2.18 Vector control

Function diagrams

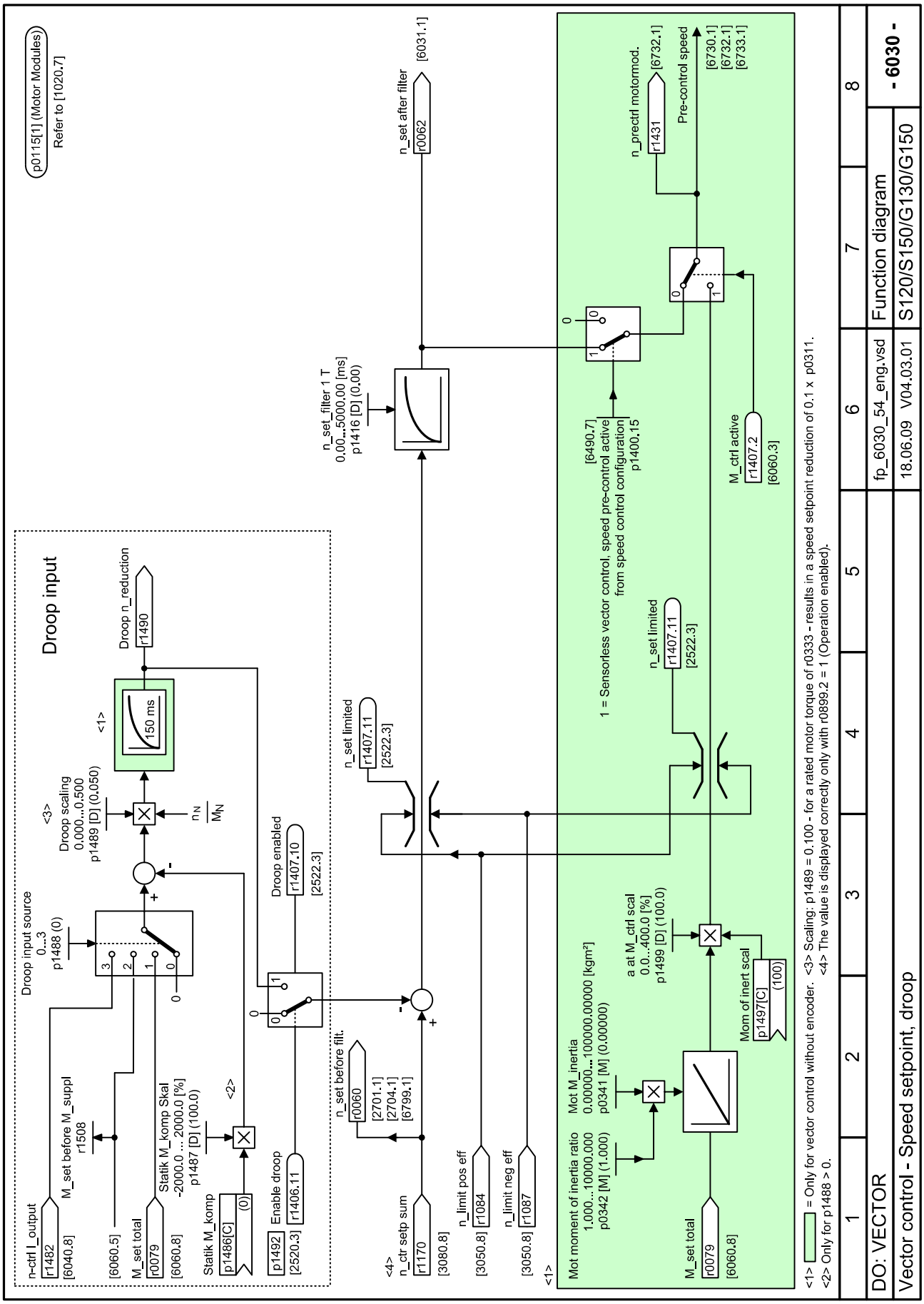

Fig. 2-182 6030 – Speed setpoint, droop

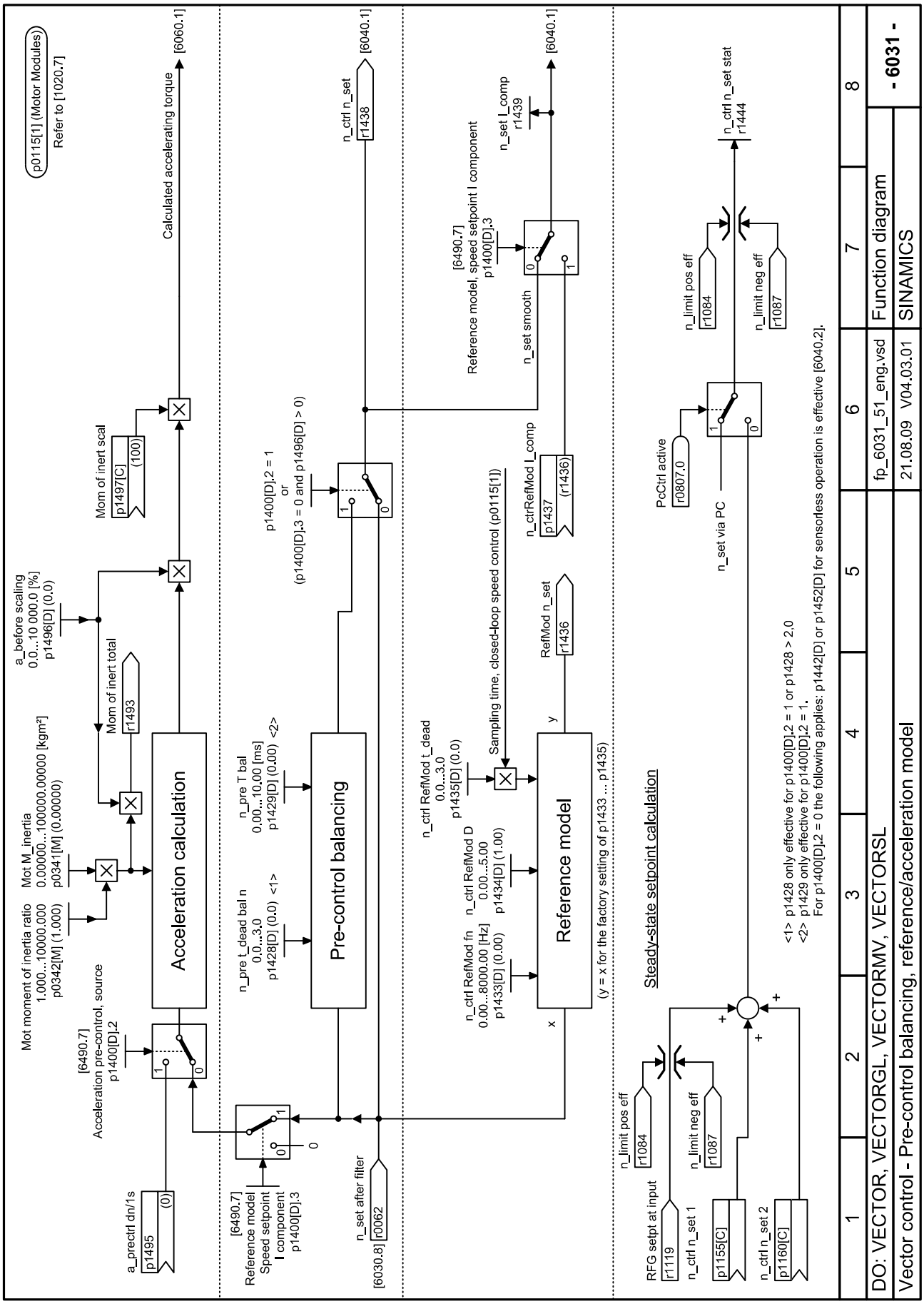

Fig. 2-183 6031 – Pre-control balancing for reference/acceleration model

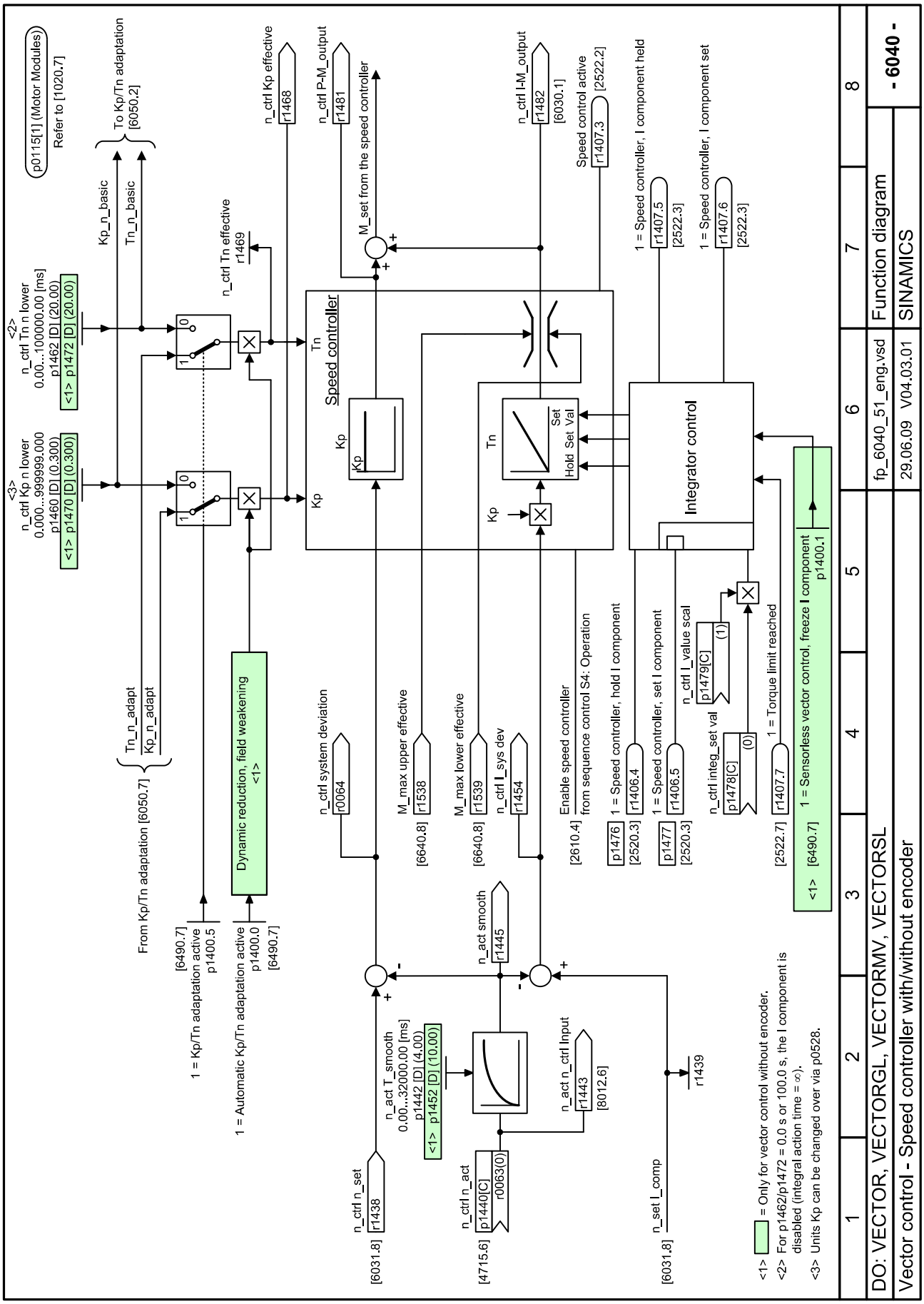

Fig. 2-184 6040 – Speed controller with/without encoder

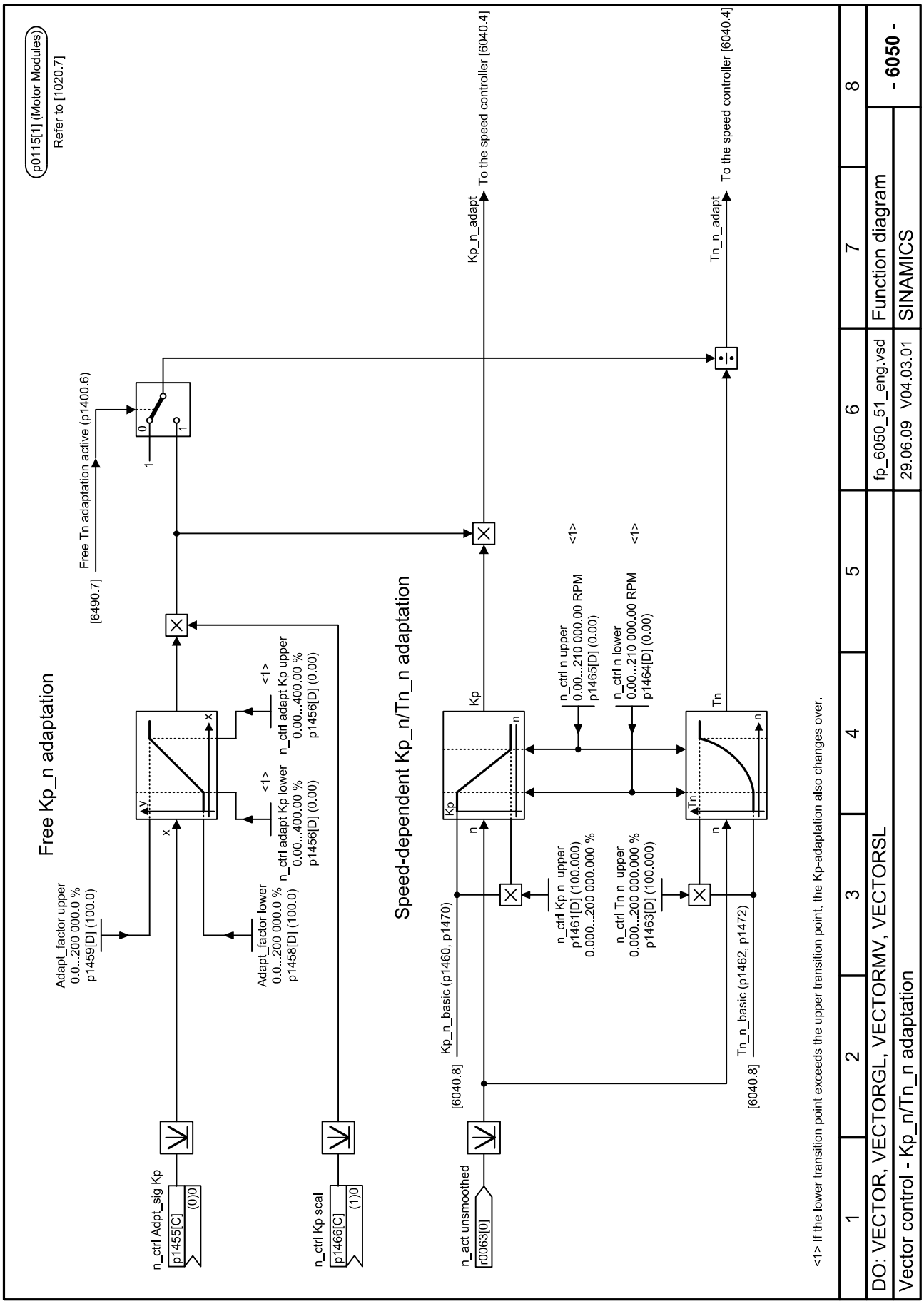

