

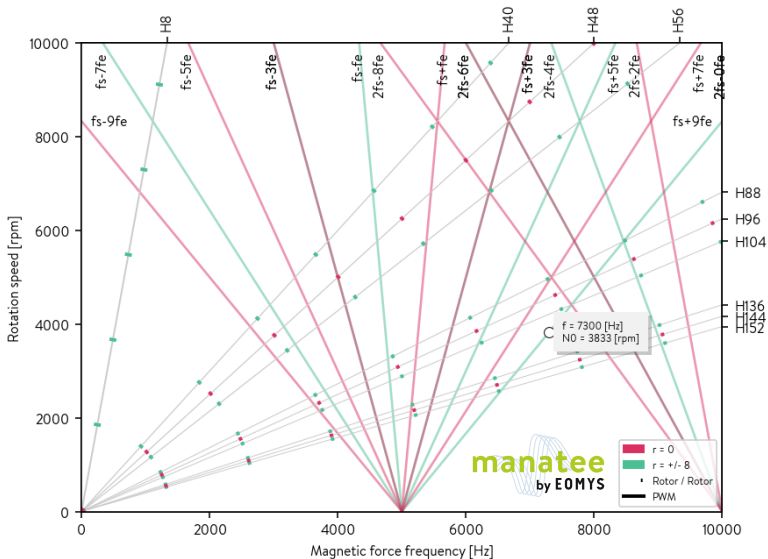
# 13 UNIQUE e-NVH POST-PROCESSING

manatee  
by EOMYS



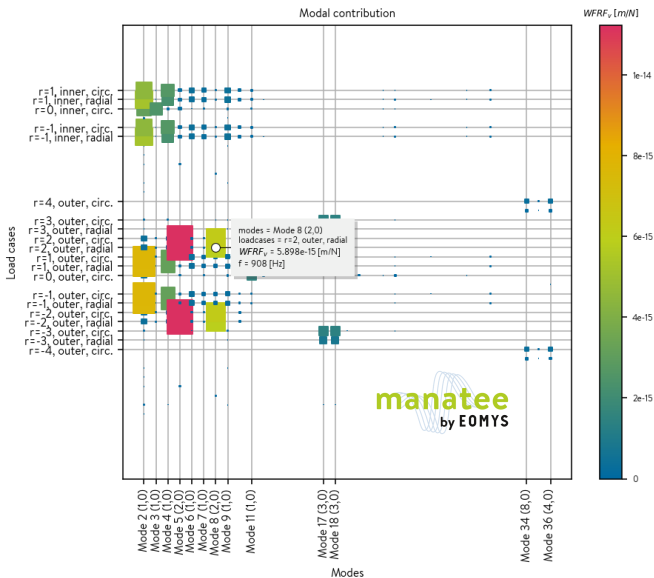
# #1: Quick Campbell

## Frequency & wavenumber of slotting & PWM magnetic forces



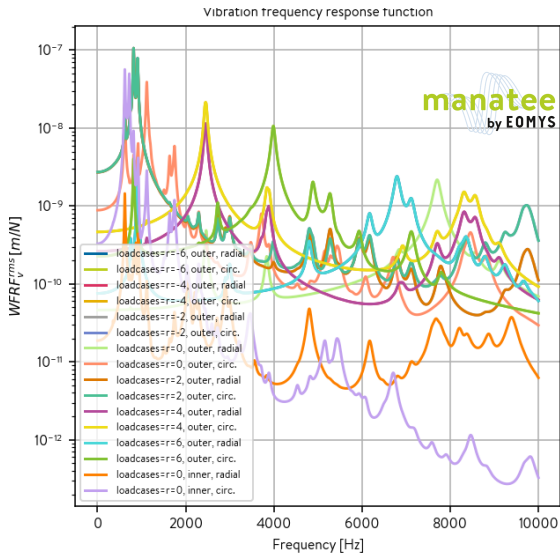
# #2: Modal force

## Projection between structural modes & unit magnetic Load Cases



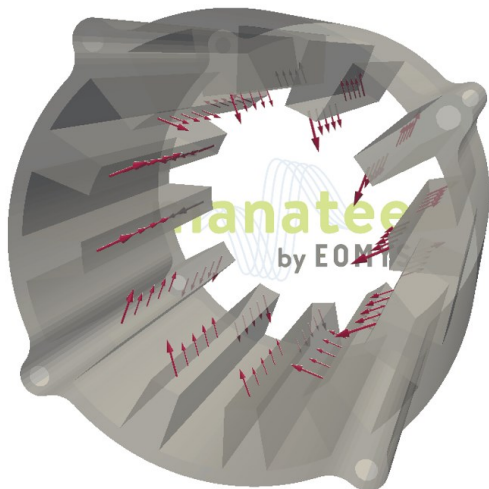
# #3: Vibration response

## Frequency Response Functions per magnetic Load Case



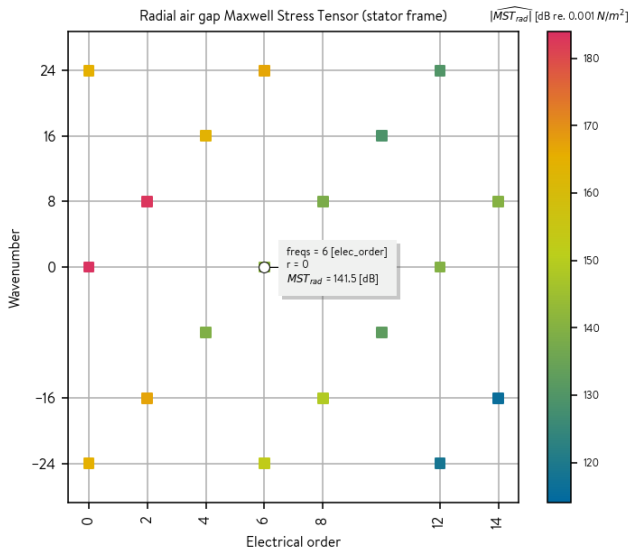
