

Technical Specifications

MGE™ Galaxy™ 300
10-40 kVA 380/400/415 V



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Technical Data

Model List

Single and Parallel up to two Units



Note:

Start-up 5x8 is included with all UPS versions. Communication card is included with all UPS versions (AP9630 - Network management card for remote UPS monitoring.)

3:3 UPS Versions

Standard UPS - with standard charger, to be used with internal batteries only	Part number
MGE Galaxy 300 10kVA 400V 3:3 with 10min Battery, Start-up 5x8	G3HT10KHB1S
MGE Galaxy 300 10kVA 400V 3:3 with 30min Battery, Start-up 5x8	G3HT10KHB2S
MGE Galaxy 300 10kVA 400V 3:3, Start-up 5x8	G3HT10KHS
MGE Galaxy 300 15kVA 400V 3:3 with 10min Battery, Start-up 5x8	G3HT15KHB1S
MGE Galaxy 300 15kVA 400V 3:3 with 30min Battery, Start-up 5x8	G3HT15KHB2S
MGE Galaxy 300 15kVA 400V 3:3, Start-up 5x8	G3HT15KHS
MGE Galaxy 300 20kVA 400V 3:3 with 10min Battery, Start-up 5x8	G3HT20KHB1S
MGE Galaxy 300 20kVA 400V 3:3 with 25min Battery, Start-up 5x8	G3HT20KHB2S
MGE Galaxy 300 20kVA 400V 3:3, Start-up 5x8	G3HT20KHS
MGE Galaxy 300 30kVA 400V 3:3 with 10min Battery, Start-up 5x8	G3HT30KHB1S
MGE Galaxy 300 30kVA 400V 3:3 with 25min Battery, Start-up 5x8	G3HT30KHB2S
MGE Galaxy 300 30kVA 400V 3:3, Start-up 5x8	G3HT30KHS
MGE Galaxy 300 40kVA 400V 3:3 with 10min Battery, Start-up 5x8	G3HT40KHB1S
MGE Galaxy 300 40kVA 400V 3:3 with 20min Battery, Start-up 5x8	G3HT40KHB2S
MGE Galaxy 300 40kVA 400V 3:3, Start-up 5x8	G3HT40KHS

UPS with CLA - with increased charger for longer runtimes, to be used with ext. batt. only	Part number
MGE Galaxy 300 10kVA 400V 3:3 with Long Backup Charger, Start-up 5x8	G3HT10KHLS
MGE Galaxy 300 15kVA 400V 3:3 with Long Backup Charger, Start-up 5x8	G3HT15KHLS
MGE Galaxy 300 20kVA 400V 3:3 with Long Backup Charger, Start-up 5x8	G3HT20KHLS

UPS with CLA - with increased charger for longer runtimes, to be used with ext. batt. only	Part number
MGE Galaxy 300 30kVA 400V 3:3 with Long Backup Charger, Start-up 5x8	G3HT30KHLS
MGE Galaxy 300 40kVA 400V 3:3 with Long Backup Charger, Start-up 5x8	G3HT40KHLS

3:1 UPS Versions

Standard UPS - with standard charger, to be used with internal batteries only	Part number
MGE Galaxy 300 10kVA 400V 3:1 with 10min Battery, Start-up 5x8	G3HT10K3IB1S
MGE Galaxy 300 10kVA 400V 3:1 with 30min Battery, Start-up 5x8	G3HT10K3IB2S
MGE Galaxy 300 10kVA 400V 3:1, Start-up 5x8	G3HT10K3IS
MGE Galaxy 300 15kVA 400V 3:1 with 10min Battery, Start-up 5x8	G3HT15K3IB1S
MGE Galaxy 300 15kVA 400V 3:1 with 30min Battery, Start-up 5x8	G3HT15K3IB2S
MGE Galaxy 300 15kVA 400V 3:1, Start-up 5x8	G3HT15K3IS
MGE Galaxy 300 20kVA 400V 3:1 with 10min Battery, Start-up 5x8	G3HT20K3IB1S
MGE Galaxy 300 20kVA 400V 3:1 with 25min Battery, Start-up 5x8	G3HT20K3IB2S
MGE Galaxy 300 20kVA 400V 3:1, Start-up 5x8	G3HT20K3IS
MGE Galaxy 300 30kVA 400V 3:1 with 10min Battery, Start-up 5x8	G3HT30K3IB1S
MGE Galaxy 300 30kVA 400V 3:1 with 25min Battery, Start-up 5x8	G3HT30K3IB2S
MGE Galaxy 300 30kVA 400V 3:1, Start-up 5x8	G3HT30K3IS

UPS with CLA - with increased charger for longer runtimes, to be used with ext. batt. only	Part number
MGE Galaxy 300 10kVA 400V 3:1 with Long Backup Charger, Start-up 5x8	G3HT10K3ILS
MGE Galaxy 300 15kVA 400V 3:1 with Long Backup Charger, Start-up 5x8	G3HT15K3ILS
MGE Galaxy 300 20kVA 400V 3:1 with Long Backup Charger, Start-up 5x8	G3HT20K3ILS
MGE Galaxy 300 30kVA 400V 3:1 with Long Backup Charger, Start-up 5x8	G3HT30K3ILS

Input Power Factor

Power factor (PF) data is given for a 400 V normal AC source for linear/non-linear loads.

