

Current transformers

Technical information

Current transformers

Technical data

| | |
|-------------------|--|
| Standards | IEC 185 |
| Accuracy class | 1 (0.2 and 0.5 on request) |
| Rated burden | see product range |
| Rated voltage | 720 V |
| Rated frequency | 50-60 Hz |
| Secondary current | 1 and 5 A |
| Security factor | FS 5 |
| Temperature range | Working: -20 to +55°C, storage: -50 to +80°C |
| Insulation class | E (max 120°C) |
| Test voltage | 4 kV _{eff} , 50 Hz 1 min. |
| Protection class | IP 20 |
| Case | non-flammable plastic, UL 94 V-0 |

Error limits in transformers

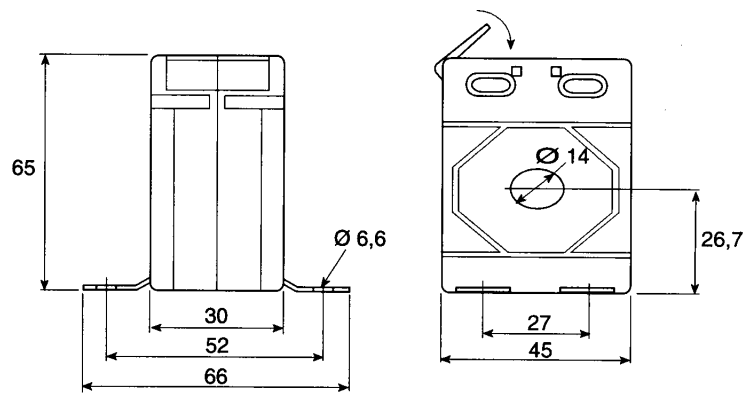
| Class | Current error ± % | | | | | Phase angle error ± crad | | | |
|-------|------------------------------|------|----|-----|-----|----------------------------|------|------|------|
| | 10 | 20 | 50 | 100 | 120 | 10 | 20 | 100 | 120 |
| | % of nominal primary current | | | | | % of nominal prim. current | | | |
| 0.1 | 0,25 | 0,2 | - | 0,1 | 0,1 | 0,3 | 0,24 | 0,15 | 0,15 |
| 0.2 | 0,5 | 0,35 | - | 0,2 | 0,2 | 0,6 | 0,45 | 0,3 | 0,3 |
| 0.5 | 1 | 0,75 | - | 0,5 | 0,5 | 1,8 | 1,35 | 0,9 | 0,9 |
| 1.0 | 2 | 1,5 | - | 1 | 1 | 3,6 | 2,7 | 1,8 | 1,8 |

Consumption in copper wire (VA)

| q=wire cross- section mm ² | Connection-wire consumption in VA (P _{wire}) | | | | | | | | | | | | | | | | | | | |
|--|--|------|------|-------|------|------|------|------|--|---|-------|-------|-------|-------|------|-------|------|------|------|------|
| | For secondary current I _{sec} = 5A | | | | | | | | | For secondary current I _{sec} = 1A | | | | | | | | | | |
| | L = distance from CT. to measuring point | | | | | | | | | L = distance from CT. to measuring point | | | | | | | | | | |
| | 1m | 2m | 4m | 6m | 8m | 10m | 15m | 20m | | 1m | 2m | 4m | 6m | 8m | 10m | 15m | 20m | 30m | 40m | 50m |
| 2 x 0.5 | 1,837 | 3,67 | 7,35 | 11,02 | - | - | - | - | | 0,074 | 0,15 | 0,30 | 0,44 | 0,59 | 0,74 | 1,11 | 1,48 | 2,22 | 2,96 | 3,70 |
| 2 x 0.75 | 1,235 | 2,47 | 4,94 | 7,41 | 9,88 | - | - | - | | 0,049 | 0,10 | 0,20 | 0,29 | 0,39 | 0,49 | 0,74 | 0,98 | 1,47 | 1,96 | 2,45 |
| 2 x 1.0 | 0,918 | 1,84 | 3,67 | 5,51 | 7,34 | 9,18 | - | - | | 0,037 | 0,07 | 0,15 | 0,22 | 0,30 | 0,37 | 0,56 | 0,74 | 1,11 | 1,48 | 1,85 |
| 2 x 1.5 | 0,613 | 1,23 | 2,45 | 3,68 | 4,90 | 6,13 | 9,20 | - | | 0,025 | 0,05 | 0,10 | 0,15 | 0,20 | 0,25 | 0,38 | 0,50 | 0,75 | 1,00 | 1,25 |
| 2 x 2.5 | 0,368 | 0,74 | 1,47 | 2,21 | 2,94 | 3,68 | 5,52 | 7,36 | | 0,015 | 0,03 | 0,06 | 0,09 | 0,12 | 0,15 | 0,23 | 0,30 | 0,45 | 0,60 | 0,75 |
| 2 x 4.0 | 0,233 | 0,47 | 0,93 | 1,40 | 1,86 | 2,33 | 3,50 | 4,66 | | 0,009 | 0,02 | 0,04 | 0,05 | 0,07 | 0,09 | 0,14 | 0,18 | 0,27 | 0,36 | 0,45 |
| 2 x 6.0 | 0,149 | 0,30 | 0,60 | 0,89 | 1,19 | 1,49 | 2,23 | 2,98 | | 0,003 | 0,006 | 0,012 | 0,018 | 0,024 | 0,03 | 0,045 | 0,06 | 0,09 | 0,12 | 0,15 |

