

SANGALLI SERVOMOTORI



DAF/DAP.9 **AC TORQUE SERVOMOTORS** **Motor Curves**

AC TORQUE SERVOMOTORS – DAF/DAP.9

Servomotors DAF/DAP.9 - size NINE are AC induction motors. They have been designed using latest generation materials to provide a low-cost solution with very high performance and low torque ripple. Typically employed where high torque at low speed and a constant power wide operating range are required. Hollow shaft allows direct coupling with recirculating ball screws for DIRECT DRIVE applications with high stiffness and dynamic

MAIN CHARACTERISTICS:

- 8 poles construction
- Integrated PTC/PT1000 thermal protection
- Rotable design
- Compact design
- Smooth finish
- Very low noise pollution
- IP23 enclosure protection
- Motor Installation B5 – V5
- Forced cooling

CURVES DEFINITION:

The S1 and S3 curves are defined at the following operating conditions:

- Ambient Temperature $0 \pm 40^{\circ}\text{C}$
- Altitude 1000m
- Max Temperature Rise 100K
- Mounted on test Aluminum flange 457X457X15
- Duty cycle according to IEC60034-1
- DcBus 560Vdc
- No Brake

DERATING RULES:

- Derating due to presence of encoder 6%
- Power derating 1%/K in a range of 40°C to 50°C up to 1000m above sea level, while for site altitudes of over 1000 m above sea level performance downgrade:
 - 6% at 2000 m above sea level
 - 17% at 3000 m above sea level
 - 30% at 4000 m above sea level
 - 55% at 5000 m above sea level



For custom curves please contact our team at info@sangalliservomotori.it

DAF/DAP.9 Motor Series (Click on motor Type to move to the related curve)

Type	P _n [kW]	N _n [rpm]	M _n [Nm]	I _n [A]	M _n S6 40% [Nm]	I _n S6 40% [A]	N _{max} [rpm]	N _{mec} [rpm]	M _{pk} [Nm]	I _{pk} [A]	N _{pk} [rpm]	J _r [kg cm ²]
DAF/DAP.91.1	8,2	310	250	19	300	23	1000	3000	900	60	100	2740
DAF/DAP.91.2	12	457	250	26	300	31	1000	3000	900	80	200	2740
DAF/DAP.92.1	15,5	344	430	33	520	40	900	2500	1400	90	200	5340
DAF/DAP.92.2	21	471	430	44	520	53	900	2500	1400	120	300	5340
DAP.93.1	20	300	630	45	760	54	600	1800	2200	120	150	7730
DAP.93.2	13,2	200	630	33	760	40	600	1800	2200	90	80	7730

DEFINITIONS

Rated power P_n [kW]

The power that can be maintained indefinitely in continuous duty (S1) at the rated speed.

Rated speed N_n [rpm]

The speed that can be maintained indefinitely in continuous duty (S1) while the motor is delivering the rated torque.

Rated torque M_n [Nm]

The torque that can be maintained indefinitely in continuous duty (S1) at the rated speed.

Rated current I_n [A]

The rated current (value in rms) is the effective current which the motor absorbs at the operating point defined by the rated speed and the rated torque.

Rated torque M_{n S6 40%} [Nm]

The torque that can be maintained indefinitely in intermitten duty (S6 40%)

Rated current I_{n S6 40%} [A]

The rated current (value in rms) is the effective current which the motor absorbs at the operating point defined by the intermittent duty (S6 40%).

Maximum mechanical revs N_{mec} [min⁻¹]

The maximum mechanical revs indicate the maximum operating speed that is permitted at mechanical level.

Rotor moment of inertia J_r [kgcm²]

The inertia of the rotor without taking into consideration the version of the transducer without a brake. (Kg cm²=kg*m² *10⁻⁴).

Maximum torque M_{pk} [Nm]

Torque that is generated when the peak load is applied.

The maximum torque is only available for a short time.

Maximum revs N_{max} [min⁻¹]

These indicate the maximum speed that can be reached using a converter at a given supply voltage.

Peak current (pulse current) I_{pk} [A]

The peak current (rms value) is necessary current value to deliver the peak torque.

