



The illustration may contain optional equipment, Copyright: ARADEX AG

Datasheet VM600M-18Z0027

Art.-No: VM600M-18Z0027-PM10040-0210-A

VM600M - Expert eMotors

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

VM600M Features

- maximum lifetime
- high efficiency especially at partial load
- scalable performance and easy implementation of redundancy

ARADEX is your partner for exceptional solutions in electric drive technology.

For reference reports go to:
www.aradex.com/en/electric-mobility



Product overview	
Article no.	VM600M-18Z0027-PM10040-0210-A
Finishing	black
Description	AuxiliaryDrive VECTOMOTOR for mobile applications. Use for auxiliary and functional drives.
Motor topology	Permanent magnet synchronous
Size	
External dimensions	190
Weight	70 kg
Diameter shaft	32 mm
Length shaft	58 mm
Total length	613 mm
Length	555 mm
Technical data	
Noiminal torque ¹⁾	52 Nm
Rated speed	3000 1/min
Max. speed n_{max} ⁴⁾	4000 1/min
Nominal current UVW, per phase	38 A _{rms}
Rated power ³⁾	16 kW
Terminal voltage (AC)	360 V
Torque constant	1.45 Nm/A _{rms}
Peak current UVW, per phase	241 A _{rms}
Max. overload for 10 sec ²⁾	328 Nm
Voltage constant	101 V/1000 rpm
Number of pole pairs	3
Rotor moment of inertia	0.0217 kgm ²
Electrical wiring	Star connection
Heating	155°C, class of insulation F according to DIN57530
Rotary encoder	<ul style="list-style-type: none"> • Resolver
Encoder manufacturer name	Tamagawa
Encoder manufacturer type	TS2640N321E64 (RT22)
Shaft design	cylindrical with shaft key according to DIN6885
Temperature sensors	PTC, PT100
Technical notes	¹⁾ with 3000 1/min, 560Vdc and 40°C ambient temperature ²⁾ with 2000 1/min, 560Vdc and 40°C ambient temperature ³⁾ with 3000 1/min, 560Vdc and 40°C ambient temperature

Cooling	
General information about cooling	natural cooling

Properties	
Plug type	3 x HVBI-02R6-AMHA-xx
Plug design	Phase U = Codierung "C"; Phase V = Codierung "D"; Phase W = Codierung "E"

Environment	
Max. ambient temperature in operation	65 °C
Min. ambient temperature in operation	-25 °C
Protection class according to EN 60529	IP64* <small>*with gearbox IP65</small>