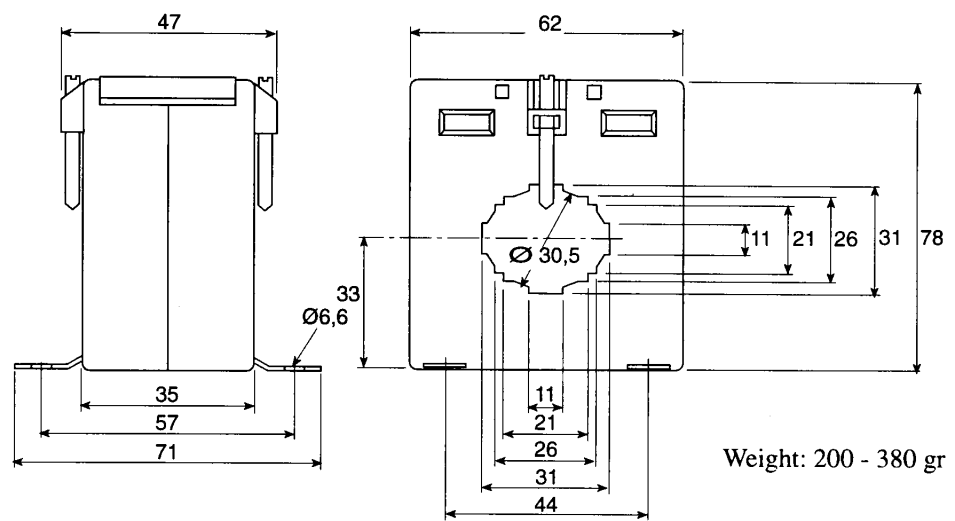
Dimension drawings

MAK 45/14



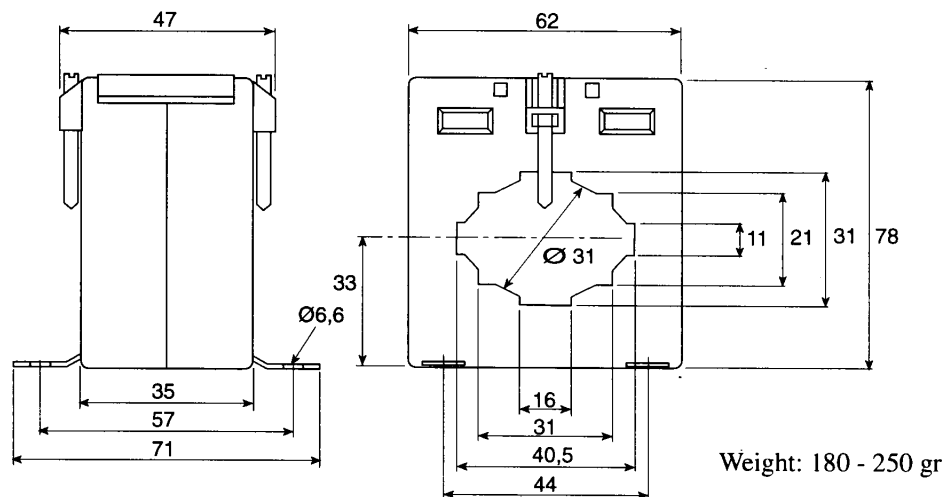
Weight: 200 - 250 gr

MAK 62/30



Weight: 200 - 380 gr

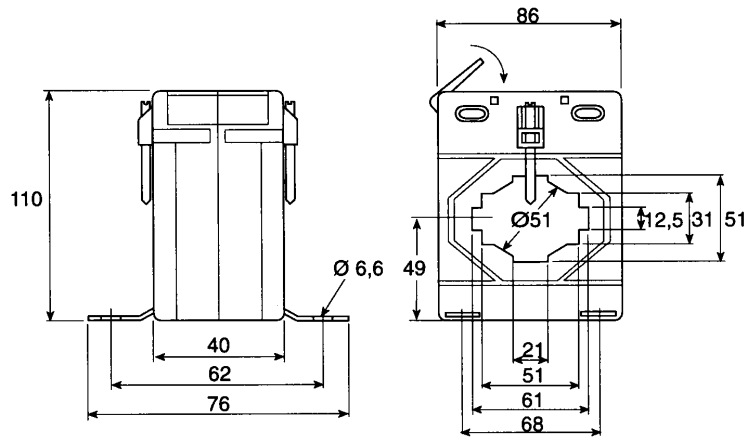
MAK 62/40



Weight: 180 - 250 gr

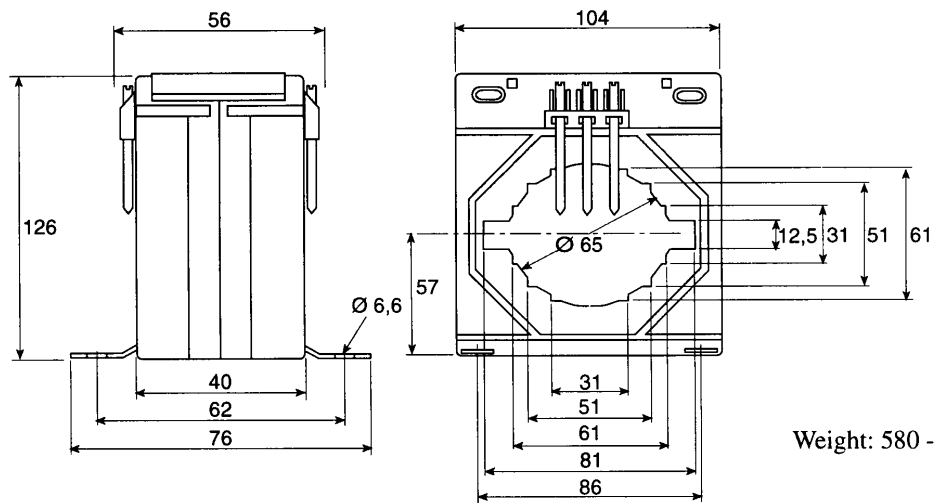
Dimension drawings

MAK 86/60



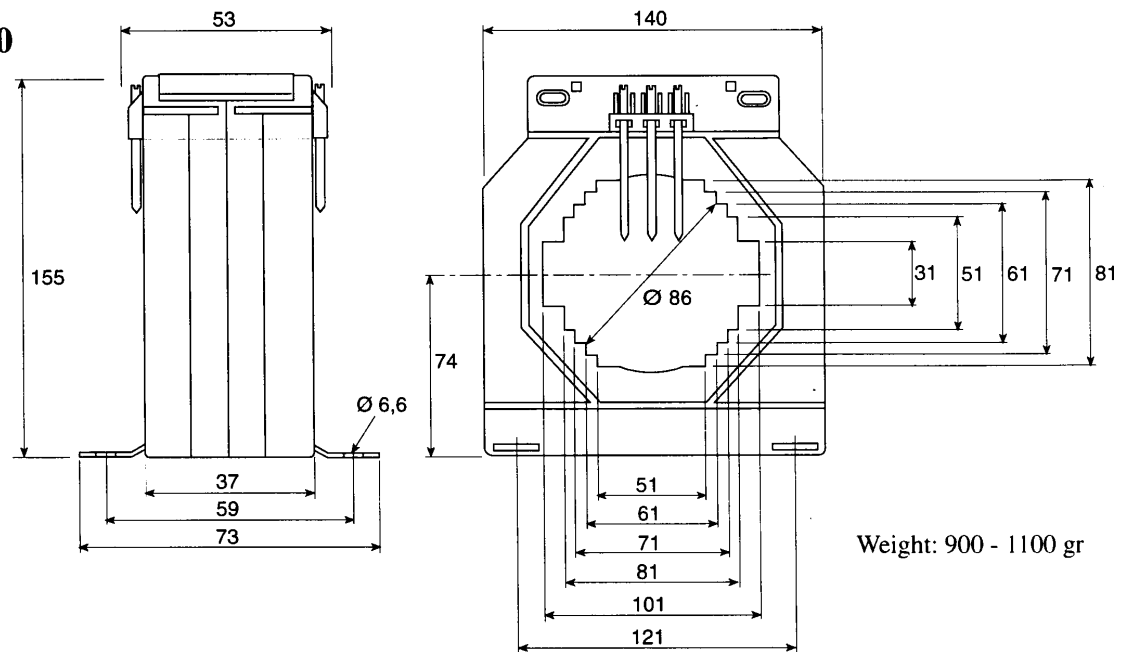
Weight: 500 - 600 gr

MAK 104/80



Weight: 580 - 650 gr

MAK 140/100



Weight: 900 - 1100 gr

Product range

| Prim. current A | Sec. current A | MAK 45/14 | MAK 62/30 | MAK 62/40 | MAK 86/60 | MAK 104/80 | MAK 140/100h | |
|-----------------------|----------------------|------------------|-----------|-----------|-----------|-----------------|------------------|---------------------|
| | | Burden (VA) | | | | | | |
| | | Accuracy class I | | | | | | |
| | | VA | Art.no. | VA | Art.no. | VA | Art.no. | VA |
| 40 | 5 | | 6915 | | | | | |
| | 1 | 1* | 6812 | | | | | |
| 50 | 5 | | 6820 | | | | | |