3:3 UPS

	25% load	50% load	75% load	100% load
10 kVA	0.45/0.62	0.80/0.83	0.88/0.91	0.95/0.96
15 kVA	0.60/0.62	0.82/0.87	0.93/0.92	0.96/0.96
20 kVA	0.79/0.70	0.92/0.91	0.98/0.98	0.98/0.98
30 kVA	0.69/0.77	0.92/0.94	0.97/0.97	0.98/0.98
40 kVA	0.92/0.89	0.99/0.98	0.99/0.99	0.99/0.99

3:1 UPS

	25% load	50% load	75% load	100% load
10 kVA	0.65/0.73	0.87/0.87	0.94/0.94	0.97/0.97
15 kVA	0.72/0.60	0.88/0.79	0.94/0.90	0.97/0.94
20 kVA	0.80/0.79	0.95/0.94	0.96/0.96	0.99/0.98
30 kVA	0.71/0.70	0.88/0.85	0.94/0.91	0.97/0.96

Efficiency

Double-Conversion Single UPS Unit

The table below provides minimum and average system efficiencies with a balanced linear load, PF of 0.8 at 400 V. The losses correspond to a double conversion single UPS unit. The losses indicated below are minimum efficiency values to be used for sizing the airconditioning system.

3:3 UPS Efficiency

System	25% load	50% load	75% load	100% load	Minimum value during final test 100% load	RCD 100% load
10 kVA 400 V	83.19	90.47	92.11	92.42	92.42	91.42
15 kVA 400 V	89.45	92.11	92.67	92.76	92.76	91.87
20 kVA 400 V	90.47	92.42	92.76	92.70	92.7	92.12
30 kVA 400 V	90.33	92.70	93.23	93.01	93.01	93.13
40 kVA 400 V	91.45	93.05	93.01	92.81	92.81	92.98

3:1 UPS Efficiency

System	25% load	50% load	75% load	100% load	Minimum value during final test 100% load	RCD 100% load
10 kVA 400 V	83.51	89.63	91.23	91.88	91.78	91.15
15 kVA 400 V	87.16	91.13	91.97	91.99	91.95	91.8
20 kVA 400 V	89.70	92.89	93.11	92.96	92.9	92.4
30 kVA 400 V	88.8	92.10	92.70	92.75	92.55	92.4

Batteries

Efficiency DC to AC

(at Normal Battery Voltage)

	10 kVA			15 kVA			20 kVA			30 kVA			40 kVA		
Voltage	380	400	415	380	400	415	380	400	415	380	400	415	380	400	415
Efficiency	91,3	91,3	91,3	91,9	91,9	91,9	92,1	92,1	92,1	90,3	90,3	90,3	90,8	90,8	90,8

Battery Run-Times



Note:

Only sealed lead-acid batteries recommended for MGE Galaxy 300 are validated. MGE Galaxy 300 battery piles consist of a positive and a negative battery group.

Normal: 2x16 blocks

Minimum: 2x15 blocks

The integrated run-time with supplied batteries is offered for runtimes of 10 minutes or 30 minutes (alternately 25 or 20 minutes depending on kVA rating), with a typical service life of up to five years with standard charger. "Internal" (Int.) indicates batteries within the UPS and without an XR battery enclosure.

The minimum battery voltage is 158 V for 16 blocks and 148 V for 15 blocks. Below this voltage, the UPS shuts down. When this minimum threshold is reached, the inverter shuts down and the load is transferred to the bypass AC input, if it is present. A low-battery warning (adjustable voltage level) activates a remote relay via the interface board.

The guaranteed back-up time is defined for 0.7xPn and cos =0.8. (up to five years service life) 10% tolerance for backup time. The main battery source used for integrated batteries is Yuasa; the 2nd source qualified is CSB.

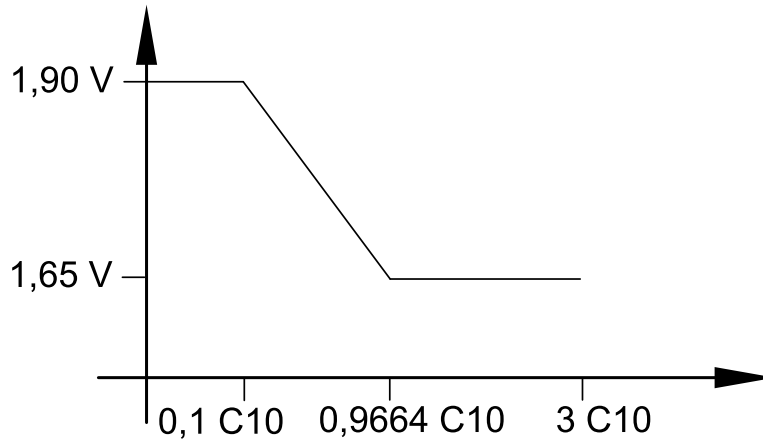
			YUASA				CSB			
	Power (kVA)	Run-times (min)	Type	AH	0.1C ¹⁰ (A)	V _{floating} (V)	Type	AH	0.1C ¹⁰ (A)	V _{floating} (V)
Int. Batt.	10	10	32xNPW45-12	1x8.5	0.9	218	32xGP1272	1x7.2	0.7	218
		30	64xNPW45-12	2x8.5	1.7	218	64xGP1272	2x7.2	1.4	218
	15	10	32xNPW45-12	1x8.5	0.9	218	32xGP12120	1x12	1.2	218
		30	90xNPW45-12	3x8.5	2.5	204	90xGP1272	3x7.2	2.2	204
	20 (3:1)	10	64xNPW45-12	2x8.5	1.7	218	64xGP1272	2x7.2	1.4	218
		25	90xNPW45-12	3x8.5	2.5	204	64xGP12120	2x12	2.4	218
	20 (3:3)	10	64xNPW45-12	2x8.5	1.7	218	64xGP1272	2x7.2	1.4	218
		25	90xNPW45-12	3x8.5	2.5	204	60xGP12120	2x12	2.4	204
	30	10	90xNPW45-12	3x8.5	2.5	204	90xGP1272	3x7.2	2.2	204
		25	150xNPW45-12	5x8.5	4.3	204	90xGP12120	3x12	3.6	204
	40	10	90xNPW45-12	3x8.5	2.5	204	64xGP12120	2x12	2.4	218
		20	150xNPW45-12	5x8.5	4.3	204	90xGP12120	3x12	3.6	204
G3HT BAT1	10	113	30xSWL1100	1x40.6	4.1	204	90xGP12120	3x12	3.6	204
	15	65								
	20	-								
	30	-								
	40	-								
G3HT BAT2	10	203	30xSWL1850	1x74	7.4	204	64xGP12340	2x34	6.8	218
	15	212								
	20	86								
	30	55								
	40	-								
G3HT BAT3	10	267	64xSWL1100	2x40.6	8.2	218	90xGP12340	3x34	10.2	204
	15	173								
	20	120								
	30	71								
	40	53								