Pin settings

ENC

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

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

Attachments

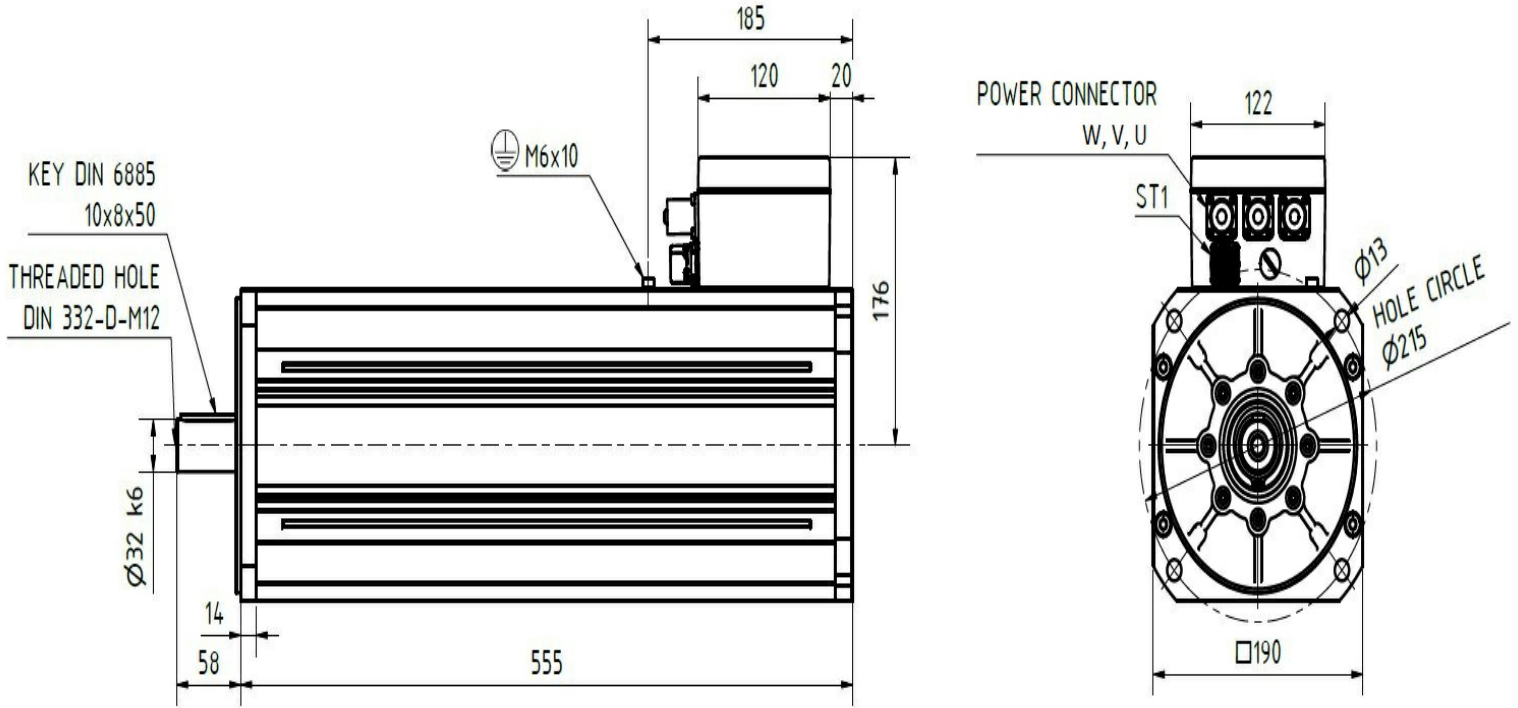


Illustration: Dimensions