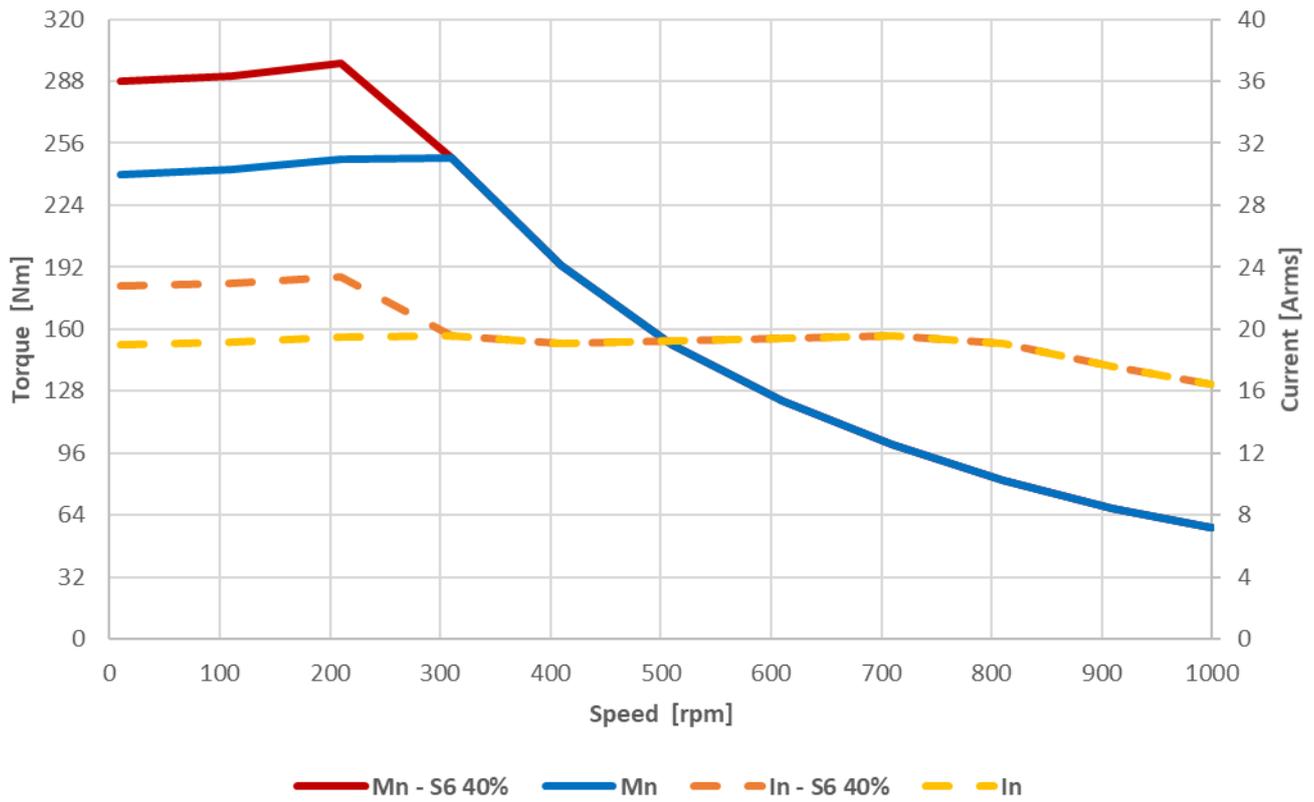
Peak Torque Maximum Speed N_{pk} [rpm]

This speed is the maximum value within which the motor can deliver the peak torque.

