

NOTES:

1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
2. PLEASE REFER TO PRODUCT DOCUMENTATION FOR DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK
3. DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT, PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
- △ 4. 3x400/230V TN-S (PROVIDED BY OTHERS). FOR OTHER (TN-C, TN-C-S, TT, IT) EARTHING PRINCIPLES, PLEASE CONTACT Schneider Electric.
RECOMMENDED UPSTREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT Schneider Electric.
5. ALL AC POWER CABLING IS L1, L2, L3, N, PE.
6. DUAL MAINS CONFIGURATION IS DEFAULT.
FOR SINGLE MAINS INPUT PLEASE REFER SHEET-2.
7. DC CABLING TO BE 600V RATED, 2 WIRE + PE, EACH CIRCUIT TO BE RUN IN SEPARATE CONDUITS, POSITIVE, NEGATIVE + PE.
8. UPS INPUT AND OUTPUT CABLES SHOULD BE SEGREGATED.
9. POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
- △ 10. FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-3.
- △ 11. REFER TABLE-1 FOR BATTERY CABINETS SKU NUMBERS FOR VARIOUS UPS RATINGS.
- △ 12. FOR SKU NUMBERS/RATINGS AND SITE PLANNING DATA, REFER TO SHEET-3.
- △ 13. BATTERY RUN TIME IS THEORETICAL AND CALCULATED FOR 100%LOAD BASED ON DATA PROVIDED BY BATTERY MANUFACTURER ASSUMING OPTIMUM ENVIRONMENT AND LOAD CONDITIONS.
- △ 14. SKU NUMBER G55TA-T60SEM FOR AUSTRALIA PACIFIC REGIONS AND JAPAN.
SKU NUMBER G55TE-T60SEM FOR EUROPE, MIDDLE EAST, AFRICA REGIONS.

RATED SHORT CIRCUIT CURRENT – UPS

WITH INPUT FUSES	WITH INPUT BREAKERS
30ka SYMMETRICAL	30ka SYMMETRICAL

LEGEND:

- AC CABLE – PROVIDED BY OTHERS.
- - - DC CABLE – PROVIDED BY OTHERS.

Applicable Regions/ Countries	TABLE-1 Empty Battery Cabinet + Battery Blocks SKU Numbers for 30 min runtime of various UPS ratings			
	20kVA	30kVA	40kVA	60kVA
Europe/Middle East/Africa	G55TE-EC20K30 + G55TE-BB20K30	G55TE-EC30K30 + G55TE-BB30K30	G55TE-EC40K30 + G55TE-BB40K30	G55TE-EC60K30 + G55TE-BB60K30
Australia/Pacific/Japan/Greater China	G55TA-EC20K30 + G55TA-BB20K30	G55TA-EC30K30 + G55TA-BB30K30	G55TA-EC40K30 + G55TA-BB40K30	G55TA-EC60K30 + G55TA-BB60K30

