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# Datasheet VM600M-18W0134-S

Art.-No: VM600M-18W0134-AC30048-0A10

## VM600M - Expert eMotors

Asynchronous electric motors and generators for mobile applications perfectly matched to the VP600 inverter product line.

### VM600M Features

- maximum lifetime and easy maintenance
- high efficiency especially at partial load
- No losses in idle operation
- No generated voltage in idle operation
- No unwanted braking torque in case of error

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Product overview	
Article no.	VM600M-18W0134-AC30048-0A10
Finishing	black; RAL9005
Description	"DirectDrive" VECTOPOWER motor for mobile applications, optimized to 1:1 speed of the cardan shaft; Optimized for DC voltage of 670V and 400V. Version as Slave-Motor with double-sided shaft.
Motor topology	Asynchronous

Size	
Weight	361 kg
Diameter shaft	65 mm
Length shaft	110 mm
Total length	985 mm
External diameter	400 mm

Technical data	
Continuous torque $M_n$	372 Nm   600 Nm
Nominal speed $n_N$	3760 rpm   1950 rpm
Nominal current UVW, per phase	215 A <sub>rms</sub>
Rated power <sup>3)</sup>	146 kW
Terminal voltage (AC)	460 V
Cos Phi	0.85
Peak current UVW, per phase	450 A <sub>rms</sub>
Max. overload for 1 min <sup>2)</sup>	1340 Nm
Max. overload for 3 min <sup>2)</sup>	1050 Nm
Max. overload for 10 min <sup>2)</sup>	750 Nm
Efficiency at continuous load (up to)	93 %
Efficiency at 50% load (up to)	94 %
Number of pole pairs	2
Electrical wiring	Delta connection
Heating	155°C, class of insulation H according to DIN60034-1
Rotary encoder	<ul style="list-style-type: none"> <li>• Resolver</li> </ul>
Shaft design	cylindrical without shaft key
Temperature sensors	PT100, NTC
Technical notes	<p>1) -</p> <p>2) Max. torque at: &lt; 2000 rpm, 670VDC, 15l/min coolant flow rate at 35°C and 25°C ambient</p> <p>3) Rated power valid for 30 min.</p>

## Cooling

Cooling	
Liquid cooling	yes
Cooling medium	Water/glycol (50:50)
Max. coolant temperature without derating	35 °C
Max. coolant temperature with derating	65 °C

Environment	
Max. ambient temperature in operation	75 °C
Min. ambient temperature in operation	-25 °C
Protection class according to EN 60529	IP65

## Pin settings

## Sign

Properties	
Plug type	A DF A 015
Plug design	17 pol, Typ"E"

pin-no.	operation	type	I/O
1	Resolver P+	male	
2	Resolver P-	male	
3	Resolver A+	male	
4	Resolver A-	male	
5	Resolver B+	male	
6	Resolver B-	male	
7	NC		
8	NC		
9	NC		
10	NC		
11	NC		
12	NC		
13	NC		
14	PT100	male	
15	PT100 GND	male	
16	PTC	male	
17	PTC GND	male	

