

# Electric Drive Systems

## EDS 160 | EDS 220



### GENERAL FUNCTION

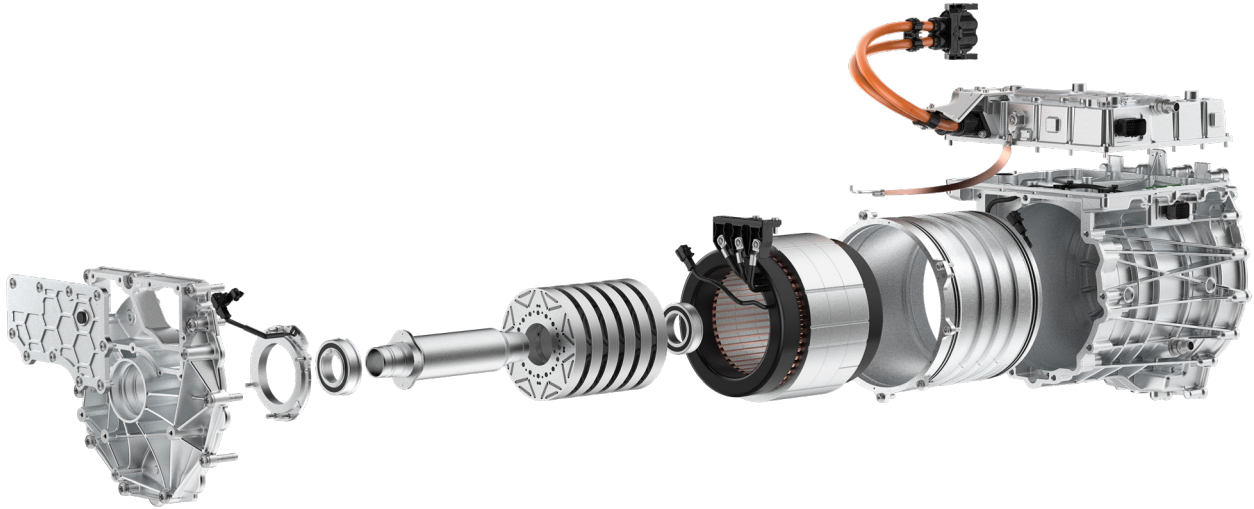
The EDS is characterized by its very compact design. The electric motor and the power electronics can be configured in modular form. Thanks to its compact design, the motor can be easily integrated into various vehicle platforms.



### 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 <sub>rms</sub> ]
	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]	
	AMBIENT 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 <sub>rms</sub> ]	
	CONT. PERFORMANCE	$I_{cont}$	250 @60 to 450V			[A <sub>rms</sub> ]	
	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



## YOUR CONTACT

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