Fig. 2-185 6050 – Kp_n-/Tn_n adaptation

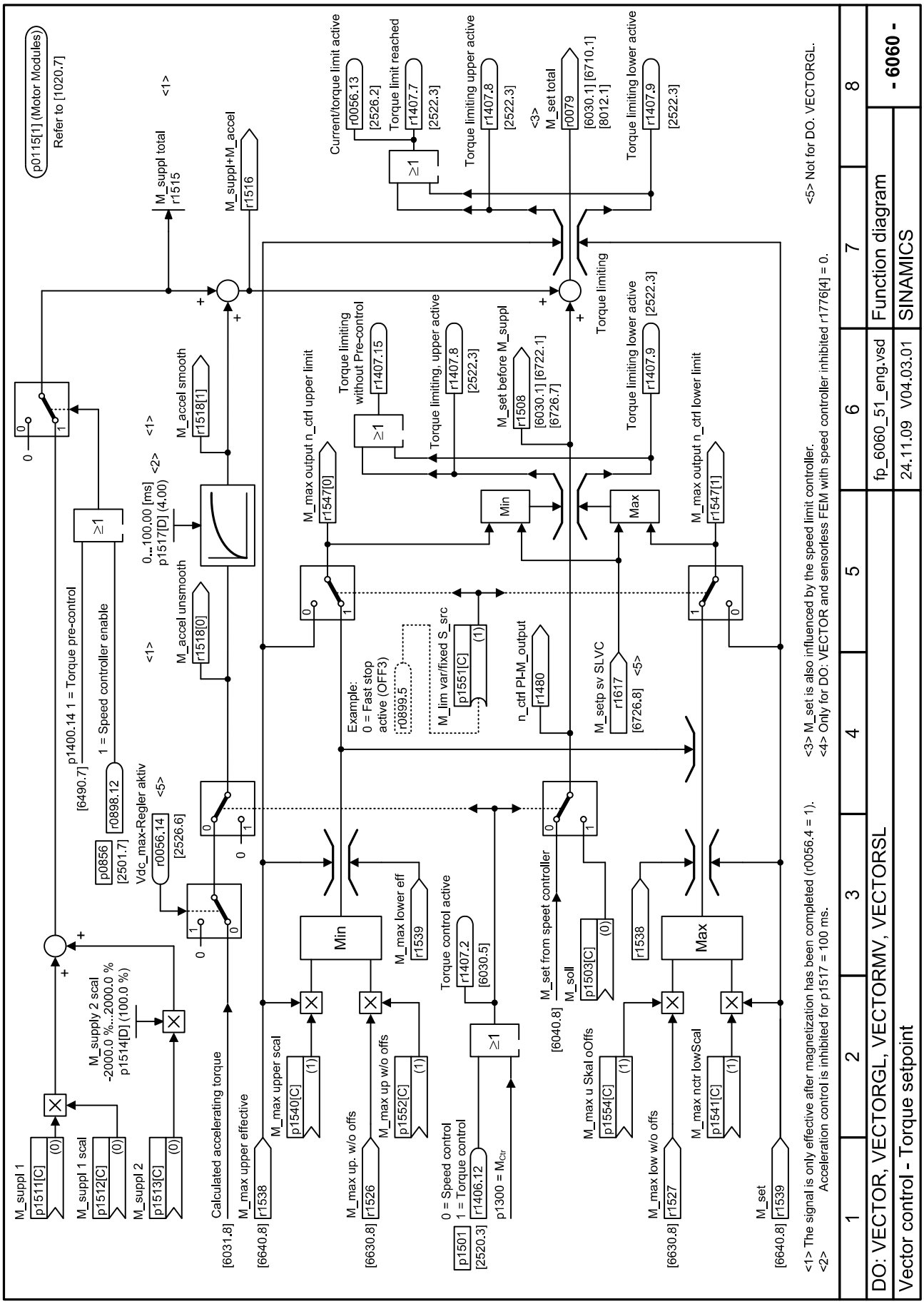

Fig. 2-186 6060 – Torque setpoint

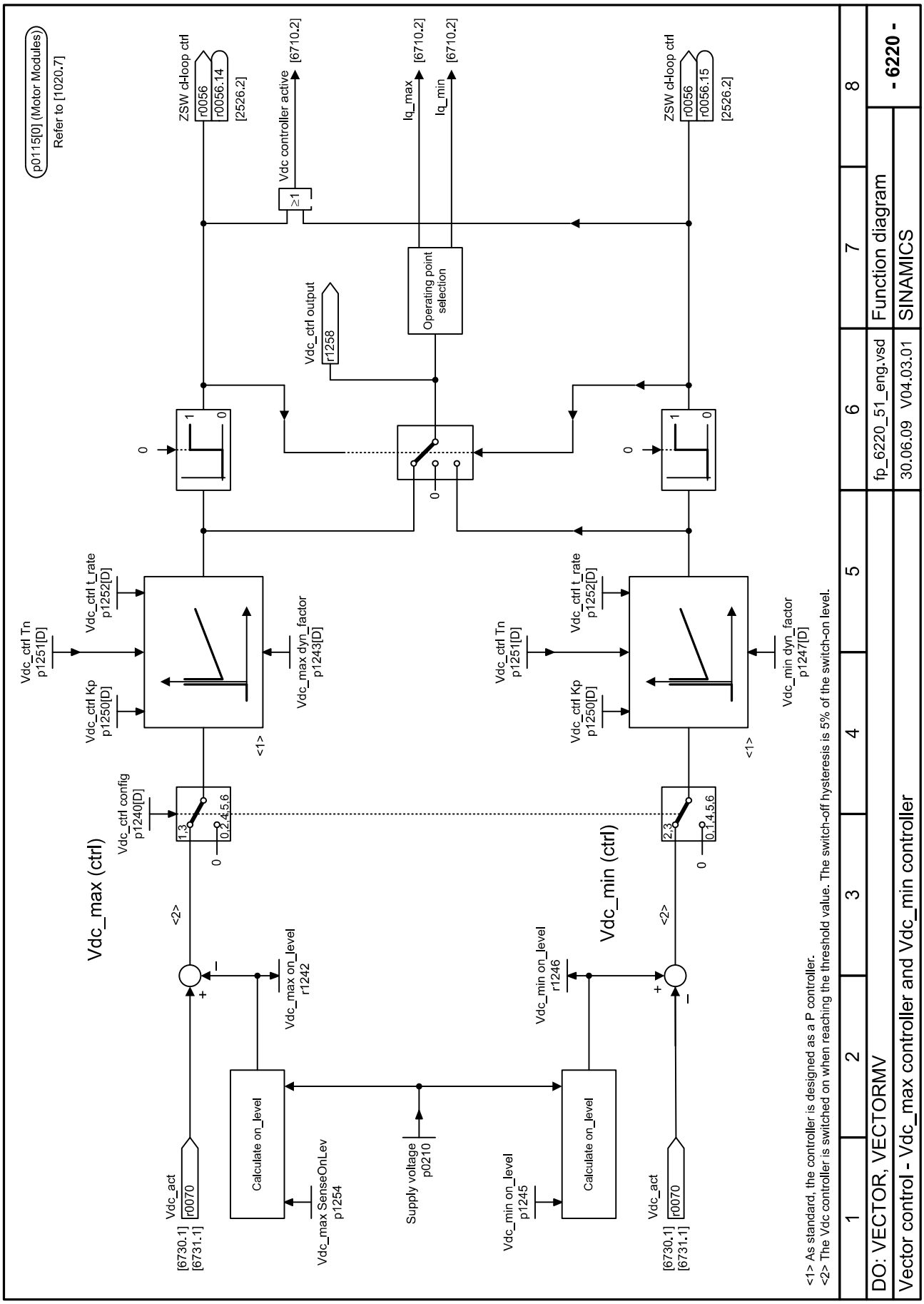

Fig. 2-187 6220 – Vdc_max controller and Vdc_min controller

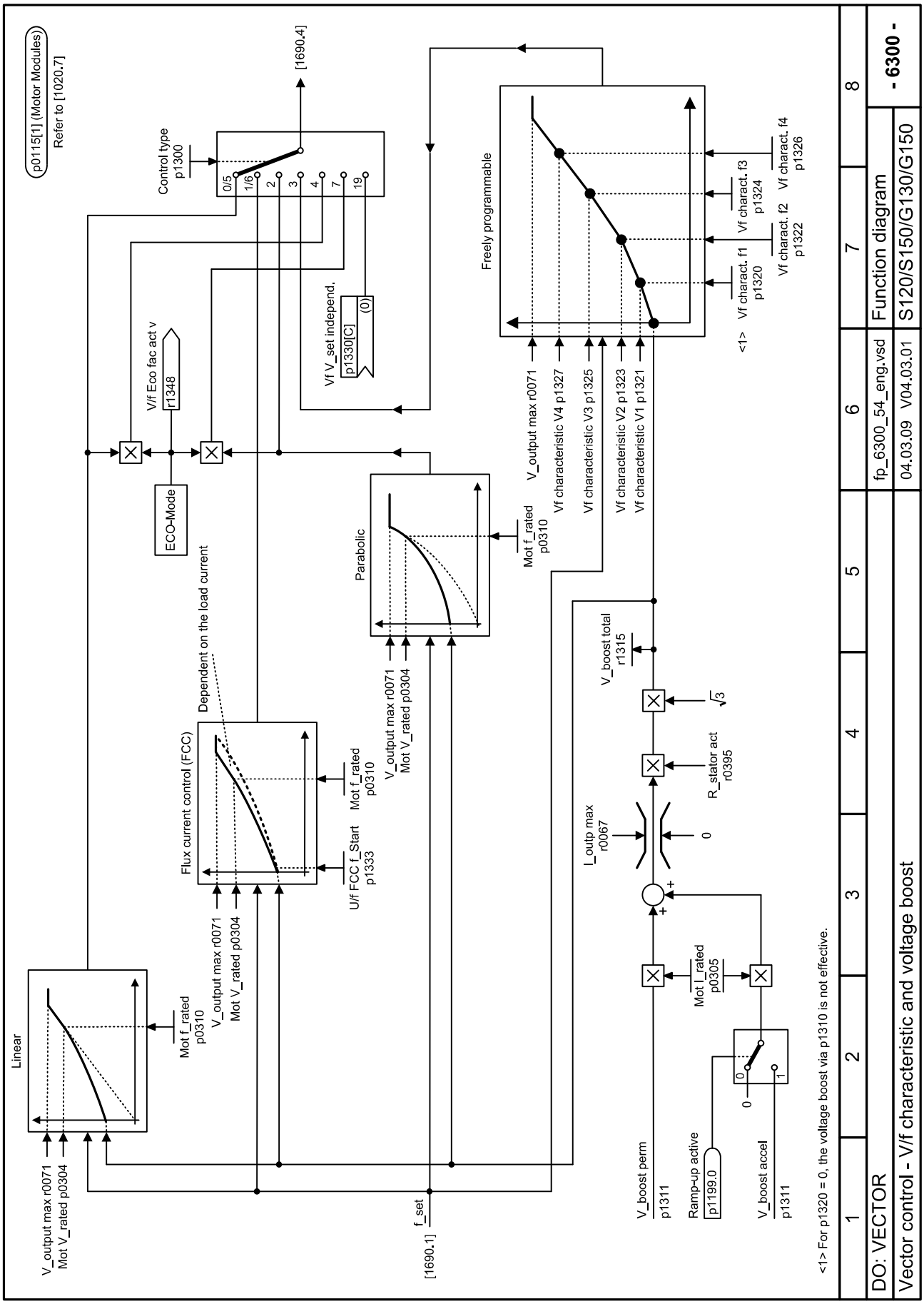

Fig. 2-188 6300 – V/f characteristic and voltage boost

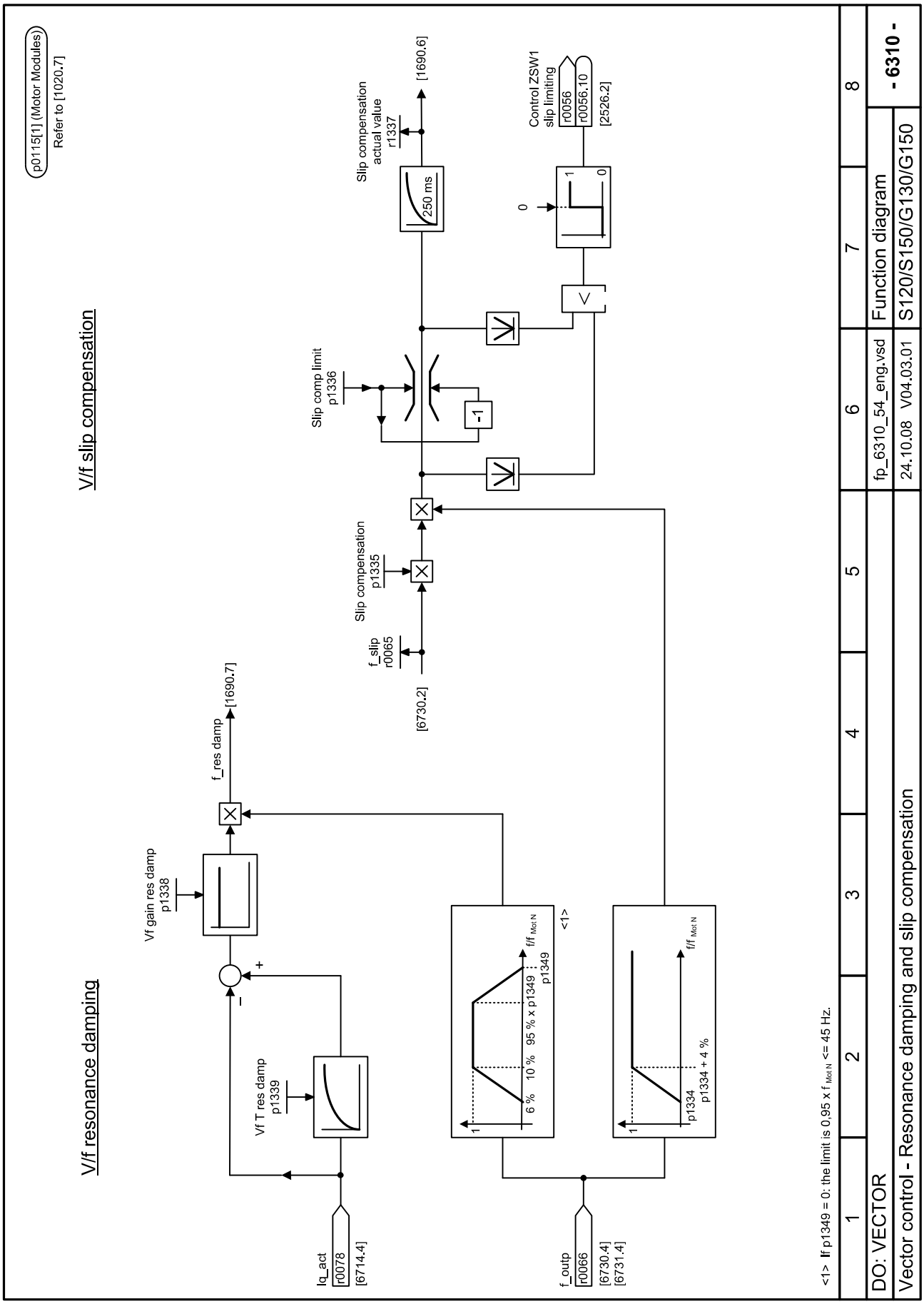

Fig. 2-189 6310 – Resonance damping and slip compensation