Attachments

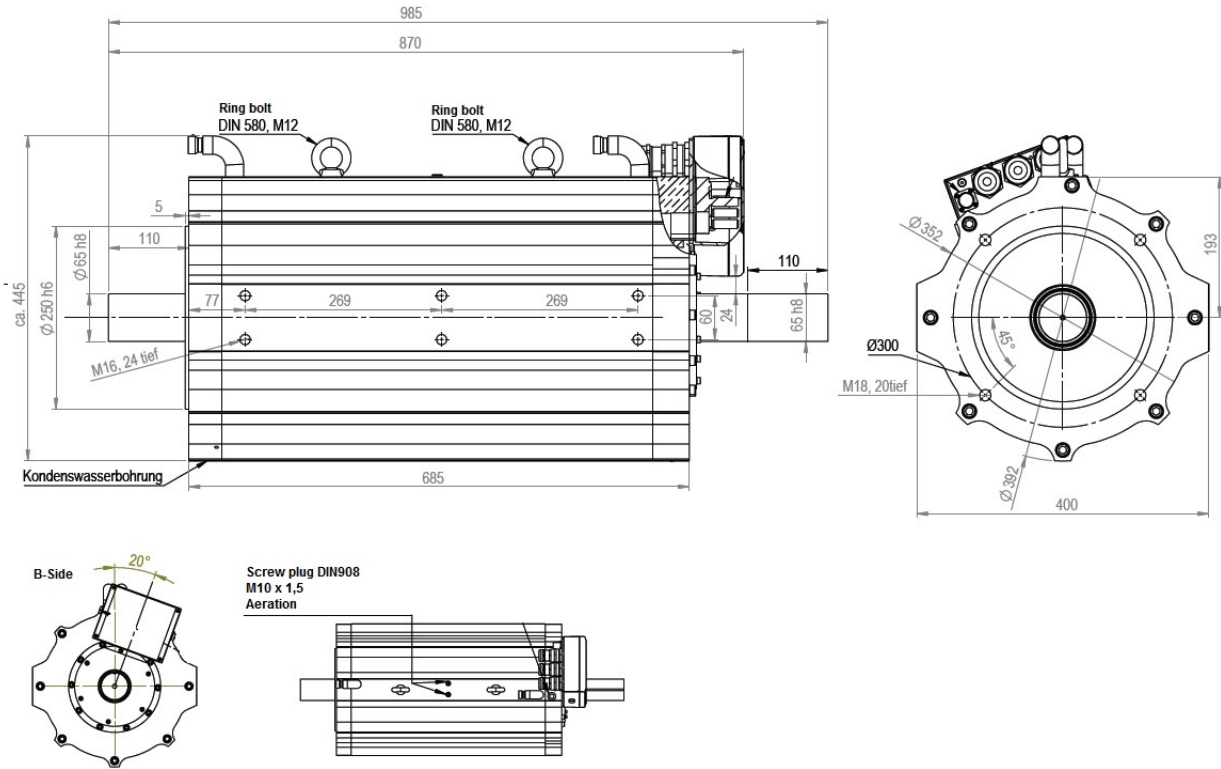


Illustration: Dimensions

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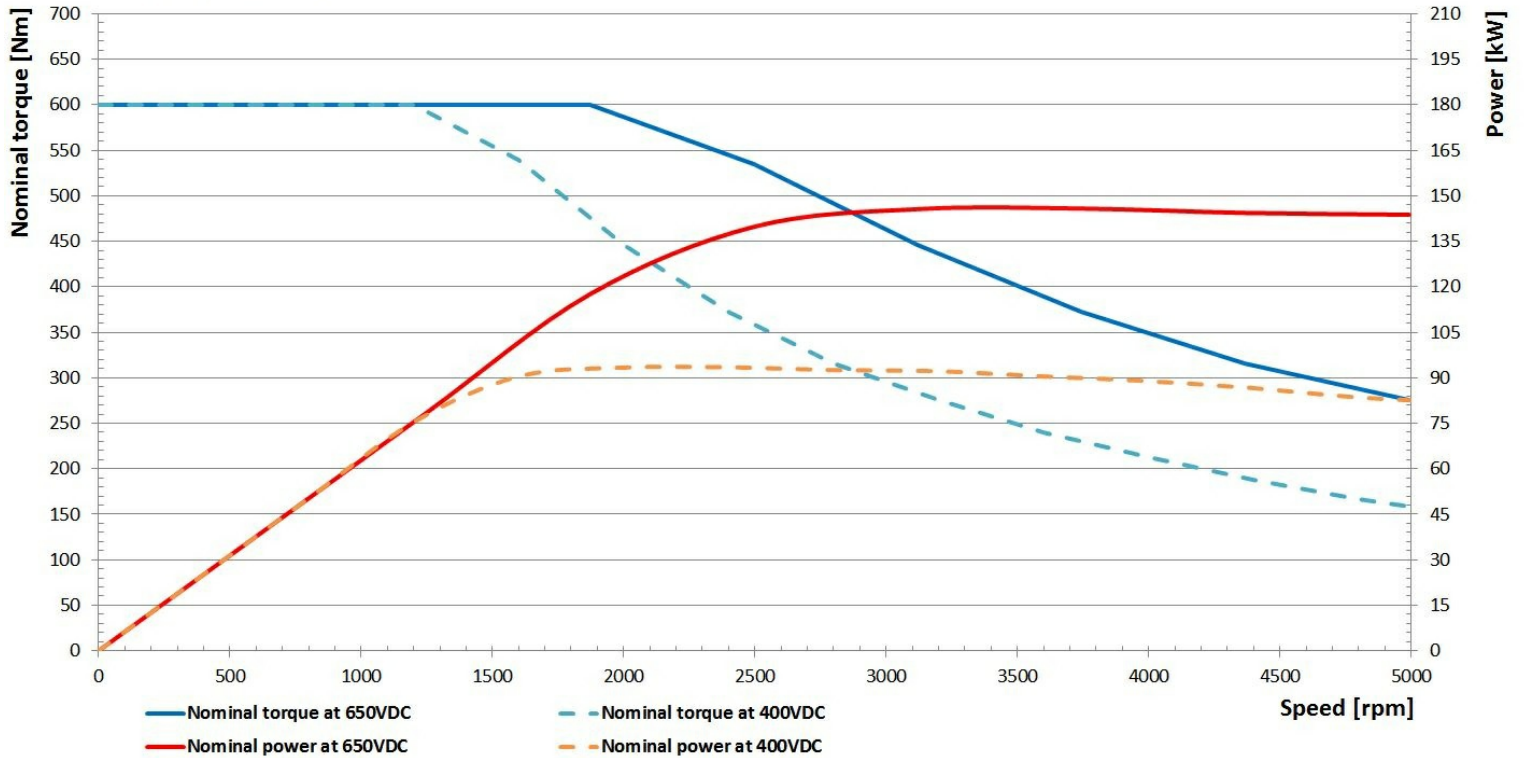