Motor Torque vs. Speed Curve

DAF/DAP.91.1

Torque/Current vs. Speed

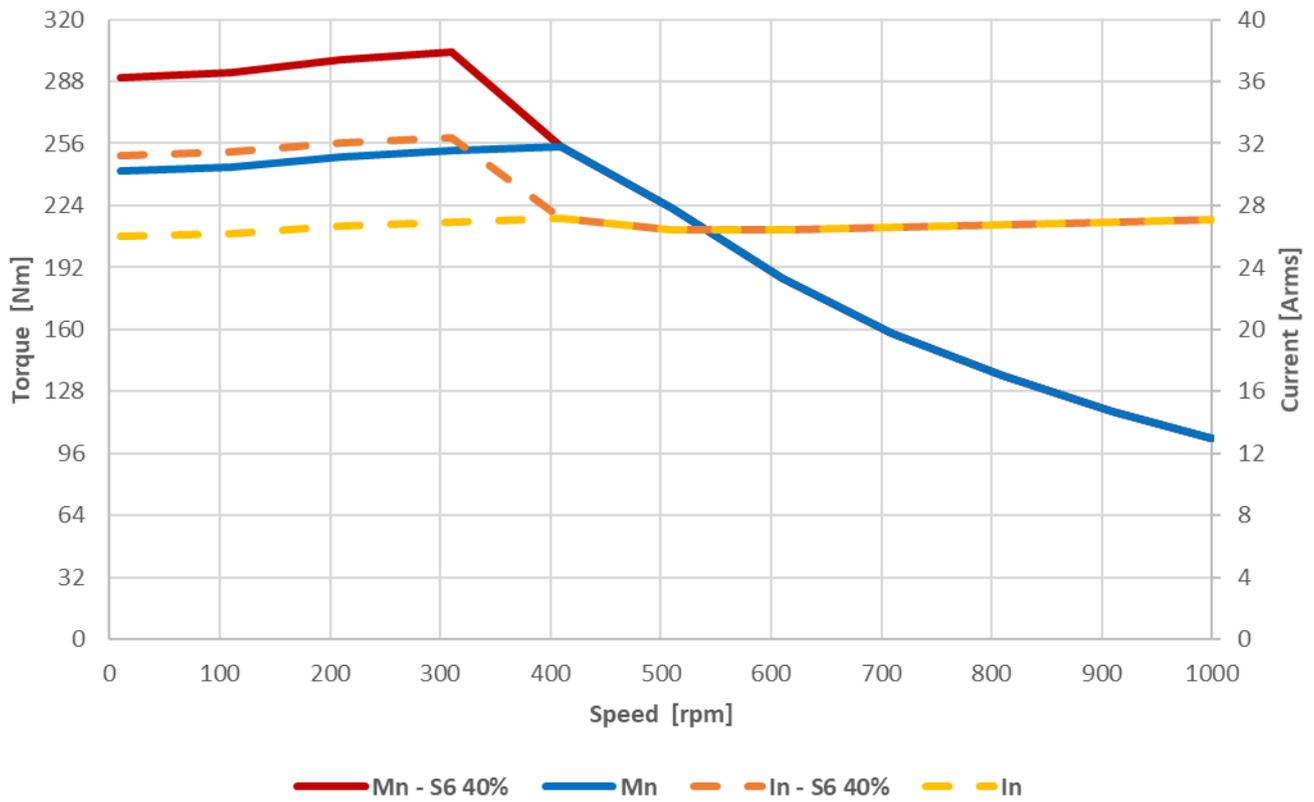


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Motor Torque vs. Speed Curve