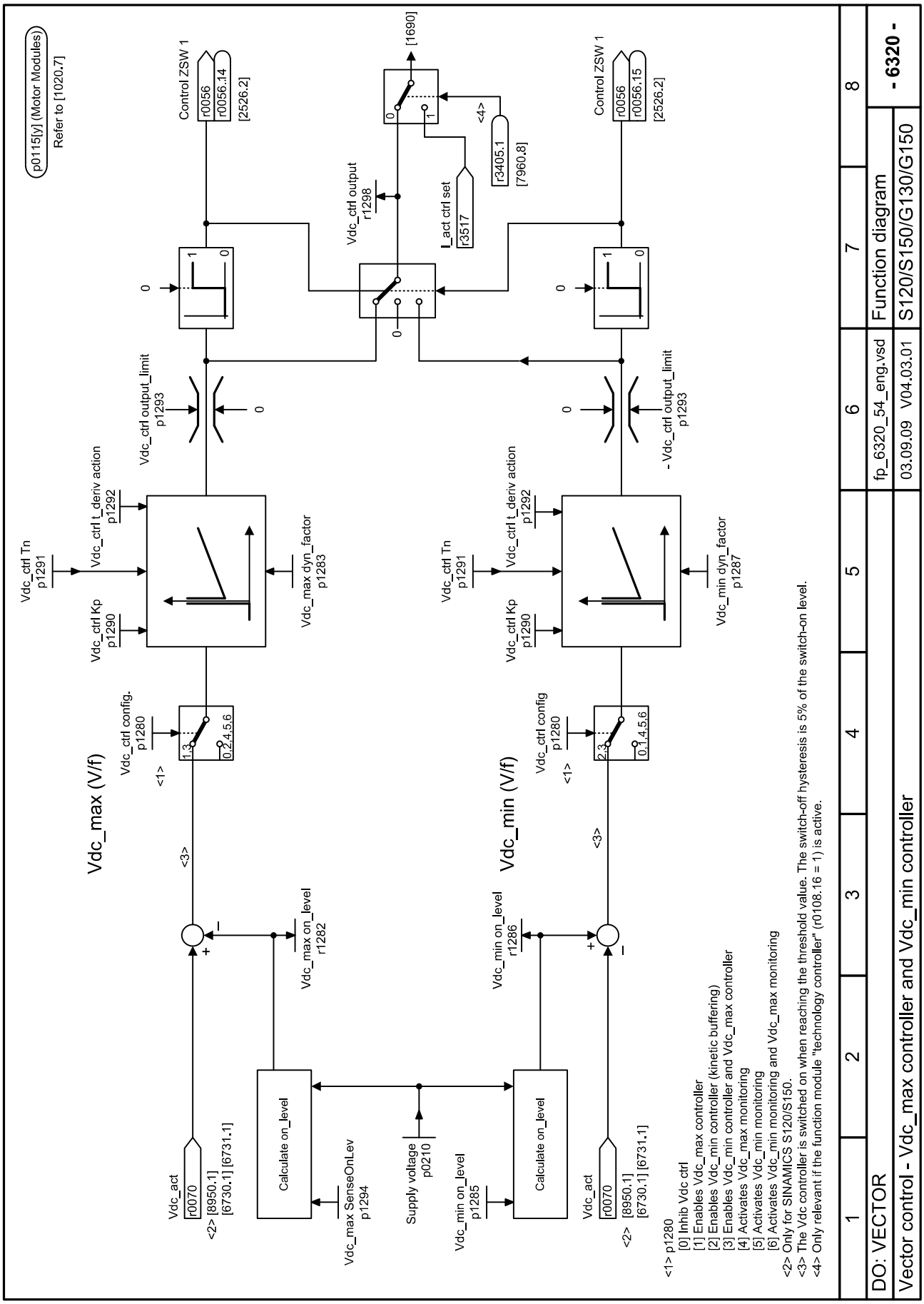

Fig. 2-190 6320 – Vdc_max controller and Vdc_min controller

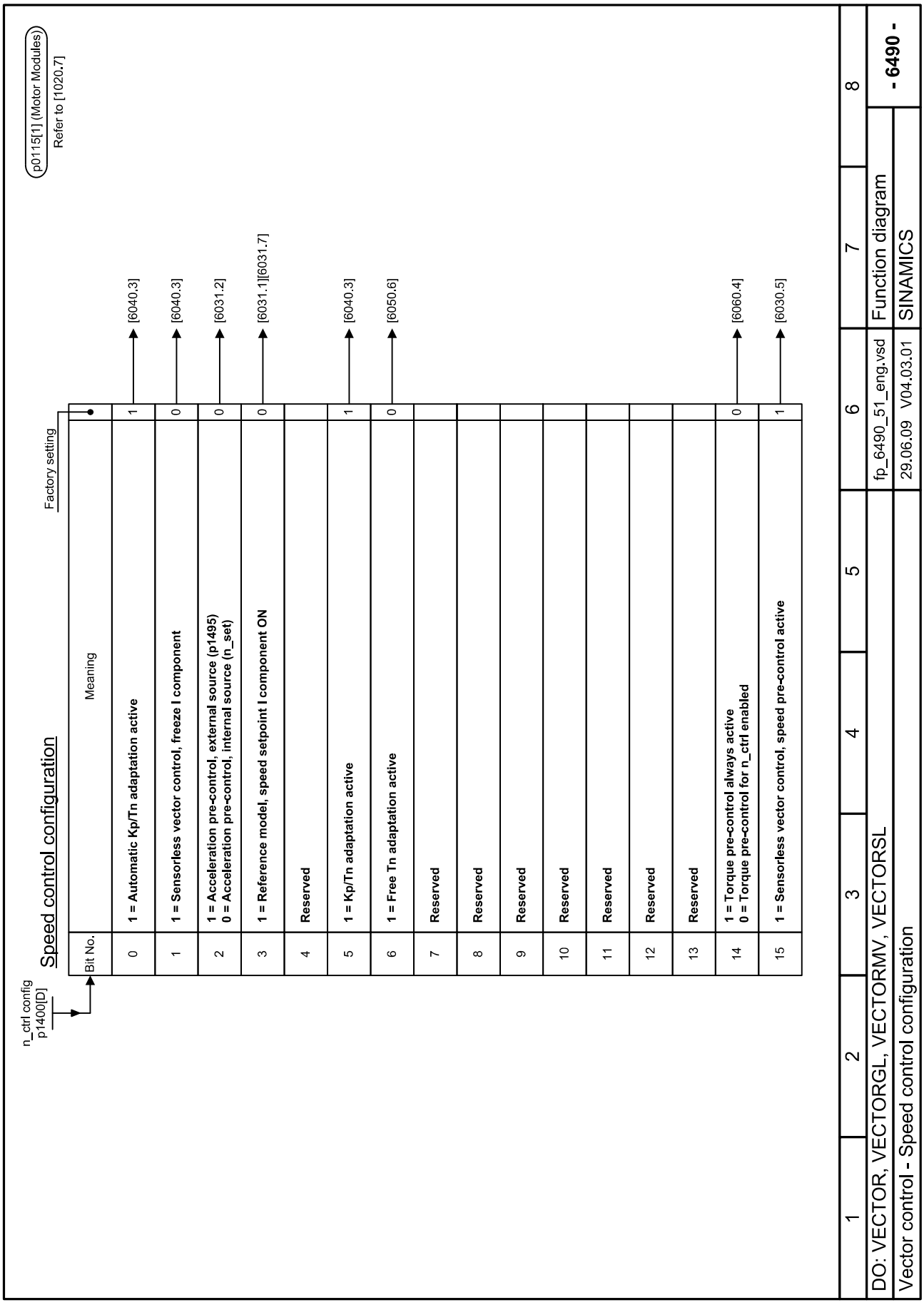

Fig. 2-191 6490 – Speed control configuration

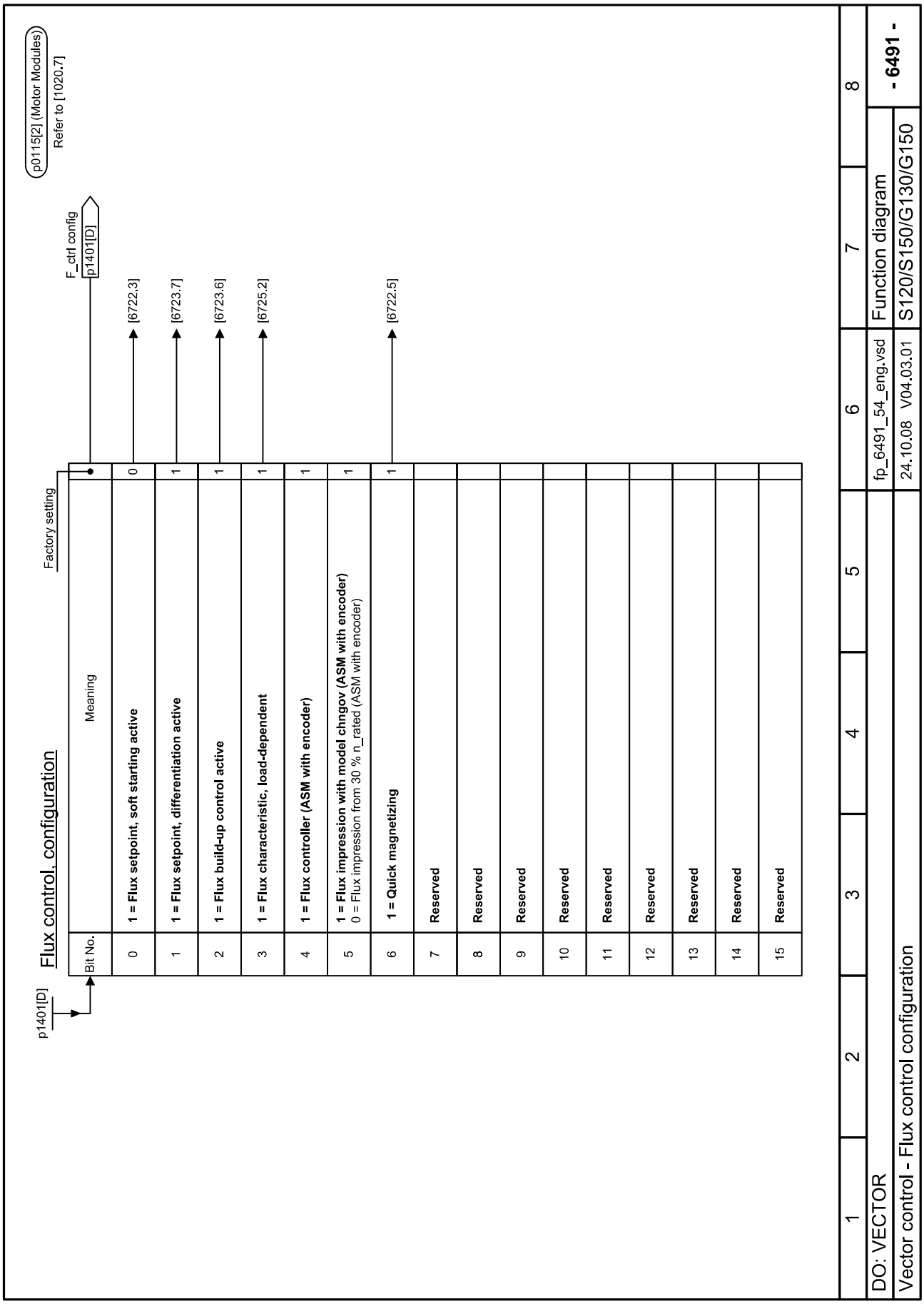

Fig. 2-192 6491 – Flux control configuration

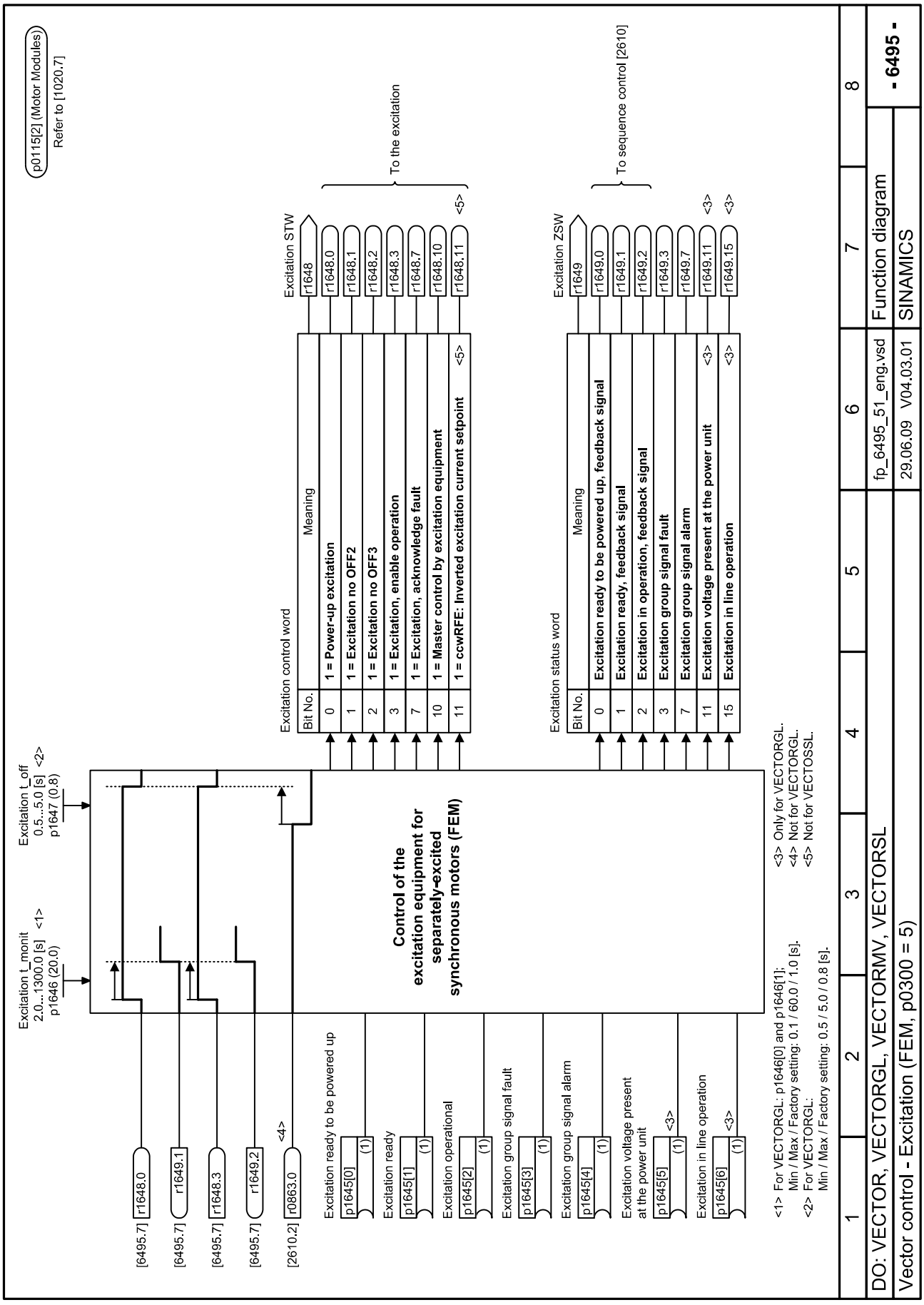

Fig. 2-193 6495 – Excitation (FEM, p0300 = 5)

