

Energy Management 3-channel Power Transducer Type APT-DIN

CARLO GAVAZZI



- Measurement of: kW
- 9 selectable full-scales in 9 intervals from 0 to 5 (range from 0,4kW to 3,6kW)
- Degree of protection (front): IP 50
- 3 analogue outputs (0 to 10VDC)
- Response time: $\leq 50\text{ms}$

Product Description

Active power transducer with auxiliary power supply of 400VAC (phase-phase connection). 9 measuring ranges selectable in 9 intervals from 0 to 5 (measur-

ing range from 0,4 to 3,6kW) The house is for DIN-rail mounting and ensures a degree of protection (front) of IP 50.

Ordering Key

APT-DINAV53G3 2 1

Model _____
 Range code _____
 System _____
 Power supply _____
 Rated outputs _____
 Number of inputs _____
 Calibration _____

Type Selection

Range code	System	Power supply	Rated outputs
AV5: 400 VAC - 5,2 AAC (max. 480 V (L-L) - 6,2 A) (standard)	3: Three phase system (3 wires, balanced/unbalanced load)	D: 230VAC -15+10% 50/60Hz	3: 3 x (0 to 10VDC)
		G: 400VAC -15+10% 50/60Hz	
Number of inputs	Calibration		
2: 2 x (3-phase inputs)	1: 3600W.		

Input Specifications

Rated inputs	2 (3-phase inputs) for current and voltage measurements	Measurement	EN 60 688-1 unbalanced load: $\leq 5\%$
Accuracy Active power (@ 25°C \pm 5°C, R.H. \leq 60%)	$\pm 3\%$ rdg (cos ϕ 0.7 L/C, 0.5 to 1Ph)	Ranges (impedances) AV5:	400VAC ($\leq 2\text{W}$ per channel) 5.2AAC ($\leq 0.3\text{ VA}$ per channel)
Additional errors Humidity Input frequency Magnetic field	$< 0.5\%$, 60% to 90% R.H. $< 0.5\%$, 50 to 60 Hz $< 0.5\%$ @ 400 A/m	Frequency range	48 to 62 Hz
Ripple	balanced load: $\leq 1\%$ according to IEC 60688-1 and	Over-load protection Continuous: voltage/current For 1 s Voltage: Current:	1.2 x rated input 2 x rated input 20 x rated input

Output Specifications

Analogue outputs Number of outputs Range Response time Temperature drift Load: 10 V output	3 (one per channel) 0 to 10 VDC $\leq 50\text{ ms}$ typical $\pm 500\text{ ppm}/^\circ\text{C}$ $\geq 10\text{ k}\Omega$	Analogue outputs Insulation	By means of optocouplers, 2000 V_{rms} output to measuring input / power supply
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Supply Specifications

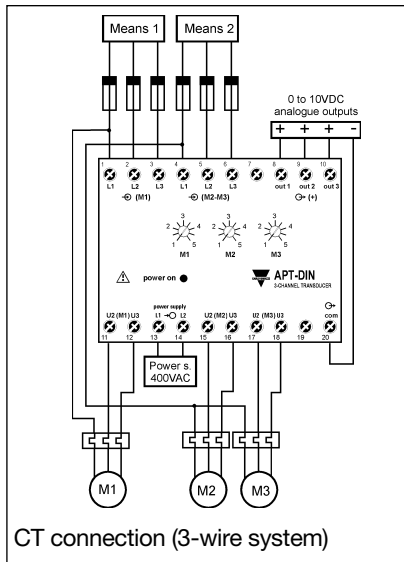
AC voltage	400 VAC (standard), -15%+10% 50/60 Hz 230VAC (optional) -15+10% 50/60Hz	Power consumption	≤ 7 VA
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General Specifications

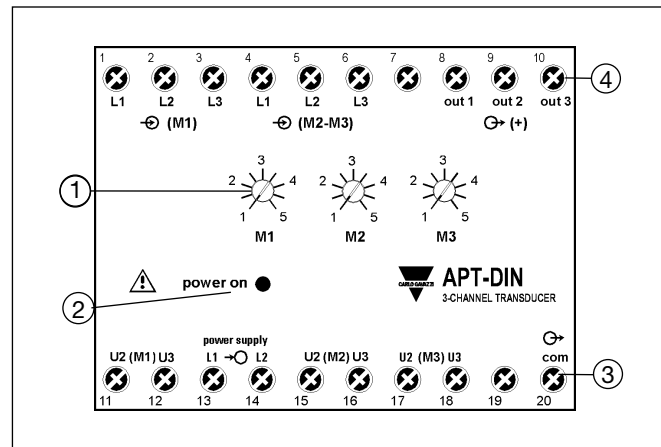
Operating temperature	-20 to +60°C (-4 to 140°F) (R.H. < 90% non-condensing)	Noise rejection CMRR	100 dB, 48 to 62 Hz
Storage temperature	-30 to +80°C (-22 to 176°F) (R.H. < 90% non-condensing)	EMC	EN 50081-1, EN 50082-1
Insulation reference voltage	300 V _{rms} to ground (with neutral connection), CAT II (double insulation), CAT III (main insulation) Pollution degree 2	Safety standards Safety requirements: Products requirements:	IEC 61010-1, EN 61010-1 IEC 60688-1, EN 60688-1
Insulation	4000 V _{rms} between all inputs/ outputs to ground	Connector	Screw-type, max. 4 mm ² wires
Dielectric strength	4000 V _{rms} for 1 minute	Housing Dimensions Material	115 x 76 x 100 mm ABS, self-extinguishing: UL94 V-0
		Degree of protection	Front: IP50
		Weight	Approx. 810 g (packing included)

Wiring Diagrams

Three-phase, 3-wire ARON input connections - Unbalanced loads



Front Panel Description



- Rotary switch**
9-position rotary switch for input full scale selection (at every selected input full scale correspond a 10VDC output).
- LED**
Power-ON.
- Connection terminal blocks**
- Connection terminal blocks**

Dimensions

