

Product reference - 8381064245

PAC F44 E 50HP

Qmax 1,320 USgpm - Hmax 140 ft



Indicative picture of the product

PAC Flow series

The pump system consists of a centrifugal pump and a separator, which enables air to be separated from the liquid and be sucked by a vacuum pump - making automatic priming possible. Even with suction heights of several feet the machine rapidly evacuates the air from the suction pipe and starts to pump. The PAC range is also suitable for pumping liquids with solids in suspension with best possible efficiency.

Applications

The PAC F44 Atlas Copco pump is designed to withstand toughest applications and delivers best in class pumping efficiency. One of the most common area of utilization is the mining and Oil & Gas segment where reliability, efficiency and versatility is the key to provide a customized solution. Other suitable applications within Construction and General dewatering, Municipal as well as General Industry are ideal for the PAC F44 pump. Atlas Copco pumps are packed with features that not only meet, but exceed the needs of our customers.

Benefits

Efficiency

The 10" impeller with 73% efficiency at B.E.P. provides best pumping result with minimal efforts

Solids handling

Closed impeller type with solids handling capability of 3" for trouble free operation

Easy maintenance

Hinged cover for direct access to the impeller and pump volute

PAC F44 E 50HP

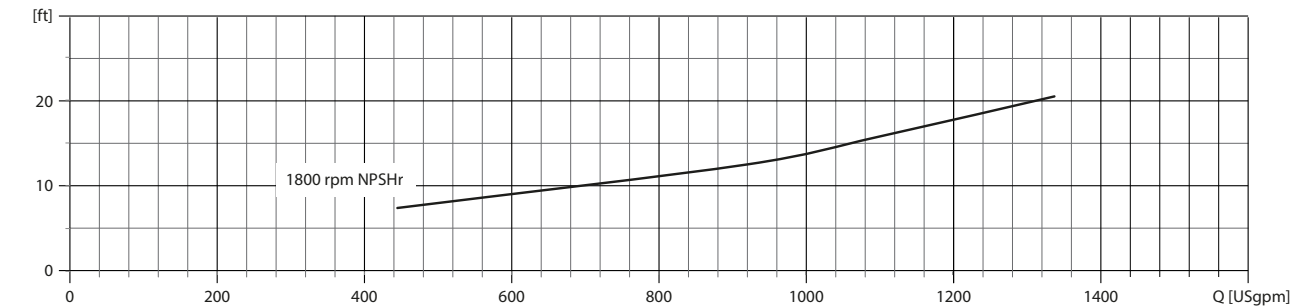
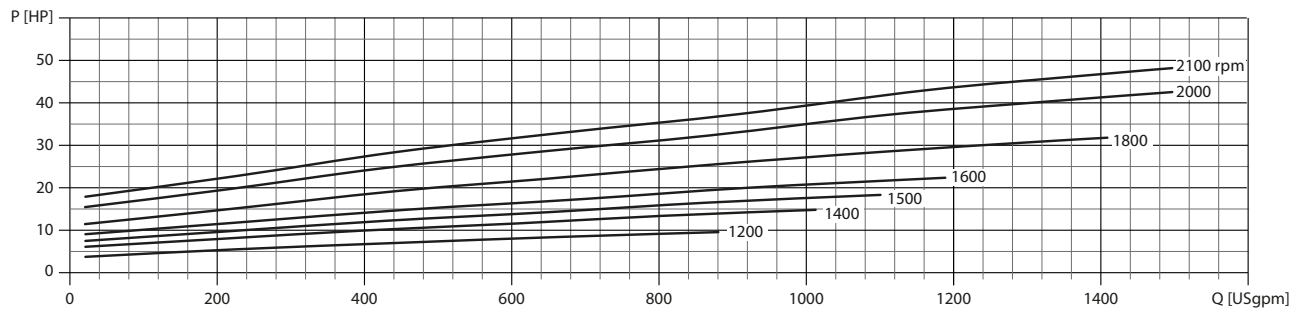
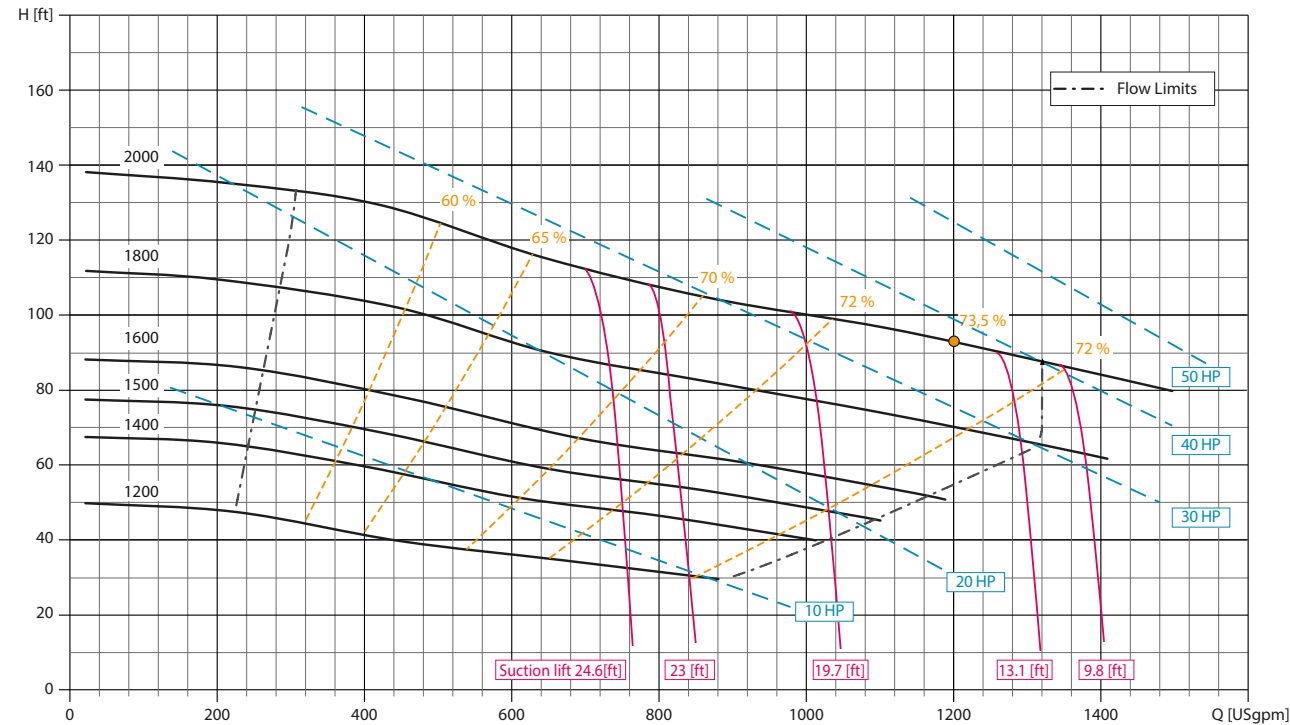
Performance curves