DAF/DAP.91.2

Torque/Current vs. Speed

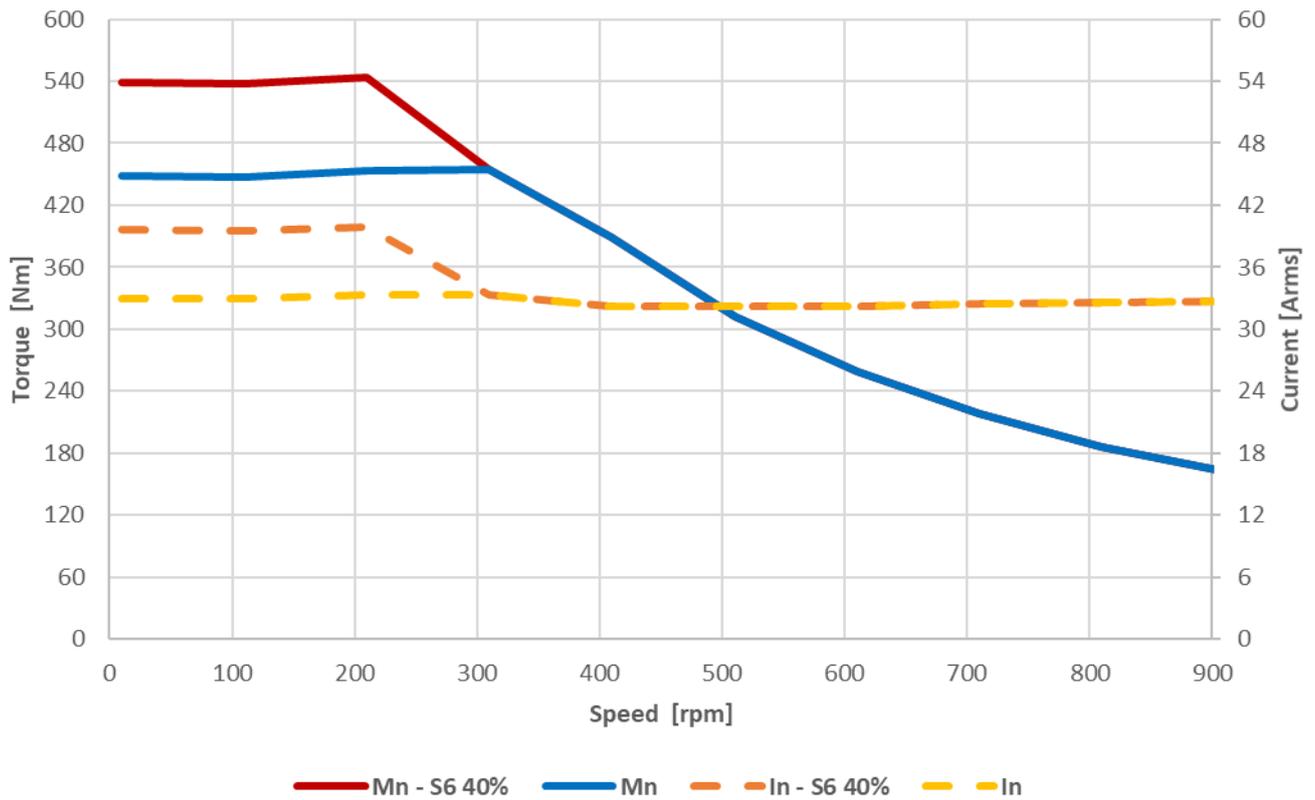


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Motor Torque vs. Speed Curve

