

# Energy Management

## 3-channel Power Transducer

### Type APT-DIN

CARLO GAVAZZI



- Measurement of: kW
- 9 selectable full-scales (from 0.4kW to 3.6 kW)
- 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 (line to line connection). 9 selectable full-scales, from 0,4kW to 3.6 kW.

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 \_\_\_\_\_  
 Measurement \_\_\_\_\_  
 Power supply \_\_\_\_\_  
 Rated outputs \_\_\_\_\_  
 Number of inputs \_\_\_\_\_  
 Calibration \_\_\_\_\_

## Type Selection

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

## Input Specifications

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

## Output Specifications

<b>Analogue outputs</b> 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 $\pm 500\text{ ppm}/^\circ\text{C}$ $\geq 10\text{ k}\Omega$	<b>Analogue outputs</b> Insulation	By means of optocouplers, 2000 V <sub>rms</sub> output to measuring input / power supply
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Supply Specifications

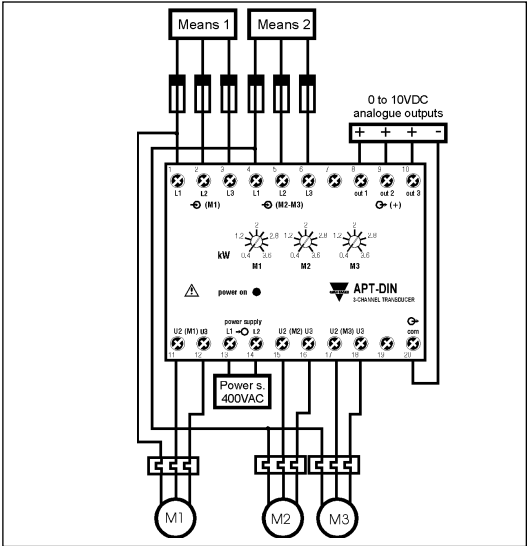
AC voltage	400 VAC (standard), -15%+10% 50/60 Hz	Power consumption	≤ 7 VA
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General Specifications

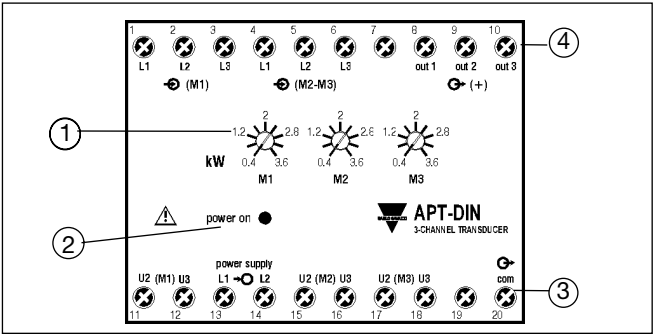
Operating temperature	-20 to +60°C (-4 to 140°F) (R.H. < 90% non-condensing)	EMC	EN 50 081-1, EN 50 082-1
Storage temperature	-30 to +80°C (-22 to 176°F) (R.H. < 90% non-condensing)	Safety standards	Safety requirements: Products requirements:
Insulation reference voltage	300 V <sub>rms</sub> to ground (with neutral connection), CAT II (double insulation), CAT III (main insulation) Pollution degree 2	Connector	Screw-type, max. 4 mm <sup>2</sup> wires
Insulation	4000 V <sub>rms</sub> between all inputs/ outputs to ground	Housing	Dimensions Material
Dielectric strength	4000 V <sub>rms</sub> for 1 minute	Degree of protection	Front: IP50
Noise rejection CMRR	100 dB, 48 to 62 Hz	Weight	Approx. 810 g (packing included)

Wiring Diagram

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



Front Panel Description



- 1. Rotary switch  
9-position rotary switch for input full scale selection (at every selected input full scale corresponds a 10VDC output).
- 2. Display  
Power-ON LED.
- 3. and 4. Connection terminal blocks

Dimensions

