

# powerMELA.c80

powerMELA Drives / Generators

## KEY FEATURES

- Hybrid synchronous motor technology for optimal use of active materials
- Specially developed for mobile machines
- The reference values for torque, voltage and speed are adjustable via CAN-bus
- With integrated motor controller

## TECHNICAL DATA

- 80 kW nominal power
- 650 V nominal voltage
- 250 Nm nominal torque
- Protection class IP6K9K

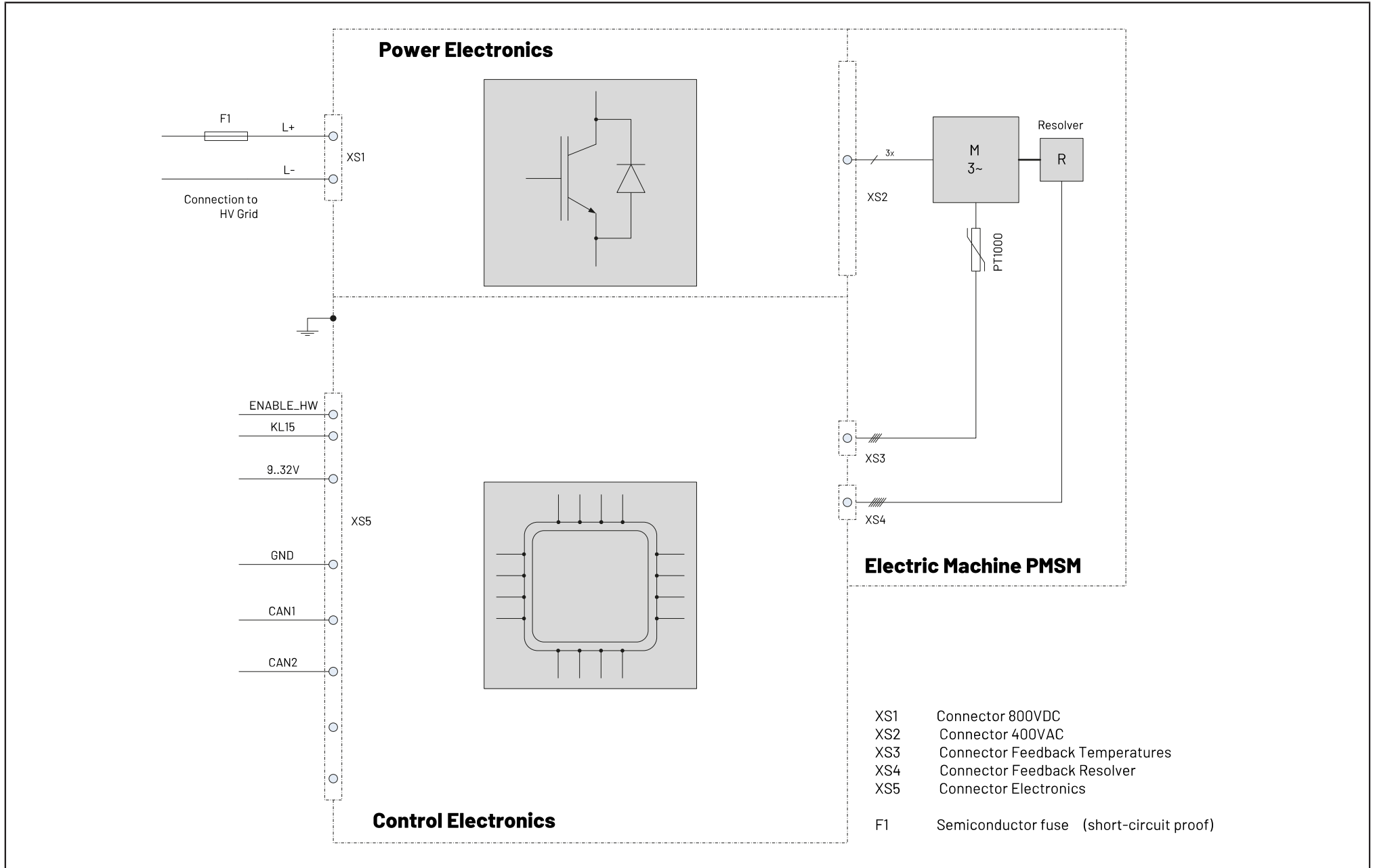
## ACCESSORIES

- Communication cable
- HV connector

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# BLOCK DIAGRAM



## TECHNICAL DATA

### System Data

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Size (rotor height/power)	132 mm / 80 kW
Phases	1 x 3
Earthing system	IT, stand-alone operation only, not connected to the grid
Protection class	IP6k9k in mounted condition IP65 for unmounted drive shaft / flange IP67 for communication cable
Construction	Flange

### HV Requirements

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Isolation monitoring is required.