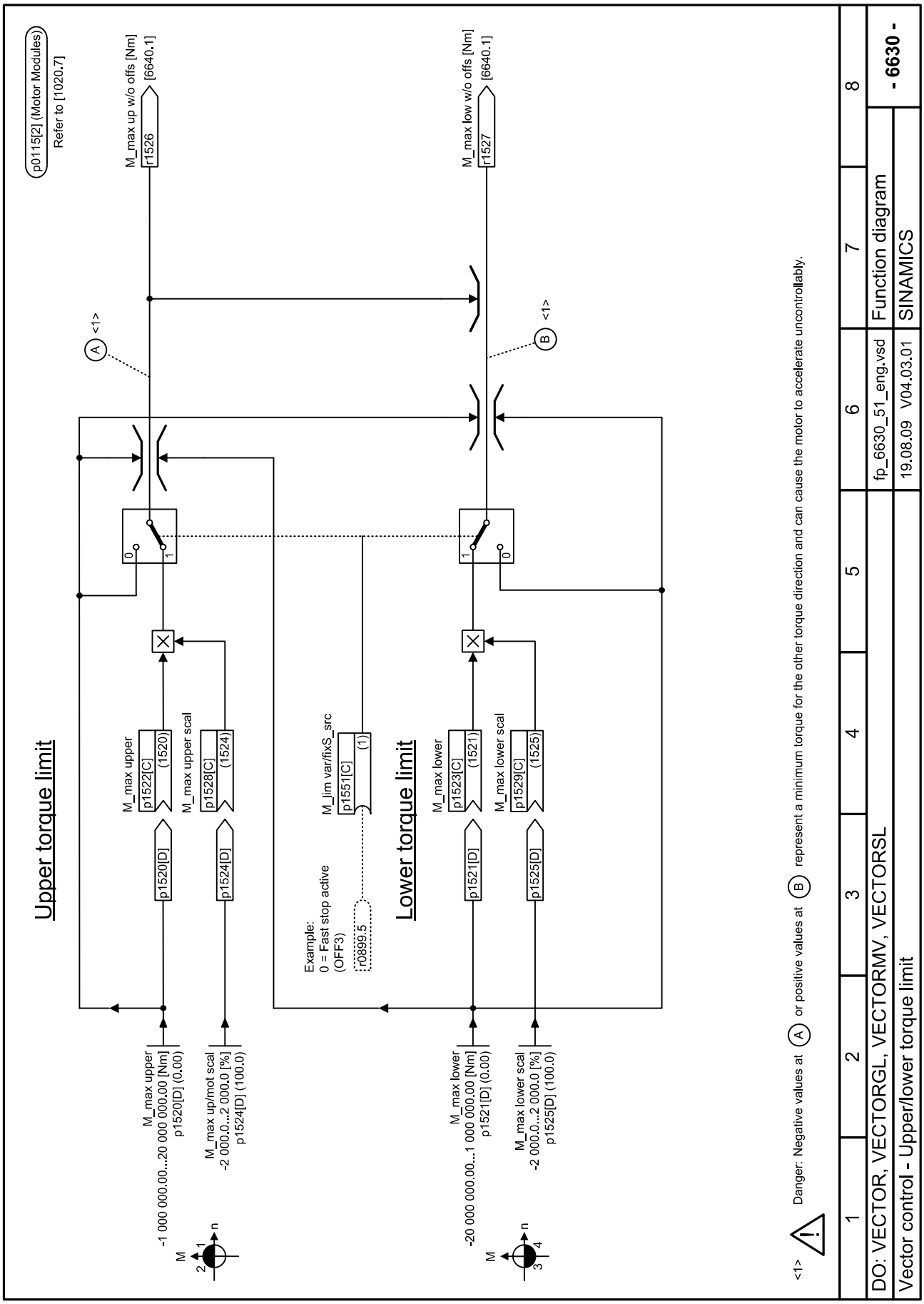

Fig. 2-194 6630 – Upper/lower torque limit

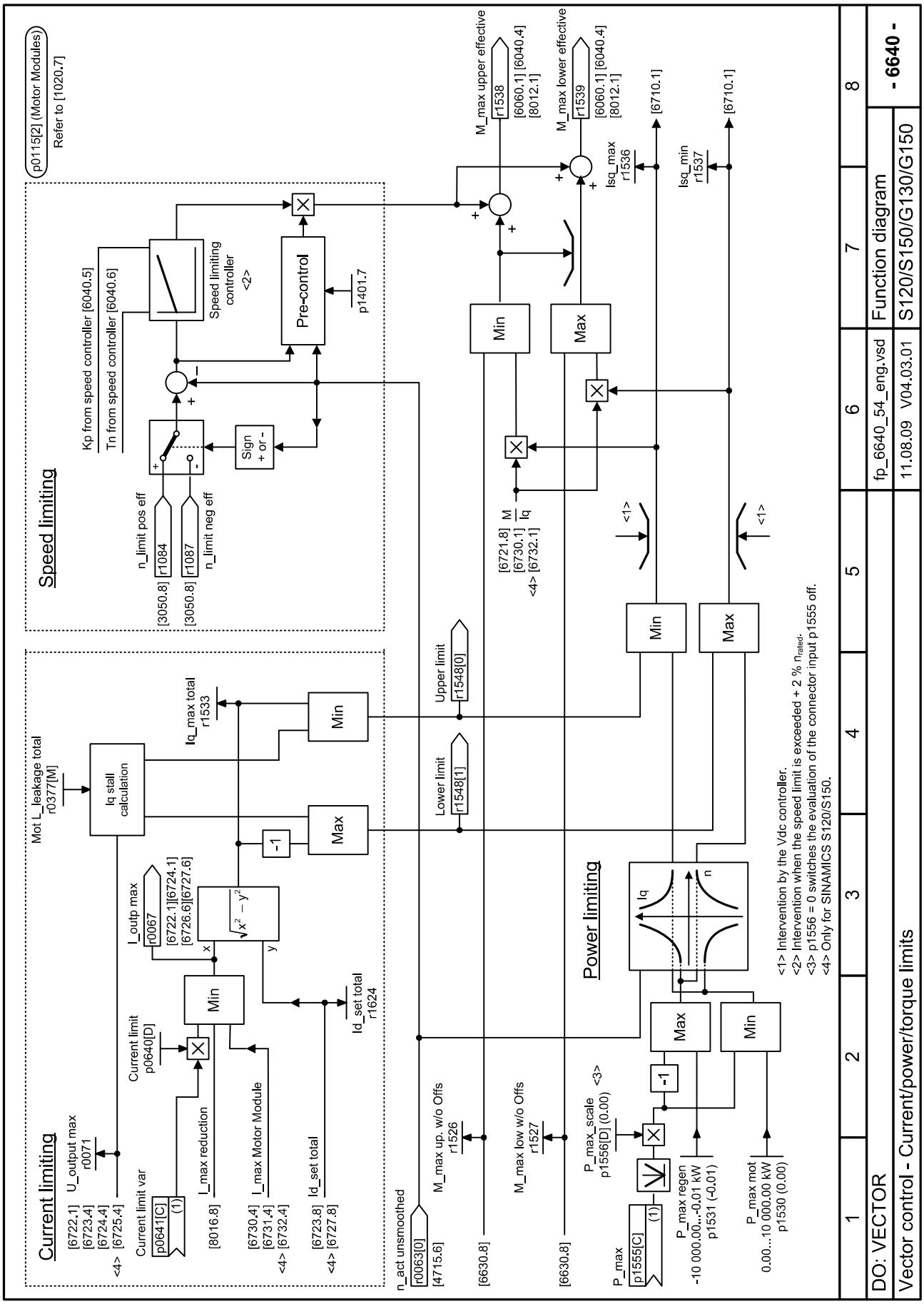

Fig. 2-195 6640 – Current/power/torque limits

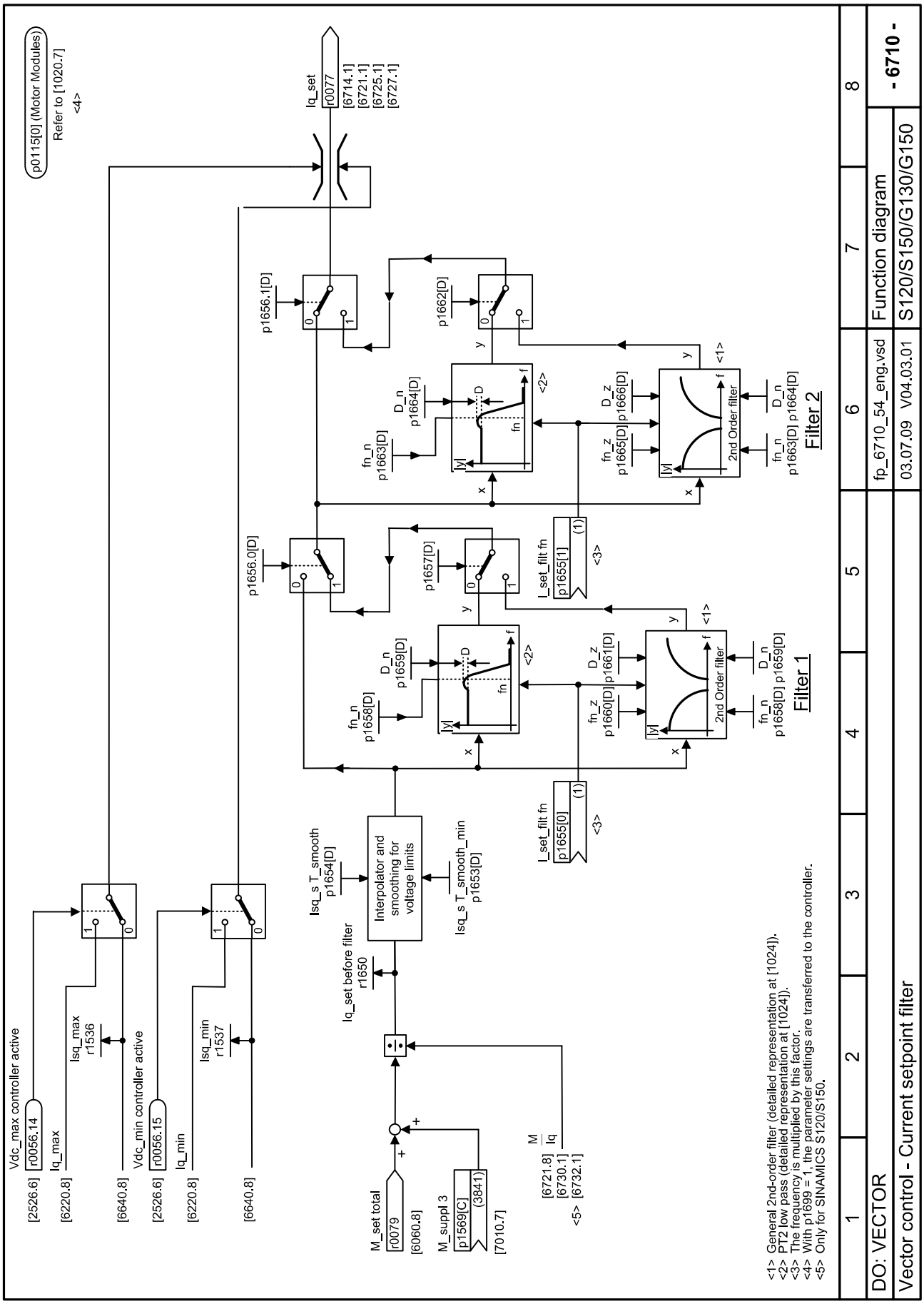

Fig. 2-196 6710 – Current setpoint filter

