

Electric Drive Systems

EDS 160 | EDS 220



GENERAL FUNCTION

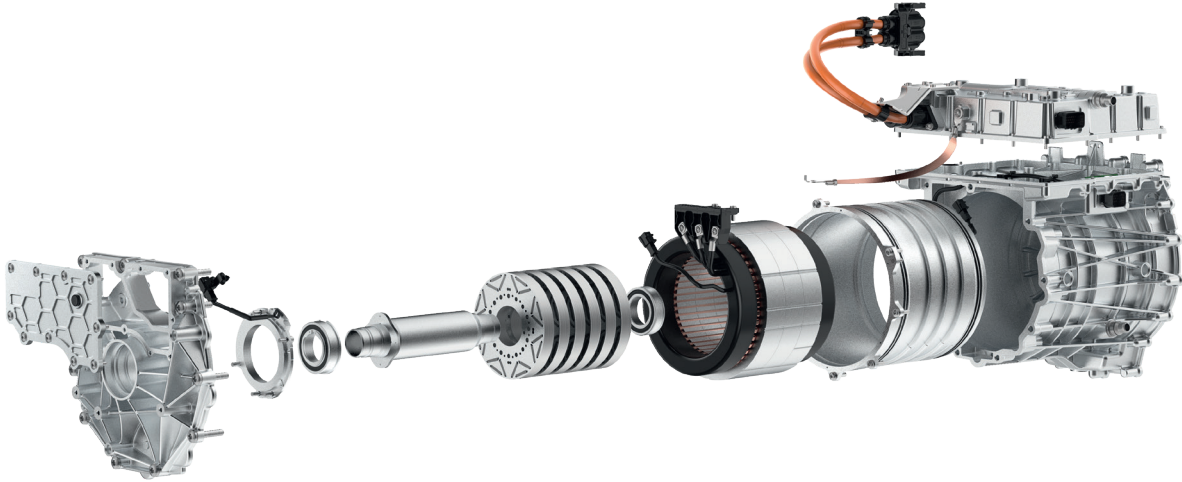
The EDS is characterized by its very compact design. The electric motor and the power electronics can be configured in modular form. Thanks to its compact design, the motor can be easily integrated into various vehicle platforms.



SPECIFICATIONS

PERFORMANCE

		EDS 160		EDS 220			
		EM160-120	EM160-180	EM220-92	EM220-110	[-]	
ELECTRIC MOTOR	MOTOR VARIANTE					[-]	
	MOTOR TYPE	PMSM		PMSM		[-]	
	STATOR DIAMETER	\varnothing_{Stat}	160		220		[mm]
	ACTIVE LENGTH	L_{active}	120	180	92	110	[mm]
	DC VOLTAGE	U_{dc}	250-450		250-450		[V]
	MAX. CURRENT (30S)	I	500		500		[A _{rms}]
	MAX. SPEED	n_{max}	18.000		15.000		[1/min]
	NOMINAL SPEED	n_0	4610		4000		[1/min]
	MAX. TORQUE (30S)	M_{max}	145	250	220	350	[Nm]
	CONT. TORQUE	M_{cont}	80	120	97	160	[Nm]
	MAX. POWER (30S)	P_{max}	70	125	90	150	[kW]
	CONT. POWER	P_{cont}	40	60	40	60	[kW]
SYSTEM	COOLING CONCEPT	Waterjacket, rotor on demand				[-]	
	COOLANT FLOW RATE	8				[l/min]	
	COOLING RANGE	T_{cool}	-40 ... 85 -40 ... 65 @8l/min without derating			[°C]	
	AMBITION TEMPERATURE	T_{amb}	-40 ...105			[°C]	
POWER ELECTRONICS	POWER ELECTRONIC	PE250				[-]	
	VOLTAGE CLASS	LV123 HV_2b				[-]	
	PEAK PERFORMANCE	I_{max}	500 @60 to 450V			[A _{rms}]	
	CONT. PERFORMANCE	I_{cont}	250 @60 to 450V			[A _{rms}]	
	PWM FREQUENCY	f_{pwm}	6 to 10			[kHz]	



PARAMETERS

- Up to 150 kW peak power
- Up to 350 Nm peak axle torque
- Up to 18.000 rpm



BENEFITS

- High system performance and efficiency
- High integration level in customer systems
- Experience with system integration at hofer powertrain for many years
- Long durability
- Software inhouse
- Testing capacity



ELRINGKLINGER – YOUR PARTNER FOR ELECTRIC DRIVE SYSTEMS

Product Development (Design, Engineering and Simulation) – Process Development –
Tool Shop – Prototyping – Testing – Series Production – System Competence



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