

UPS Installation Planning Guide—225– 250kVA/kW TLE Series

Power Rating	AC Input							Battery System					Inverter or Bypass AC Output Current				Mechanical Information						
	Volts AC		kVA		Current Nom			Cable lug allowance	Volts DC	kWB	Current		Cable lug allowance	External Overcurrent Protection	Cable lug allowance	Volts AC	Current		Cable lug allowance	Dimensions	Weigh Estimated	Floor loading lbs./sq. ft.	Heat Rejection kBTU's/Hr.
kVA/kW 1.0 pf	Nom	Nom	Max	Nom	Max	External Overcurrent Protection	Nom		Nom	Nom (2v/cell)	Max Battery Charge	Nom				Nom	Nom	Nom		Nom	External Overcurrent Protection		Nom
225	480/277	235.7	257.9	283.5	310.2	400	See Notes	480	229.1	477	45	600	See Notes	480/277	270.6	350	See Notes	44.1x 34x 75.1 (1120x 863.6x 1907)	1433 (650)	0.976	9.9	1,698	
250	480/277	261.9	284.1	315.0	341.7	450	See Notes	480	254.6	530	45	600	See Notes	480/277	300.7	400	See Notes	44.31x 34x 75.1 (1120x 863.6x 1907)	1433 (650)	0.976	10.4	1,784	
Notes:	1, 2, 4, 5, 6, 8, 9, 10							3, 4, 5, 6, 8, 9					1, 2, 4, 5, 6, 8, 9, 10										

Notes:

1. Nominal AC input current (continuous) is based on 100% rated output load.
2. Maximum AC input current (non-continuous) is with 100% rated output load and 100% battery recharge current. Battery charge current is adjustable from 20-125% of Nominal input current.
3. DC cables should be sized for not more than a 2v line drop (voltage drop to/ from UPS module.)
4. Input, Output, Bypass, Control Power and DC cables all must be run in separate conduits.
5. Rectifier AC Input: 3 phase, 4-wire + ground
UPS to Battery DC: 2 -wire (Positive and Negative) + ground
Bypass AC Input: 3 phase, 4-wire + ground
UPS AC Output: 3 phase, 3 or 4-wire + ground
6. All wiring is to be in accordance with National and Local Electrical Codes. NFPA-70
7. Minimum access clearances per UPS drawings and Installation Manuals

8. Grounding conductors to be sized per NEC 250-95
9. Temperature rating of conductors: 167 deg F (75 deg C)
10. External Feeder protection (by others) for Rectifier AC Input, Bypass AC Input, and AC Output.

Conductor Cable Ratings: NEC Section 310.15(B)(5)(c)

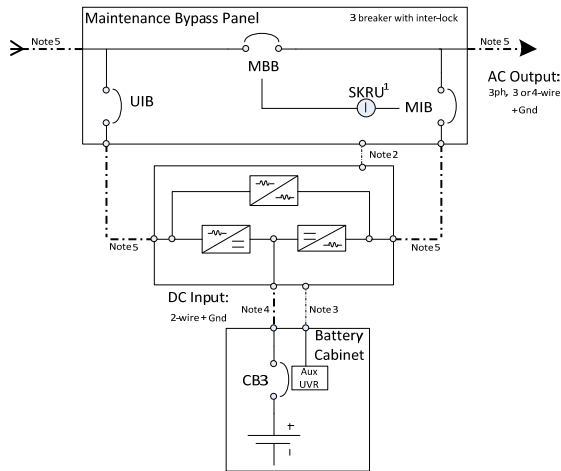


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Critical Power
601 Shiloh Road
Plano, TX 75074

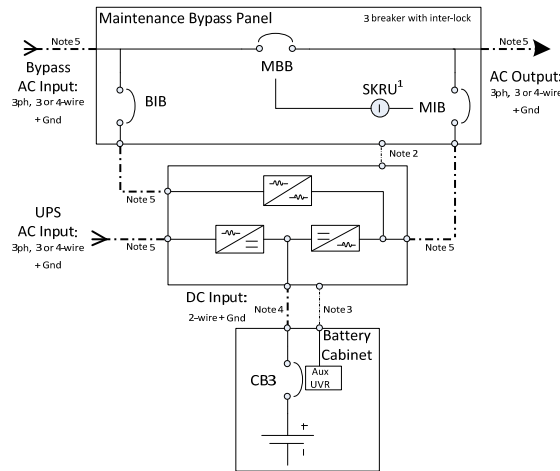
Cable and Conduit Summary (40°C ambient, aluminum cables):

Common Input	2 x 600 kcmil per phase & neutral	(2) x 4" diameter conduits*	=> Min. Wire bending space per Table 312.6(B) = 406mm / 16in
Rectifier Input	2 x 400 kcmil per phase	(2) x 3" diameter conduits*	=> Min. Wire bending space per Table 312.6(B) = 330mm / 13in
Bypass Input	2 x 500 kcmil per phase & neutral	(2) x 3" diameter conduits*	=> Min. Wire bending space per Table 312.6(B) = 356mm / 14in
UPS Output	2 x 500 kcmil per phase & neutral	(2) x 3" diameter conduits*	=> Min. Wire bending space per Table 312.6(B) = 356mm / 14in
Battery:	2 x 600 kcmil per polarity	(2) x 3" diameter conduits*	=> Min. Wire bending space per Table 312.6(B) = 406mm / 16in

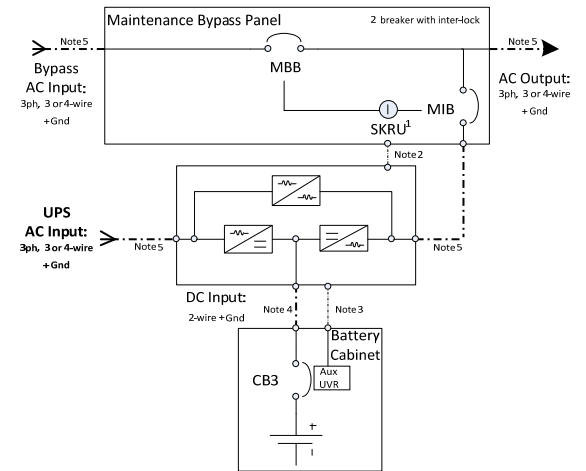
**Design 1
(Most Common)**



**Design 2
(Common)**



**Design 3
(Least Common)**



----- Field Connections; Power and Control (by others)

Input Overcurrent Protection is provided by others

Notes:

1. SKRU with Kirk Key Inter-lock is used as a standard.
 2. Control wiring from UPS to MBP must be run in a separate conduit. (4 - #16 AWG stranded)
 3. Control wiring from Battery Cabinet to UPS must be run in a separate conduit. (4 - #16 AWG stranded)
 4. DC power wiring must be run in separate conduit.
 5. UPS Input and UPS Output power cables must be run in separate conduits.
 6. DC cables from Battery cabinet to Battery cabinet are included. Contractor will supply cable and wire from Master Battery cabinet to UPS.
- *. Cable sizing and conduits are the maximum allowable for largest cable to be used.



GE
Critical Power
601 Shiloh Road
Plano, TX 75074

Applications/Installation Support: Email GEUPSAPPS@ge.com

Service Support: 1-800-637-1738 Option 3