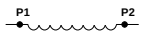
# AFP-52

## CURRENT TRANSFORMER

## CONNECTIONS

**PRIMARY CONNECTIONS**

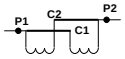
SIMPLE PRIMARY RATIO




DOUBLE PRIMARY RATIO

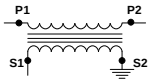
Series


Parallel

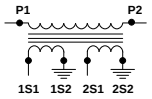



**SECONDARY CONNECTIONS**

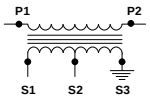
1 SECONDARY



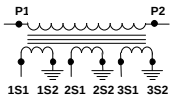

2 SECONDARIES




A SECONDARY WITH SOCKET




3 SECONDARIES




## MECHANICAL

- Tightening torque:
  - M8 Terminals: 6 N.m
  - M16 Terminals: 45 N.m
  - Earth terminal M12: 20 N.m
  - Base fixings M16: 164 N.m
- Plinth's anchors: from 250x250 to 350x350
- Approximate weight: 225 kg
- Pollution level IV or superior.
- Standard creepage distance: 1830 mm
- Arch distance: 610 mm
- Maximum size: 798 mm
- Outer diameter of the flange: 525 mm

## DESCRIPTION

**Current transformer for weathering with resin main insulation and porcelain enclosure.**

High Voltage Current transformer for measuring and/or protecting up to 52 kV, used for measurement instruments, meters, relays and other similar devices.

It is designed considering installation in areas of high seismic activity.

***Primary and secondary winding and core:*** The primary winding is made with copper plate lined with insulating paper with high dielectric and mechanical rigidity. The secondary winding is designed as a coil of enamelled electrolytic copper wire, with a thermal class higher than 180ºC and G2 insulation. The magnetic core is composed of a magnetic griddle toroid of oriented grain of quality and size to be determined according to the characteristics of the transformer. The core is isolated from the secondary winding by a polyamide or cork capsule.

***Insulation:*** The active parts are cast in epoxy resin under vacuum, forming a compact body. This body is protected by a wrap of high-quality brown porcelain, to obtain a great creepage distance and a high resistance to the weather. Its insulation class is F (in accordance with CEI 60085 standard).

***Base and secondary terminal box:*** The base is made of galvanized iron to prevent corrosion. It incorporates the grounding screw stainless steel and provides locate for the secondary terminal strip. The secondary brass terminals, capable of receiving 10 $mm^2$ section cables, are protected by a galvanized iron cover with connection through cable glands and an aeration system designed against insects.

***Primary terminals:*** The primary terminals consist of flat horizontal copper terminals. On request round terminals of other materials can be supplied. They are protected by an aluminium metal casing; whose function is to homogenize the electric field around the primary terminals.

## SERVICES

| | | MAXIMUM BURDEN (VA) (*) | | | |
|---|---|---|---|---|---|
| | Class | 80 In | 100 In | 150 In | 200 In |
| 2 secondary windings | Measurement and protection | 0.2S | 50 | 40 | 25 | 15 |
| | | 5P20 | 40 | 30 | 35 | 30 |
| | | 0.5 | 50 | 40 | 25 | 15 |
| | | 5P20 | 40 | 30 | 35 | 30 |
| | | 0.5 | 25 | 15 | 15 | 15 |
| | | 5P30 | 25 | 15 | 10 | 10 |
| | | 5P20 | 30 | 30 | 20 | 15 |
| | | 5P20 | 30 | 30 | 20 | 15 |
| 3 secondary windings | Measurement and protection | 0.2S | 10 | 10 | 15 | 10 |
| | | 0.5 | 20 | 20 | 15 | 10 |
| | | 5P20 | 30 | 30 | 20 | 15 |
| | | 0.5S | 10 | 10 | 15 | 10 |
| | | 0.5 | 20 | 20 | 15 | 10 |
| | | 5P20 | 30 | 30 | 20 | 15 |
| | | 0.2S | 10 | 10 | 10 | 10 |
| | | 5P30 | 15 | 15 | 10 | 10 |
| | | 5P30 | 15 | 15 | 10 | 10 |
| | | Single primary ratio<br>Double primary ratio | Up to 1500 A<br>Up to 2x750 A | | In < 750 A<br>In<2x375 A | In < 300 A<br>In<2x150 A |

(*) These rated outputs are orientative values

Upon request, other classes and ratios than those in the table can be budgeted.