Test according to UNI EN ISO 9906 standard - level 2B

Test liquid: clean water, density 62.43 lb/ft3 (8.345 lb/gal)

Losses from priming system and check valve not included

Speed	Impeller Dia.	Style	Solids Dia.	Ns	Suction	Discharge	No. Vanes
Various	10" / 255 mm	Closed	3" / 76 mm	2000 rpm	4" / 100 mm	4" / 100 mm	2



PAC F44 E 50HP

Technical data

Pump

Model	PAC F44
Qmax	1,320 USgpm
Hmax	140 ft
Q max eff.	1,200 USgpm
Eff. max	73,5 %
Suction port	4" Flange - ANSI class 100
Delivery port	4" Flange - ANSI class 100
Impeller type	Closed, 2 vane
Impeller diameter	10"
Solids handling	3"
Material	
Casing	ASTM A536 ductile iron
Impeller	ASTM A536 ductile iron
Wear ring	ASTM A48 Class 20 grey iron
Wear plate	ASTM A48 Class 20 grey iron
Shaft	AISI 630 stainless steel
Mechanical Seal faces	Silicon carbide / Silicon carbide / VITON
Elastomers	NBR + VITON
Lubrication	Grease (bearings)
Check Valve	ASTM A536 ductile iron + NBR rubber flap
Separator	Aluminium alloy

