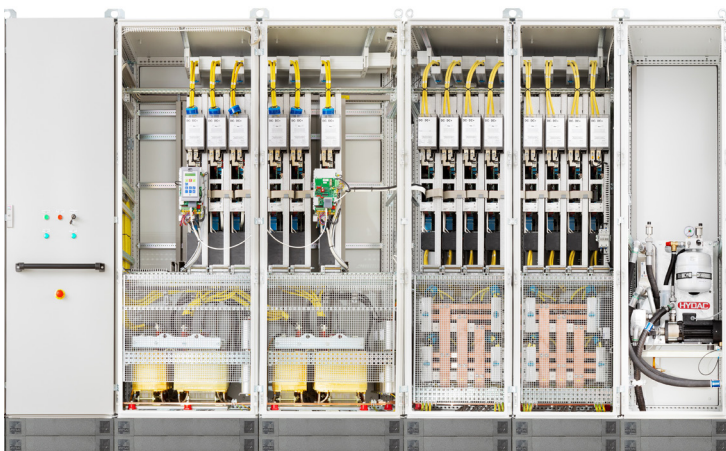


Compact liquid cooled AFE for optimal power density

The high performing AFE just got even smarter. The new compact slim pebb design in combination with a new water cooling system provides up to 100% higher power density compared to our previous AFE-drives.



Minimizing size and reducing total cost

Exceptional Emotron AFE performance is now available in a greatly reduced size, delivering e.g. 2MW@690V in a cabinet only 3.6 m wide.

The size reduction is possible thanks to the new state of the art cooling system and the flexible modular PEBBs (power electronic building blocks) that are now even more compact. There are no additional bulky mechanical components as the PEBB is mounted without frames directly into the cabinet, making the construction both space and cost efficient. The simple PEBB construction allows full flexibility and provides easy access for service technicians.

Hassle-free cooling

The new cooling system is easy to feed with industrial water from your own water cooling system or through an optional water/water heat exchanger section delivered as part of your complete drive solution cabinet. The Emotron AFE have very low requirements on your water pressure, flow and temperature – the cooling water is allowed to have a maximum temperature of 35°C. With the optional water heat exchanger and pump system the water cooling is fed directly from an adjacent part of the cabinet to the bottom of the AC drive for maximum electrical protection.

With liquid cooling there is no need for expensive and maintenance demanding air-conditioning units in the electrical room. The water cooling system is cooling both the drive modules and the LCL-filters, eliminating the need for e-room air-conditioner. CG Emotron will help you find the best solution for cutting your heat losses and can assist you in your energy saving project by finding the best cooling solutions for your complete AFE depending on power range, use and surrounding environment.

AT A GLANCE:

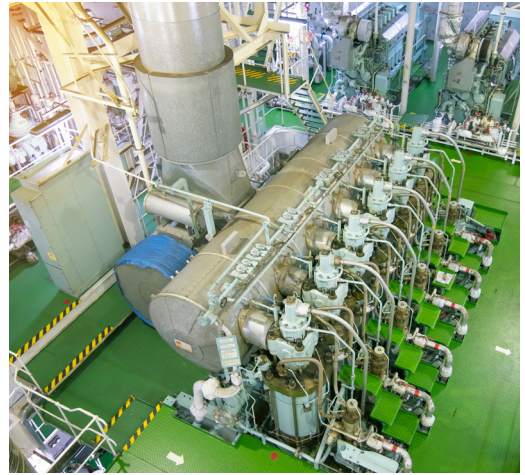
- FLEXIBLE SLIM-PEBB DESIGN
- LIQUID COOLING
- UL AND DNV-GL PENDING
- LOW HARMONIC AND REGENERATIVE DRIVES
- 132-3000KW
- 380-690V
- COMPLETE SOLUTIONS IN IP54 CABINETS

Maximizing efficiency

Both the drive modules and the built-in LCL-filters guarantee low energy losses even at high powers. Emotron compact liquid cooled Low harmonic and Regenerative AFE Drives have a THDI < 5% and an overall efficiency rating of 97%, which is higher than many other similar technologies on the market.

Typical applications

The new water cooled slim pebb solutions is excellent for applications requiring high powers and have limited space available. It allows you to take care of the heat losses in an efficient way and does not require additional air conditioning of the drives room. It is therefore the ideal solution for many marine applications such as thrusters, propulsion, winches and pumps but can also be very useful for e.g. pumps and fans in power utility plants or other high power applications such as cranes.