Illustration: S1 torque and power curve

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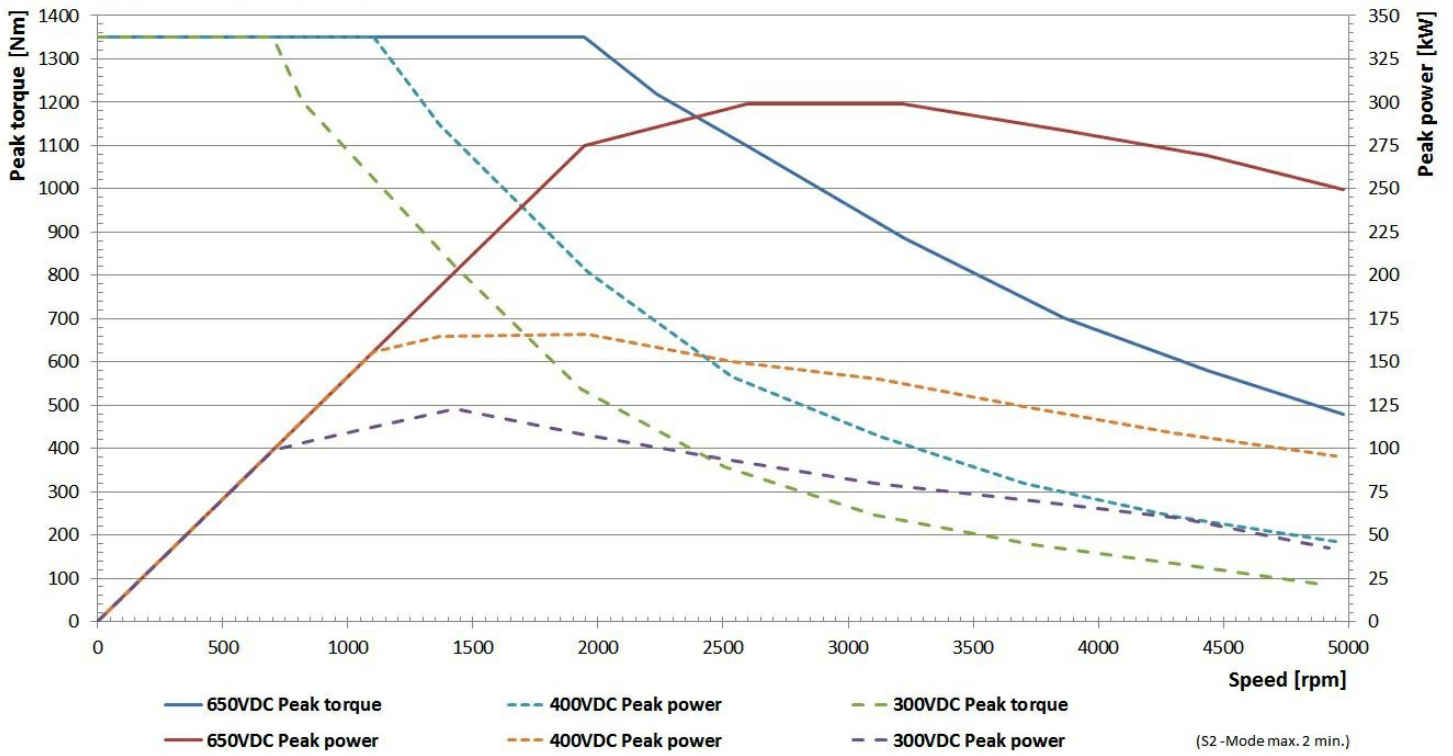


