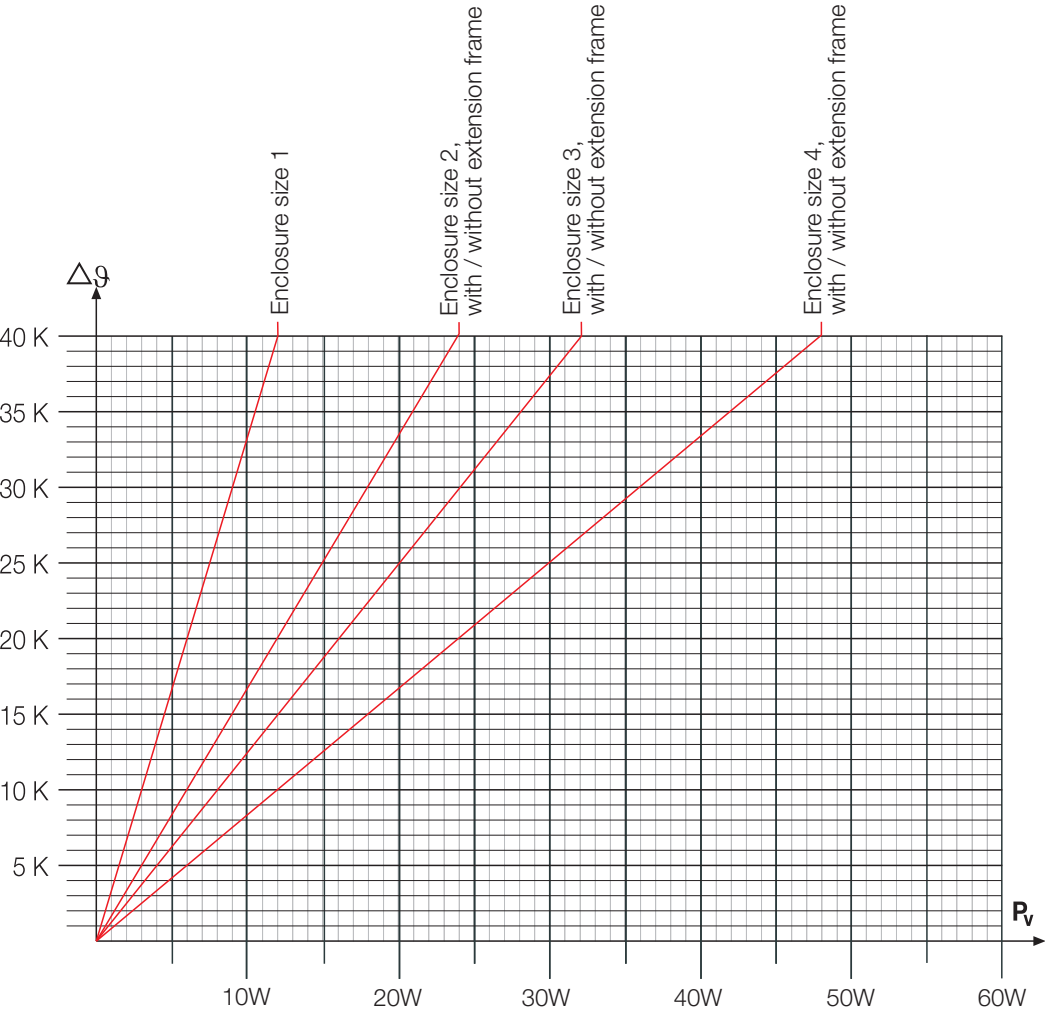


Temperature rise ($\Delta\theta$) with ENYSTAR enclosures by power dissipation of electrical devices



ENYSTAR distribution boards		Rated power dissipation
Enclosure size	Dimensions (WxH) in mm	P_{ab} in watts per kelvin assembled enclosures
Enclosure size 1	270 x 180	0.3
Enclosure size 2 with / without extension frame	270 x 360	0.6
Enclosure size 3 with / without extension frame	270 x 540	0.8
Enclosure size 4 with / without extension frame	540 x 360	1.2

Note!

The maximally permissible operating temperature inside the enclosures (ϑ_{imax}) is determined by:

- 1st Maximally permissible ambient temperature of the installed electrical devices (please consider data of the equipment manufacturers)
- 2nd Category temperature of the internal wiring and the inserted cables
- 3rd Temperature resistance of the enclosure materials and the cable entries etc.

Example: calculation of the maximum rated power dissipation (P_V)

maximally permissible operating temperature inside the enclosure(s) (ϑ_{imax}):	e.g. 55 °C
ambient temperature of the enclosure(s) (ϑ_U):	25 °C
maximally permissible heating up inside the enclosure:	$\Delta\vartheta = \vartheta_{imax} - \vartheta_U = 55\text{ °C} - 25\text{ °C} = 30\text{ K}$
maximum permissible power dissipation of the installed equipment inclusive wiring (P_V) in accordance with diagram: enclosure size 3 (540 x 270 x 163 mm):	
enclosures in assemblies:	$P_V = 24\text{ W}$

Example: calculation of the operating temperature inside the enclosure (ϑ_i)

ambient temperature of the enclosure(s) (ϑ_U):	25 °C
rated power dissipation of the installed electrical equipment (P_V):	24 W
heating up inside the enclosures in accordance with diagram over:	$\Delta\vartheta$
enclosure size 3 (540 x 270 x 163 mm):	
assembled enclosures:	$\Delta\vartheta = 30\text{ K}; \vartheta_i = \vartheta_U + \Delta\vartheta = 25\text{ °C} + 30\text{ K} = 55\text{ °C}$