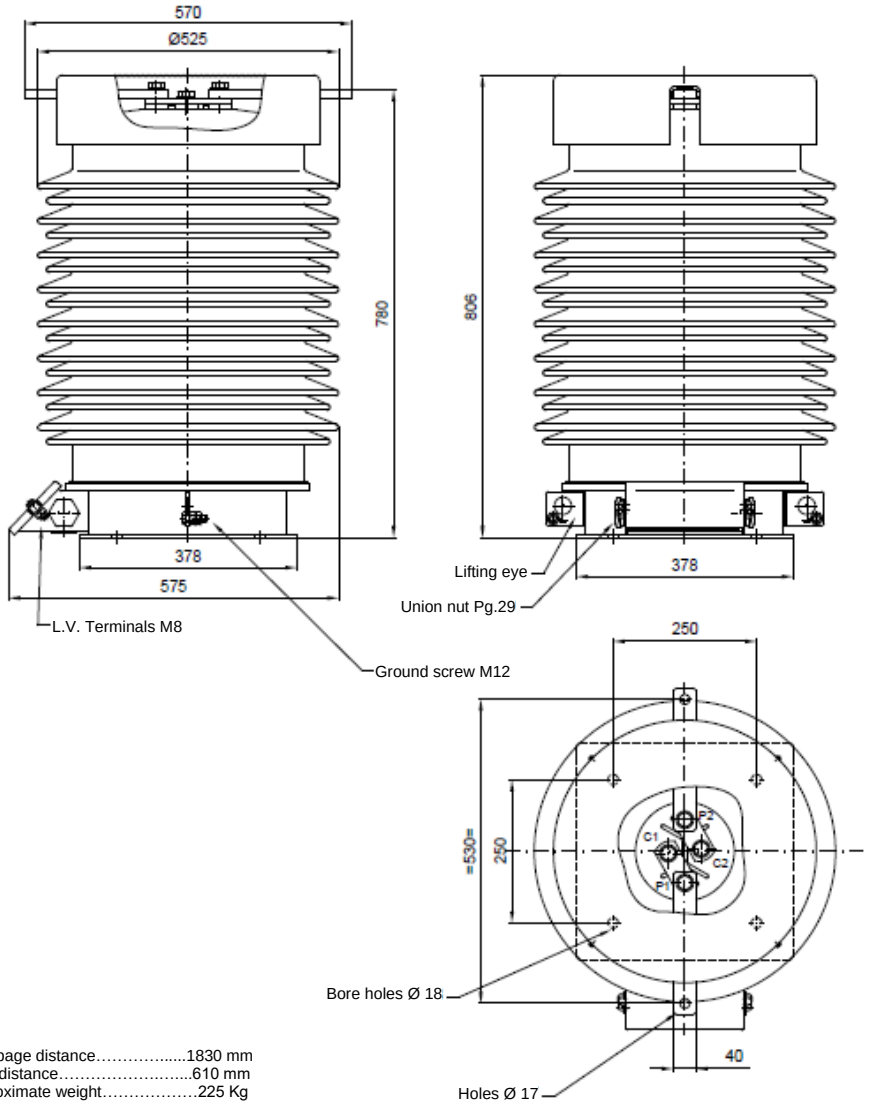
Laboratorio Electrotécnico

## ELECTRICAL CHARACTERISTICS

| | | IEC 61869-1 and -2 |
|---|---|---|
| **Highest voltage for the material ($U_m$) (kV)** | | 52 |
| **Maximum service voltage (kV)** | | 52 |
| **Power frequency withstand voltage (kV)** | **Primary** | 95 |
| | **Secondary** | 3 |
| **Lightning impulse withstand voltage (peak value)** | | 250 |
| **Primary assigned intensity (A)** | **Single ratio ($I_{pn}$)** | ≤ 1500 |
| | **Double ratio ($I_{pn}$)** | ≤ 750 -1500 |
| **Secondary assigned intensity ($I_{sn}$) (A)** | | 5 |
| **Assigned frequency (f) (Hz)** | | 50/60 |
| **Number of secondary winding** | | 1, 2 o 3 |
| **Short-circuit thermal current ($I_{th}$) (kA)** (* another short-circuits thermal current on request) | | ≤ 31.5 |
| **Assigned dynamic current ($I_{dyn}$)** | | 2.5 $I_{th}$ |
| **Safety Factor (FS)** | | ≤ 5 |

## DIMENSIONS (mm)

### AFP-52




Creepage distance……....1830 mm
Arch distance……..610 mm
Approximate weight……225 Kg