

# Current and Voltage Controls Current Transformer, 3-Phase Types A 74-10, A 74-11

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- 3-phase current metering transformers for use with current control relays
- Measuring ranges:  
A 74-10 5: 0.5 - 5 AAC  
A 74-10 20: 2 - 20 AAC  
A 74-11 100: 10 - 100 AAC  
A 74-11 500: 50 - 500 AAC

## Product Description

3-phase current transformer measures on all three phases. Output voltage proportional to measured amplitude of the rms-value of the normal phase current.

## Ordering Key

**A 74-10 5**

Type \_\_\_\_\_  
Input current \_\_\_\_\_

## Type Selection

Input current	Type no.
5 AAC	A 74-10 5
20 AAC	A 74-10 20
100 AAC	A 74-11 100
500 AAC	A 74-11 500

## Input Specifications

	A 74-10 5	A 74-10 20	A 74-11 100	A 74-11 500
<b>Current range</b>	0.5 - 5 AAC	2 - 20 AAC	10 - 100 AAC	50 - 500 AAC
<b>Max. current</b> (continuously)	20 AAC	50 AAC	250 AAC	750 AAC
<b>Max. overload current</b> (t = 30 s)	40 AAC	85 AAC	325 AAC	1000 AAC
<b>Rated insulation voltage</b> Input-output	1000 VAC <sub>rms</sub>	1000 VAC <sub>rms</sub>	1000 VAC <sub>rms</sub>	1000 VAC <sub>rms</sub>
<b>Overvoltage category</b>	IV (IEC 60664)	IV (IEC 60664)	IV (IEC 60664)	IV (IEC 60664)
<b>Dielectric strength</b> Dielectric voltage Rated impulse withstand volt.	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)	6 kVAC <sub>rms</sub> 12 kV (1.2/50 μs)
<b>Power consumption</b>	< 0.1 W@5 A	< 0.25 W@20 A	< 1.5 W@100 A	< 21 W@1500 A

## Output Specifications

	A 74-10 5	A 74-10 20	A 74-11 100	A 74-11 500
<b>Output voltage</b> (T <sub>A</sub> = 20°C = 68°F, R <sub>L</sub> = 9.5 kΩ)	0.4 - 4 V <sub>p</sub>	0.4 - 4 V <sub>p</sub>	0.4 - 4 V <sub>p</sub>	0.4 - 4 V <sub>p</sub>
<b>Output impedance</b>	< 700 Ω	< 200 Ω	< 40 Ω	< 10 Ω
<b>Tolerance of output voltage</b> @ rated input current	± 5%	± 5%	± 5%	± 5%
<b>Temperature variation</b>	± 0.1% per °C	± 0.1% per °C	± 0.1% per °C	± 0.1% per °C
<b>Rated insulation voltage</b> (cable)	250 VAC <sub>rms</sub>	250 VAC <sub>rms</sub>	250 VAC <sub>rms</sub>	250 VAC <sub>rms</sub>



## General Specifications

<b>Pollution degree</b>	3 (IEC 60664)	
<b>Ambient temperature</b>	- 20 to + 60°C (- 4 to + 140°F)	
<b>Housing</b>		
Dimensions	A74-10	120 x 45 x 16 mm
	A74-11	150 x 114 x 23
Material	ABS	
<b>Weight</b>	A 74-10	200 g
	A 74-11	750 g
<b>Connection cable</b>	2 m PVC, 4 x 0.4 mm <sup>2</sup>	
<b>Approval</b>	UL	
<b>CE Marking</b>	Yes	

## Mode of Operation

The current metering transformer is connected to the current control relays H 475 as follows:

**Red core to term. 5** - U<sub>1</sub>.  
**White core to term. 6** - U<sub>2</sub>.  
**Yellow core to term. 7** - U<sub>3</sub>.  
**Black core to term. 8.** (starpoint - neutral).

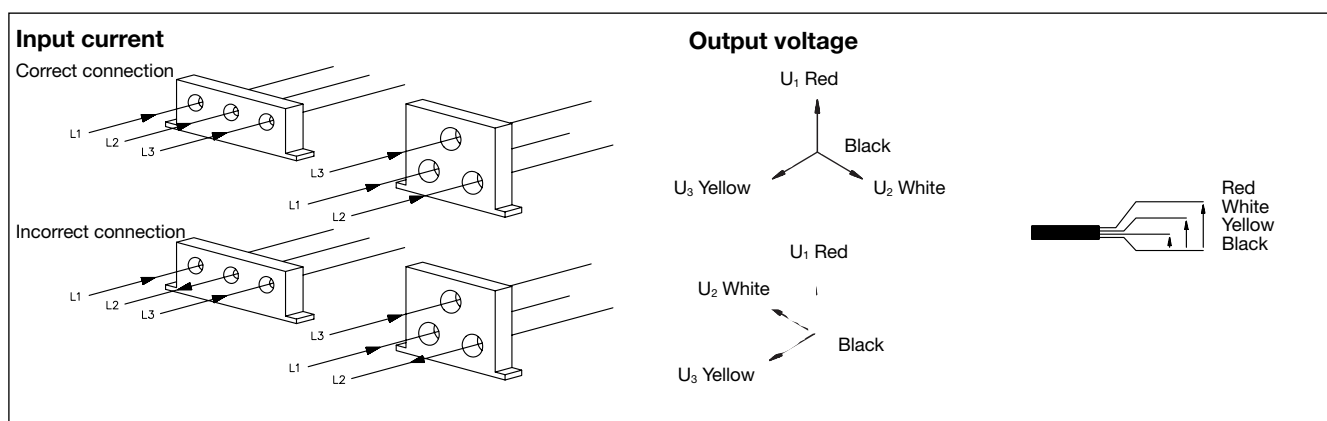
The metered conductor is drawn through the central hole of the current metering transformer. Drawing the con-

ductor through the hole several times makes it possible to meter currents below the nominal range.

If the conductor is drawn through the central hole e.g. 5 times, the metering transformer will register 50 A when the current in the conductor is 10 A.

In amplitude and phase the output voltage is proportional to the phase current metered.

## Wiring Diagrams



## Dimensions