# #4: Magnetic forces

Operational Force shape  
at a given frequency



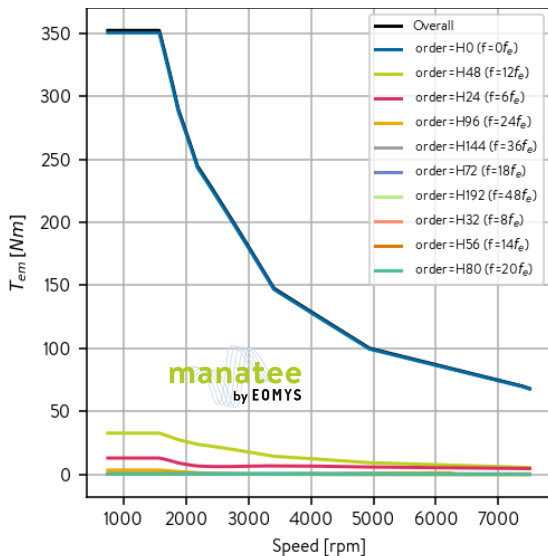
# #5: Magnetic forces

## 2D FFTs of Maxwell stress and magnetic Lumped Forces



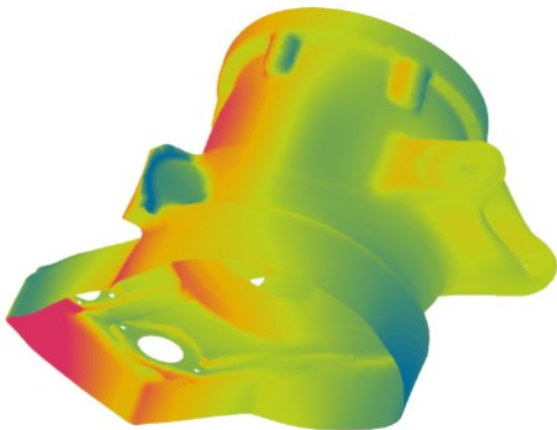
# #6: Torque & UMP

## Torque ripple and UMP harmonic levels function of speed



# #7: Deflection shapes

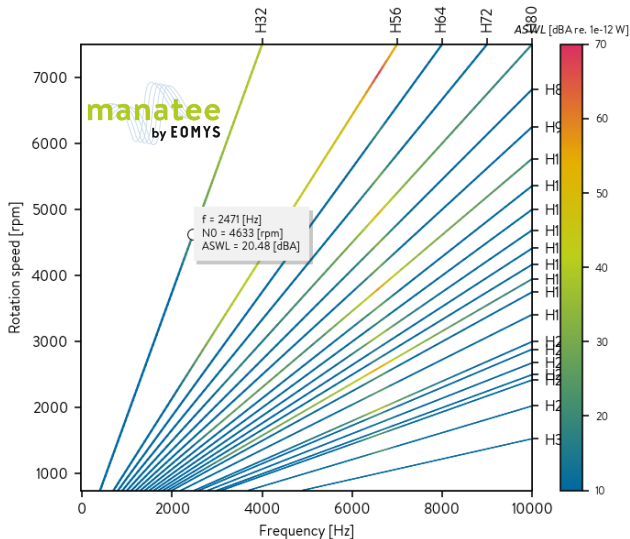
Operational Deflection Shape  
of a given order including forces