| | 1 | 1 | 6813 | | | | | |
| 60 | 5 | | 6821 | | | | | |
| | 1 | 1,5 | 6814 | | | | | |
| 75 | 5 | | 6822 | | | | | |
| | 1 | 1,5 | 6815 | | | | | |
| 100 | 5 | | 6823 | 6914 | 6849 | | | |
| | 1 | 2,5 | 6816 | 2,5 6827 | 1 6841 | | | |
| 150 | 5 | | 6824 | 6840 | 6850 | | | |
| | 1 | 5 | 6817 | 5 6916 | 2,5 6842 | | | |
| 200 | 5 | | 6825 | 6834 | 6851 | | | |
| | 1 | 5 | 6818 | 7,5 6828 | 3,7 6843 | | | |
| 250 | 5 | | 6826 | 6835 | 6852 | | | |
| | 1 | 5 | 6819 | 7,5 6829 | 5 6844 | | | |
| 300 | 5 | | | 6836 | 6853 | | | |
| | 1 | | | 10 6830 | 5 6845 | | | |
| 400 | 5 | | | 6837 | 6854 | 6865 | 6892 | |
| | 1 | | | 10 6831 | 5 6846 | 10 6858 | 10 6884 | |
| 500 | 5 | | | 6838 | 6855 | 6866 | 6893 | |
| | 1 | | | 12 6832 | 7,5 6847 | 10 6859 | 10 6885 | |
| 600 | 5 | | | 6839 | 6856 | 6867 | 6894 | |
| | 1 | | | 15 6833 | 10 6848 | 15 6860 | 12 6886 | |
| 750 | 5 | | | | | 6913 | 6923 | |
| | 1 | | | | | 20 6861 | 15 6920 | |
