

New Compact Passive Harmonic Filter from Schaffner Delivers Increased Benefits at Optimal Value

October 11th, 2023

Schaffner has extended its range of compact passive harmonic filters which increase energy efficiency and deliver the best cost performance ratio.

The EMC solutions provider, Schaffner, delivers more power to its customers through the development of the new plug-and-play Ecosine Flex. The [FN3446](#) 400 V–480 V AC for 50 Hz networks and [FN3458](#) 400–480 V AC for 60 Hz networks have been designed to fulfil customer requirements by delivering increased benefits at a reduced cost. In comparison to its predecessor the FN3416 and FN3418, the new [FN3446](#) and [FN3458](#) models offer customers enhanced functionalities – including the option of a trap disconnect jumper (TDJ) and an IP00 version (in addition to the standard IP20 design) – to deliver an improved cost-performance ratio.

Unburden the Infrastructure

Schaffner Ecosine passive harmonic filters help to support better use of electric system capacity by unburdening the electrical infrastructure from excess loading and heat caused by harmonic current. At the same time, customers benefit from a significantly improved power factor by applying these filters. Schaffner has long recognized the need for filters in diode rectifiers, with and without a DC-link choke, and thyristor rectifiers. With this new filter, THDi is reduced to 10% with a 4% DC-link choke present in the drive; without a choke present, or one with a DC-link choke <4%, the performance is reduced to <15% THDi.

Delivering a power range from 4 kW to 200 kW, the Ecosine Flex bridges a gap between the company's existing Ecosine Economy Line (power range 4 kW to 160 kW) and its Ecosine Max which delivers between 250 kW and 500 kW. Offering superior useability at lower costs than previously available, the new filter represents a state-of-the-art optimal harmonic mitigation solution for non-linear 3-phase 6 pulse front-end converter where the industry-leading <5% THDi performance provided by the Ecosine Evo series is not required.

Power Quality and Safety

Whether used in such applications as heating, ventilation, and air conditioning (HVAC), water/wastewater treatment, fan and pump installations, factory automation or mission-critical processes, the new Ecosine Flex [FN3446](#) and [FN3458](#) has been meticulously designed to surpass stringent safety standards, including the UL Mark, specifically addressing the reduction of harmonics generated by variable frequency drives. Performance of the Ecosine Flex filters help to meet compliance standards with EN 61000-3-12 or with IEEE-519 for I_{sc}/I_L <50 and many other power quality standards.

Xiaoya Tan, product manager at Schaffner, explains: “As a global leader in power quality with a reputation for excellent pre- and after-sales service, we are delighted to offer users an expanded product portfolio with the addition of the Ecosine Flex [FN3446](#) and [FN3458](#). Our OEM customers have always chosen Schaffner as a reliable solutions provider offering high quality products that increase the efficiency of energy usage. We believe this new filter will prove extremely popular with a demanding market looking for compact passive harmonic filters that have proven performance, usability and quality and provide our customers with an unbeatable cost-performance ratio.”

For more information, visit the Schaffner website at [schaffner.com](https://www.schaffner.com)

Schaffner plays a vital role in building a sustainable future in the new era of electrification. Headquartered in Switzerland and with subsidiaries around the world, Schaffner is a global leader in electromagnetic solutions that ensure the efficient and reliable operation of electronic systems. The Schaffner Group are experts in EMC filter solutions, harmonic filters, electromagnetic components and electromagnetic solutions. Our passionate and knowledgeable employees empower our customers to develop reliable electronic devices and systems that meet compliance standards and deliver increased energy efficiency.

This is how we deliver...

MORE POWER TO YOU.

Media Contact

Napier Partnership Limited

Callie Bingley

Callie@napierb2b.com

www.napierb2b.com