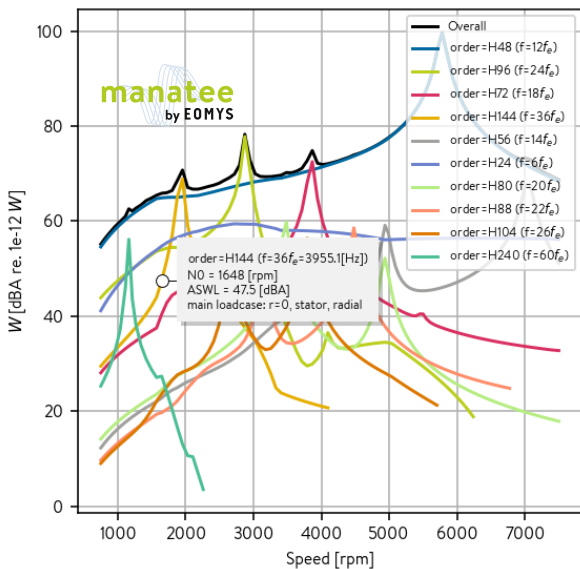
# #8: Spatiogram

## Spectrogram per Load Case including orders & modes



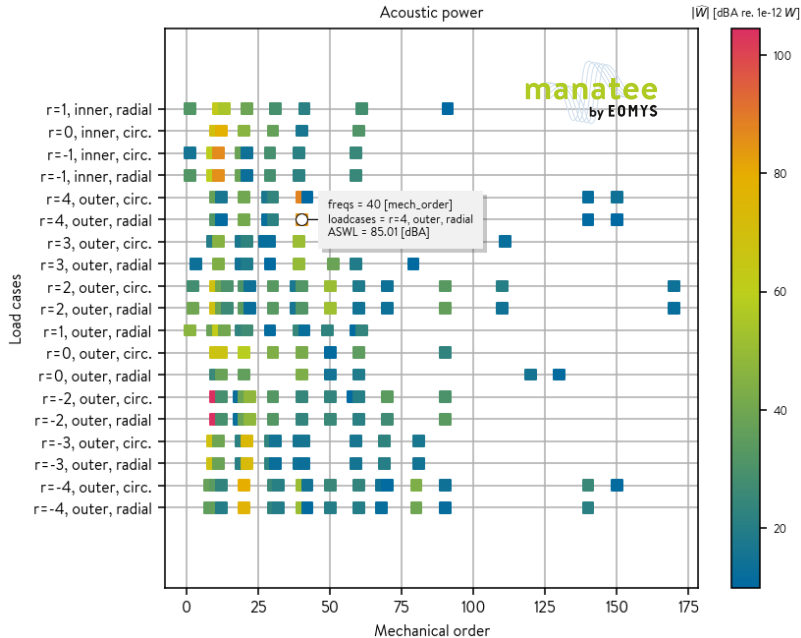
# #9: Order Tracking

## Automated tracking of NVH levels with Load Case origin



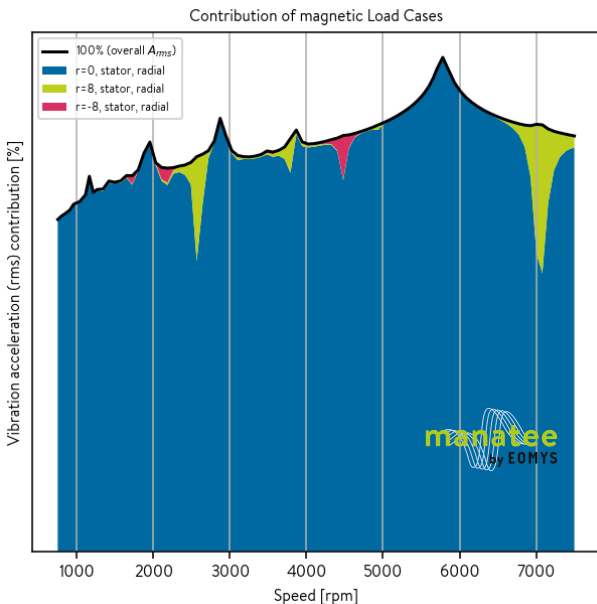
# #10: Load Case contribution

## Fixed speed case



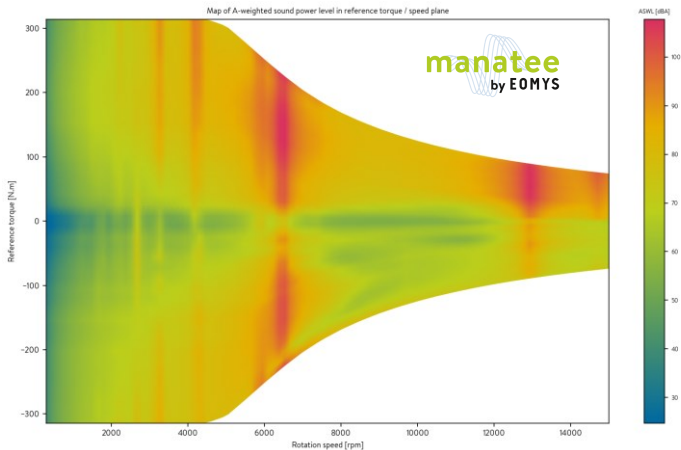