| 800 | 5 | | | | | 6869 | 6895 | |
| | 1 | | | | | 20 6862 | 15 6887 | |
| 1000 | 5 | | | | | 6870 | 6896 | |
| | 1 | | | | | 20 6863 | 20 6888 | 20 6878 |
| 1200 | 5 | | | | | 6871 | 6897 | |
| | 1 | | | | | 20 6864 | 30 6889 | 30 6924 |
| 1250 | 5 | | | | | 6919 | 6910 | |
| | 1 | | | | | 20 6917 | 30 6921 | 30 6930 |
| 1500 | 5 | | | | | 6872 | 6898 | |
| | 1 | | | | | 20 6918 | 30 6890 | 30 6875 |
| 1600 | 5 | | | | | | 6899 | |
| | 1 | | | | | | 30 6922 | 30 6880 |
| 2000 | 5 | | | | | | 6911 | |
| | 1 | | | | | | 30 6891 | 30 6876 |
| 2500 | 5 | | | | | | | |
| | 1 | | | | | | | 30 6882 |
| 3000 | 5 | | | | | | | |
| | 1 | | | | | | | 60 6877 |
| 4000 | 5 | | | | | | | |
| | 1 | | | | | | | 60 6931 |
| Max. bar (mm) | | | | 10 x 30 | 10 x 40 | 10 x 60 | 10x80, 2// 10x60 | 2// 10x100 |
| Max. cable (mm) | | 14 | | 28 | 31 | 2// 10x50 50 | 3// 10x50 65 | 3// 10x80 2// 45 |

*) = class 3



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