DC link discharge time is maximum 60 seconds.

Electrical installation acc. to international standards

### Operation Data

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Nominal power (motor shaft)	80 kW	@ 3000 rpm S1 mode
Maximum power	88 kW	For max. 15 seconds
Nominal voltage DC	650 V	Other voltages on request
Operating voltage range DC	525 ... 750 V	
Temporary overvoltage DC	< 800 V	For max. 5 seconds, according to DIN EN 60664
Nominal current DC	134 A	While engine is operating as a motor
Nominal torque	250 Nm	
Maximum torque	338 Nm	For max. 15 seconds
Nominal speed	3000 min <sup>-1</sup>	
Maximum speed	6000 min <sup>-1</sup>	
Voltage supply DC	9 ... 32 V	

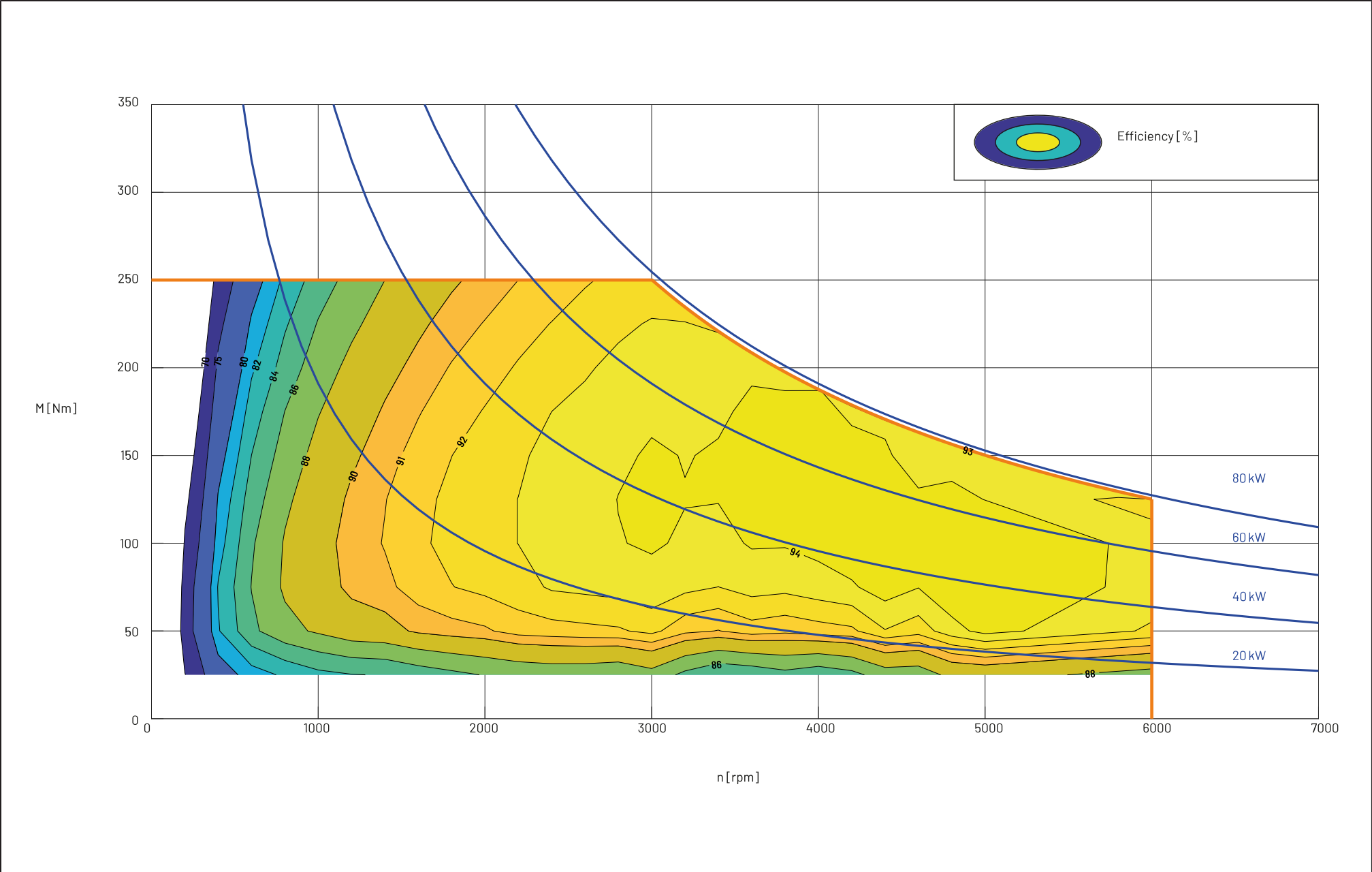