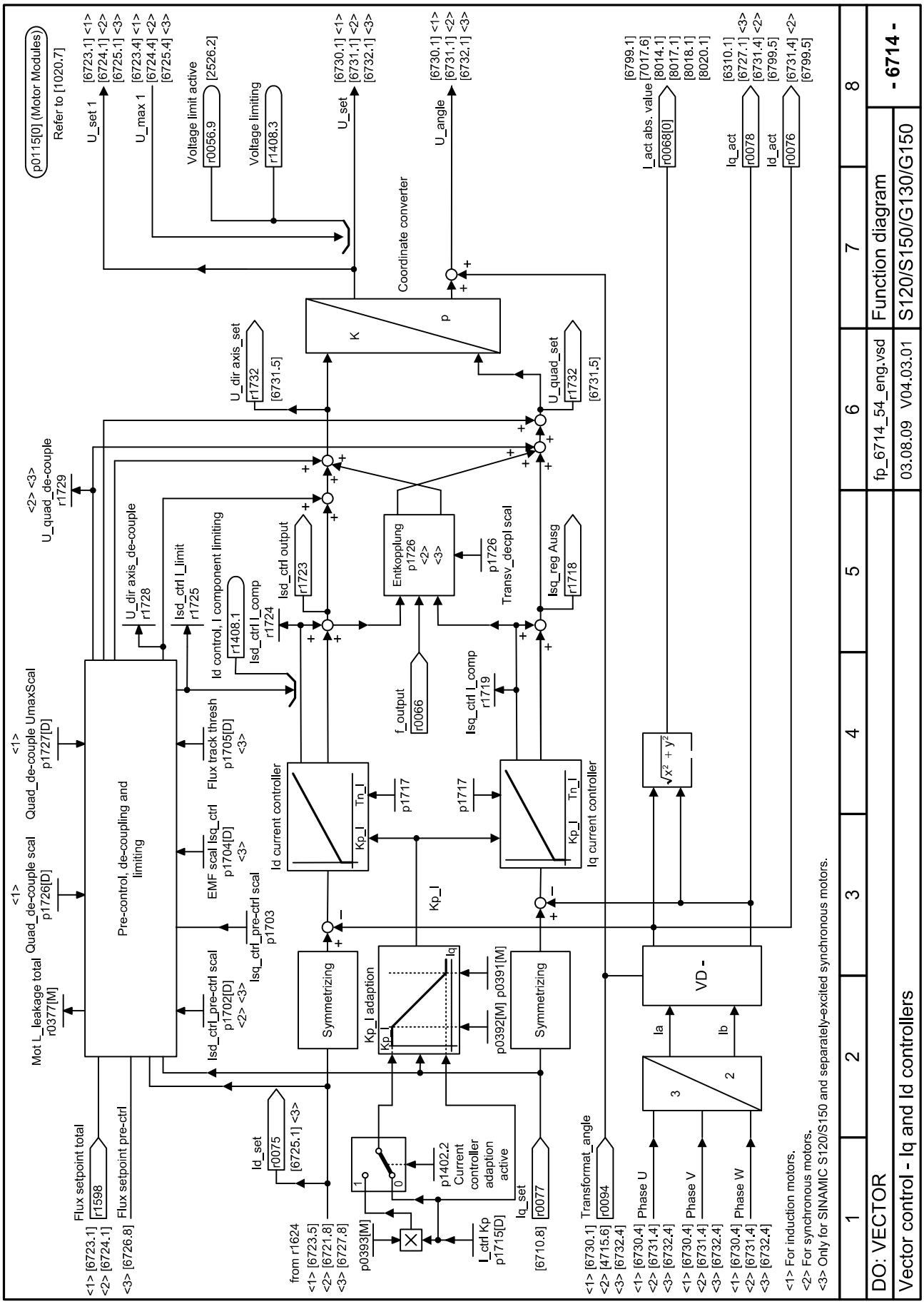

Fig. 2-197 6714 – Iq and Id controller

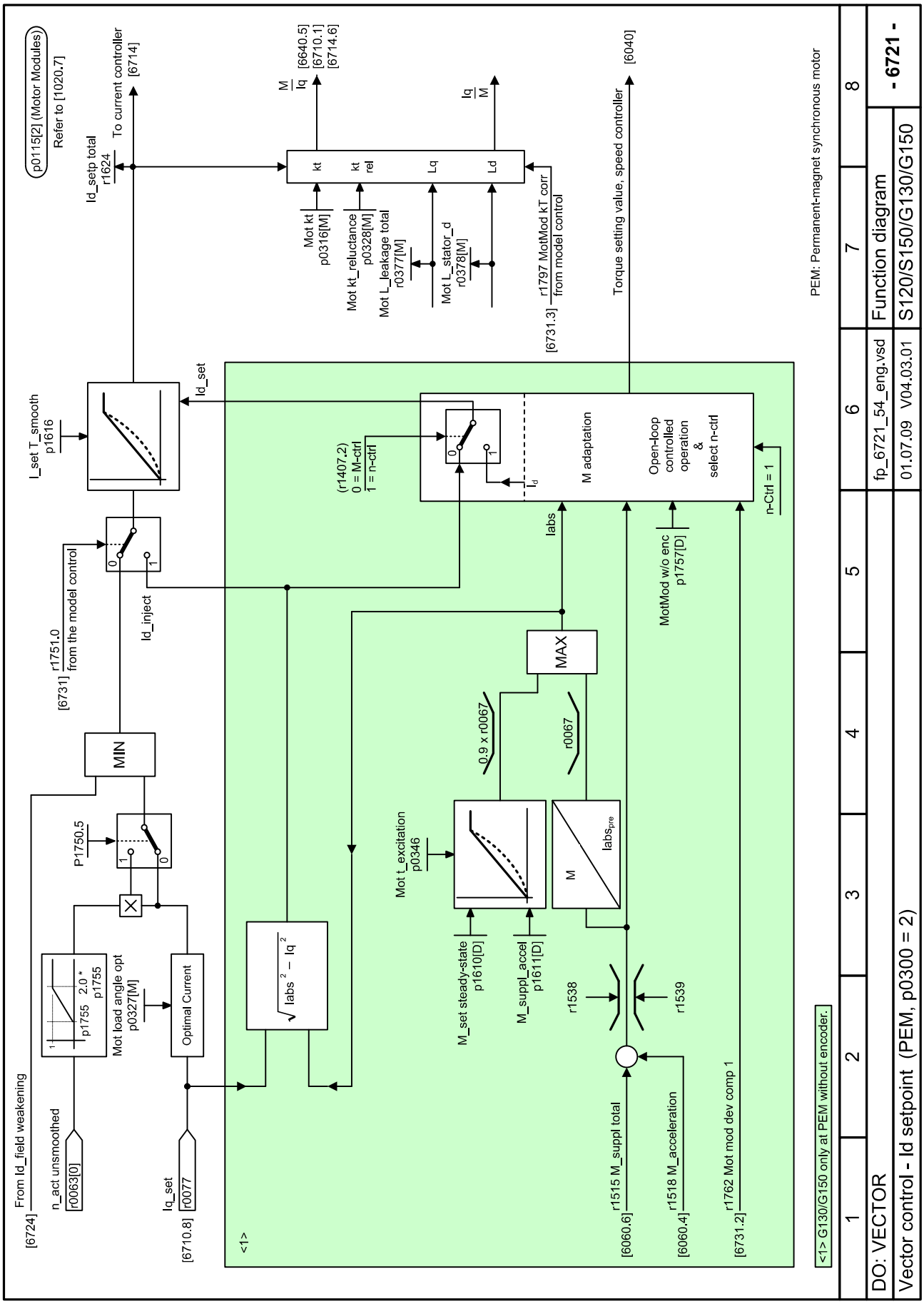

Fig. 2-198 6721 – Id setpoint (PEM, p0300 = 2)

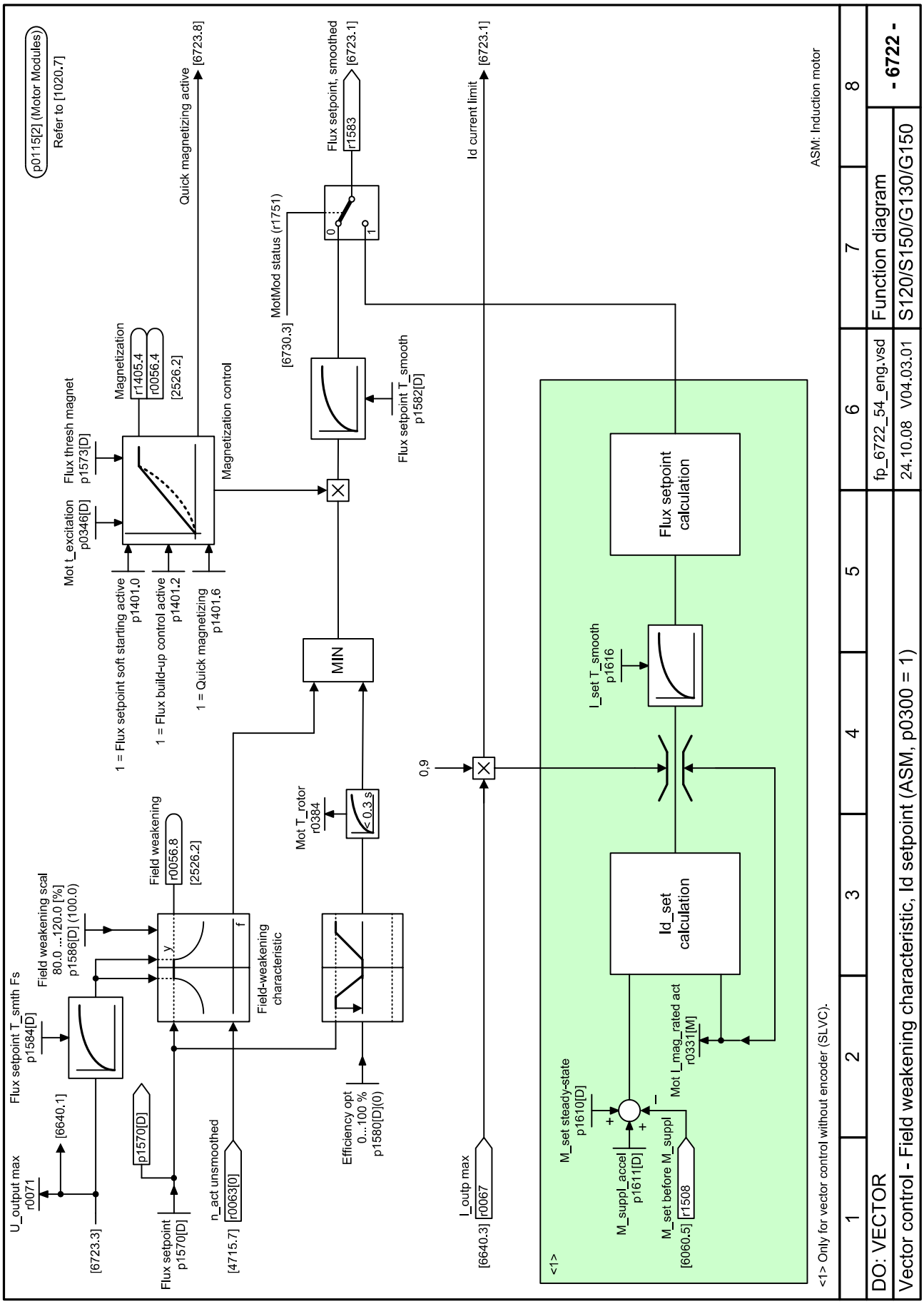

Fig. 2-199 6722 – Field weakening characteristic, Id setpoint (ASM, p0300 = 1)