Motor characteristic S1

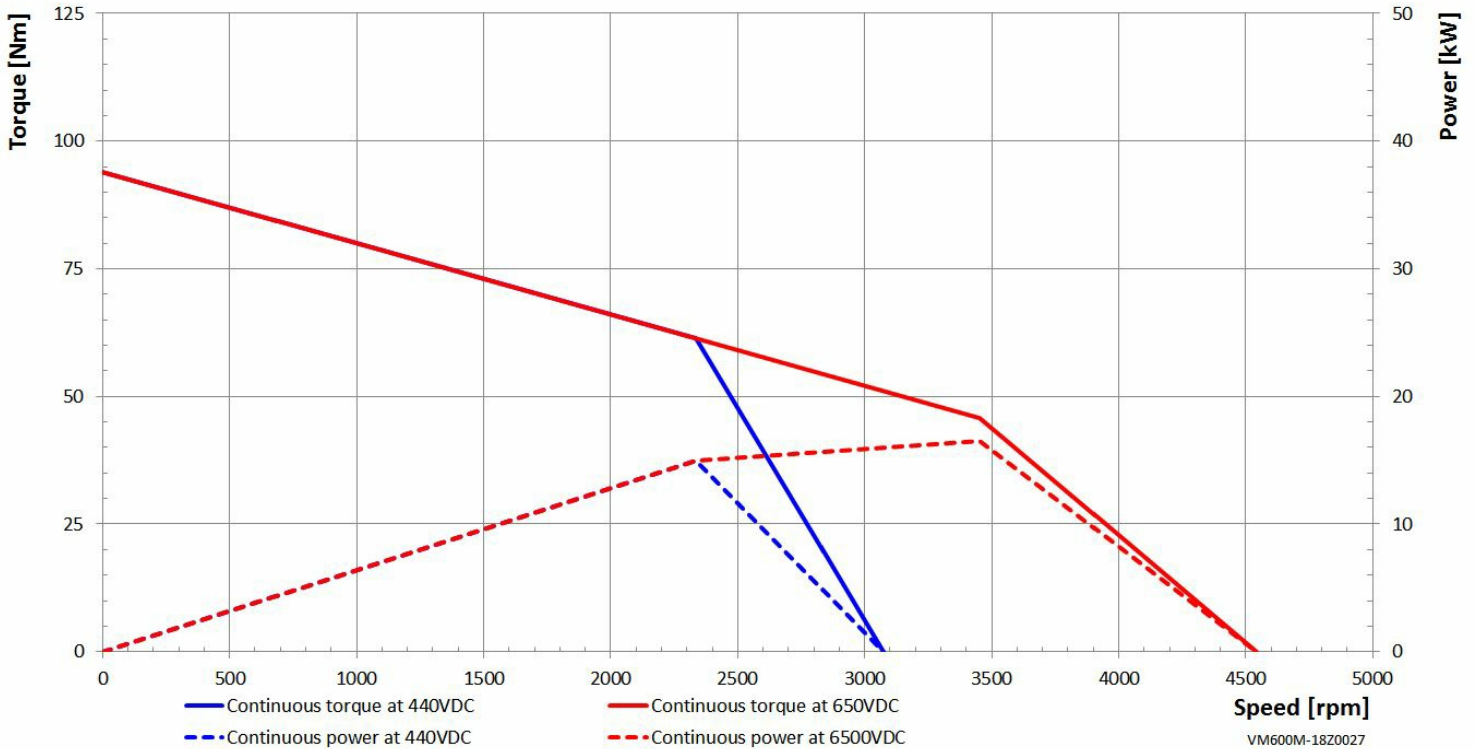


Illustration: S1 torque and power curve

Motor characteristic S2

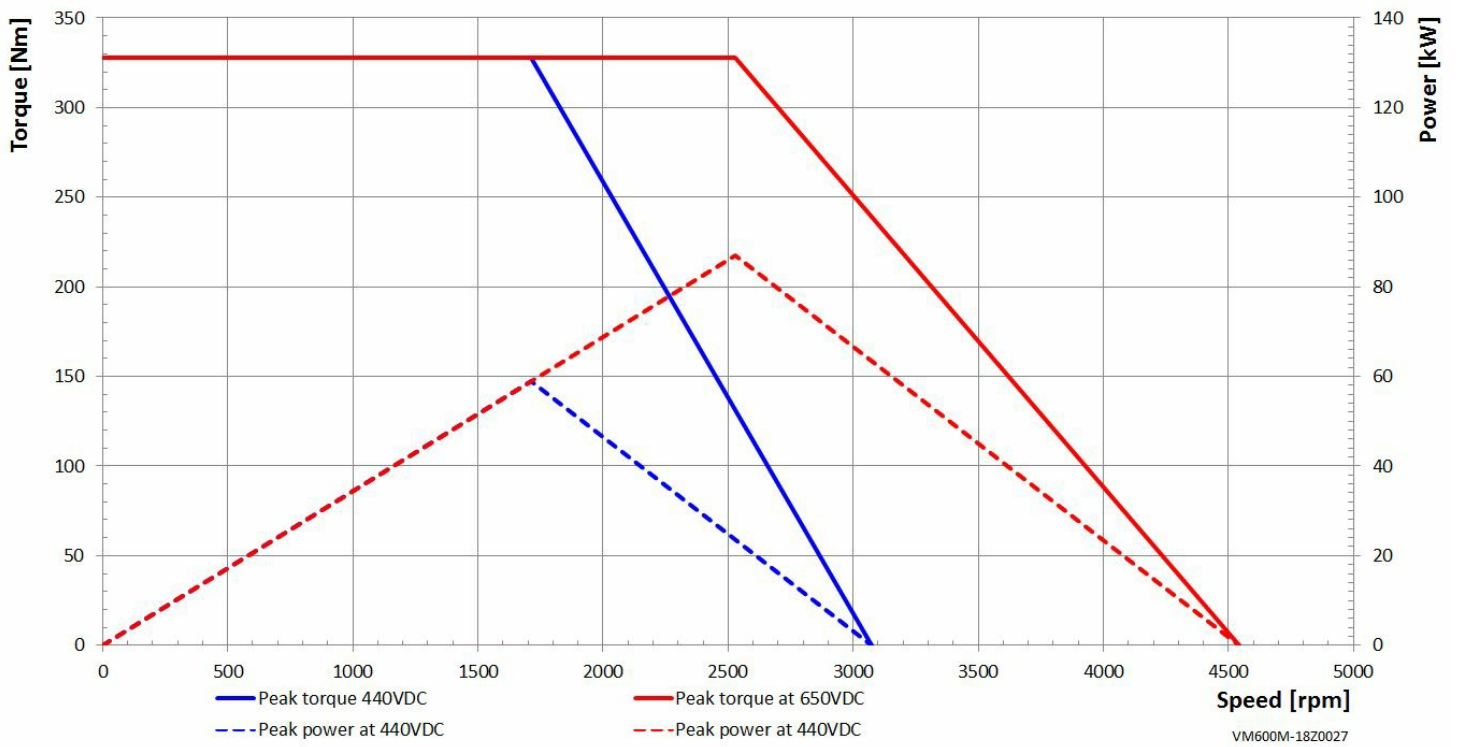


Illustration: S2 torque and power curve