Nomenclature

List of Greek and Roman Symbols

V_{in}	Input Voltage
V_{ac}	RMS AC voltage
I_{ac}	RMS AC current
V_P	DC link voltage
v_{ac}	Per phase peak AC voltage
i_{ac}	Per phase peak AC load current
$cos\phi$	Power factor
S	Symbol for MOSFET/IGBT
D	Symbol for Diode
C	Symbol for capacitor
L	Symbol for inductor
R_{dc}	DC load resistance
R_{ac}	Per phase AC load resistance
R_L	Effective AC load resistance
L_L	Effective AC load inductance
V_C	Voltage across capacitor

V_{nzc}	Voltage across capacitor in NZ-DCM
V_L	Voltage across inductor
V_S	Voltage drop across switch
V_d	Voltage drop across diode
d	Duty cycle
m	Modulation index
G_{DC}	DC Voltage gain
G_{AC}	AC Voltage gain
i_L	Instantaneous inductor current
i_{Lmin}	Minimum inductor current
i_{Lmax}	Maximum inductor current
i_c	Instantaneous capacitor current
i_{inv}	Instantaneous inverter current
I_L	Average inductor current
I_{in}	Average input current
I_0	Average output current
ΔI_L	Peak to peak inductor ripple current
ΔV_C	Peak to peak capacitor ripple voltage
T_s	Switching time
f_s	Switching frequency
P_{st}	Shoot through loss
P_{nst}	Non shoot through loss

r_L	Internal resistance of inductor
r_c	Internal resistance of capacitor
r_{ds}	Internal resistance of switch

Abbreviations

PMSM	Permanent magnet synchronous machine
CPMSM	Consequent pole permanent magnet synchronous machine
HEV	Hybrid electric vehicle
CCM	Continuous current mode
DCM	Discontinuous current mode
NZ-DCM	Non-zero discontinuous current mode
FCCM	Forced continuous current mode
ZSI	Z source inverter
SBI	Switched boost inverter
SL	Switched inductor
SC	Switched capacitor
VSI	Voltage source inverter
CSI	Current source inverter
PV	Photo-voltaic
EMI	Electromagnetic interference
MLI	Multilevel inverter
NPC	Neutral point clamped inverter
THD	Total harmonic distortion
ST	Shoot through
NST	Non shoot through
CMLI	Cascaded multilevel inverter

FC	Flying capacitor
MMC	Modular multilevel converter
UST	Upper shoot through
LST	Lower shoot through
FST	Full shoot through
Sl-MLI	Switched inductor multilevel inverter
BDHC	Boost derived hybrid converter
MBDHC	Modified boost derived hybrid converter
LZSI	L Z source inverter
HLZSI	Hybrid L Z source inverter
MHLZSI	Modified hybrid L Z source inverter
PWM	Pulse width modulation
PI	Proportional integral
BBDHC	Buck Boost derived hybrid converter
MBBDHC	Modified Buck Boost derived hybrid converter
NIBBC	Non inverting Buck Boost converter
SVPWM	Space vector pulse width modulation