Priming system

Vacuum pump	
Vacuum pump type	Diaphragm
Nominal air capacity	50 cfm
Max vacuum	- 26.6 inHg
Drives	Link belt

Motor

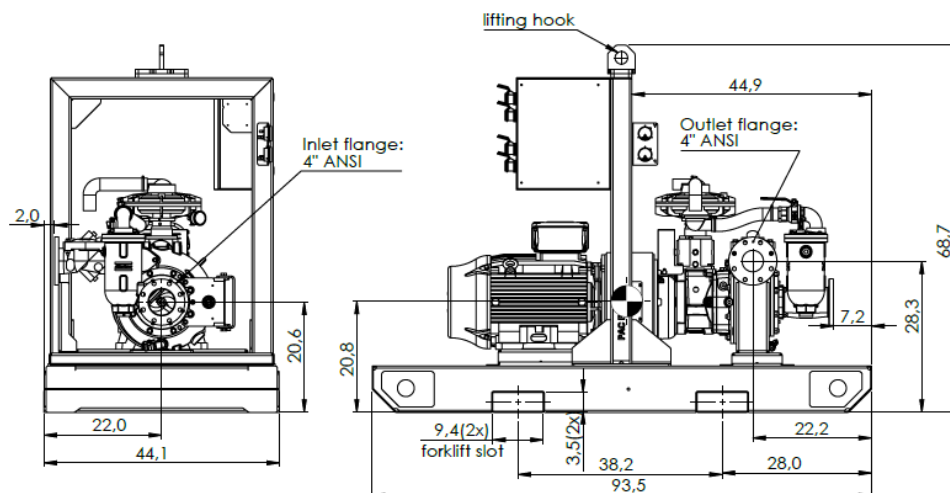
Make	Weg
Type	Three Phase Induction Motor
Cooling method	IC411 - TEFC
No. poles	4
Tension supply	460 V
Frequency	60 Hz
Rated power	50 HP
Rated speed	1,783 rpm
Rated current	60,7 A
Efficiency class	W22 NEMA premium efficiency
Max efficiency	94,5 %
Protection rating	IPW55
Insulation class	F
Thermal protection	Thermistors 2 Wires - 311degF
Duty cycle	Continuous - S1

Arrangement

Technical data	
Material	ASTM A36 steel
Coatings	Epoxy powder, average thickness of 3 MIL
Features	Lifting beam. Fork lift pockets. Pump access through hinged door.
Dry weight	2755 lbs

Dimensional drawing

[in]



DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer : VARISCO S.P.A. (ATLAS COPCO GROUP

Product line : W22 - IE3 Premium Efficiency Multivoltage Product code : 13000262

Frame	: 225S/M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B35T
Duty cycle	: S1	Direct of rotation ¹	: Both
Ambient temperature	: -20 °C to +40 °C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l	Approx. weight ³	: 385 kg
Degree of protection	: IPW55	Moment of inertia (J)	: 0.5177 kgm ²
Design	: N		

Output : 37 kW (50 HP)

Poles : 4

Frequency : 60 Hz

Rated voltage : 460 V

Rated current : 60.7 A

L. R. Amperes : 522 A

LRC (p.u.) : 8.6 x Code K

No load current : 31.0 A

Rated speed : 1783 rpm

Slip : 0.94 %

Rated torque : 198 Nm

Locked rotor torque : 310 %

Breakdown torque : 380 %

Service factor : 1.25

Noise level² : 67.0 dB(A)

Locked rotor time : 13 s (hot)

: 23 s (cold)

Efficiency (%)	50%	92.6
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	75%	94.0
--	-----	------

	100%	94.5
--	------	------

Power factor	Start	0.44
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	50%	0.63
--	-----	------

	75%	0.75
--	-----	------

	100%	0.81
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	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	6314-C3	6314-C3	Maximum traction : 7761 N
Lubrication interval	14000 h	14000 h	Maximum compression : 11538 N
Lubricant amount	27 g	27 g	
Lubricant type	MOBIL POLYREX EM		

This revision replaces and cancels the previous one, which must be eliminated.

(1) When viewed from the drive end.