DAF/DAP.92.1

Torque/Current vs. Speed

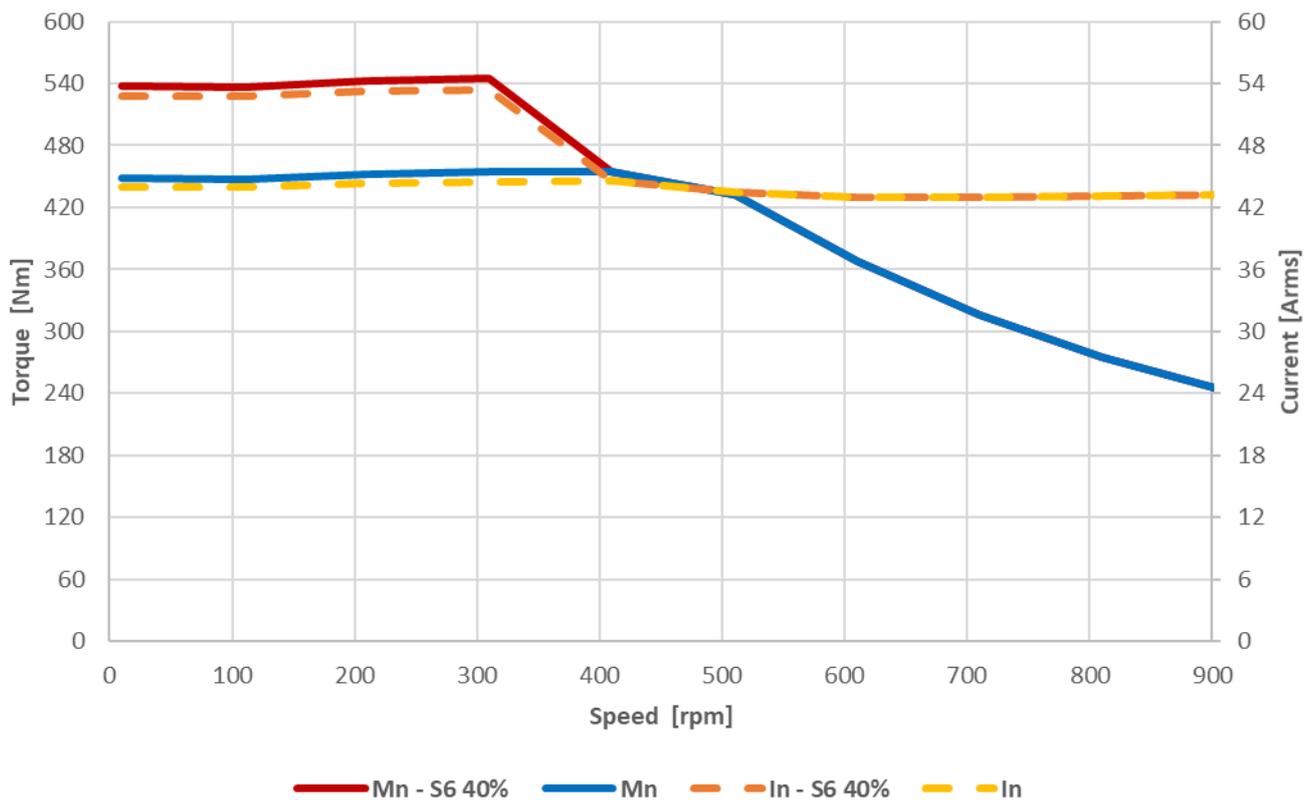


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Motor Torque vs. Speed Curve