Battery Discharge Current

	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
Blocks	16	15	16	15	16	15	16	15	16	15
I bat @ bat nominal, 100% load	23	25	35	37	46	50	70	74	92	99
I bat @ bat min, 100% load	28	30	42	45	56	60	84	90	112	120

End of Discharge Voltage

The end of discharge voltage and shutdown depend on the discharge current shown below. For 16x2 blocks configurations, the shutdown voltage is 182.4 V to 158.4 V. For 15x2 blocks configurations, the shutdown voltage is 171 V to 148.5 V.




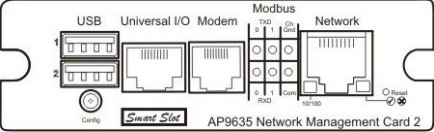
Shutdown voltage level versus the discharge rate/cell.

Communication and Management

Network Management Card

This UPS is equipped with one Smart-Slot which enables the use of one Network Management Card (NMC). By default, the UPS is shipped with the **AP9630** NMC which provides Network Management features.

Default NMC	Part number	Network Management Features
<p data-bbox="199 517 593 546">UPS Network Management Card</p> 	<p data-bbox="675 517 775 546">AP9630</p>	<p data-bbox="837 517 1070 546">Browser accessible</p> <ul data-bbox="837 584 1334 613" style="list-style-type: none"> • View the user interface with a browser <p data-bbox="837 680 983 710">Notification</p> <ul data-bbox="837 748 1414 813" style="list-style-type: none"> • Be notified of problems to ensure that crucial situations are dealt with in a timely manner <p data-bbox="837 880 995 909">Data logging</p> <ul data-bbox="837 947 1434 1012" style="list-style-type: none"> • Identify problematic trends before they escalate or export the data log for analysis <p data-bbox="837 1079 1007 1108">Event logging</p> <ul data-bbox="837 1146 1390 1211" style="list-style-type: none"> • Pinpoint the timing and sequence of events leading up to an incident with the event log <p data-bbox="837 1279 1362 1308">PowerChute Network Shutdown compatible</p> <ul data-bbox="837 1346 1418 1411" style="list-style-type: none"> • Reliable network-based shutdown of multiple servers on single or parallel UPS installation <p data-bbox="837 1478 1238 1507">InfraStruXure Central compatible</p> <ul data-bbox="837 1545 1430 1733" style="list-style-type: none"> • An IT-ready, scalable monitoring system that collects, organizes, and distributes critical alerts, surveillance video and key information, providing a unified view of complex physical infrastructure environments from anywhere on the network

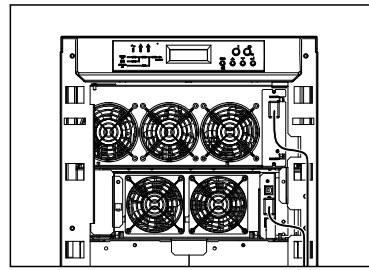
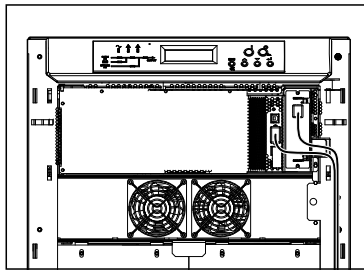
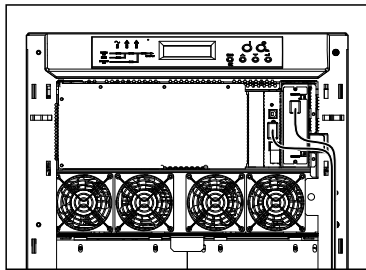
Optional NMC	Part number	Network Management Features
 <p>The diagram shows the AP9635 Network Management Card 2 with the following ports and features: USB, Universal I/O Modem, Modbus (RTU, RS485, RS422), and Network. It also includes a Smart Slot and a Cooling fan.</p>	<p>AP9635</p>	<p>The default NMC can be replaced with the AP9635 which gives access to additional features such as:</p> <ul style="list-style-type: none"> • Modbus RTU over RS485 • Remote monitoring via Modem with Teleservice system • One universal input/output port, to which you can connect: <ul style="list-style-type: none"> – Temperature (AP9335T) or temperature/humidity sensors (AP9335TH) – Relay input/output connectors that support two input contacts and one output relay (using AP9810 Dry Contact I/O Accessory)

A network management card can be replaced with the UPS configuration up and running. The upper port connects to the computer and the lower port connects to the battery enclosure or parallel UPS unit.