Slim Pebb LC AFE drives. Typical motor power at 400V.

VFXR/FDUL model	Normal duty 120% 1min/10min		Heavy duty		Width (mm) IP54 Cabinet Without/With heat exchanger section (water/water)*
	Rated current (A)	Power @400V (kW)	Rated current (A)	Power @400V (kW)	
46-250-CL	250	132	200	110	600/1000
46-295-CL	295	160	236	132	600/1000
46-365-CL	365	200	292	160	800/1200
46-590-CL	590	315	472	250	1400/1800
46-730-CL	730	400	584	315	1600/2000
46-810-CL	810	450	648	355	1800/2200
46-1010-CL	1010	560	808	450	1800/2200
46-1100-CL	1100	630	880	500	2000/2400
46-1250-CL	1250	710	1000	560	2000/2400
46-1460-CL	1460	800	1168	630	3000/3600
46-1710-CL	1710	900	1368	710	3200/3800
46-2200-CL	2200	1250	1760	1000	3600/4200
46-2500-CL	2500	1350	2000	1120	3600/4200

Slim Pebb LC AFE drives. Typical motor power at 690V.

VFXR/FDUL model	Normal duty 120% 1min/10min		Heavy duty		Width (mm) IP54 Cabinet Without/With heat exchanger section (water/water)*
	Rated current (A)	Power @690V (kW)	Rated current (A)	Power @400V (kW)	
69-200-CL	200	200	160	160	600/1000
69-250-CL	250	250	200	200	800/1200
69-500-CL	500	500	400	400	1200/1600
69-750-CL	750	710	600	600	1800/2200
69-1000-CL	1000	1000	800	800	1800/2200
69-1250-CL	1250	1250	1000	1000	3000/3400
69-1500-CL	1500	1500	1200	1200	3400/4000
69-2000-CL	2000	2000	1600	1600	3600/4200
69-3000-CL	3000	3000	2400	2400	5200/6000
69-4000-CL	4000	4000	3200	3200	7200/8800

Cabinets complete with incoming breaker/contactors, LCL-filter, EMC-filter & inverters

*Cabinet H=2200mm/D=600mm

Slim Pebb LC AFR regenerative DC-bus supply unit. Output DC power at 400V.

AFR model	Normal duty 120% 1min/10min		Heavy duty 150% 1min/10min		Width (mm) IP54 Cabinet
	Rated input current (A)	Output DC power @400VAC (kW)	Rated input current (A)	Output DC power @400VAC (kW)	Without/With heat exchanger section (water/water)*
46-250-CL	250	170	200	136	600/1000
46-365-CL	365	248	292	198	600/1000
46-500-CL	500	340	400	272	1000/1400
46-700-CL	700	475	560	380	1200/1600
46-885-CL	885	600	708	480	1200/1600
46-1050-CL	1050	713	840	570	1400/1800
46-1400-CL	1400	950	1120	760	2400/2800
46-1770-CL	1770	1200	1416	960	2400/3000
46-2100-CL	2100	1425	1680	1140	2400/3000

Slim Pebb LC AFR regenerative DC-bus supply unit. Output DC power at 690V.

AFR model	Normal duty 120% 1min/10min		Heavy duty 150% 1min/10min		Width (mm) IP54 Cabinet
	Rated input current (A)	Output DC power @400VAC (kW)	Rated input current (A)	Output DC power @400VAC (kW)	Without/With heat exchanger section (water/water)*
69-175-CL	175	205	140	164	600/1000
69-233-CL	233	275	186	220	800/1200
69-466-CL	466	545	373	436	1000/1400
69-700-CL	700	820	560	656	1200/1600
69-900-CL	900	1050	720	840	1200/1600
69-1400-CL	1400	1640	1120	1312	2200/2600
69-1800-CL	1800	2100	1440	1680	2400/2800
69-2100-CL	2100	2460	1680	1968	3400/4000
69-2700-CL	2700	3150	2160	2520	3400/4000
69-3600-CL	3600	4200	2880	3360	4800/5600

Cabinets complete with incoming breaker/contactors, LCL-filter, EMC-filter & inverters

*Cabinet H=2200mm/D=600mm

We put all our energy
into saving yours