Parallel connection of two single output converters

It is technically possible to connect two single output DC/DC converters or AC/DC power supplies in parallel on output side (including decoupling diodes). Because the load sharing is unknown, it‘s not possible to increase the maximum output power with this interconnection. For redundant operation, it would be a possible approach, but it has to be ensured that it works in the application as it is intended for and that no overload situation occurs.

Generally, it cannot be assumed, that any interconnection of two converters operate in each application condition as it would in a single operation (e.g. start-up behavior, regulation, ripple & noise etc.). Our datasheet specifies the characteristic of a single converter under nominal values and full load but not in an interconnection.

Summarized:
If it is for redundant operation, it is recommended to test it carefully in the application (with decoupling-diodes). If it is intended to increase maximum power, a parallel connection is not recommended due to undefined load sharing (except if the series, like TEQ 300WIR, TIS RED or TXL, has such a load sharing feature specified in the datasheet).

Please check our product-selector (https://www.tracopower.com/products/product-selector) if we can provide another product fitting better to your requirements (e.g. products with higher power capabilities, load sharing functionality or redundancy operation). We recommend considering the total costs as well.