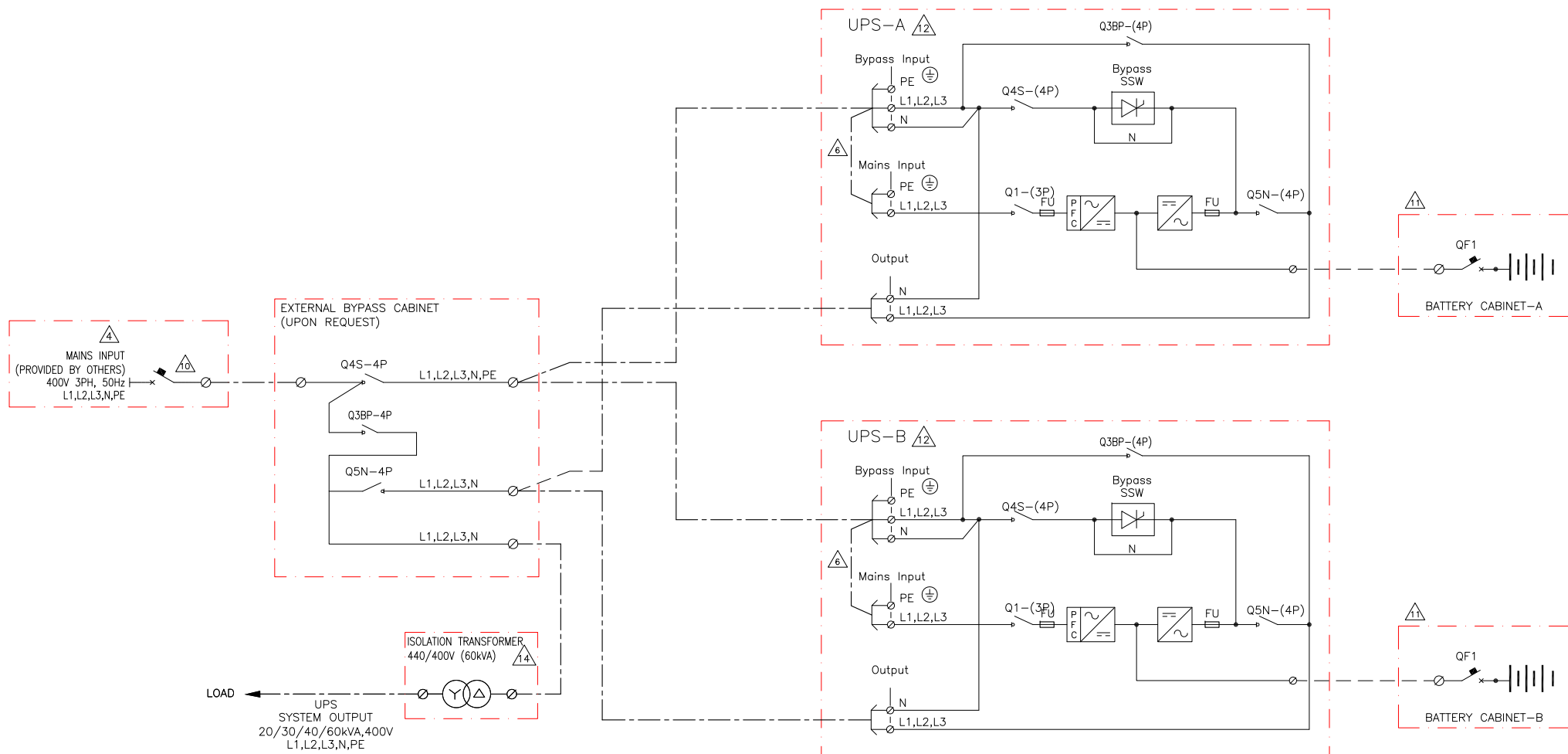
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TITLE: MGE GALAXY 5500 OFFSHORE/MARINE
Input: 380/400/415V AC 40-65HZ 3PH DUAL MAINS
Output: 380/400/415V AC 50/60HZ 3PH 60/80/100/120kVA
 1+1 UPS WITH BATTERY CABINET AND 0/P XFMR
SYSTEM ONE LINE DIAGRAM
PROJECT: DRAWINGS **SHEET 1 OF 3**

DWG NO: G55TUPU20K60HB0TR2-SD
DRAWN: BALAMURUGAN
ENGINEER: C PARENTI
APPROVED: T GOVAERT
10-JUL-14
17-JUL-14
17-JUL-14
ANGLE PROJECTION
N/A

REV: 0



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TITLE: MGE GALAXY 5500 OFFSHORE/MARINE
Input: 380/400/415V AC 40-65HZ 3PH SINGLE MAINS
Output: 380/400/415V AC 50/60HZ 3PH 60/80/100/120kVA
 1+1 UPS WITH BATTERY CABINET AND O/P XFMR
SYSTEM ONE LINE DIAGRAM
PROJECT: DRAWINGS **SHEET 2 OF 3**

DWG NO: G55TUPU20K60HB0TR2-SD
DRAWN: BALAMURUGAN
ENGINEER: C PARENTI
APPROVED: T GOVAERT
10-JUL-14
17-JUL-14
17-JUL-14
ANGLE PROJECTION
N/A

REV: 0

Galaxy 5500® 20-60kVA Marine & Off Shore Unitary UPS Site Planning Data

Battery voltage when charged at 20 deg C:

Minimum Number of Cells=180, Ubat=408V (sealed lead acid); Ubat=396V (Vented lead acid)

Minimum Number of Cells=216, Ubat=490V (sealed lead acid); Ubat=486V (Vented lead acid)

Input Voltage : 380/400/415V AC, Bypass Voltage: 380-443V AC, Output Voltage : 380/400/415V AC