30 kVA/ 40 kVA 3:3 and 30 kVA 3:1

20 kVA 3:1

10 kVA/ 15 kVA/ 20 kVA 3:3
and 10 kVA/ 15 kVA 3:1



Compliance

A number of documents are available from the after-sales development and technical support representative.

Directives for CE marking	The UPS system is listed according to the CE norms as applicable.	
Safety	<p>IEC 62040-1 2008</p> <p>The UPS must always be installed in compliance with the requirements and standard of:</p> <ul style="list-style-type: none"> • IEC 60364-4-42: Protection against thermal effects • IEC60364-4-41: Protection against electric shock • IEC 60364-4-482: Protection against fire <p>- and all national requirements and standards in force.</p>	
Performance	IEC 62040-3	
Disturbances	IEC 62040-2 C2	
EMC	IEC 62040-2	
EMC tests	Immunity tests	
	Electrostatic discharges	
	IEC 61000-4-2:2005 / IEC 62040-2: 2005	
	Required by standard (minimum level)	8 kV in air and 4 kV for contact
	Product result (immunity level)	8 kV in air and 4 kV for contact
	Radiated radio-frequency fields	
	IEC 61000-4-3: 2002 / EN 62040-2: 2005	
	Required by standard (minimum level)	10 V/m modulated 80% AM at 1 kHz from 80 MHz to 1 GHz
	Product result (immunity level)	10 V/m modulated 80% AM at 1 kHz from 80 MHz to 1 GHz
	Rapid transients in bursts	
	IEC 61000-4-4: 2004 / EN 62040-2: 2005	
	Required by standard (minimum level)	2 kV on AC-input cables 2 kV on DC cables 2 kV on I/O cables
	Product result (immunity level)	2 kV on AC-input cables 2 kV on DC cables 2 kV on I/O cables
Surges, high energy		
IEC 61000-4-5: 2005 / EN 62040-2: 2005		
Required by standard (minimum level)	2 kV coupling between lines 2 kV coupling between lines and earth	

Product result (immunity level)	1 kV coupling between lines 2 kV coupling between lines and earth	
Conducted immunity		IEC 61000-4-6: 2003 / EN 62040-2: 2005
Required by standard (minimum level)	10V/m modulated 80% AM at 1 kHz from 150 kHz to 30 MHz	
Product result (immunity level)	10V/m modulated 80% AM at 1 kHz from 150 kHz to 30 MHz	
Immunity to magnetic fields at network frequency		Immunity to magnetic fields at network frequency
Required by standard (minimum level)	30 A/m	
Product result (immunity level)	30 A/m	
Tests on emitted disturbances		
Conducted emissions		CISPR 16-1-2: Edition 1.2 2006-08/ CISPR 22: Edition 6.0 2008-09/ IEC 62040-2: 2005
Radiated emission		CISPR 16-1-2 Edition 1.2 2006-08 CISPR 22 Edition 6.0 2008-09
Standard version	UPS category C3 (controlled distribution)	

Facility Planning

AC Input Specifications

3:3 UPS

	10 kVA			15 kVA			20 kVA			30 kVA			40 kVA		
Voltage	380	400	415	380	400	415	380	400	415	380	400	415	380	400	415
Connection type	3P+N+G														
Input frequency (Hz)	45–65														
THDI	< 9% at full load														
Nom input current (A) ¹	13	12.5	12	20	19	18	26	25	24	39.5	38	36	53	50	48
Max input current (A) ²	15.5	15	14.5	22.5	21.5	20.5	29	28	27	42	40.5	38.5	56	53	51
Input current limitation (A) ³	17.5	17	16	25	24	22.5	32	31	30	47	45	42.5	61	59	56
Input power factor correction	> 0.97 at load > 50%														
¹ Input current based on rated load and batteries fully charged. ² Input current based on full battery recharge, nominal voltage, and rated load. ³ Current limitation through electronic current limiting is based on full battery recharge and -15% input voltage.															

3:1 UPS

	10 kVA			15 kVA			20 kVA			30 kVA		
Voltage	380	400	415	380	400	415	380	400	415	380	400	415
Connection type	3P+N+G											
Input frequency (Hz)	45–65											
THDI	< 9% at full load											
Nom input current (A) ¹	13	12.5	12	20	19	18	26	25	24	40	38	36
Max input current (A) ²	15.5	15	14.5	23	22	21	29	28	27	42	40	39
Input current limitation (A) ³	17.5	17	16	25	24	23	32	31	30	47	45	43
Input power factor correction	> 0.97 at load > 50%											
¹ Input current based on rated load and batteries fully charged. ² Input current based on full battery recharge, nominal voltage, and rated load. ³ Current limitation through electronic current limiting is based on full battery recharge and -15% input voltage.												

