

AC Current transducer

AKR 750/2000- C420L J

$I_{PN} = 375..2000A$

For the electronic measurement high AC waveforms current, with galvanic isolation between the primary (High power) and the secondary circuits (Electronic circuit). with large aperture, jumper selectable ranges and True RMS 4-20 mA current output.



Electrical data

Primary Nominal Current I_{PN} (A.t RMS)	Analogue Output Signal ¹⁾ I_{OUT} (mA)	Type
375,500,750	4-20	AKR 750 C420L J
1000,1333,2000	4-20	AKR 2000 C420L J
V_c Supply voltage (Loop powered)	24	V DC
R_L Load resistance	see power supply diagram	
V_b Rated voltage (CAT III, PD2)	150	V AC
V_d RMS Isolation AC voltage	600	V AC
f Frequency bandwidth	10-400	Hz

Accuracy - Dynamic performance data

X	Accuracy @ $I_{PN}, T_A=25^\circ C$	± 1	%
t_r	Response time @ 90% of I_{PN}	600	mS

General data

T_A	Ambient operating temperature (0-95% RH)	-20..+50	$^\circ C$
T_S	Ambient storage temperature	-20..+85	$^\circ C$
m	Mass	450	g
	Safety	IEC 61010-1	
	EMC	EN 61326 ²⁾	

Notes : ¹⁾ For 4-20 mA output model, no saturation output up to 23 mA

²⁾ For IEC 61000-4-3 Criterion B : temporary impairment to operational behavior.

Selecting the transducer

VFD (Variable Frequency Drives) and SCR (Semi Conductor Rectifiers) output waveforms are rough approximations of a sine wave. There are numerous spikes and dips in each cycle. AKR transducers use a mathematical algorithm called "True RMS," which integrates the actual waveform over time. True RMS is the only way to accurately measure distorted AC waveforms. *Select AKR transducers for nonlinear loads or in "noisy" power environments.*

Features

- VFD and SCR waveforms current measurement
- True RMS responding
- 4-20 mA current output
- 76 mm aperture diameter
- Loop powered transducers
- Panel mounting
- Jumper selectable ranges

Advantages

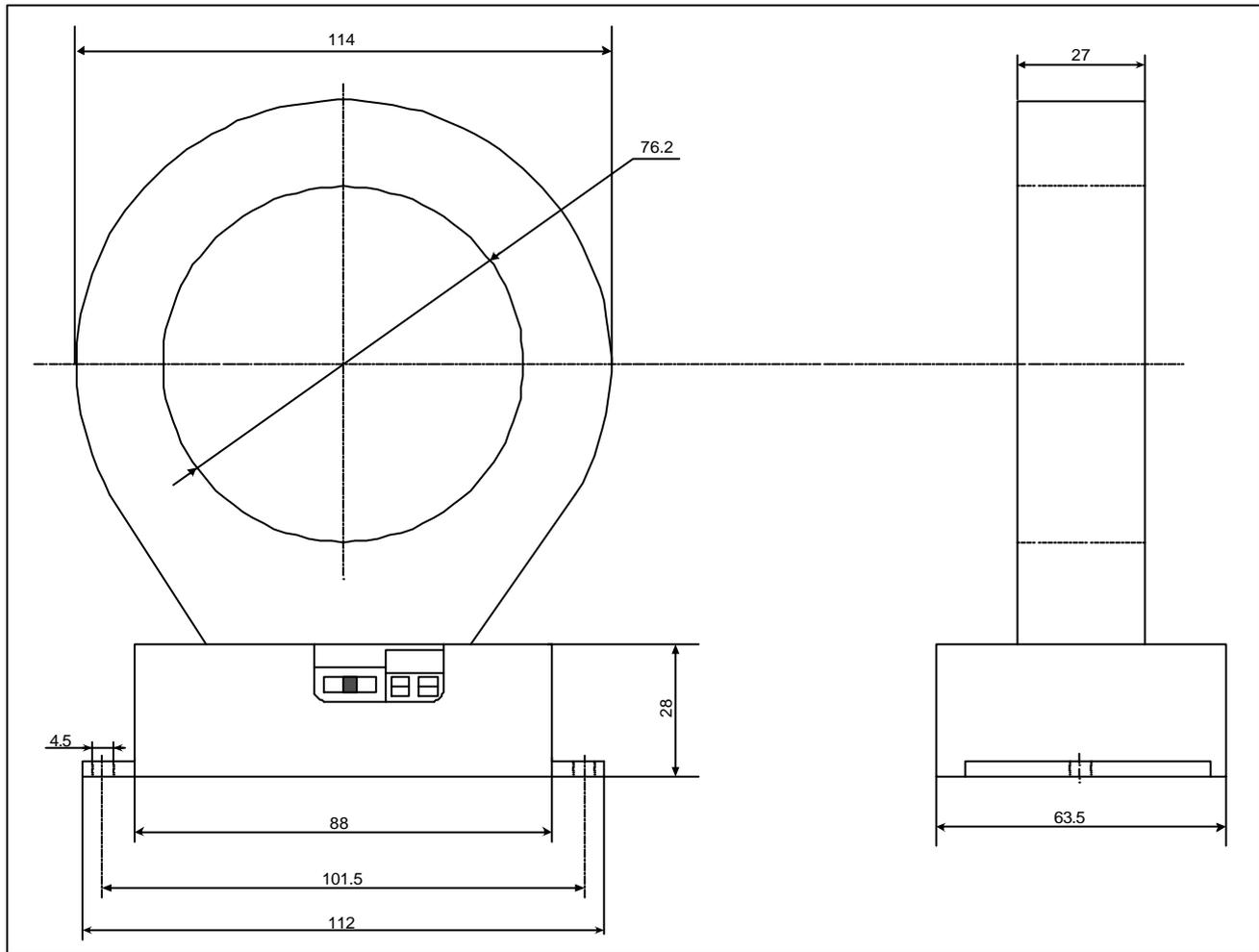
- Large aperture
- High isolation between primary and secondary circuits
- Easy to mount
- No insertion losses

Applications

- Large Pumps
Detect dry run electronically.
- Generation
Measure the output of generators.
- Electric Heating Elements
 - Monitors heater load.
 - Faster response than temperature sensors.

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Dimensions AKR 750/2000 C420L J (unit : mm, 1mm = 0.0394 inch)



Mechanical characteristics

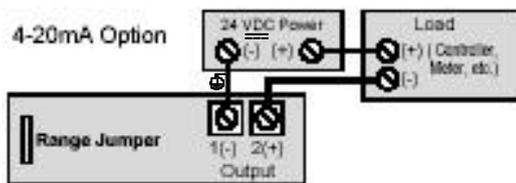
- General tolerance ± 1 mm
- Primary aperture 76 mm
- Panel mounting 2 holes $\varnothing 4.5$ mm
Distance between holes 101.5 mm

Remark

- Temperature of the primary conductor should not exceed 60°C.

Connections

- 2 x UNC8 Cylindric Head



- Notes:
- Captive screw terminals.
 - 12-22 AWG solid or stranded.
 - Observe polarity.

Power Supply diagram

