 6000**A6312**

Dual-Channel Speed and Key Monitor

Verified model data

Manufacturer	Emerson
Part number	A6312
Official product family	IMR6000/10 and IMR6000/30
Product type	Dual-channel speed and key monitor
Important identity boundary	A6312-8, not A6312, is the 8TE AMS 6500 version
Channels	2 independent eddy-current differential inputs
Supported sensor families	PR6422, PR6423, PR6424 and PR6425
Input voltage range	0 to ± 27.3 VDC
Frequency range	0 to 20 kHz; up to 65,535 rpm
Operating modes	Speed, key/phase and redundant-speed monitoring
Analog outputs	0/4 to 20 mA

Selection summary

Emerson A6312 is a dual-channel speed and key monitor for IMR6000/10 and IMR6000/30 machinery-protection racks.

It processes compatible eddy-current probe signals for speed, phase-reference or redundant-speed functions and provides proportional, buffered and protection outputs.

Before replacement, confirm the exact rack width and model identity: A6312 is the 6TE AMS 6000 card, while A6312-8 is the separate 8TE version used in AMS 6500 racks.

APTER POWER

Emerson - AMS 6000**A6312****Additional verified data**

Format	6TE card for AMS 6000 rack; one slot
Dimensions	3.0 × 12.84 × 16.0 cm (W × H × D)
Net weight	Approximately 0.32 kg
Power consumption	6 W maximum; 250 mA at 24 VDC
Operating temperature	0 to 65°C

Rack Compatibility

- Use A6312 only in the documented IMR6000 rack arrangement
- Do not substitute A6312-8 solely because the functions are similar
- Confirm slot width, connector and saved hardware definition

Trigger Setup

- Set threshold and hysteresis from the actual sensor waveform
- Verify target geometry and polarity at the lowest required speed
- Check phase-reference pulse stability before enabling protection logic

Redundancy

- Use matched sensors in the documented axial plane
- Verify channel switchover and failure detection separately
- Retain relay and voting assignments from the approved design

Application checkpoints

- Dual-channel speed monitoring on turbines and compressors
- Key/phase-reference generation for vibration analysis
- Redundant speed measurement in IMR6000 machinery-protection systems

Evidence boundary: Exact A6312 official data was used. AMS 6500-specific A6312-8 width and compatibility were excluded except to document the non-interchangeability boundary.

Source basis: Emerson Protection Cards for AMS 6500 Classic Systems, A6312/A6312-8 distinction.