AC Bypass Input Specifications

3:3

	10 kVA			15 kVA			20 kVA			30 kVA			40 kVA		
Voltage	380	400	415	380	400	415	380	400	415	380	400	415	380	400	415
Connection type	3P + N														
Input frequency (Hz)	50/60														
Nom output current (A)	15	14.5	14	23	22	21	30	29	27	45	43	41.5	60	58	55

3:1

	10 kVA			15 kVA			20 kVA			30 kVA		
Voltage	220	230	240	220	230	240	220	230	240	220	230	240
Connection type	1P + N											
Input frequency (Hz)	50/60											
Nom output current (A)	45	43.5	41.5	68	65	62	90	87	83	136	130	125

AC Output Specifications

3:3 UPS: 380, 400, 415 V (400 V 50 Hz is standard but 60 Hz is also possible). Operation at 415 V/60 Hz is not possible and does not correspond to any known needs. For all other voltages or voltage combinations, voltage-matching transformers are required.

3:1 UPS: 220, 230, 240 V (230 V is standard).

The operating voltage is set via the personalization procedures. The setting may result in an overload if the output voltage is +3% and the current is at its rated level.



Note: Battery operation cannot support overload.

3:3

	10 kVA			15 kVA			20 kVA			30 kVA			40 kVA		
Voltage (V)	380	400	415	380	400	415	380	400	415	380	400	415	380	400	415
Connection type	3P + N + G														
Output capacity	≤125% for 2 minutes (normal operation) ≤150% for 10 seconds (normal operation)														
Voltage tolerance	+/- 2% static & 100% load step														
Nom. output current (A)	15	14.5	14	23	22	21	30	29	27	45	43	41.5	60	58	55
Output frequency (Hz)(sync to mains)	Battery Operation: 50/60														
Slew rate (Hz/Sec)	2														
THDU	< 3.0% linear loads < 5.0%. 100% unbalanced 100% non-linear loads														
Output power factor	From 0.5 leading to 0.5 lagging.														
Dynamic load response	+/- 5%														
Output voltage regulation	+/- 2%														

3:1

	10 kVA			15 kVA			20 kVA			30 kVA		
Voltage (V)	220	230	240	220	230	240	220	230	240	220	230	240
Connection type	1P + N + G											
Output capacity	<=125% for 2 minutes (normal operation) <=150% for 10 seconds (normal operation)											
Voltage tolerance	+/- 2% static & 100% load step											
Nom. output current (A)	45	43	42	68	65	62	90	87	83	136	130	125
Output frequency (Hz) (sync to mains)	Battery operation: 50/60											
Slew rate (Hz/Sec)	2											
THDU	< 3.0% linear loads < 5.0%. 100% unbalanced 100% non-linear loads											
Output power factor	From 0.5 leading to 0.5 lagging.											
Dynamic load response	+/- 5% under R load											
Output voltage regulation	+/- 2%											

Battery Specifications

Type	Maintenance-free sealed Lead-Acid battery with suspended electrolyte: leakproof
Nominal voltage (16 block/15 block)	+/- 192 / +/- 180
Float voltage (16 block/15 block) (VDC)	+/- 218/ +/- 204
End of discharge voltage (VDC)	+/- 158 / +/- 148 (May be higher than this at less than full load)
Battery current (at full load)	91.8 A at +/- 192 V
Max. current (at end of discharge)	125.9 A at + 154 V
Max. charging power for CLA version (may drop to lower values at low AC mains)	10 kVA/ 8 kW: 3052 15 kVA/ 12 kW: 3052 20 kVA/ 16 kW: 3052 30 kVA / 24 kW: 6104 40 kVA/ 32 kW: 6104
Typical re-charge time	Internal charger: (for 10 min integrated configuration) 10 hours - to 90% +/-5% capacity after full discharge at min. Config. CLA: 24 hours - to 90% +/-5% capacity after full discharge at min. Config.

Recommended Cable Sizes



Caution: All wiring must comply with all applicable national and/or electrical codes. The below specifications are recommendations only.



Note:

AC cable sizes are determined for:

- the TNS system for copper, single-core cables, type U1000 R02V, 100 m long with a line voltage drop <3%, installed on perforated cable trays, XLPE-type insulation, single-layer trefoil formation, THDI between 15% and 33%, 35° C at 400 V, grouped in four touching cables.



Note:

Battery cable sizes are determined for:

- copper, single-core cables, type U1000 R02V, maximum length 25 m with a line voltage drop <1%.

3:3

3:3 Single mains	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
	min	max	min	max	min	max	min	max	min	max
Mains input (mm ²)	10	35	10	35	10	35	16	35	25	35
Mains neutral input (mm ²)	10	35	10	35	10	35	16	35	25	35
AC output (mm ²)	10	35	10	35	10	35	16	35	25	35
Battery input (mm ²) 70° C	10	35	10	35	16	35	25	35	35	35

3:3 Dual mains	10 kVA		15 kVA		20 kVA		30 kVA		40 kVA	
	min	max	min	max	min	max	min	max	min	max
Mains input (mm ²)	10	35	10	35	10	35	16	35	25	35
Mains neutral input (mm ²)	10	35	10	35	10	35	16	35	25	35
AC output (mm ²)	10	35	10	35	10	35	16	35	25	35
Battery input (mm ²) 70° C	10	35	10	35	16	35	25	35	35	35
Bypass (mm ²)	10	35	10	35	10	35	16	35	25	35
Battery neutral input (mm ²)	10	35	10	35	16	35	25	35	35	35

3:1

3:1 Single mains	10 kVA		15 kVA		20 kVA		30 kVA	
	min	max	min	max	min	max	min	max
Mains input (mm ²)	16	35	25	35	35	90	70	90
Mains neutral input (mm ²)	16	35	25	35	35	90	70	90
AC output (mm ²)	16	35	25	35	35	90	70	90
Battery input (mm ²) 70° C	10	35	10	35	16	35	25	35

