

VI/11-02-19



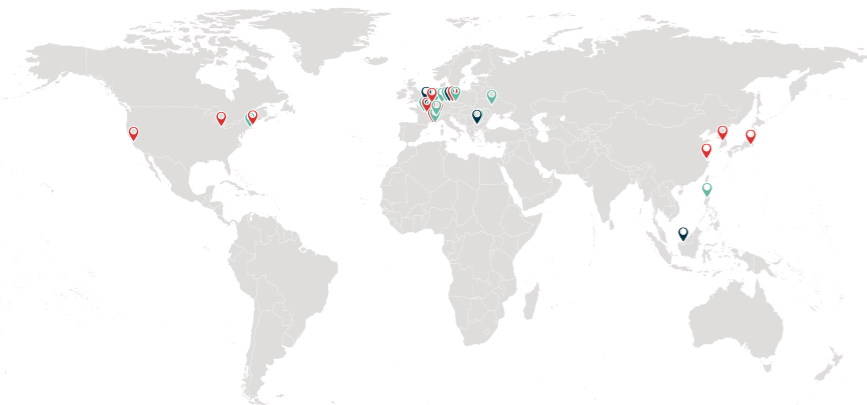
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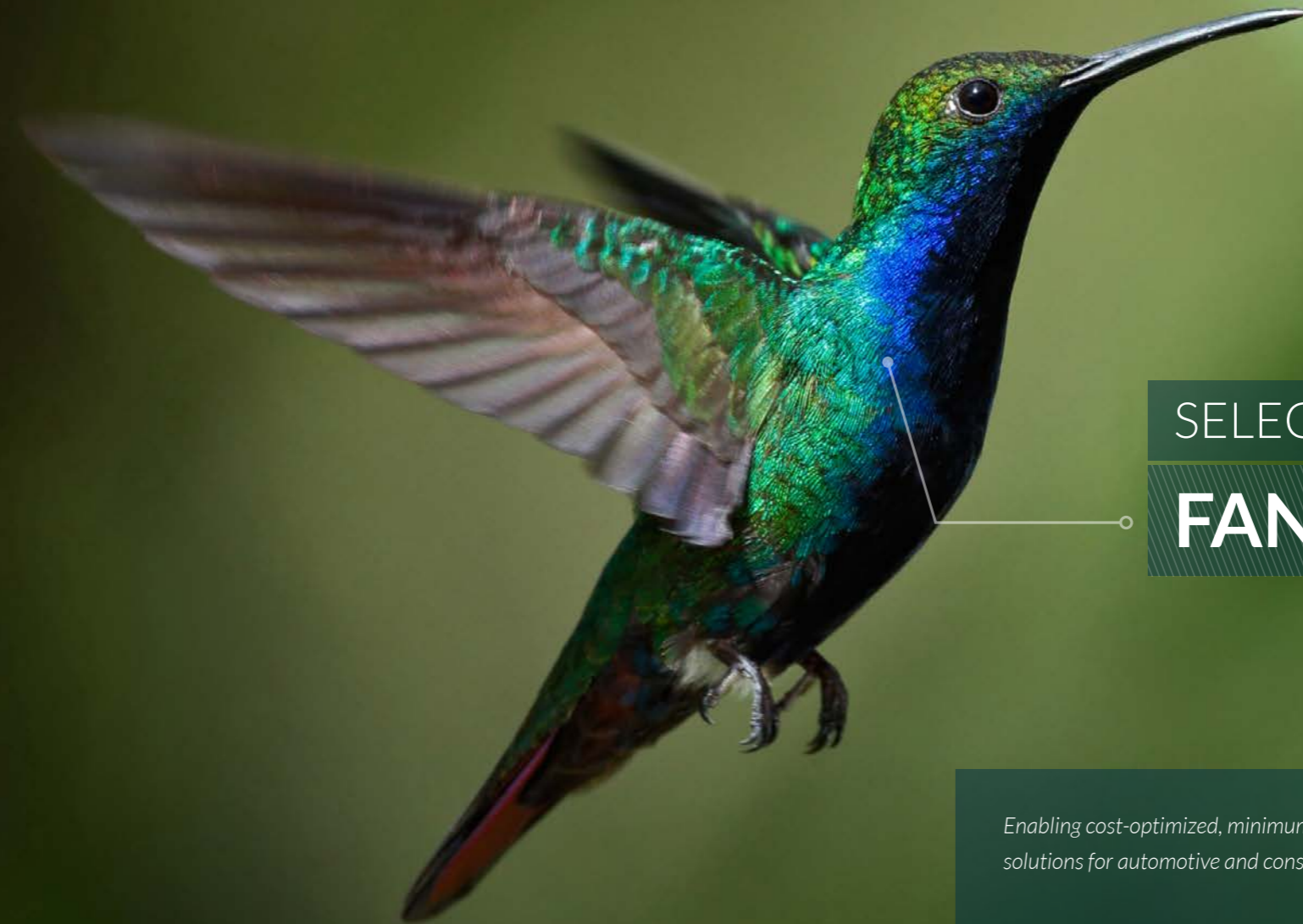
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## SELECTION GUIDE FANDRIVERS

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

The hummingbird's beating wings flap at extremely high frequencies, typically around 50 times per second. This allows it to fly at speeds exceeding 15 m/s, to fly backwards or to seemingly be suspended in the air in perfect balance. What better animal to reflect the motor/control driver and actuator capacities?

