

## WEPD – Type I [62, 31, 12]

This is a database of known weight enumerator parameters for singly-even binary self-dual [62, 31, 12] codes.

The possible weight enumerators of a singly-even binary self-dual [62, 31, 12] code are given in [1] as

$$\begin{aligned}W_{62,1} &= 1 + 2308x^{12} + 23767x^{14} + \dots, \\W_{62,2} &= 1 + (1860 + 32\alpha)x^{12} + (28055 - 160\alpha)x^{14} + \dots,\end{aligned}$$

where  $\alpha \in \mathbb{Z}$ .

See the link below for a list of known values of  $\alpha$  for  $W_{62,2}$ . A code with weight enumerator  $W_{62,1}$  is given in [4].

- [W<sub>62,2</sub> known parameters](#) (from [1–6])

## References

- [1] R. Dontcheva and M. Harada. New extremal self-dual codes of length 62 and related extremal self-dual codes. *IEEE Trans. Inform. Theory*, 48(7):2060–2064, 2002. doi: [10.1109/TIT.2002.1013144](https://doi.org/10.1109/TIT.2002.1013144).
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- [6] N. Yankov and D. Anev. On the self-dual codes with an automorphism of order 5. *Appl. Algebra Engrg. Comm. Comput.*, 32(2):97–111, 2021. doi: [10.1007/s00200-019-00403-0](https://doi.org/10.1007/s00200-019-00403-0).