3:1 Dual mains	10 kVA		15 kVA		20 kVA		30 kVA	
	min	max	min	max	min	max	min	max
Mains input (mm ²)	10	35	10	35	35	90	35	90
Mains neutral input (mm ²)	10	35	10	35	35	90	35	90
AC output (mm ²)	16	35	25	35	35	90	70	90
Battery input (mm ²) 70° C	10	35	10	35	16	35	25	35
Bypass (mm ²)	16	35	25	35	35	90	70	90
Battery neutral input (mm ²)	16	35	25	35	35	90	70	90

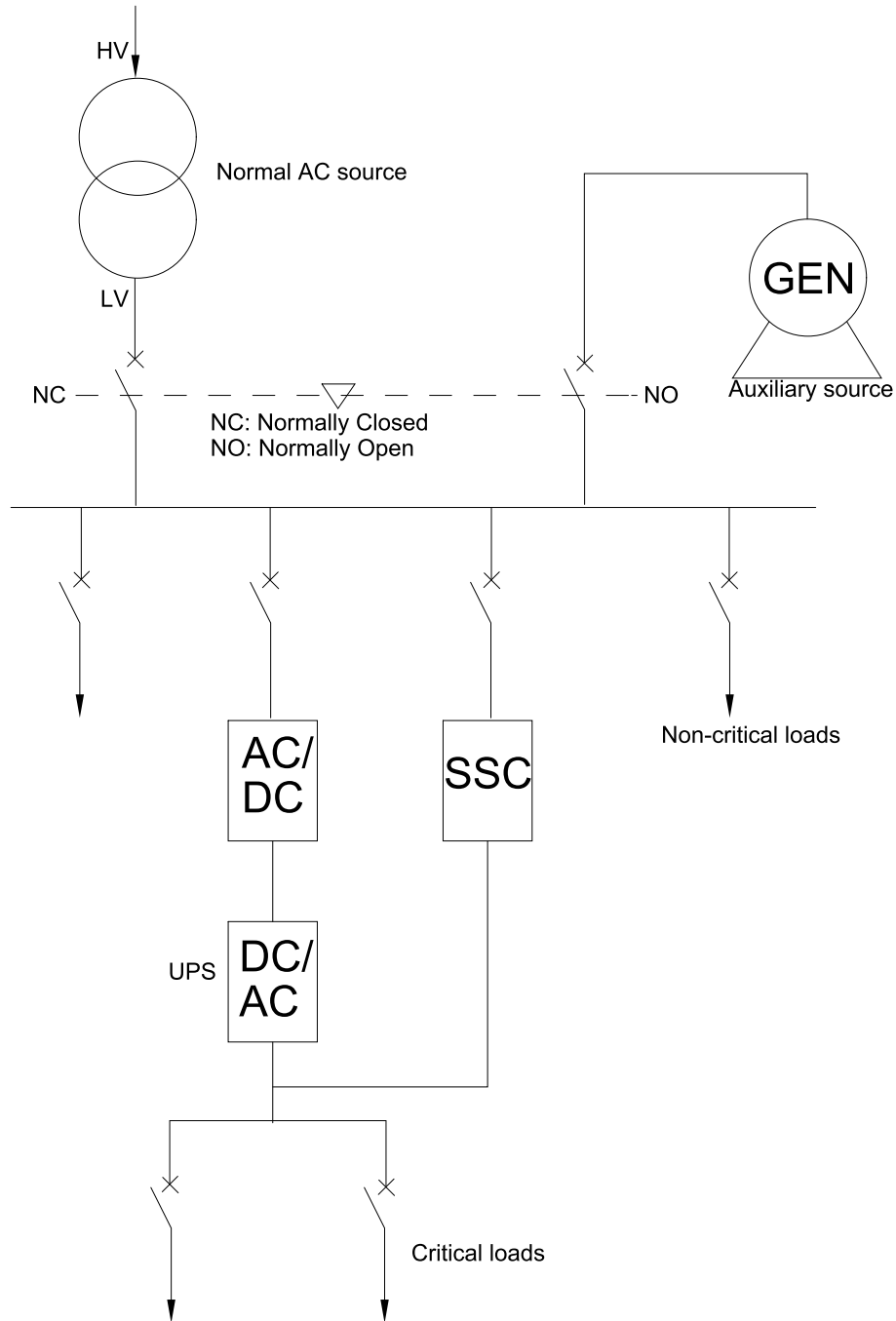
Torque Specifications

Bolt size	Torque
M3	1 Nm
M4	1.2 Nm – 2 Nm
M5	3.5 Nm – 4.5 Nm
M6	4.5 Nm – 6 Nm

Fuses and Breakers

Single Mains System

The generator capacity must be bigger than the UPS capacity. A 25% margin is minimum. A 50% margin is advisable. Example of an illustration:



Battery Protection Fuses

Fuses for battery input is 100 A/690 V on an SCR board (INSM).

Internal Battery Breaker

System	Internal battery breaker
3:3: 20 kVA, 15 kVA, 10 kVA and 3:1: 20 kVA, 15 kVA, 10 kVA	C65H, 63A, 3P
3:3: 40 kVA, 30 kVA and 3:1: 30 kVA	INT125, 125 A, 3P

External Battery Breaker

With an insulating monitoring device as standard.

