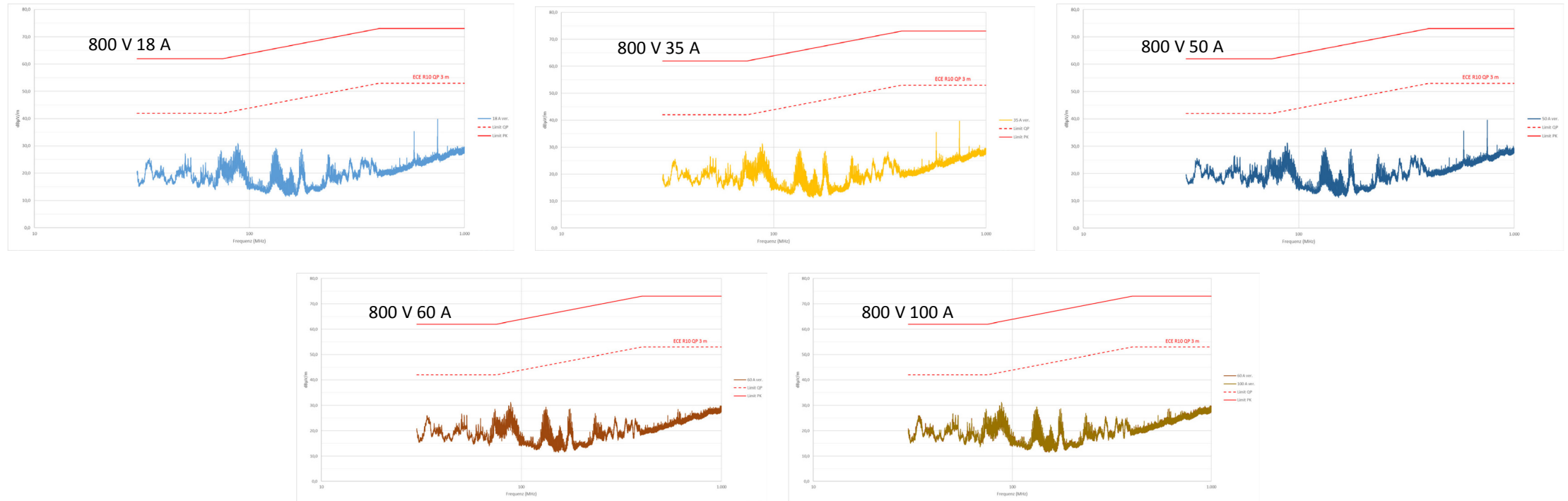


# Radiated Emission for vehicle DC charging

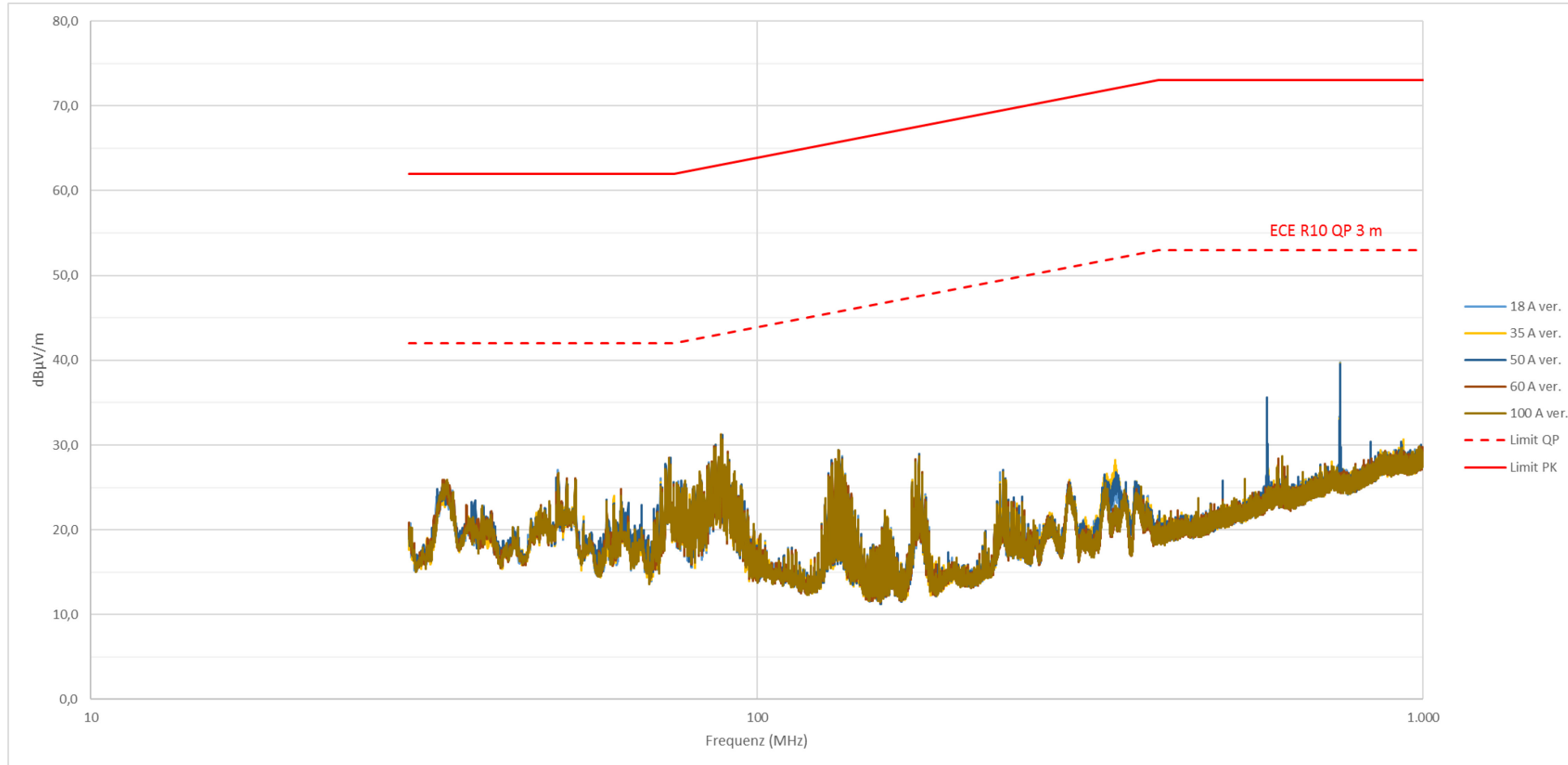
Dependency to charging current?