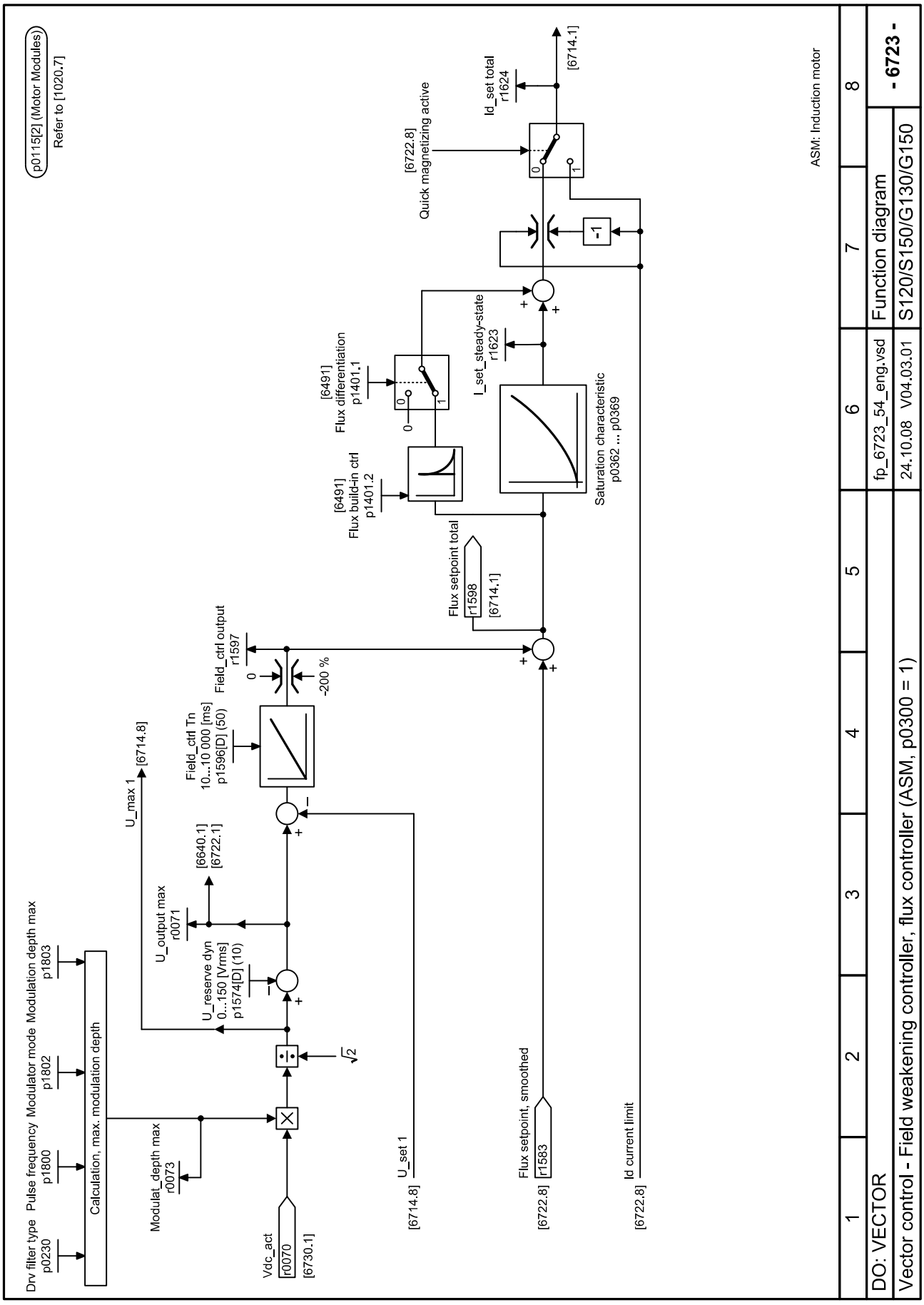

Fig. 2-200 6723 – Field weakening controller, flux controller (ASM, p0300 = 1)

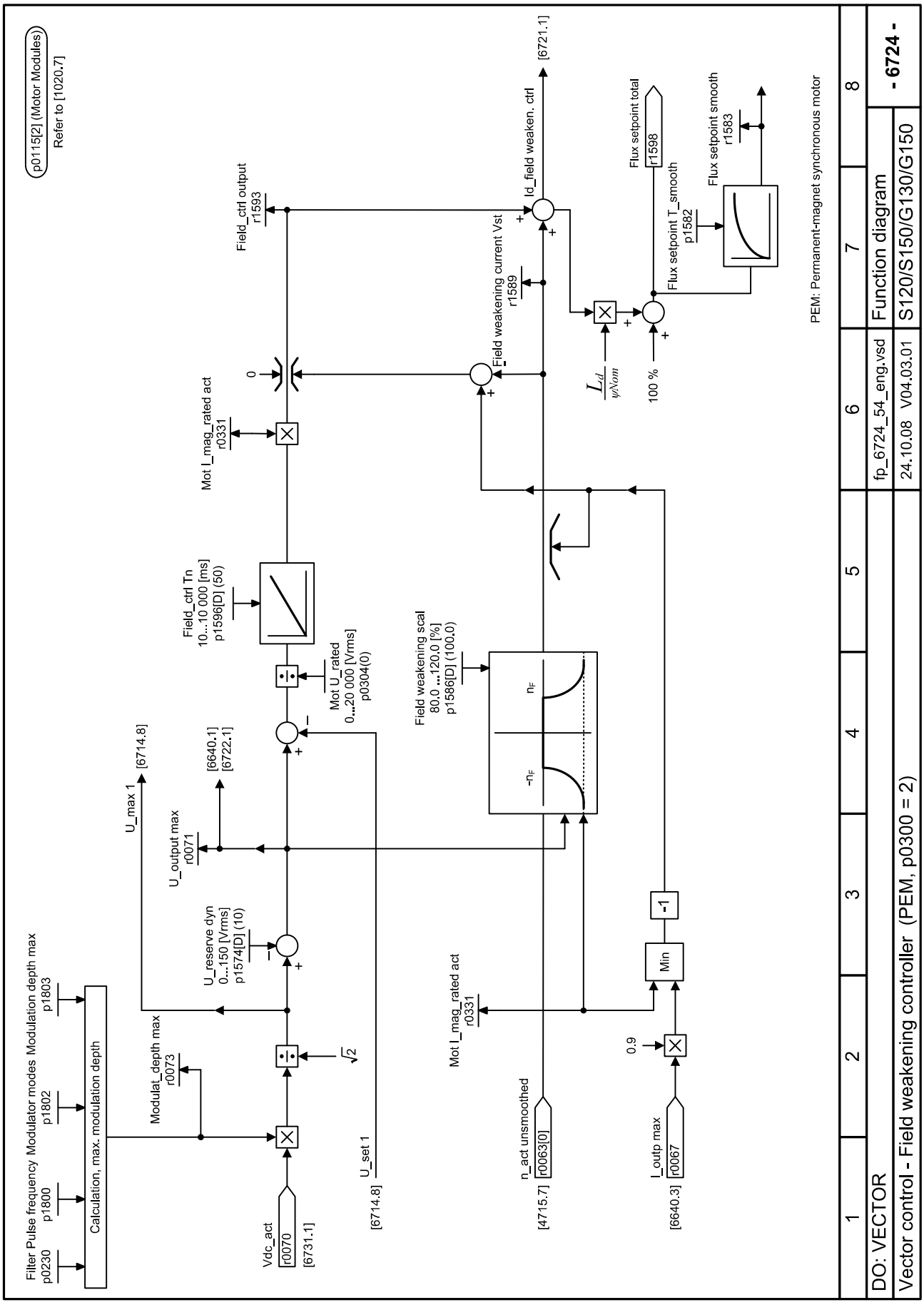

Fig. 2-201 6724 – Field weakening controller (PEM, p0300 = 2)

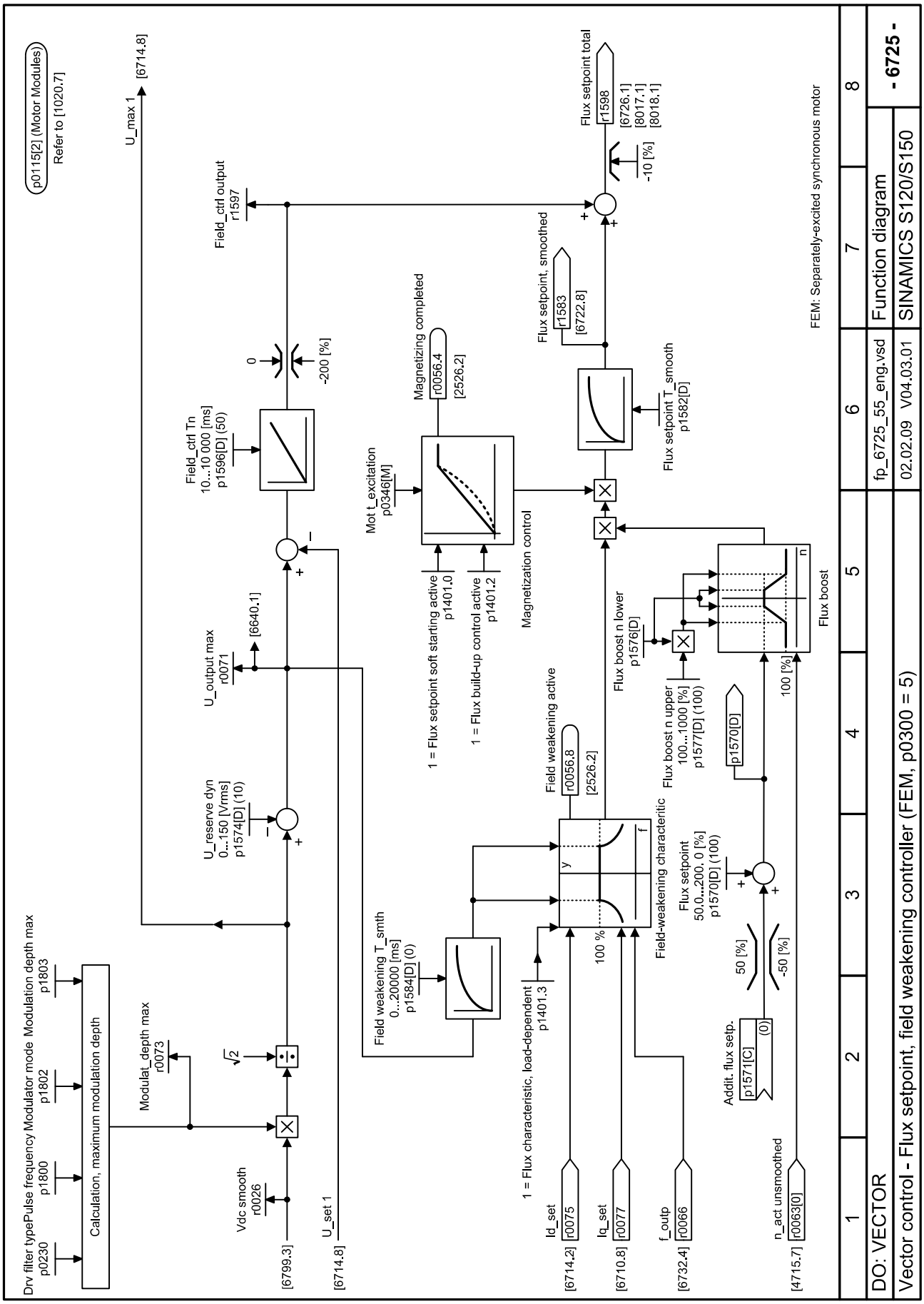

Fig. 2-202 6725 – Flux setpoint, field weakening controller (FEM, p0300 = 5)

