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Melexis
INNOVATION WITH HEART

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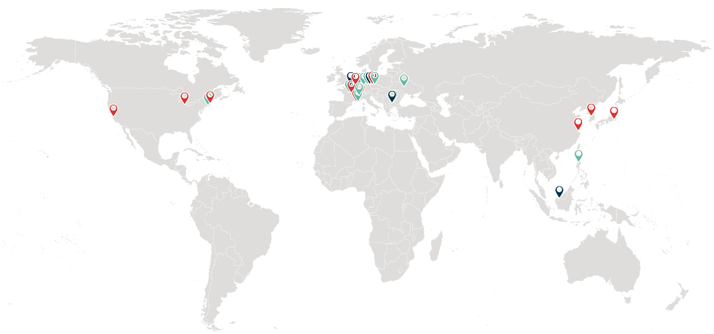

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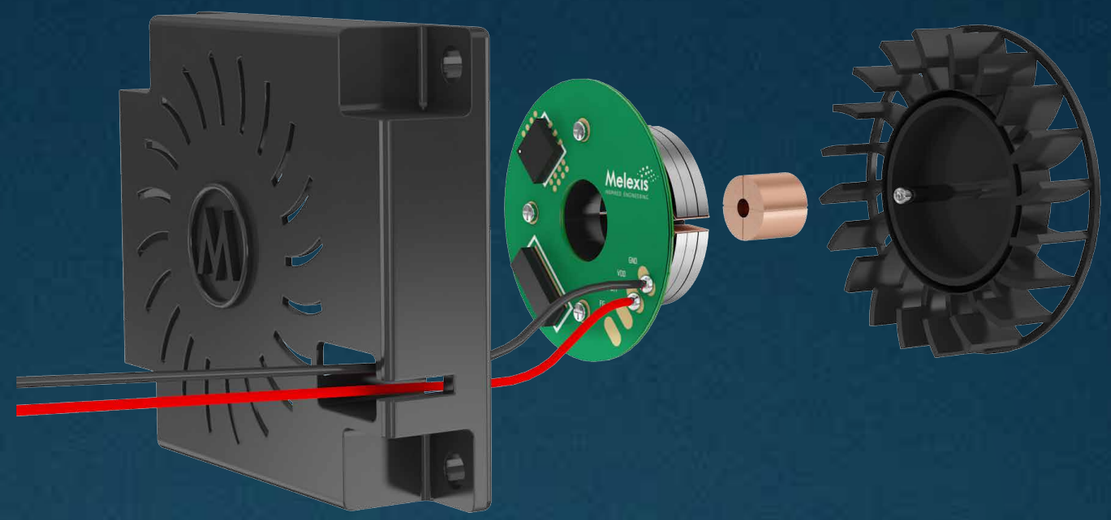


SELECTION GUIDE

FANDRIVERS

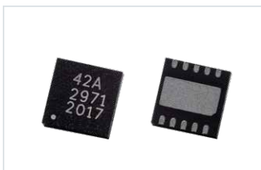
Enabling cost-optimized, minimum-size and whisper-silent cooling solutions for automotive and consumer applications.