LV438830, NSX160DC 160 A 3P, Schneider

Under voltage coil, SA29410 MN voltage 24 VDC

Fuse and Breaker Sizes

Breakers										
	3:3					3:1				
kVA	10	15	20	30	40	10	15	20	30	
Mains input	C65H-C-4P-50A/ C60H-C-4P-50A		INT 125-4P-80A			C65H-C-4P-50A/ C60H-C-4P-50A		C65H-C-4P-50A/ C60H-C-4P-50A		INT 125-4P-80A
Bypass input	C65H-D-3P-50A/ C60H-D-3P-50A		INT 125-3P-80A			INT 125-1P-100A		INT 125-2P-100A		INT 125-2P-100A
Battery	NA									
AC output	The selection of a circuit breaker type (N;H or L) depends on the short-circuit power of the installation. The short circuit current of the installation must be less than the maximum current of the downstream circuit breaker.									
Appropriate disconnect devices must be provided external to the equipment.										

Fuses	Description	Fuse location
AC input fuse	Fast fuse 63 A/690 V	INSM
Battery fuse	Fast fuse 100 A/690 V	INSM
CLA	Fast fuse 25 A/600 V	CLAM
Charger fuse	Fast fuse 6 A/660 V	CHGM
AC fan fuse	fuse 2 A/250 V	OTFM, OTSM
DC fan fuse	fuse 2 A/250 V	PFCM, IPTM, IPSM
PS fuse	Fast fuse 3.15 A/500 V	APSM
SLV fuse	Fuse 4 A/250 V	DSPM
Second PS fuse	Fuse 2 A/500 V	POPM

Physical

Weights and Dimensions

UPS Enclosure	Weight without batteries (kg)	Height (mm)	Width (mm)	Depth (mm)	Max. weight with batteries (kg)*
3:3					
10–20 kVA	130	1300	400	860	375
30–40 kVA	198	1300	500	860	610
3:1					
10–15 kVA	145	1300	400	860	390
20 kVA	185	1300	500	860	435
30 kVA	198	1300	500	860	615

Battery Enclosure	Weight without batteries (kg)	Height (mm)	Width (mm)	Depth (mm)	Max. weight with batt. (kg)
	105	1300	660	850	610

Batteries	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)
UPS enclosure				
910–8013–006	2.55	100	65	151
910–0631	3.84	100	98	151
910–1209–004	2.7	98	65	151
Battery enclosure				
910–0631	3.84	100	98	151
910–0633	11.33	178	130	196
910–1209–004	2.7	98	65	151
910–0001	14.5	170	165	197
910–0632	23.8	174	166	350

* Actual weight depends on number of batteries, battery frame type and embedded runtimes

Shipping Weights and Dimensions

UPS Enclosure	Weight without batteries (kg)	Height (mm)	Width (mm)	Depth (mm)	Max. weight with batteries (kg)*
3:3					
10–20 kVA	155	1440	800	965	401
30–40 kVA	223	1440	800	965	634
3:1					
10–15 kVA	170	1440	800	965	416
20 kVA	210	1440	800	965	458
30 kVA	223	1440	800	965	639
Battery Enclosure	Weight without batteries (kg)	Height (mm)	Width (mm)	Depth (mm)	Max. weight with batteries (kg)*
	125	1365	735	950	632

* Actual weight depends on number of batteries, battery frame type and embedded runtimes

Environmental

Operating temperature	0 to 35° C Battery operating temperature is optimal between 20 and 25° C
Storage temperature with batteries	-10 to 40° C
Storage temperature without batteries	-10 to 60 °C
Operating relative humidity	0 - 90%, non-condensing ambient temperature
Storage relative humidity	0 - 90%
Operating elevation	1000 m.: 100% load 1500 m.: 85% load 2000 m.: 79% load 2500 m.: 75% load 3000 m.: 59% load
Storage elevation	0–10000 m
Operating room	Technical restricted access rooms
Ventilation (required airflow)	600 m ³ /h for the 3:3: 10 kVA, 15 kVA, 20 kVA, and 3:1: 15 kVA and 10 kVA 966 m ³ /h for the 3:3: 40 kVA, and 3:1: 30 kVA 726 m ³ /h for the 3:1: 20 kVA Floor-to-ceiling ventilation: 1800 mm
Clearance	Rear clearance: UPS and battery enclosure: 500 mm Front clearance: UPS: 940 mm. Battery enclosure: 800 mm
Audible noise	3:3 10 – 20 kVA: 55 dB 30 – 40 kVA: 56 dB 3:1 10 – 15 kVA: 55 dB 20 – 30 kVA. 56 dB
Input protection	Fuse protection
Colour	Grey Housing: RAL 9023 Display panel: 9022

Heat Dissipation

3:3 Batteries fully charged	10 kVA/8 kW			15 kVA/12 kW			20 kVA/16 kW			30 kVA/24 kW			40 kVA/32 kW		
	Load (%)	100	75	50	100	75	50	100	75	50	100	75	50	100	75
Heat dissipation (Watt)	656	514	420	937	712	514	1,260	937	656	1,804	1,313	945	2,479	1,804	1,195

3:1 Batteries fully charged	10 kVA/8 kW			15 kVA/12 kW			20 kVA/16 kW			30 kVA/24 kW		
	Load (%)	100	75	50	100	75	50	100	75	50	100	75
Heat dissipation (Watt)	707	577	463	1,045	786	577	1,212	888	612	1,876	1,417	1,029

Settings

Default Settings

* These settings require a restart.