## TECHNICAL DATA

### Mechanical Data

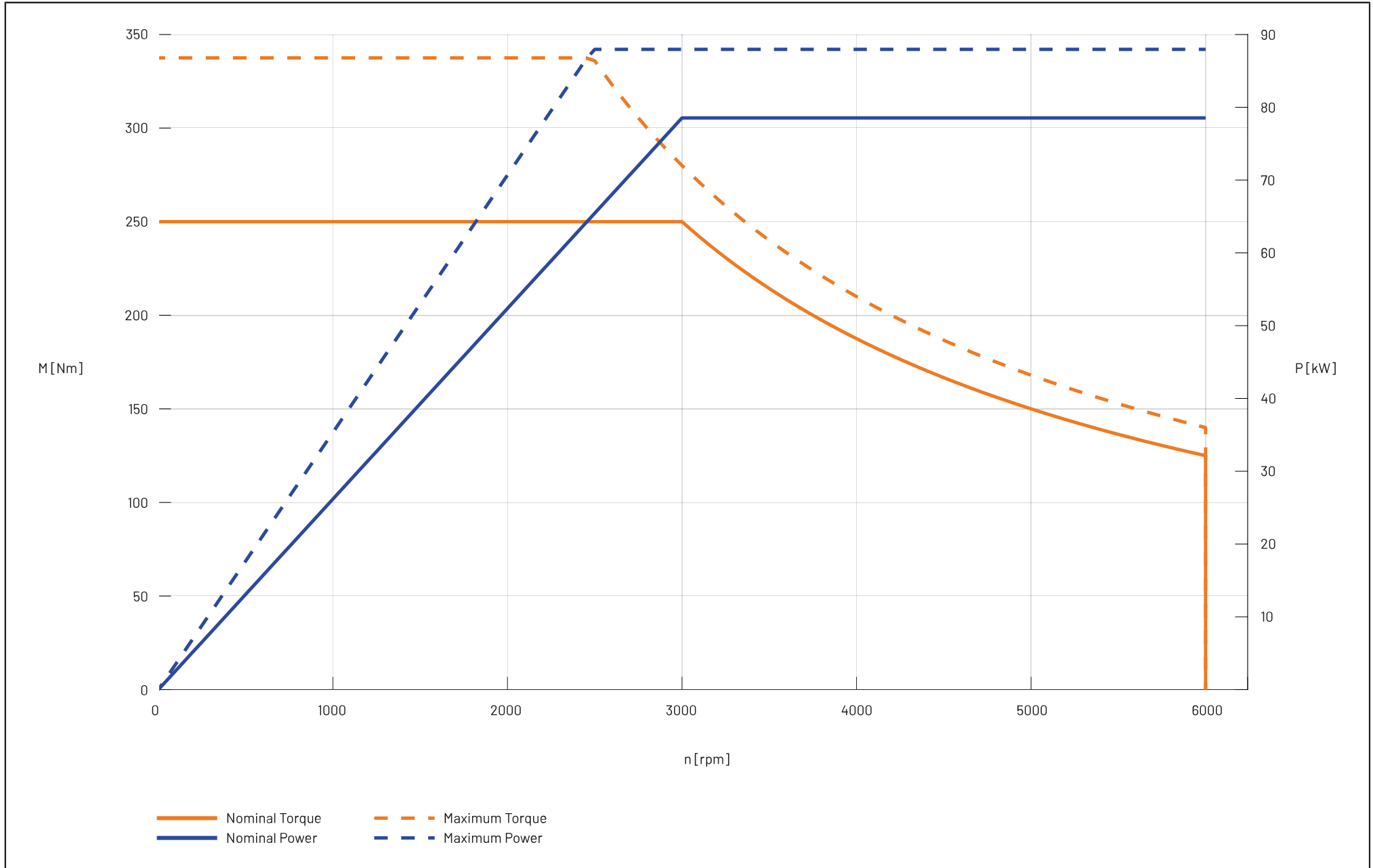
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Length without shaft	379 mm	
Length with shaft	450 mm	Other dimensions on request
Shaft diameter	35 mm	DIN5480-W35 x 2 x 30 x 16 x 9 g other dimensions on request
Weight	90 kg	
Rotor inertia	0,0493 kgm <sup>2</sup>	
Maximum cooling fluid temperature	60 °C / 140 °F	Transformer oil 50 l/min
Cooling connector	2 x M26 x 1,5	
Power connector	2 x 70 mm <sup>2</sup>	With 8 mm cable lug
Communication connector	2 x 19 pole CAN	I/O
Maximum impulse withstand voltage	4000 V	
Maximum altitude of use	5000 m a.s.l.	

# EFFICIENCY MAP



# TORQUE SPEED DIAGRAM



# TECHNICAL DRAWING