UPS Rating and System Output kVA / kW	SKU Number	UPS Mains Input ¹		UPS Bypass Input ¹	Nominal Output Current (A)	Nominal Discharge Current (A) / Maximum Discharge Current (A) @100%Load	UPS - Recommended OCPD Ratings ⁵			Minimum sizes for input copper cables (<100 m) ¹⁹					UPS Mechanical Data (Excludes Battery Cabinets)			UPS Heat Loss (kW) ¹⁵	Recommended air throughput (m ³ /h)	
		Nominal Current (A)	Maximum Current (A)	Nominal Current (A)			UPS Upstream protection			UPS Downstream protection in reference with Upstream protection	Dual utility/ mains system- AC Input (Sq.mm)	Dual utility/ mains system- AC Bypass (Sq.mm)	Single utility/ mains system- AC Input & AC Bypass (Sq.mm)	Load-circuit (Sq.mm)	Battery / terminal connection (<15m) (Sq.mm)	Typical Dimensions H x W x D (mm)	Weight (Kg)			Floor Loading data in Kg/m ²
							Upstream CB on dual utility/mains system- AC input	Upstream CB on dual utility/mains system- AC Bypass	Upstream CB on Single utility/mains system											
20 / 18	G55TUPM20HXS ¹⁶	32	33	29	29	55 / 68	C60L-50A				10			16	2130x735x950	456	653	1.61	1332	
	G55TUPM20HMS ¹⁷														2250x735x1100	488	604			
30 / 27	G55TUPM30HXS ¹⁶	45	46	44	44	84 / 101	C60L-63A	NSX 100F 4P-TM100D	NSX 100F 4P-TM100D	C60N-C 16A/ C60N B 25A	16	16	16	16	2130x735x950	456	653	2.03		
	G55TUPM30HMS ¹⁷														2250x735x1100	488	604			
40 / 36	G55TUPM40HXS ¹⁶	57	58	58	58	112 / 134	NSX 100F 3P-TM80D							35	2130x735x950	456	653	2.68		
	G55TUPM40HMS ¹⁷														2250x735x1100	488	604			
60 / 54	G55TUPM60HXS ¹⁶	87	88	87	87	170 / 201	NSX 160F 3P-TM125D	NSX 160F 4P-TM125D	NSX 160F 4P-TM125D	C60N-C 20A/ C60N B 32A	25	25	25	25	2130x735x950	456	653	4.26		
	G55TUPM60HMS ¹⁷														2250x735x1100	488	604			

Notes.

- Rated currents with battery float charging.
- Input and bypass cables must be run in separate conduits from output cables. Not more than three conductors in raceway assumed; ambient temperature of 30°C (86°F) assumed.
- If initial load is less than UPS' rated output, it is recommended that AC input, battery, and AC output wiring and over current protection be sized to UPS' full load rating to accommodate possible future expansion.
- DC cables should be sized for a total maximum of less than 1% of CB rating.
- OCPD = Over current Protection Device. Recommended represents 125% of nominal full load current (continuous).
- Minimum-sized grounding conductors are recommended. Parity-sized ground conductors are recommended. Neutral conductors to be sized for full capacity.
- Wiring requirements:
AC Input/Output: 3Ø, 3 or 4 wire + ground, depending on UPS configuration. See Installation Manual and submittal drawings for specific instructions. DC Input: 2 wire (positive and negative) + ground
- All wiring to be in accordance with all applicable national and/or local electrical codes.
- Control wiring and power wiring must be run in separate conduit.
- Backup emergency generator must be properly sized for UPS application and equipped with an isochronous governor for frequency regulation, and a UPS-compatible voltage regulator for voltage stability.
- If site configuration requires an external maintenance bypass, phase parity between UPS input and UPS bypass must be ensured. Consult applications engineer.
- The terminals have minimum size requirements for cables.
- Input : THDI < 6% at full load, <8% at 25-75% load.
- Output : THDU ≤1% Phase to Phase, ≤1.5% Phase to Neutral for Linear Loads.
≤2% Phase to Phase. ≤3.5% Phase to Neutral for Non Linear Loads.
- Heat losses refers to maximum loading and fully charged batteries
- Applicable for Off Shore application.
- Applicable for Marine application.
- ECO mode is available with Unitary configuration.
- Cables sizes are determined for copper conductors (for aluminium conductors, increase the size by 30%). Size calculations also take into account a voltage of 400V and grouping of four cables.
Connections are made to pre-drilled terminals. Hole diameter: 6.5mm.
PE cables (Protective Earth Cables) connect to the earthing terminal. Hole diameter: 6.5mm.

EFFICIENCY FOR SINGLE SYSTEM IN DOBULE CONVERSION MODE

UPS RATING IN kVA	25% LOAD	50% LOAD	75% LOAD	100% LOAD
20	77.74	86.51	89.66	91.22
30	83.45	89.73	91.84	92.08
40	85.86	91.76	92.48	92.59
60	89.8	92.64	92.7	92.53

EFFICIENCY FOR SINGLE SYSTEM IN ECO MODE

UPS RATING IN kVA	25% LOAD	50% LOAD	75% LOAD	100% LOAD
20	92.89	96.45	97.45	97.65
30	95.09	97.17	97.99	98.32
40	96.21	97.81	98.42	98.54
60	97.15	98.18	98.61	98.75

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 1+1 UPS WITH BATTERY CABINET AND O/P XFMR
 SITE PLANNING DATA
 PROJECT: DRAWINGS SHEET 3 OF 3

DWG NO: G55TUPU20K60HB0TR2-SD
 DRAWN: BALAMURUGAN
 ENGINEER: C PARENTI
 APPROVED: T GOVAERT

REV: 0
 ANGLE PROJECTION
 N/A