(2) Measured at 1m and with tolerance of +3dB(A).

(3) Approximate weight subject to changes after manufacturing process.

(4) At the rated point.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

Rev.	Summary of changes		Performed	Checked	Date
Performed by	cheikh				205548/2021
Checked by	AUTOMATICO				Page Revision
Date	27/07/2021				1/18 0

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Thermal protection

ID	Application	Type	Quantity	Switching temperature
01	Winding	Thermistor - 2 Wires	1 x Phase	155 °C

Standards	Specification : IEC 60034-1	Vibration : IEC 60034-14
	Tests : IEC 60034-2	Tolerance : IEC 60034-1
	Noise : IEC 60034-9	

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TORQUE AND CURRENT X SPEED CURVE

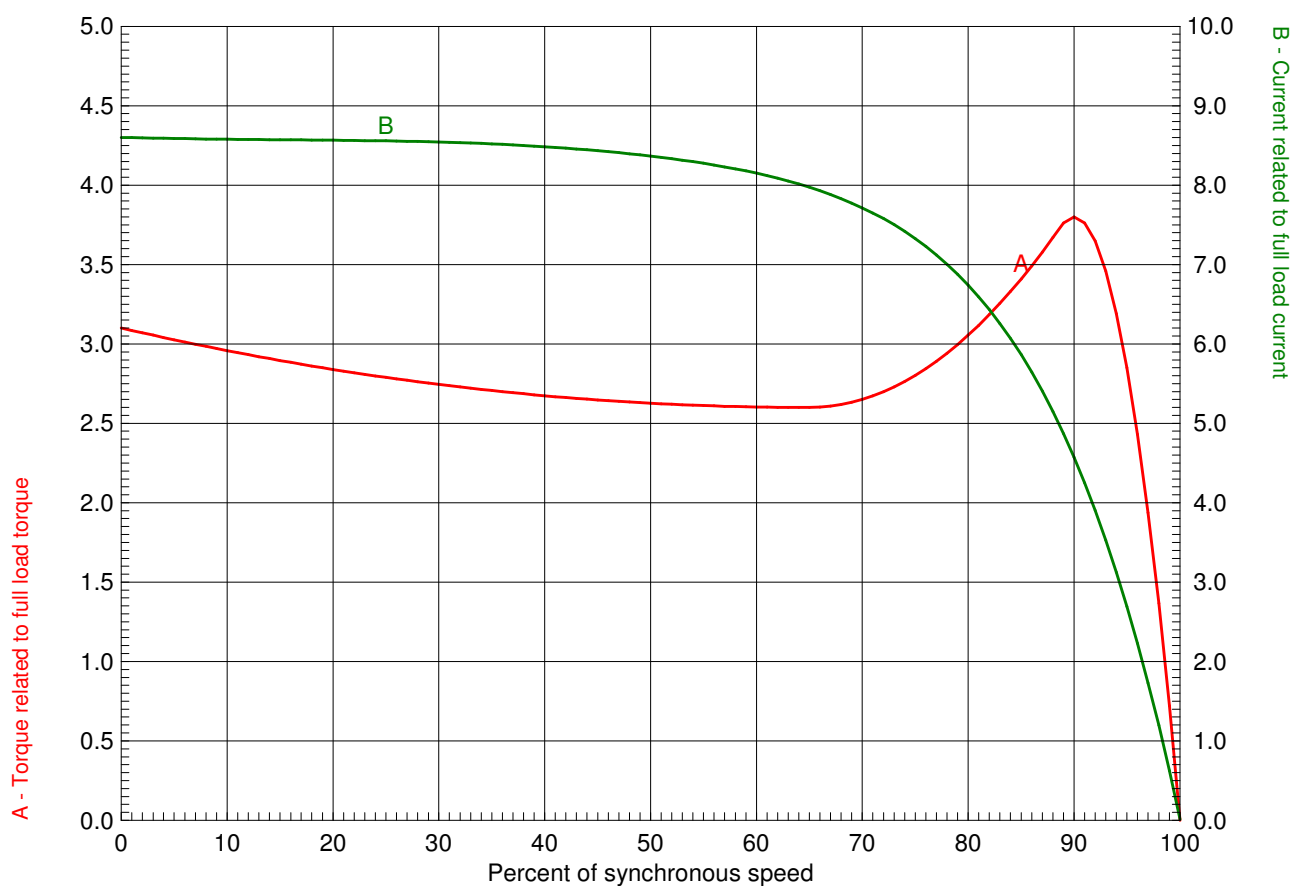


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Product code : 13000262



Performance : 37 kW (50 HP) 460 V 60 Hz 4P 225S/M

Rated current	: 60.7 A	Moment of inertia (J)	: 0.5177 kgm ²
LRC (p.u.)	: 8.6 Code K	Duty cycle	: S1
Rated torque	: 198 Nm	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.25
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1783 rpm	Design	: N

Locked rotor time 100% : 13 s (hot) 23 s (cold)
Load inertia (J=GD²/4) : 0.5177 kgm²

