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Linear Motors

ILF+/ILM+









## ■■■ IL+ LINEAR MOTORS

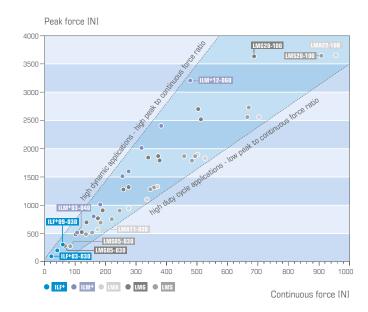
The ILF+ and ILM+ are new families of ironless motors that replace the ILF and ILM. They have been improved in many aspects to address applications where smooth and dynamic motion is required. They cover a wide range of forces with a continuous force up to 478 N and a peak force up to 3200 N.

The new ILF<sup>+</sup> and ILM<sup>+</sup> gliders are designed so that the motors work at a lower temperature for a same working point compared to the previous generation of the same product. This enables more precision to existing machine and/or allows to increase throughput and gain in productivity. Up to 20% temperature gain is achieved for an identical working point with new gliders.

ILF+ and ILM+ gliders are unique on the market with a 600 VDC bus voltage compliance and an operating temperature range pushed to  $130^{\circ}$ C.

All ILF+ and ILM+ gliders can now be fitted with an optional forced air cooling kit. The design of this optional device was improved from previous generations to increase its efficiency and ease its integration in machine designs. This cooling kit brings significant continuous force advantage allowing the increase of the machine performance without changing the motor glider size. For instance, the measured continuous force of the ILF+03-030 fitted with a cooling kit is two times higher than the free air cooled version from past generations.

With the corresponding IWF+/IWM+ segmented magnetic ways, ETEL also brings an optimized magnetic way design in its portfolio. Thanks to this, the effect of the thermal stress is reduced by 20%, which reduces the impact on machine precision when the motor is operated at high throughput. This also allows the machine designer to lighten its magnetic support parts as the effort applied to these elements from the magnetic way will be reduced.



## IL+ PERFORMANCE IMPROVEMENT

The following is an example of the ILM+03-040.

