

For ratios 8-0.24/5-2.89-1-0.577 A, 50 Hz

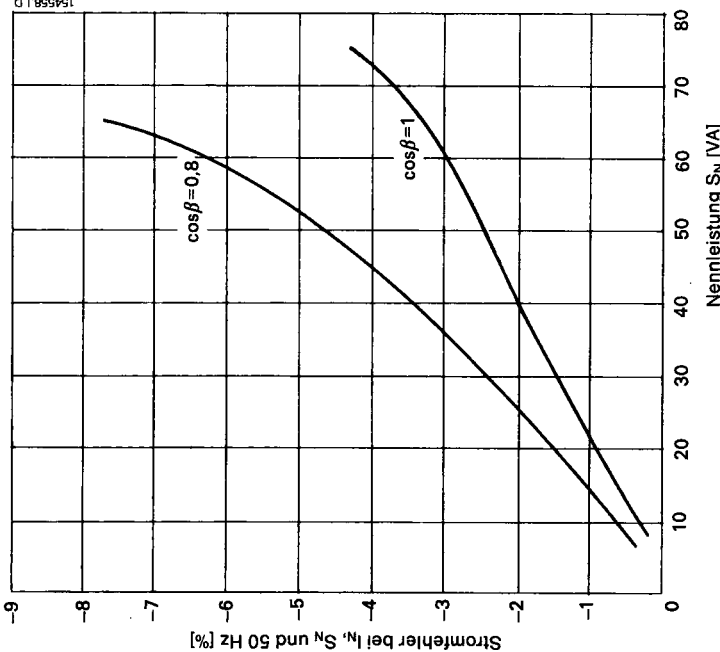


Fig. 2

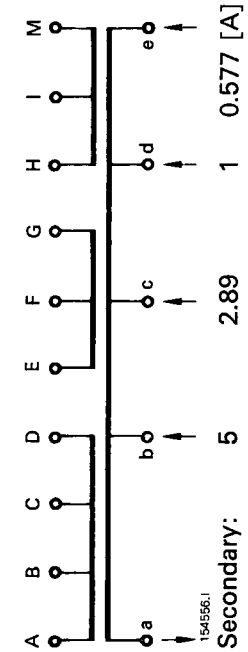
Rated secondary current I_N [A]	Overcurrent factor n (approx.)
5	$N \approx \frac{105}{S_n + 1}$
2.89	$N \approx \frac{105}{S_n + 0.8}$
1	$N \approx \frac{105}{S_n + 0.5}$
0.577	$N \approx \frac{105}{S_n + 0.55}$

Reduce the desired rated primary current by the current error!

Then choose the connection whose primary current is as near the correct value as possible.

Connection and currents:

Primary: WI 23 D 5: 8 -1.20 [A]
WI 23 D 1: 1.18-0.24 [A]



Example 1: 5/1 A, 30 VA, $\cos \beta = 0.8$. Current error -2.4%
5 A - 2.4% = 4.88 A → type WI 23 D 5, connect as for 4.9/1 A
Actual correction = 5 - 4.9 = 0.1 A or + 2%
Residual error = - 2.4% + 2% = - 0.4%

Example 2: 1/5 A, 60 VA, $\cos \beta = 0.8$, current error -6.3%
1 A - 6.3% = 0.937 A → type WI 23 D 1, connect as for 0.935/5 A
Actual correction = 1 - 0.935 = 0.065 A or + 6.5%
Residual error = - 6.3 + 6.5 = + 0.2%

Thus for both examples it can be stated that the current error at rated current and rated output is not more than 1%.

For ratios 5-2.89-1-0.577/8-0.24 A, 50 Hz

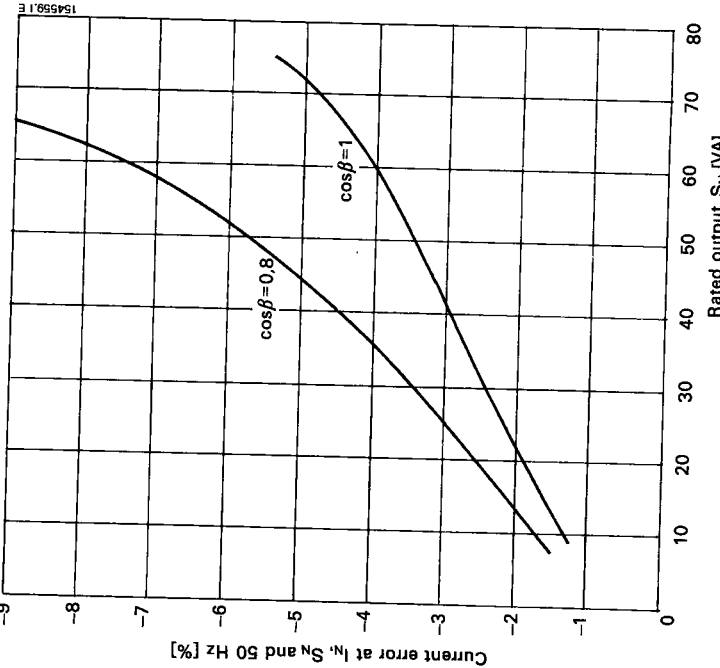


Fig. 3

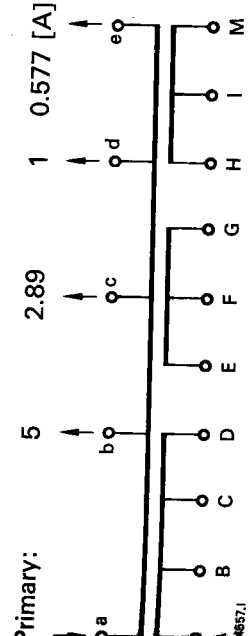
Rated primary current I_N [A]	Overcurrent factor n
5	$N \approx \frac{105}{S_n + SE - 1}$
2.89	$N \approx \frac{105}{S_n + SE - 0.8}$
1	$N \approx \frac{105}{S_n + SE - 0.5}$
0.577	$N \approx \frac{105}{S_n + SE - 0.55}$

SE = Total consumption as per tables on pages 5 and 6

Increase the desired secondary current by the current error!

Then the connection is chosen whose "primary current" is as near the corrected value as possible. The connections are then reversed, i.e. input on the secondary side (a...e) and burden on the primary side (A...M).

Connection and currents:



Primary: WI 23 D 5: 8 -1.20 [A]
WI 23 D 1: 1.18-0.24 [A]

Example 1: 5/2.5 A, 70 VA, $\cos \beta = 1$. Current error -4.8%
5 A + 4.8% = 5.24 A → type WI 23 D 5, connected as for 2.61/5 A, but in reverse
Actual correction = 2.61 - 2.5 = 0.11 A or + 4.4%
Residual error = - 4.8 + 4.4 = - 0.4%

Example 2: 1/0.5 A, 20 VA, $\cos \beta = 0.8$. Current error -2.6%
1 A + 2.6% = 1.026 A → type WI 23 D 1, connected as for 0.515/1 A, but in reverse
Actual correction = 0.515 - 0.5 = 0.015 A or + 3%
Residual error = - 2.6 + 3 = + 0.4%

Thus for both examples it can be stated that the current error at rated current and rated output is not more than 1%.