

- said active voltage limiter unit (115) is configured to regulate said torque reference (T_{ref}) of said regulator system (14) in order to cause said DC-link capacitor voltage ($V_{dc}(t)$) to be limited within said predetermined voltage range.

5 17. Laundry treating machine according to claim 16, wherein said active voltage limiter unit (115) is configured to regulate said torque reference (T_{ref}) of said regulator system (114) in order to cause said DC-link capacitor voltage ($V_{dc}(t)$) to be limited within said predetermined voltage range, without using said lines currents and/or DC-link currents.

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18. Laundry treating machine according to claim 17, wherein said active voltage limiter unit (115) is configured to:

receive first voltage signals ($U_a(t)$, $v_{\beta(i)}$) indicative of the duty cycles of said switching signals;

15 receive first current signals ($i_{\alpha(i)}$, $i_{\beta(i)}$) indicative of said output currents (i_u , i_v , i_w) provided to said electric motor (2)

receive said voltage ($V_{dc}(t)$) of the DC-link capacitor (11),

determine a torque limit value (T_{ref_lim}) based on said first voltage signals ($U_a(t)$, $v_{\beta(t)}$), said first current signals ($i_{\alpha(i)}$, $i_{\beta(i)}$), and said voltage ($V_{dc}(t)$) of the
20 DC-link capacitor (11).

19. Laundry treating machine according to claim 18, wherein said active voltage limiter unit (15) is configured to:

determine an active current ($i_a(t)$) based on said first voltage signals ($U_a(t)$,
25 $v_{\beta(i)}$) and said first current signals ($i_{\alpha(i)}$, $i_{\beta(i)}$);

determine an instantaneous maximum allowable regeneration current ($i_{aIstAbs}(t)$) based on the measured voltage level and the prefixed parameter ($i_{aMaxAbs}$) corresponding to a maximum absolute active current ($i_a(t)$) for regeneration by means of the following equation:

30 $i_{aIstAbs}(t) = c_o V * i_{aMaxAbs}$,