1200-1700V MDmesh K5 SERIES

life.augmented

Ideal for high input voltage auxiliary power supply systems

Best-in-class VHV STPOWER MOSFET MDmesh* K5 series enables excellent efficiency performance in flyback topology used in auxiliary power supply

STPOWER MOSFET MDmesh K5 series, currently the only very high voltage super-junction technology in the market, ensures the best efficiency and safety margin in high input voltage auxiliary power supply systems. These very high voltage power MOSFETs enable designers to meet the increasingly strict limits on maximum power consumption and minimum energy efficiency specified by eco-design standards such as Energy Star and the EU's energy-related products (ErP) directive.

KEY FEATURES

- 1200-1700 V BV_{DSS} rated
- Extremely good $R_{DS(on)}$ at very high BV_{DSS}
- High switching speed
- Low gate charge for operation at high frequency

KEY BENEFITS

- High efficiency with lower design complexity
- Good switching behavior for hard switching
- Especially targeted for flyback topologies

KEY APPLICATIONS

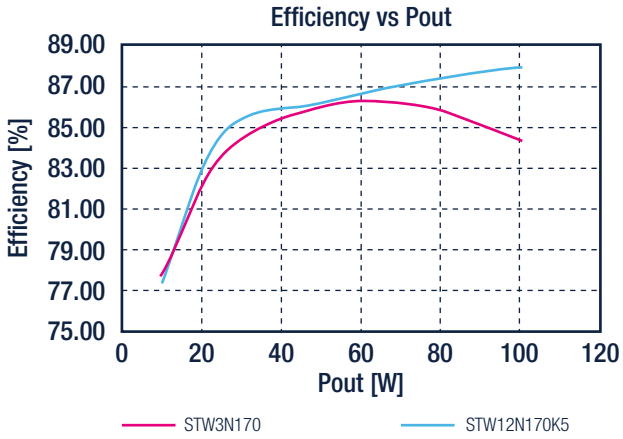
- Server
- Solar
- UPS
- Charging station

MDmesh K5 series

1200—1700 V BV_{DSS} rated

An efficiency comparison between the 1700V Super Junction MDmesh K5 and the previous technology is shown in this figure. At low load, the performances are aligned.
Besides at high load level, STW12N170K5 keeps excellent performance.

Efficiency comparison @ 400 Vac in a 3ph industrial auxiliary SMPS



1200-1700V MDmesh K5

BV_{DSS}[V]	Max $R_{DS(on)}$ [Ω]	Max I_D [A]	Q_g[nC]	Sales Type	Packages
1200	2	6	13.7	STx8N120K5	TO-3PF/ TO-220/ TO-247
	0.69	12	44.2	STx12N120K5	TO-3PF/ TO220-FP/ H2PAK-2/ TO-220/ TO-247/TO-247 long leads
1500	1.9	7	47	STW12N150K5	TO-247
	0.9	14	95	STW21N150K5	TO-247
1700	2.9	5	37	STW12N170K5	TO-247

GET IT ON Google Play

Available on the App Store

Wandoujia

Note: To explore the complete MDmesh K5 product portfolio/ visit www.st.com or download our ST-MOSFET-Finder mobile app directly from Google Play, iTunes, Wandoujia stores.

Order code: FLMDMESHK51120