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LOAD PERFORMANCE CURVE

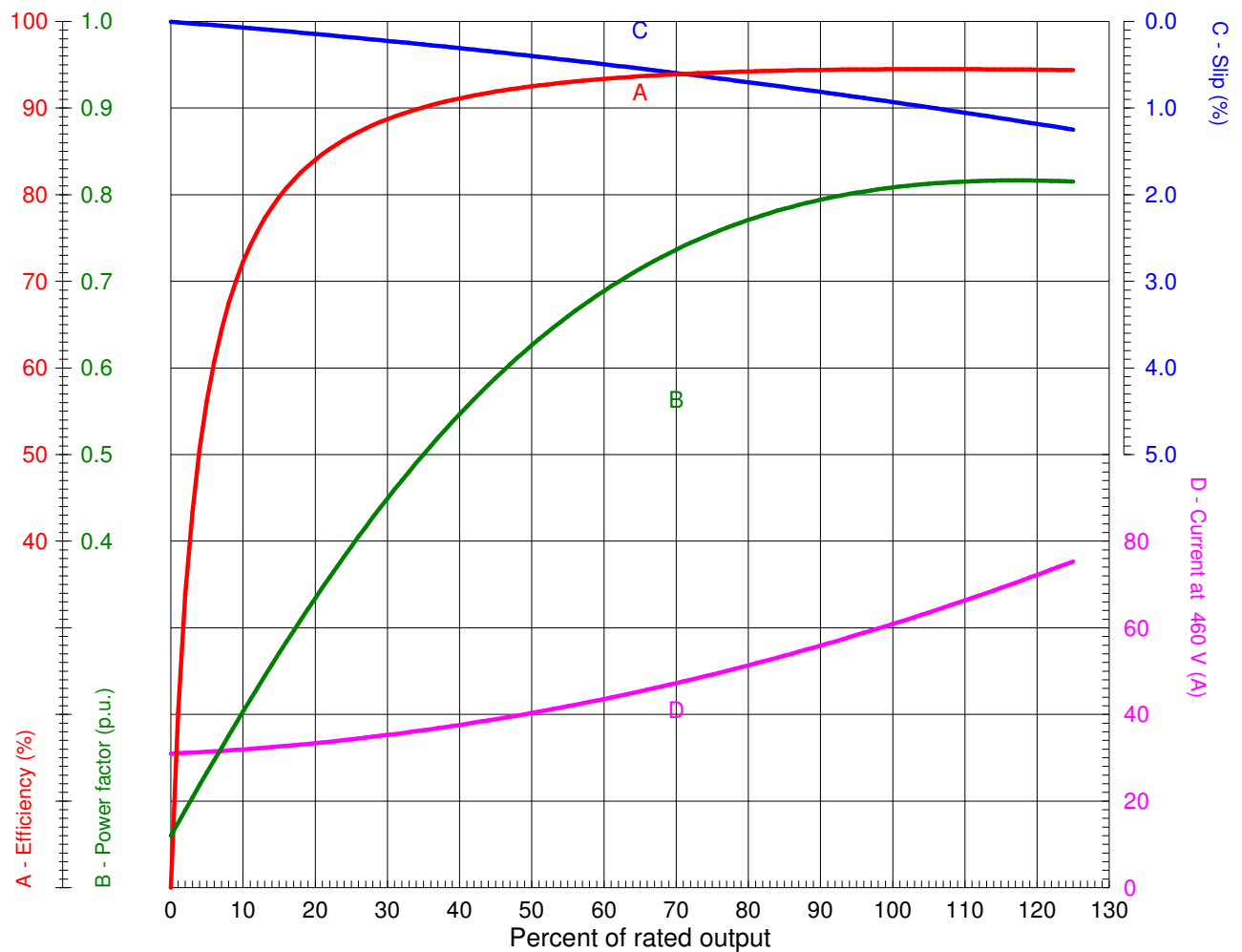


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Date	27/07/2021			10/18	0

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THERMAL LIMIT CURVE