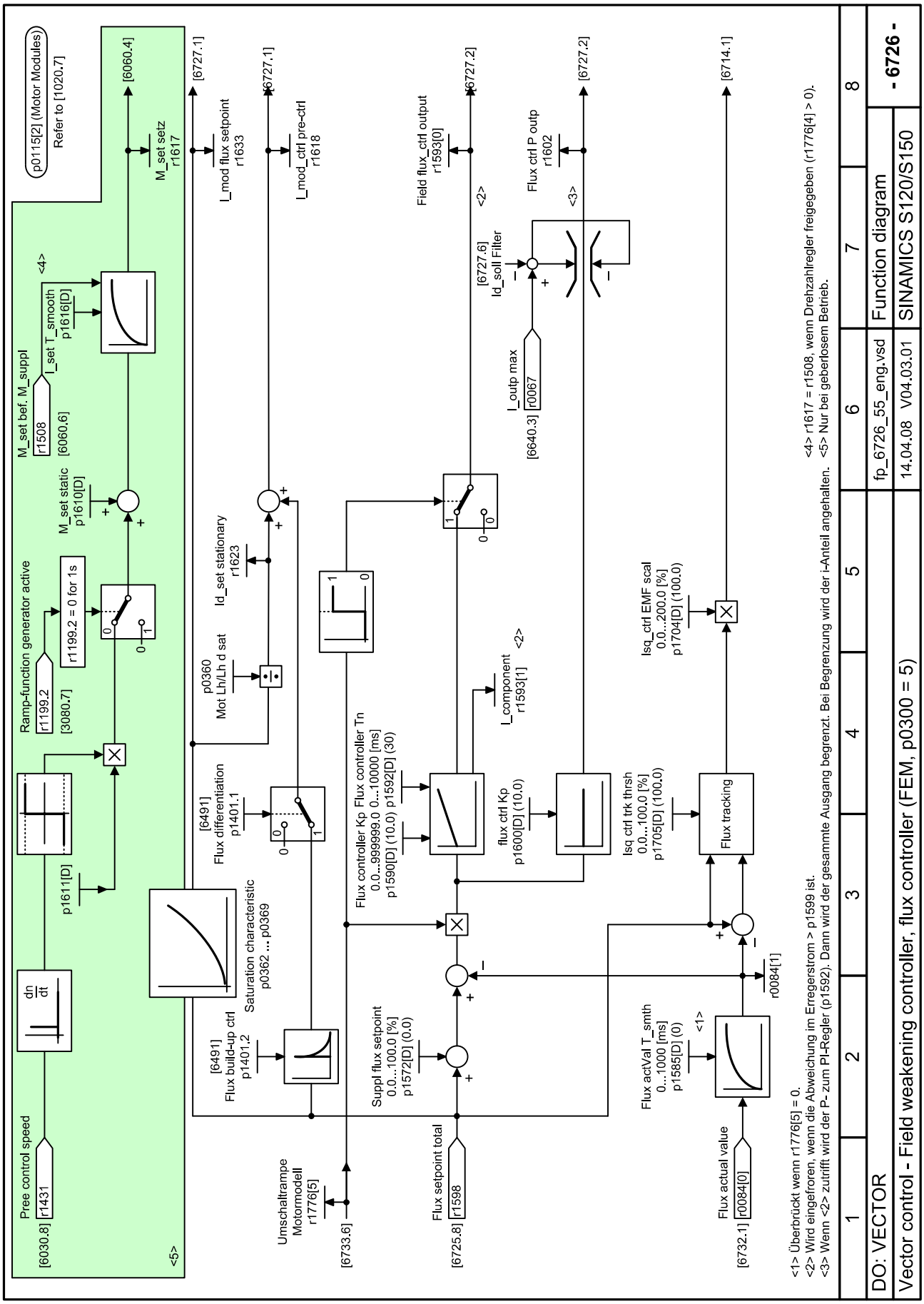

Fig. 2-203 6726 – Field weakening controller, flux controller (FEM, p0300 = 5)

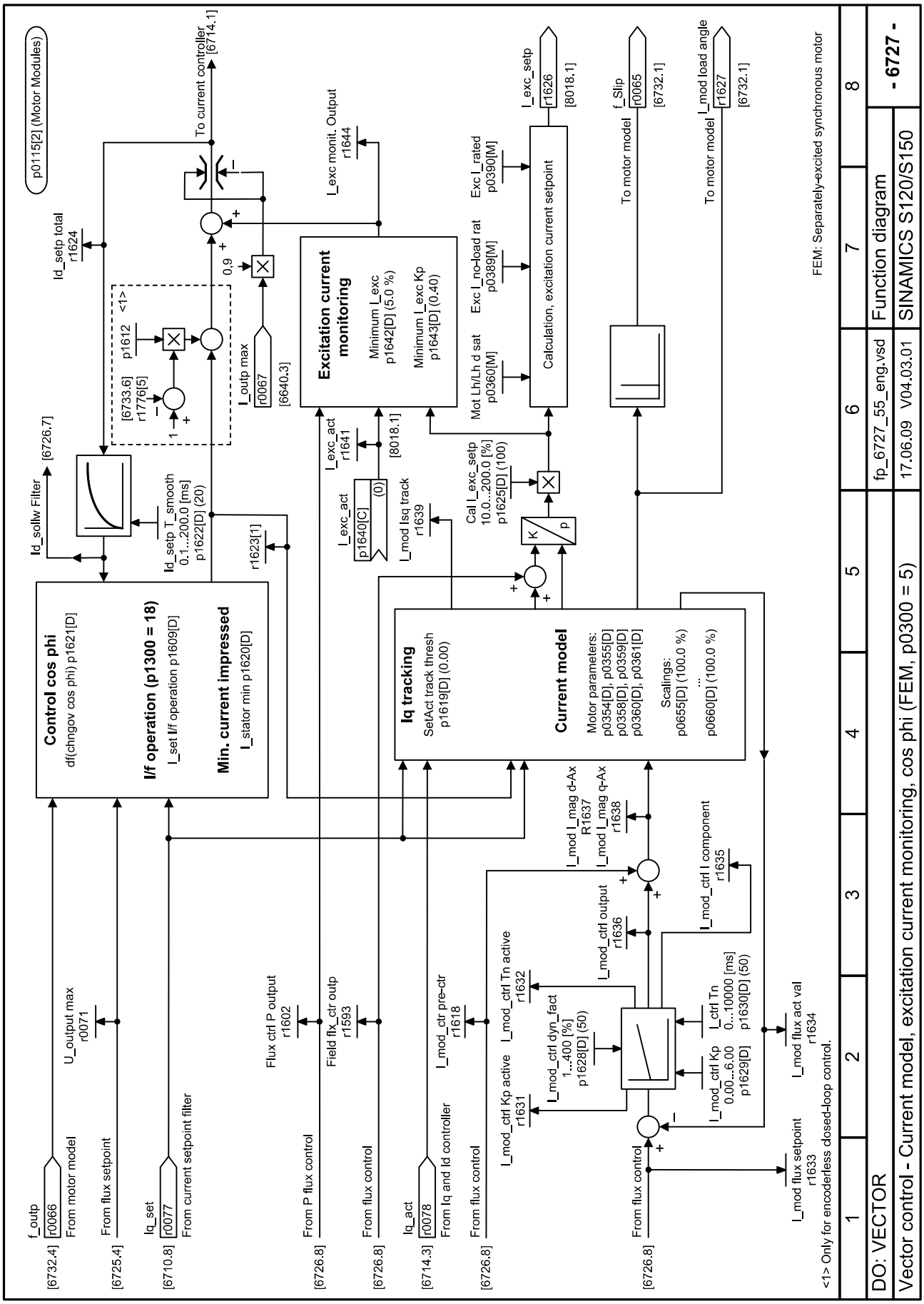

Fig. 2-204 6727 – Current model, excitation current monitoring, control cos phi (FEM, p0300 = 5)

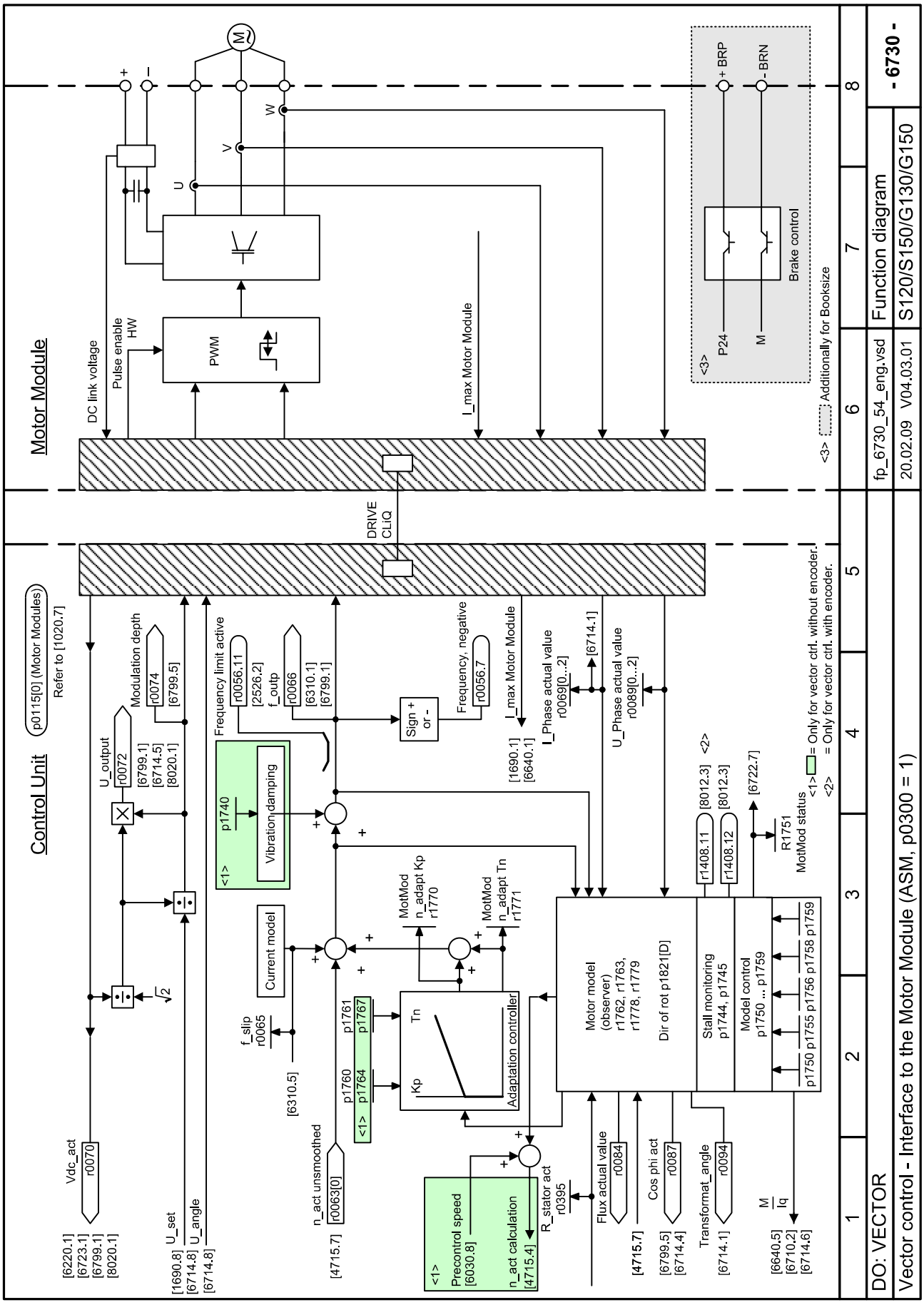

Fig. 2-205 6730 – Interface to Motor Module (ASM, p0300 = 1)

