

## AEGIS<sup>®</sup> HF Ground Straps Ensure Effective Grounding of High-Frequency Currents

# The Need for Proper Earth Grounding of VFD-Driven Motor Systems

Proper high-frequency (HF) grounding of VFD-driven motor systems is vital to prevent earth-level discontinuities between system components. It is especially critical in applications involving a motor and coupled equipment that are not mounted to a common baseplate. In such cases, effective HF grounding of all system components is necessary to equalize the potential between equipment frames and to prevent ground loops between the motor and coupled equipment.

Widely recognized as the most efficient path to ground for highfrequency currents, grounding straps are recommended by major motor and drive manufacturers.

## AEGIS<sup>®</sup> HF Ground Straps... Specially Designed for High-Frequency Currents

Made of flat-braided, tinned copper, AEGIS® HF Ground Straps are specially engineered for the lowest possible impedance to the damaging high-frequency currents generated by variable frequency drives (VFDs or inverters). With a circular hole on one end for easy installation around the foot mounting screw of NEMA- or IEC-frame motors, they are equipped with a ring terminal on the opposite end. Custom lengths are available upon request.

# Complete the Path from Motor Shaft to Earth Ground

VFDs can save 30% or more in energy costs, but they can also damage motors. VFDs induce high-frequency voltages on the shafts of the motors they control — voltages that can discharge through motor bearings, destroying them in as little as 3 months and damaging coupled equipment.

AEGIS<sup>®</sup> Shaft Grounding Rings provide effective long-term protection of bearings against damaging VFD-induced currents. By channeling these currents away from bearings and safely to ground through the motor frame, they mitigate frosting and fluting damage, premature bearing failure, and costly motor system downtime.

When used with AEGIS<sup>®</sup> Shaft Grounding Rings, AEGIS<sup>®</sup> HF Ground Straps provide a continuous low-resistance path for damaging high-frequency currents – from motor shaft to earth ground.









# **AEGIS<sup>®</sup> HF Ground Straps**

12" Strap Cat No.	24" Strap Cat No.	Terminations	Frame Sizes	
HFGS-T0410-R0312-12	HFGS-T0410-R0312-24	Term 1: Punched hole 0.41" (10mm)	NEMA: 48, 48H, 56, 56H, 143T, 145T, 182T, 184T, 213T, 215T IEC: 80M, 90S, 90L	
		for 5/16" or 8 mm screws*		
HFGS-T0660-R0312-12	HFGS-T0660-R0312-24	Term 1: Punched hole 0.66" (17mm)	NEMA: 254T, 256T, 284T, 284TS, 286T, 286TS, 324T, 324TS, 326T, 326TS, 364T, 364TS, 365T, 365TS	
		Term 2: Ring terminal for 5/16" or 8 mm screws*	IEC: 100S, 100L, 112S, 112M, 132S, 132M, 160S, 160M, 160L, 180S, 180M, 180L	
HFGS-T0940-R0312-12	HFGS-T0940-R0312-24	Term 1: Punched hole 0.94" (24mm)	NEMA: 404T, 404TS, 405T, 405TS, 444T, 444TS, 445T, 445TS, 447T, 447TS, 449T, 449TS	
		Term 2: Ring terminal for 5/16"or 8 mm screws*	IEC: 200S, 200M, 200L, 225S, 225M, 250S, 250M, 280S, 280M	
HFGS-R0312-R0312-12	HFGS-R0312-R0312-24	Term 1 & 2: Ring terminal for 5/16"or 8mm screws*	NEMA/IEC: universal terminations	

\*Screws included

Custom lengths and terminations available on request. Complete, copy, and fax form below: **207-998-5143** 

# **Custom Order Information** (For options, visit www.est-aegis.com/HFGS)

Length (in 6" increments):				
Termination 1	Tinned hole size	Ring terminal	Bolt size:	
Termination 2	Tinned hole size	Ring terminal	Bolt size:	

For more information, contact:



31 Winterbrook Road Mechanic Falls, ME 04256 (866) 738-1857

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