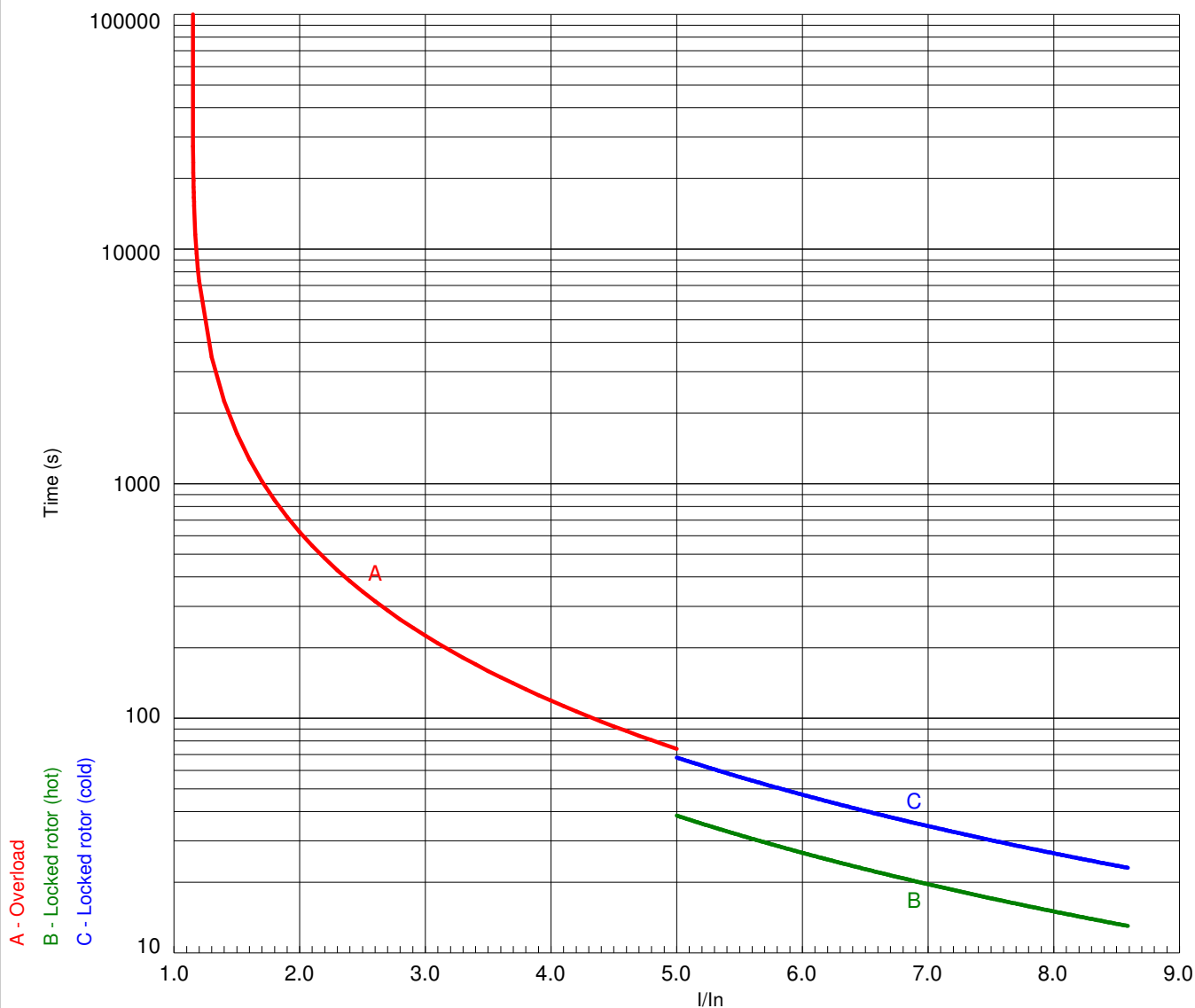


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Locked rotor torque	: 310 %	Service factor	: 1.25
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1783 rpm	Design	: N