Illustration: S2 torque and power curve

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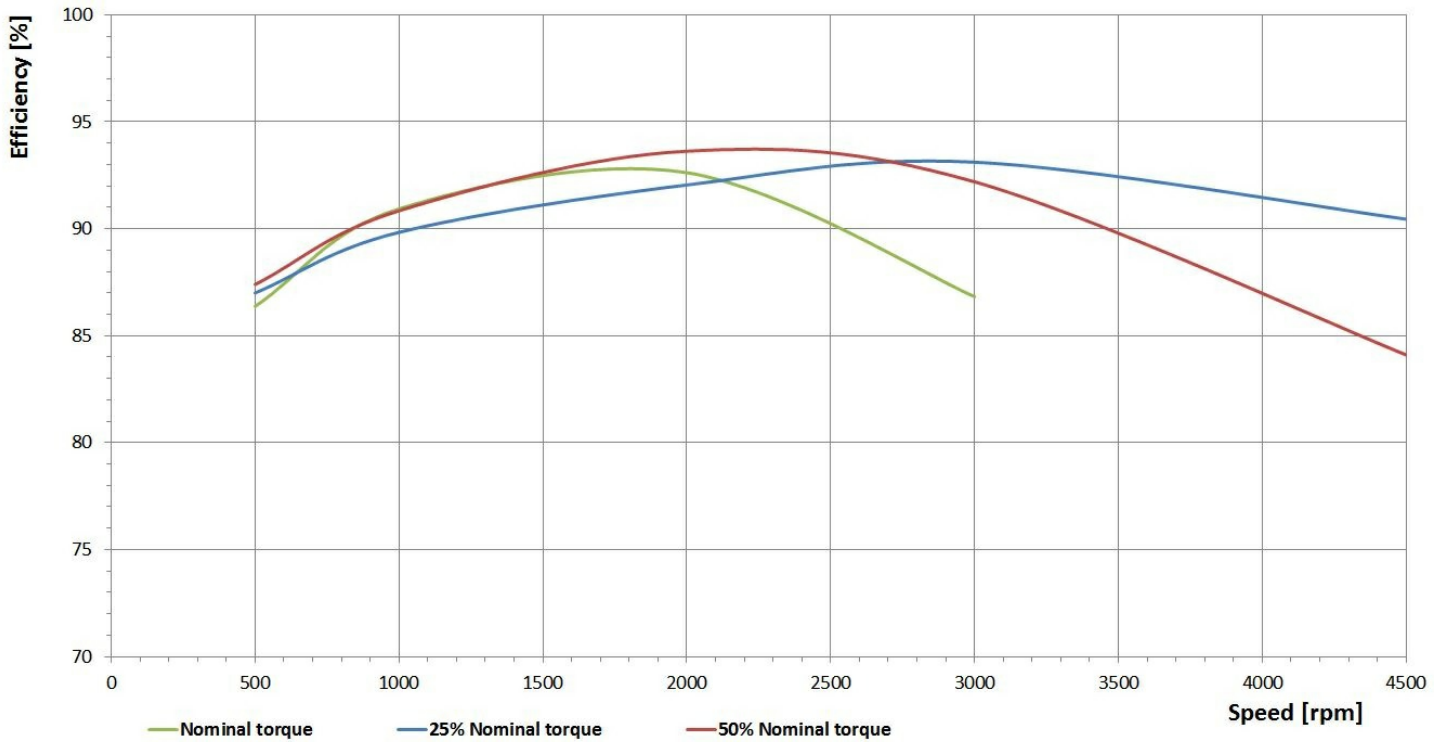


Illustration: Efficiency curves