# #11: Load Case contribution

## Variable speed case



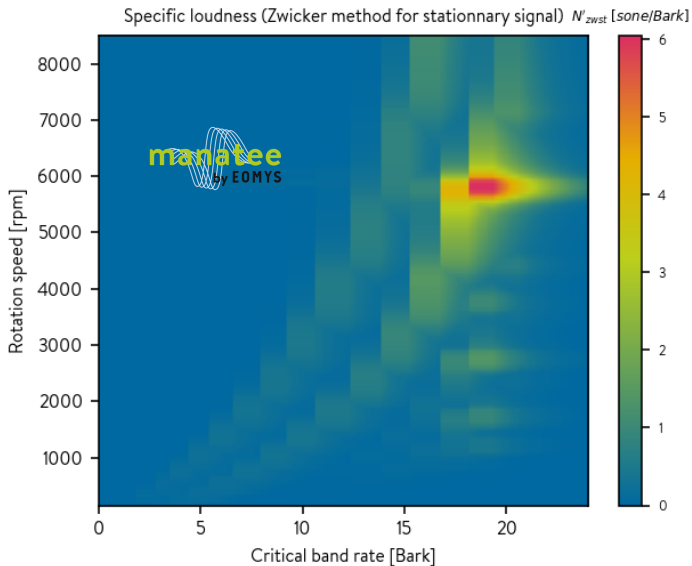
# #12: NVH maps

## Torque-speed plane analysis of vibration and noise harmonics



# #13: Sound Quality

## Variable-speed metrics



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