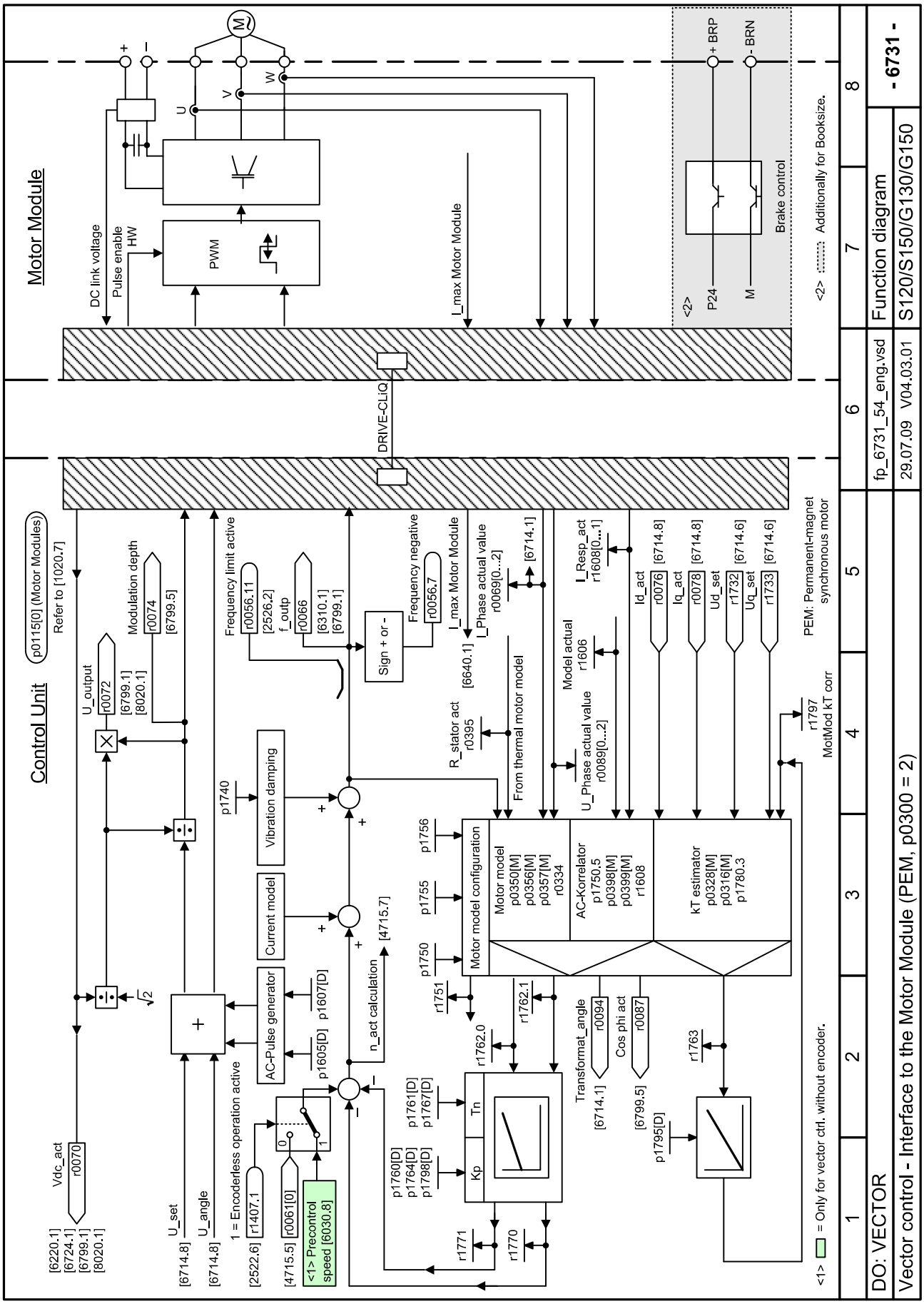

Fig. 2-206 6731 – Interface to the Motor Module (PEM, p0300 = 2)

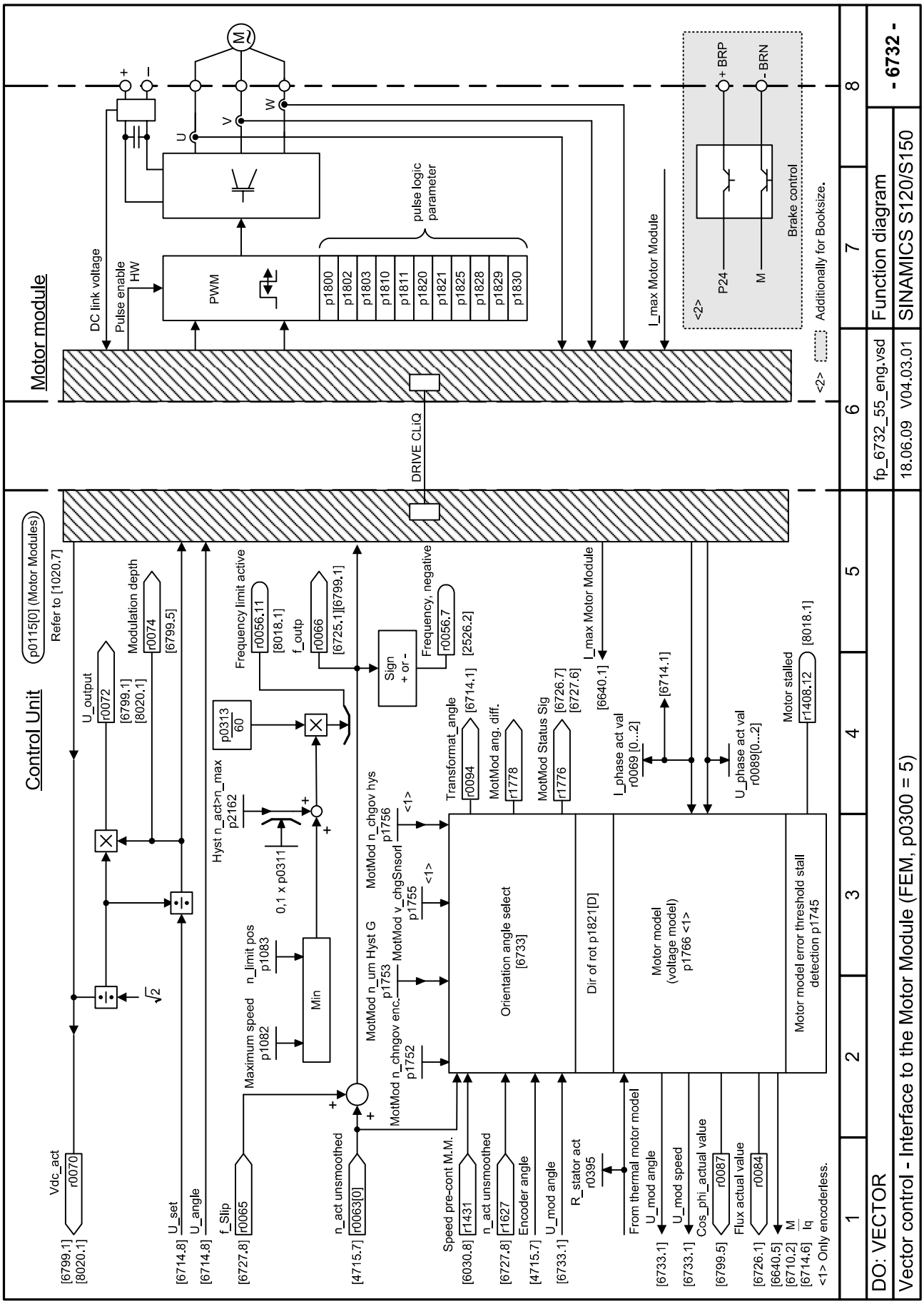

Fig. 2-207 6732 – Interface to Motor Module (FEM, p0300 = 5)

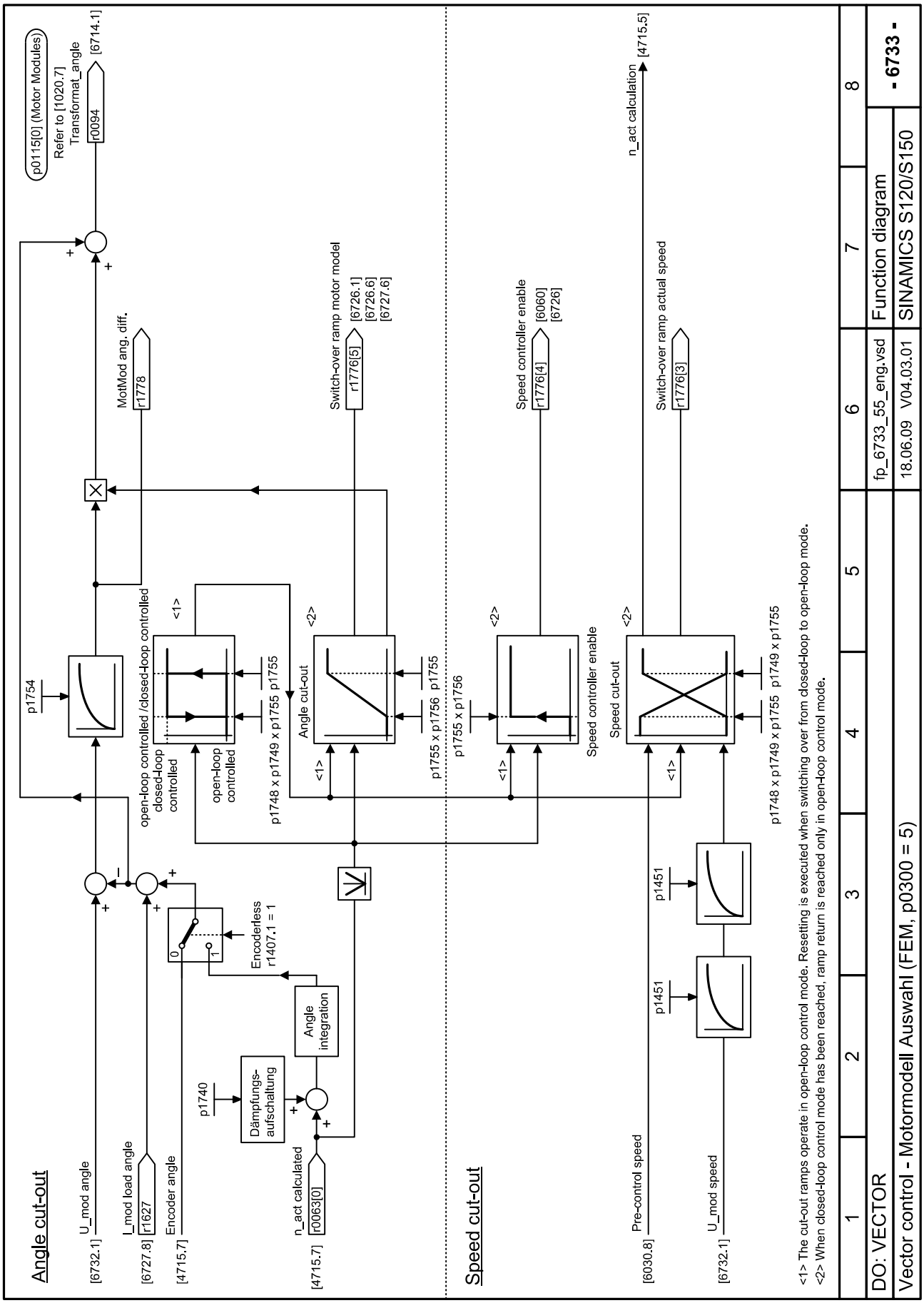

Fig. 2-208 6733 – Motor model selection (FEM, p0300 = 5)

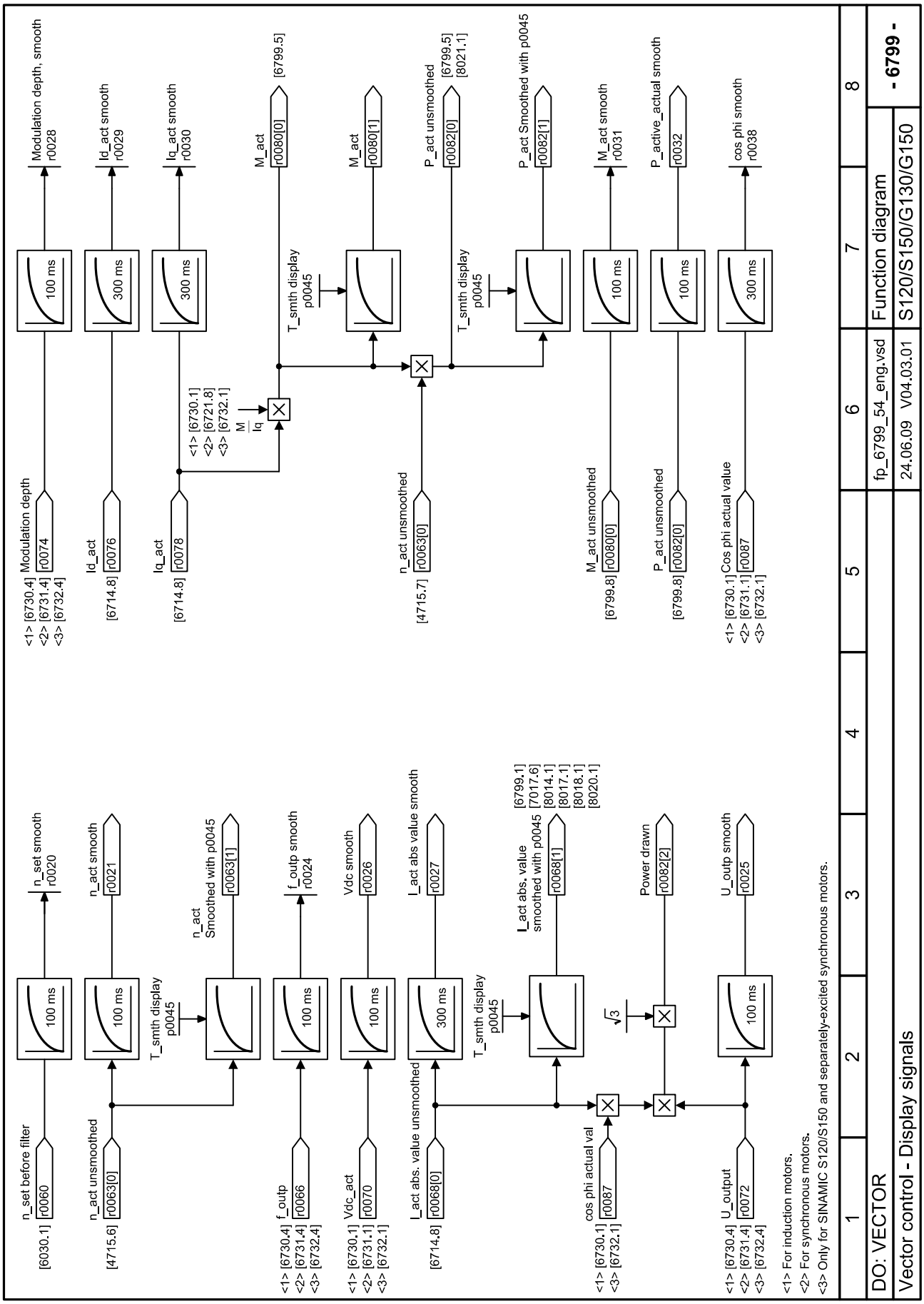

Fig. 2-209 6799 – Display signals