Fandrivers

Type	Part Number (ordering code)	Status	Open loop transfer curve	RDS_{ON} typ. (Ohm)	VDD		T_j Max. (Junction Temp.)	Ipeak		Inom										V_{ov} Over voltage protection	Diagnostics		Integrated protections		EOS/ESD	Noise/Efficiency		Package						
					Min.	Max.		A	Current limit	250 mA	350 mA	450 mA	500 mA	600 mA	1100 mA	1500 mA	1800 mA	2200 mA	2500 mA		FG	RD	LRP	RVProt	HBM [kV]	Soft Start	Soft-Switching	SIP VK	SIP VA	SO SO8 (ZC)	SO SOT (ZE)	Exposed pad DFN (LD/LW) # pins	size	height
2-coil	US90AEVK-AAA-000-BU	prod		2,5	4.5V	30V	125C	500mA	-												✓		✓	x	4kV			✓						
2-coil	US90AEZE-AAA-000-RE	prod		2,5	4.5V	30V	125C	500mA	-												✓		✓	x	4kV						5			
2-coil	US91AEVA-AAA-000-BU	prod		2,5	4.5V	30V	125C	500mA	-													✓	✓	x	4kV				✓					
2-coil	US91AEVK-AAA-000-BU	prod		2,5	4.5V	30V	125C	500mA	-													✓	✓	x	4kV			✓						
2-coil	US91AEZE-AAA-000-RE	prod		2,5	4.5V	30V	125C	500mA	-													✓	✓	x	4kV						5			
1-coil	US168ELD-AAA-000-RE	prod		2,2	1.8V	6.5V	125C	500mA	-												✓		✓	-	1.5kV		Linear SS					6	1.5x2mm²	0.4mm
1-coil	MLX90287KZC-AAA-000-RE	prod	MINSP, 10	2,3	4.5V	18V	150C	1.2A	-												✓		✓	x	6kV	30%	SS			✓				
1-coil	MLX90287KZC-AAA-000-RX	prod	MINSP, 10	2,3	4.5V	18V	150C	1.2A	-												✓		✓	x	6kV	30%	SS			✓				
1-coil	MLX90287LZC-AAA-000-RE	prod* / PPAP	MINSP, 10	2,3	4.5V	18V	150C	1.2A	-												✓		✓	x	6kV	30%	SS			✓				
1-coil	MLX90297KLW-AAF-109-RE	prod	MINSP, 10/20/25/30	1,5	3.0V	18V	150C	CL	960mA												✓		✓		9kV	50%	SFS					10	3x3mm²	0.9mm
1-coil	MLX90297LLW-AAF-108-RE	prod* / PPAP	MINSP, 10/20/25/30	1,5	3.3V	18V	150C	CL	800mA												✓		✓		9kV	50%	SFS					10	3x3mm²	0.9mm
1-coil	MLX90297LLW-AAF-206-RE	prod* / PPAP	MINSP, 10/20/25/30	1,5	3.3V	18V	150C	CL	660mA												✓		✓		9kV	50%	FF					10	3x3mm²	0.9mm
1-coil	MLX90297LLW-ABF-206-RE	prod* / PPAP	MINSP, 10/20/25/30	1,5	3.3V	18V	150C	CL	660mA													✓	✓		9kV	50%	FF					10	3x3mm²	0.9mm
1-coil	MLX90411KZE-BAA-026-RE	prod	10	1,5	3.2V	20V	150C	CL	660mA											18V	✓		✓		6kV	50%	Adapt. -1/16				6			
1-coil	MLX90411KZE-BAA-028-RE	prod	10	1,5	3.2V	20V	150C	CL	800mA											18V	✓		✓		6kV	50%	Adapt. -1/16				6			
1-coil	MLX90411KLD-BAA-029-RE	prod	10	1,5	3.2V	20V	150C	CL	960mA											18V	✓		✓		6kV	50%	Adapt. -1/16					6	2.5x2mm²	0.4mm
1-coil	MLX90411KZE-BAA-046-RE	prod	10	1,5	3.2V	40V	150C	CL	660mA											35V	✓		✓		6kV	50%	Adapt. -1/16				6			
1-coil	MLX90411KLD-BAA-049-RE	prod	10	1,5	3.2V	40V	150C	CL	960mA											35V	✓		✓		6kV	50%	Adapt. -1/16					6	2.5x2mm²	0.4mm
1-coil	MLX90411LLD-BAA-023-RE	prod / PPAP	10	1,5	3.2V	20V	150C	CL	330mA											18V	✓		✓		6kV	100%	Adapt.-2/16					6	2.5x2mm²	0.4mm