DAF/DAP.92.2

Torque/Current vs. Speed

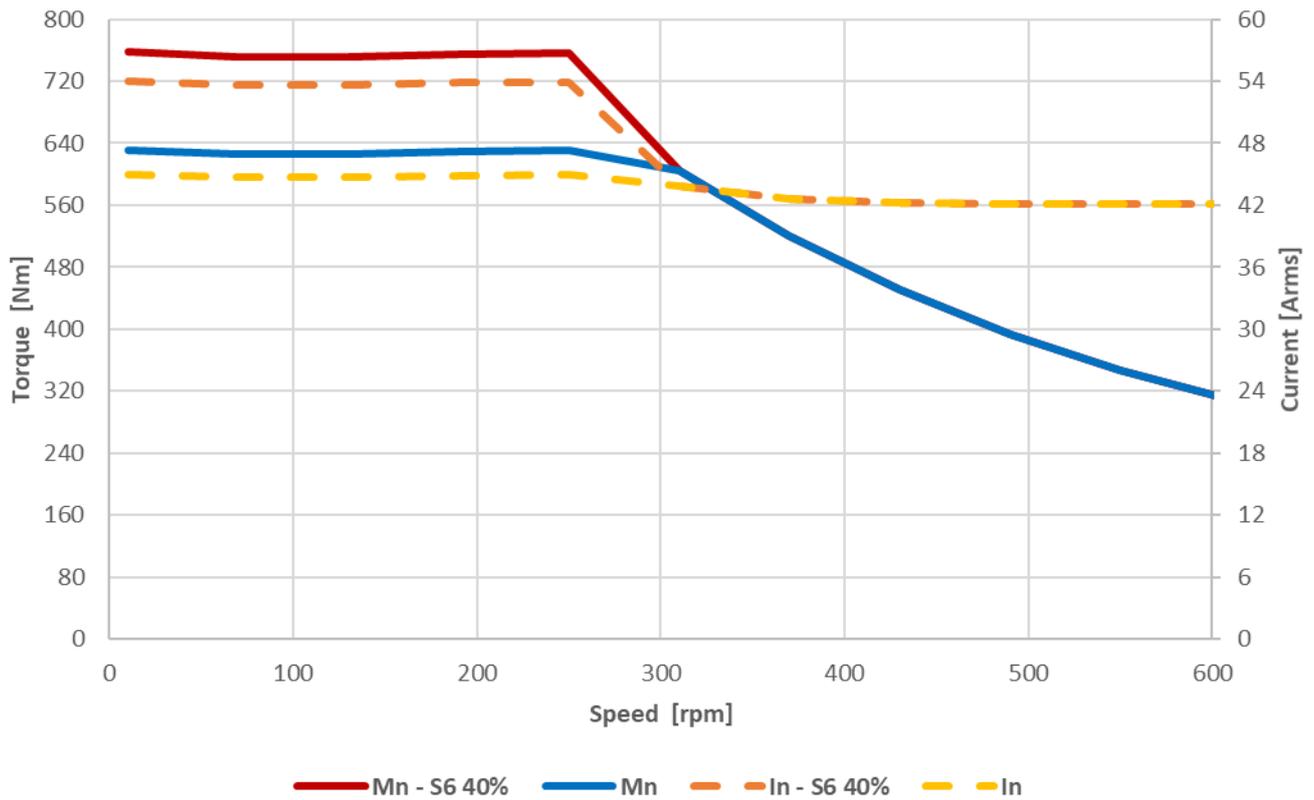


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Motor Torque vs. Speed Curve

DAF/DAP.93.1

Torque/Current vs. Speed

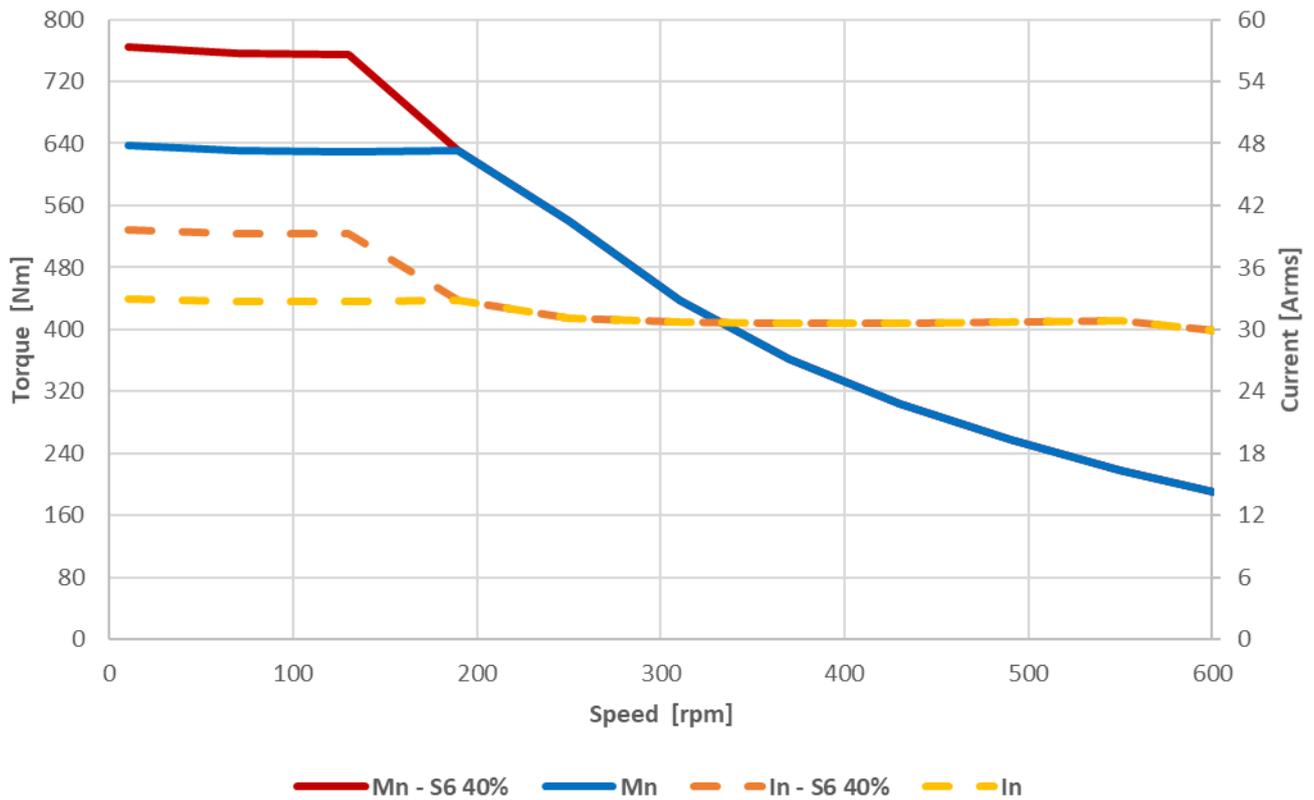


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Motor Torque vs. Speed Curve

DAF/DAP.93.2

Torque/Current vs. Speed



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