2. Requisites of Ferrite Core for Switching Power Supplies

T ebk plcq j ^dkbqf` j ^qbof^ip) fk`irafkd plcq cboofqbp) ^ob rpba ^p `lobp fk qo^kpclo j bop) qeb j ^dkbqf` crk`qflk fp ob^ifwba rkabo qeb `lkafqflk qe^q qeb `lob fp t l rka t fqe t fob ^ka ^k bib`qof` `roobkq fp m^ppba qeolrde fq+ Plcq j ^dkbqf` j ^qbof^ip ^ob rqfifwba fk s^oflrp j ^kkbop fk `l j m^ofplk t fqe e^oa j ^dkbqf` j ^qbof^ip) clo bu^ j * mib) ^p ^ j ^dkbq) t ef`e `^k `ob^qb ^ j ^dkbqf` ªbia _v fqpbic+ Qebobclob) s^oflrp hfkap lc molmboqfbp ^ob obnrfoba fk qefp qvmb lc `lob) abmbkafkd lk qeb pfqr^qflk fk t ef`e qeb `lob fp rpba+ Clo bu^ j mib) bib`qof` `fo`rfqp fk p t fq`e* fkd ml t bo prmmifbp t fqe >@ .-- S fkibq ml t bo ^ob `i^ppf* ªba fkql q t l qvmbp) fkpri^qba ^ka klk*fkpri^qba) ^ka qeb `lkpr j mqflk t ^qq^db ^ipl s^ofbp+ Qo^kpclo j bo `lobp lc afccbobkq pfwbp ^ka pe^mbp ^ob ^ipl ^almqba ^p obnrfoba _v qeb pvpqb j + Dbkbo^iiv) i^odbo `lobp ^ob rpba clo i^odbo lrqmrqp+ Fk /rf i o = ä i pv

«v _^`h j lab `lksboqbop ^ob pr j j ^ofwba ^p q t l) i^odb ?$_p$ ^ka il t folk ilpp+

3. Development Policy

Mlppf_ib j b^probp ql fk`ob^pb p^qko^qflk j ^dkbqf`↑ «ru abkpfqv) ?$_p$ fk`irab %.& fk`ob^pfkd qeb abkpfqv lc qeb pfkqboba _lav lc qeb `lob) %/& fk`ob^pfkd qeb qlq^i lc qeb j ^dkbqf` j l j bkqp lc qeb `lkpqfqrbkq flkp fk qeb pmfkbi j ^qofu me^pb) ^ka %0& o^fpfkd qeb @rofb qb j mbo^qrob) *Q*·) ^ j lkd lqebop+

Fq fp `ib^o qe^q bke^k`fkd qeb abkpfqv lc qeb `lob t fii obpriq fk ^k fk`ob^pb fk ?$_p$+ Clo qefp mromlpb) lmqf j fwfkd qeb pfkqbofkd `lkafqflkp ^ka qeb hfkap ^ka ^ j lrkqp lc ^aafqfsb qo^`b bib j bkqp fp sbov f j mloq^kq+

Qeb pmfkbi pqor`qrob) t ef`e fp qeb j ^fk me^pb lc J kWk cboofqb) fp `l j mlpba lc J k) Wk) ^ka Cb flkp l``r* mvfkd `ovpq^iildo^mef` bnrfs^ibkq pfqbp) > ^ka ?) t fqe luvdbk proolrkafkd qebpb j bq^iif` flkp) ^p pel t k fk **Fig. 3**+ Qeb j ^dkbqf` j l j bkqp ^ppfdkba ql flkp ^q qeb > ^ka ? pfqbp ^ob ^oo^kdba fk m^o^iibi fk lmmlpfqb afob`* qflkp _v ^ prmbobu`e^kdb fkqbo^`qflk qeolrde luvdbk+ Fk qefp `lkªdro^qflk) pl j b j l j bkqp ^ob `^k`biba) t ef`e obar`bp qeb qlq^i `l j m^oba ql qe^q fk plcq j bq^iif` j ^qb* of^ip) t ebob qeb j ^dkbqf` j l j bkqp ^ob ^oo^kdba fk m^o^i* ibi fk qeb p^ j b afob`qflk+ Qebobclob) el t qeb `lkpqfqrbkq bib j bkqp l``rmv qeb > ^ka ? pfqbp abqbo j fkbp qeb qlq^i lc qeb j ^dkbqf` j l j bkqp) k^ j biv ?$_p$+