1-coil	MLX90411LLD-BAA-029-RE	prod / PPAP	10	1,5	3.2V	20V	150C	CL	960mA											18V	✓		✓		6kV	12.5%	Adapt. -1/16					6	2.5x2mm²	0.4mm
1-coil	MLX90411LZE-BAA-043-RE	prod / PPAP	10	1,5	3.2V	40V	125C	CL	330mA											22V	✓		✓		6kV	100%	Adapt.-Flat				6			
1-coil	MLX90411LLD-BAA-043-RE	prod / PPAP	10	1,5	3.2V	40V	150C	CL	330mA											22V	✓		✓		6kV	100%	Adapt.-Flat					6	2.5x2mm²	0.4mm
1-coil	MLX90411LLD-BAA-046-RE	prod / PPAP	10	1,5	3.2V	40V	150C	CL	660mA											22V	✓		✓		6kV	100%	Adapt.-Flat					6	2.5x2mm²	0.4mm
1-coil	MLX90411LLD-BAA-048-RE	prod / PPAP	10	1,5	3.2V	40V	150C	CL	800mA											22V	✓		✓		6kV	50%	Adapt. -1/16					6	2.5x2mm²	0.4mm
1-coil	MLX90412KLW-BAA-022-RE	prod	10	0,35	3.5V	20V	150C	CL	2200mA											18V	✓		✓		9kV	12,5%	Adapt. -1/16					10	3x3mm²	0.9mm
1-coil	MLX90412KLW-BAA-042-RE	prod	10	0,35	3.5V	40V	150C	CL	2200mA											35V	✓		✓		9kV	50,0%	Adapt.-Flat					10	3x3mm²	0.9mm
1-coil	MLX90412LLW-BAA-042-RE	prod / PPAP	10	0,35	3.5V	40V	150C	CL	2200mA											22V	✓		✓		9kV	50,0%	Adapt.-Flat					10	3x3mm²	0.9mm
1-coil	MLX90418KLD-AAA-002-RE	prod	Programmable	0.135	6.7V	18V	150C	Prog.	4000mA												✓		✓		4kV	Prog.	Programmable					10	3.5x3mm²	0.85mm
1-coil	MLX90418KLD-AAA-004-RE	prod	Programmable	0.135	6.7V	18V	150C	Prog.	4000mA												✓		✓		4kV	Prog.	Programmable					10	3.5x3mm²	0.85mm
1-coil	MLX90416KLD-AAA-002-RE	prod	Programmable	0.135	6.7V	27.6V	150C	Prog.	4000mA												✓		✓		4kV	Prog.	Programmable					10	3.5x3mm²	0.85mm
1-coil	MLX90416KLD-AAA-004-RE	prod	Programmable	0.135	6.7V	27.6V	150C	Prog.	4000mA												✓		✓		4kV	Prog.	Programmable					10	3.5x3mm²	0.85mm

SOIC-8 (ZC)

SOT23-6L (ZE)


DFN-10 (LW)

UTDFN-6 (LD)

Explanation

Rvprot: Reverse polarity protection, especially for 2-coil fan drivers based on No-VDD patent
Soft Switching: SS: Slope-Slope, FF: Flat Flat (low EMI), SFS: Slope-Flat-Slope (reduced reverse current)
Open loop tranfer curve: open loop duty cycle transfer curve starts from (Dcin ="Transfer curve", Dcout = 10%) to (Dcin=100%, Dcout=100%) input duty cycle required to set Dcout=10%, or to MINSP
VDD min: minimum guarantee operating voltage over temperature, supply voltage and process variation. Typically fandriver operation is 0.2V below minimum guaranteed voltage
Ipeak: CL indicates that the IC is protected from excessive peak currents by the Current Limit
MINSP: Minimum speed

SO8 (ZC) and SOT (ZE) package variants are straight leads options.
DFN (LD): non wettable flanks, (LW): wettable flanks
-RX: dead bug in T&R, -RE: live bug in T&R

**: not recommended for new designs*

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