# DC charging for different currents vertical polarisation



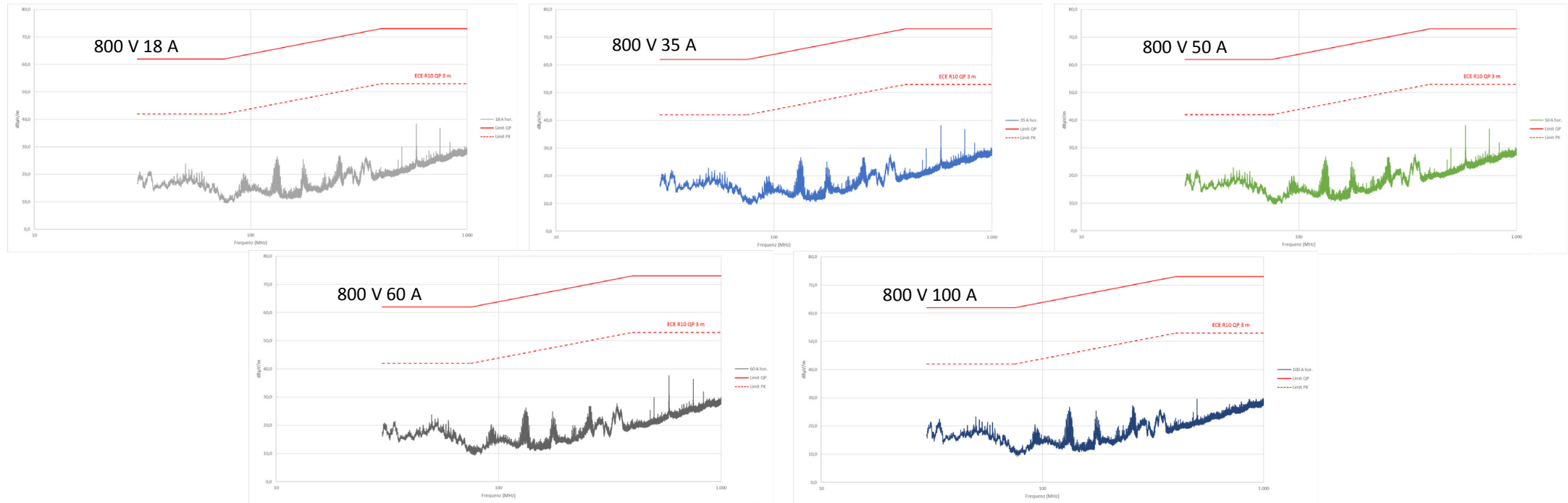
Results of a measurement campaign with a BEV (Battery Electrical Vehicle) during a development phase in 3 m distance with Pk-detector. Limits according to ECE R10 (Pk- and QP).