Fandivers																																					
Type	Part No.	Order code	Status	Speed control			VDD		Ipeak		Imotor						PPAP		Integrated protections		EOS/ESD	Noise/Efficiency			Package												
				Open loop	Closed loop	RDSon	min	max	Current limit		mA	350	450	500	600	700	FG	RD	LRP	RVProt	HBM	Start up	Soft-Switching		SIP			SO			Exposed pad DFN (LD/LW)						
				Transfer Curve	Max electr-rpm	Ohm (typ)	A	Soft Start	Type	Options												UA	VK	VA	SO8 (DC)	SO8 (ZC)	SOT-(ZE)	# pins	size	height							
2-coil	US79	EUA000000-BU	prod	-	-	2	2.5V	18V	500mA	-	250	350							4kV				✓														
2-coil	US62	EVK000000-BU	prod	-	-	2.5	3V	18V	700mA	-	250	350					✓		2kV					✓													
2-coil	US63	EVK000000-BU	prod	-	-	2.5	3V	18V	700mA	-	250	350					✓		2kV					✓													
2-coil	US890	EVK000000-BU	prod	-	-	1.0	2.5V	18V	1200mA	-	250	350					✓		4kV					✓													
2-coil	US891	EVK000000-BU	prod	-	-	1.0	2.5V	18V	1200mA	-	250	350					✓		4kV					✓													
2-coil	US90A	EVA000000-BU	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV						✓												
2-coil	US90A	EVK000000-BU	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV					✓													
2-coil	US90A	EDC000000-RE	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV							✓											
2-coil	US90A	EZE000000-RE	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV								✓										
2-coil	US91A	EVA000000-BU	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV						✓												
2-coil	US91A	EVK000000-BU	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV					✓													
2-coil	US91A	EDC000000-RE	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV							✓											
2-coil	US91A	EZE000000-RE	prod	-	-	2.5	4.5V	30V	500mA	-	250	350					✓		4kV								✓										
2-coil	MLX90285	LVK000000-BU	prod	-	-	2.0	5V	30V	700mA	-	250	350					✓		4kV		Linear SS			✓													
2-coil	MLX90285	LVK000000-BU	prod	-	-	2.0	5V	30V	700mA	-	250	350					✓		4kV		Linear SS			✓													
1-coil	US168	ELD000000-RE	prod	-	-	2.2	1.8V	6.5V	500mA	-	250	350					✓		1.5kV		Linear SS										6	1.5x2mm	0.4mm				
1-coil	US169	ELD000000-RE	prod	-	-	2.2	1.8V	6.5V	500mA	-	250	350					✓		1.5kV		Linear SS										6	1.5x2mm	0.4mm				
1-coil	MLX90287	KZC000000-RX	prod	10	-	2.3	4.5V	18V	1.2A	-	250	350					✓		6kV	30%	SS					✓											
1-coil	MLX90287	LZC000000-RE	prod*	10	-	2.3	4.5V	18V	1.2A	-	250	350					✓	✓	6kV	30%	SS					✓											
1-coil	MLX90287	LLD000000-RE	prod*	10	-	2.3	4.5V	18V	1.2A	-	250	350					✓	✓	6kV	30%	SS									10	3x3mm	1mm					
1-coil	MLX90297	KZC000108-RX	prod	10/20/25/30	-	1.5	3.0V	18V	CL	800mA	250	350					✓		9kV	50%	SFS					✓				8							
1-coil	MLX90297	KLW000109-RE	prod	10/20/25/30	-	1.5	3.0V	18V	CL	960mA	250	350					✓		9kV	50%	SFS									10	3x3mm	1mm					
1-coil	MLX90297	LLW000108-RE	prod*	10/20/25/30	-	1.5	3.3V	18V	CL	800mA	250	350					✓	✓	9kV	50%	SFS									10	3x3mm	1mm					
1-coil	MLX90297	LLW000206-RE	prod*	10/20/25/30	-	1.5	3.3V	18V	CL	660mA	250	350					✓	✓	9kV	50%	FF									10	3x3mm	1mm					
1-coil	MLX90297	KZC000108-RX	prod	10/20/25/30	-	1.5	3.0V	18V	CL	800mA	250	350					✓		9kV	50%	SFS					✓											
1-coil	MLX90297	KLW000109-RE	prod	10/20/25/30	-	1.5	3.0V	18V	CL	960mA	250	350					✓		9kV	50%	SFS									10	3x3mm	1mm					
1-coil	MLX90297	LLW000108-RE	prod*	10/20/25/30	-	1.5	3.3V	18V	CL	800mA	250	350					✓	✓	9kV	50%	SFS									10	3x3mm	1mm					
1-coil	MLX90297	LLW000206-RE	prod*	10/20/25/30	-	1.5	3.3V	18V	CL	660mA	250	350					✓	✓	9kV	50%	FF									10	3x3mm	1mm					

**Explanation**

Rvprot: Reverse Polarity Voltage protection for 2-coil fandivers 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  
 Closed loop Max e-rpm: In order to calculate mechanical rpm: divide e-rpm by #of pole pairs (typically 2)  
 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.  
 SO8 (ZC) and SOT (ZE) package variants are straight leads options.  
 SO8 (DC) and SOT (SE) package variants are bent leads options.  
 DFN xLD: non wettable flanks, xLW: wettable flanks.

\* Automotive qualified