Qeb ?$_p$ lc pmfkbi `l j mlrkap) ifhb qe^q lc `l j j lk j bq^iif` j ^qbof^ip) ab`ob^pbp ^p qb j mbo^qrob fk`ob^pbp+ @l j m^ofkd ?$_p$ ^q /2Þ@ ql qe^q ^q .--Þ@) qeb ab`ob j bkq fp p j ^iibo fk `lobp t fqe efdebo *Q*·+ *Q*· `^k _b `lkpfaboba ql obmobpbkq qeb pqobkdqe lc qeb prmbobu`e^kdb fkqbo^`qflk ^d^fkpq qebo j ^i bkbodv) ^ka fp abqbo j fkba j ^fkiv _v qeb `l j mlpfqflk lc qeb j ^qofu me^pb+ Qebobclob) fq fp sbov f j mloq^kq ql `ellpb qeb lmqf j ^i `l j mlpfqflk clo fk`ob^p* fkd ?$_p$+

Lk qeb lqebo e^ka) qeb obnrfob j bkq lc il t ilpp fp ^ipl obi^qba ql qeb j ^fk `l j mlpfqflk+ Qebob ^ob pl j b fab^i `l j mlpfqflkp qe^q buef_fq ^ il t j ^dkbql`ovpq^i* ifkb ^kfplqolmv `lkpq^kq) *H*.) ^ka il t p^qro^qflk j ^dkbql pqof`qflk `lkpq^kq) λ_p /&+

?lqe m^o^ j bqbop) bpmb`f^iiv *H*.) s^ov t fqe qb j * mbo^qrob+ > `l j mlpfqflk fk t ef`e *H*. fp ^i j lpq wbol ^q .--Þ@ ^ka i^ j _a^ fp il t) qvmf`^iiv Cb/L0f: 2/fÕ sb) p [illegible] fp pbib`qba clo `lksbkqflk^i J kWk cboofqbp rpba fk [illegible] prmmif qlk bp -k γ b [illegible]

qo^kpcl o j bo t bob abqbo j fkba ^p pe l t k fk **Table 2**) ^ka qeb d^m ibkdqe fk qeb `bkqbo mlib t ^p abqbo j fkba pl qe^q fkar`q^k`b t l ria _b p^ j b+

Qeb Δ? lc J ?.E t ^p 02- j Q) 0-" i^odbo qe^k qe^q lc J ?0) /4- j Q _b`^rpb lc qeb /-" fk`ob j bkq fk ?$_p$ fk J ?.E fk `l j m^ofplk t fqe J ?0+ Col j Bn+ %.&) fq fp mlppf_ib ql obar`b qeb `olpp*pb`qflk^i ^ob^ col j qe^q lc ^k BBM@*/4A `lob t fqe J ?0 ql qe^q lc ^k BBM@*/2A `lob t fqe J ?.E) ^p pe l t k fk **Photo 1**) t efib molar`fkd qeb p^ j b l rqmrq sliq^db+ Qeb ab`ob j bkq fk `lob pfwb fp /-" fk `olpp pb`qflk^i ^ob^ ^ka 0-" fk slir j b) ^ka qeb kr j _bo lc t fkafkdp ^ipl ab`ob^pbp `l j m^oba ql J ?0+ > qb j mbo^qrob ofpb qbpq obsb^iba qe^q eb^q dbkbo^qflk fk qeb q t l qo^kpcl o j bop t ^p ^i j lpq qeb p^ j b %ibpp qe^k /Þ@& fk _lqe qeb `lob m^oq ^ka t fob m^oq+ Croqebo j lob) `lksbopflk bcª`fbk`v f j molsba col j 36+6" ql 4-+/" _v obmi^`fkd qeb `lob+

Qefp obpriq `lkªo j p qe^q efdebo bcª`fbk`v `^k _b ob^ifwba fk qeb qo^kpcl o j bo lc qeb «v_^`h j lab `lksboqbo t efib ^ipl al t kpfwfkd qeb qo^kpcl o j bo) t fqe l rq fk`ob^p* fkd eb^q dbkbo^qflk) _v rpfkd ^ `lob t fqe efdebo ?$_p$+ I l t qb j mbo^qrob ofpb fk pmfqb lc j labo^qb ilpp t ^p ^qqof_rqba ql fk`ob j bkq lc Δ?+

6. Conclusions

%.& Qeb p^qro^qflk j ^dkbqf` «ru abkpfqv) ?$_p$) lc qbok^ov J kWk cboofqb fp fk`ob^pba _v fk`ob^pfkd qeb Cb/$L_0$ `lkqbkq8 el t bsbo) ^q qeb p^ j b qf j b) qeb j fkf j r j qb j mbo^qrob lc folk ilpp) Qm) pefcqp ql t ^oa il t bo qb j * mbo^qrobp) t ef`e t f )Á e ] ﻫ ! `qr) ~ p ^] م