# DC charging superposition of all results vertical polarisation



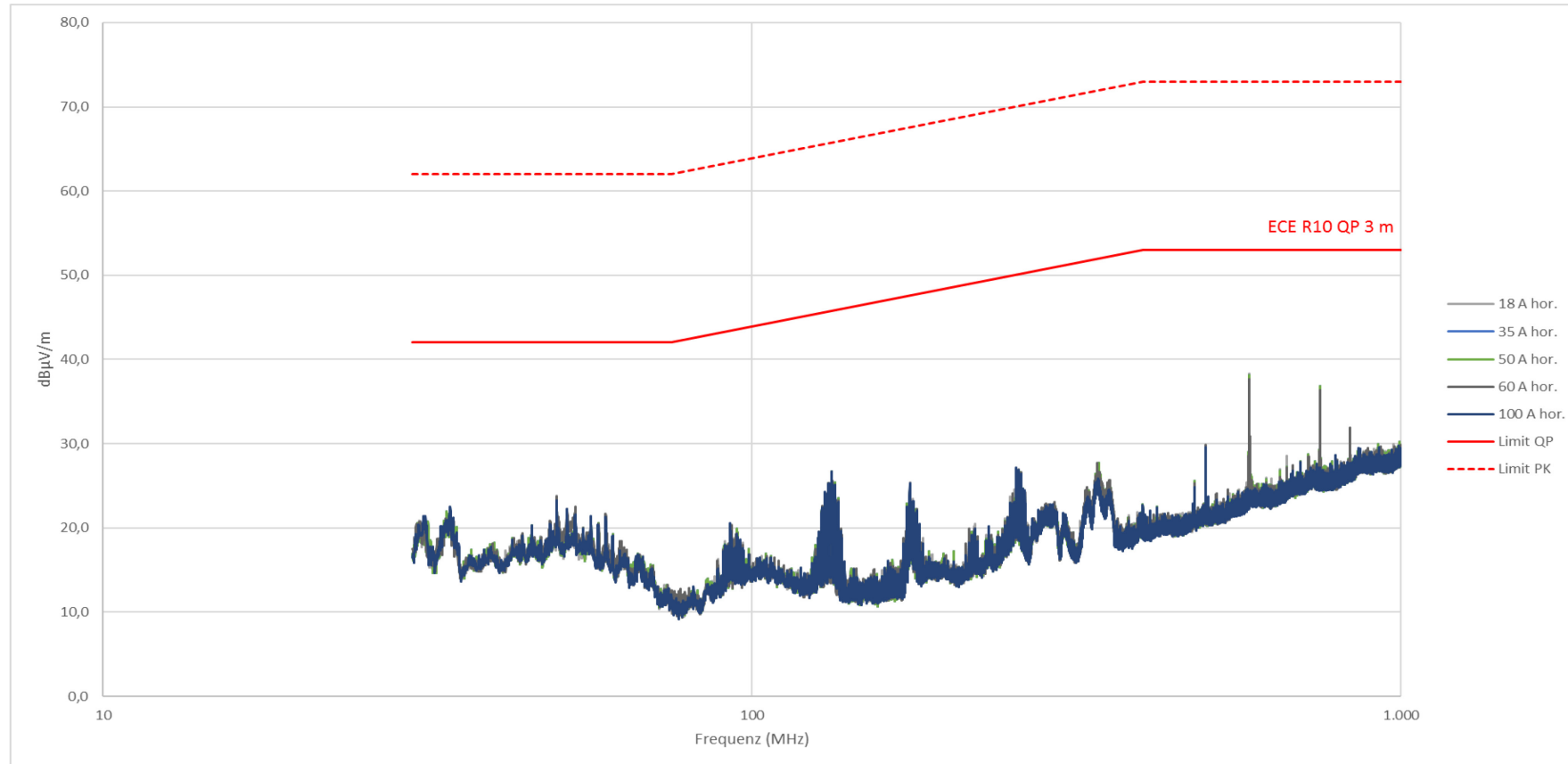
Results of a measurement campaign with a BEV (Battery Electrical Vehicle) during a development phase in 3 m distance with Pk-detector. Limits according to ECE R10 (Pk- and QP).

# DC charging for different currents horizontal polarisation



Results of a measurement campaign with a BEV (Battery Electrical Vehicle) during a development phase in 3 m distance with Pk-detector. Limits according to ECE R10 (Pk- and QP).

# DC charging superposition of all results horizontal polarisation



Results of a measurement campaign with a BEV (Battery Electrical Vehicle) during a development phase in 3 m distance with Pk-detector. Limits according to ECE R10 (Pk- and QP).

# Summary: radiated emission Results vs. charging current

## Result:

For direct DC-charging of a battery, there is no relevant dependency for radiated emission to the charging current. The differences are neglectable in comparison to the measurement uncertainties.

## Proposal:

Change requirement from charge current  $I > 80 \% I_N$  to  $I > 20 \% I_N$  for radiated emission measurements in UN ECE R10