Heating constant	: 30.2 min
Cooling constant	: 90.5 min

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			Page	Revision	
			14/18	0	

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VFD OPERATION CURVE

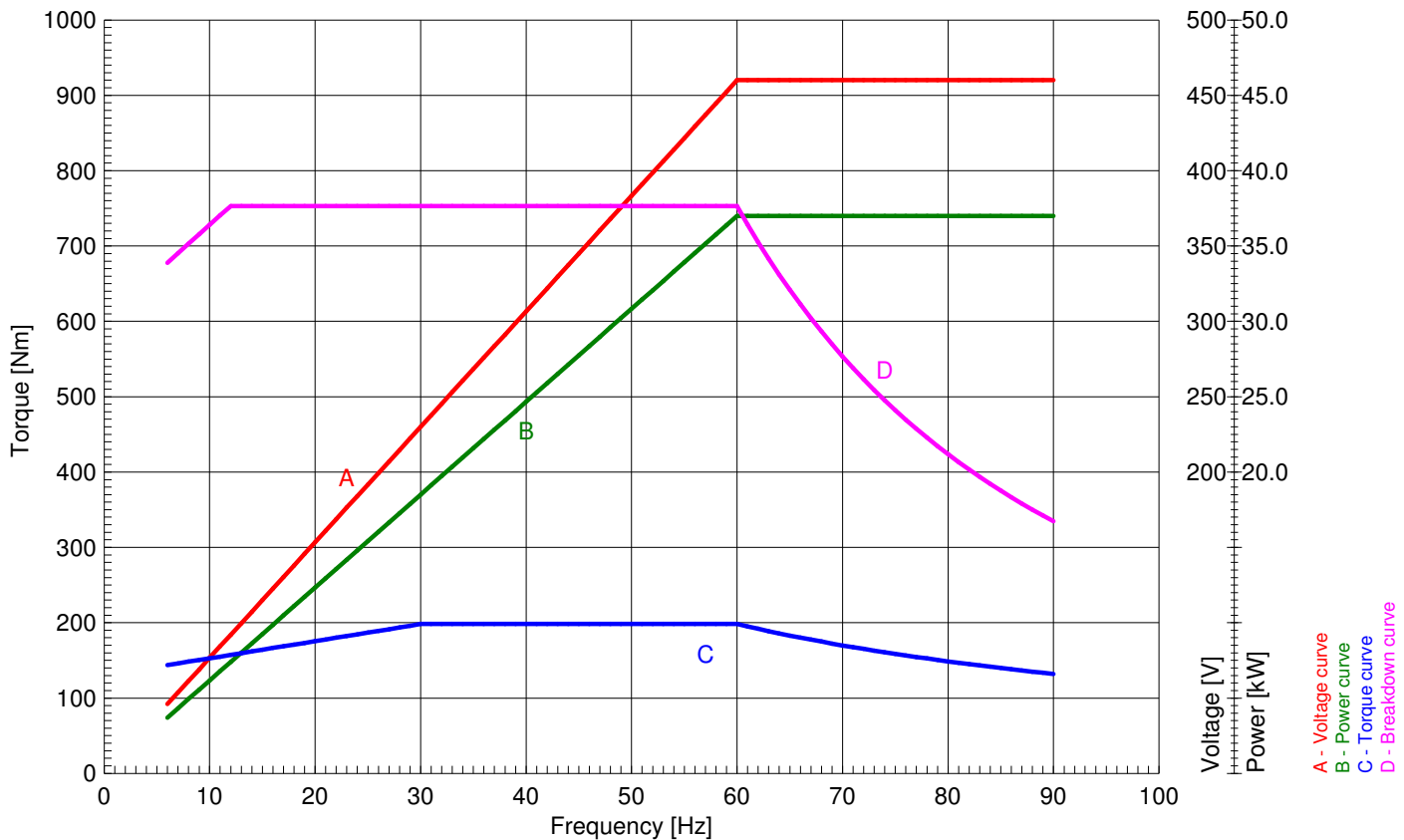


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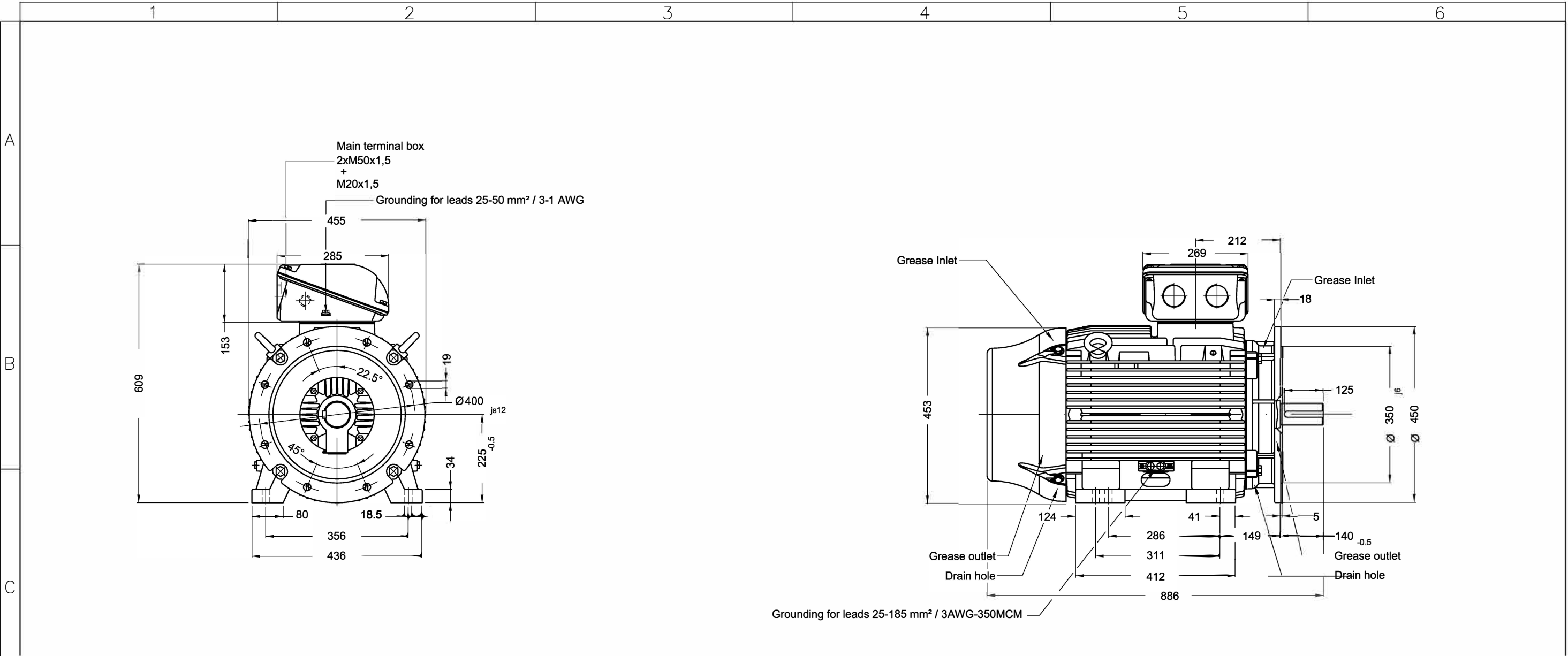


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LRC (p.u.)	: 8.6 Code K	Duty cycle	: S1
Rated torque	: 198 Nm	Insulation class	: F
Locked rotor torque	: 310 %	Service factor	: 1.25
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 1783 rpm	Design	: N
		Maximum peak voltage phase-to-phase	<= 1600 V
		dV/dt	<= 5200 V/μs
		Rise time	>= 0,1 μs

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