Setting	Default	Other choice(s)
LCD CONTRAST	0	-4 to 4
WIZARD	ENABLE	DISABLE
DATE FORMAT	DD/MM/YYYY	YYYY/MM/DD, MM/DD/YYYY
DATE&TIME	2010/01/01 00:00:00	The range of year is from 2010 to 2035
TEMPERATURE	CELSIUS	FAHRENHEIT
LANGUAGE	ENGLISH	18 available languages (see table below)
BUZZER	ENABLE	DISABLE
UPS OPERATION MODE*	NORMAL MODE	PARALLEL MODE, FREQUENCY CONVERTER MODE
OUTPUT VOLTAGE	230 V	220 V, 240 V
UPS OUTPUT FREQUENCY*	50 Hz	60 Hz
UPS AUTOMATIC START*	DISABLE	ENABLE
TRANSFER TO BYPASS*	ENABLE	DISABLE
ALLOW TRANSFER WITH BREAK*	ENABLE	DISABLE
SET PASSWORD	000	
BATTERY TEST	ENABLE	DISABLE
BATTERY TEST INTERVAL	1 MONTH	X MONTHS (1-6)

Languages supported by the display	
FRENCH	RUSSIAN
ENGLISH	POLISH
GERMAN	GREEK
ITALIAN	TURKISH
SPANISH	INDONESIAN
PORTUGUESE	CHINESE SIMPLIFIED
DUTCH	THAI
SWEDISH	KOREAN
FINNISH	NORWEGIAN

Drawings

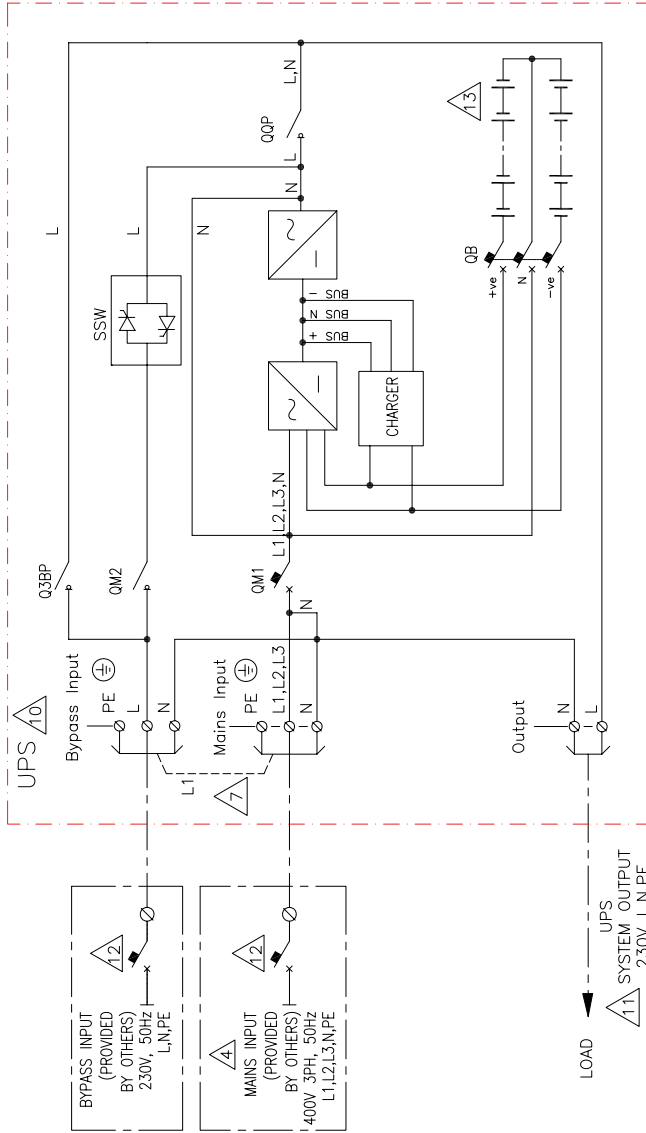


Note: A comprehensive set of drawings is available on the engineering website at engineer.apc.com.



Note: These drawings are for reference ONLY — subject to change without notice.

MGE Galaxy 300 3:1 10–20 kVA with Internal Batteries



DEVICE RATINGS (SCHNEIDER ELECTRIC MAKE)

DEVIDE ID AND QUANTITY IN EACH SKU	RATING (A)		DESCRIPTION	MODEL TYPE	NUMBER OF AUX. SWITCH (NO)
	G3HT10K3B1S	G3HT20K3B2S			
G3HT10K3B1S	2	2	AC SWITCH 1 POLE	APA15083	1
G3HT15K3B2S	2	2	AC SWITCH 1 POLE	APA15080	1
G3HT15K3B1S	2	2	AC SWITCH 2 POLE	APA15081	1
G3HT20K3B1S	2	2	AC MINATURE CIRCUIT BREAKER 3 POLE	OSMCR5B3C63 + 28924	1
G3HT20K3B2S	2	2	AC MINATURE CIRCUIT BREAKER 4 POLE	OSMCR5H4C50	0

LEGEND: --- AC CABLE - PROVIDED BY OTHERS.

- NOTES:
1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.
 2. PLEASE REFER TO APC BY SCHNEIDER ELECTRIC PRODUCT MANUALS FOR DETAILS.
 3. DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT. PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
 4. 3φ400/230V TN-S (PROVIDED BY OTHERS). FOR OTHER EARTHING PRINCIPLES PLEASE CONTACT APC BY SCHNEIDER ELECTRIC. RECOMMENDED UPSTREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY.
 5. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC.
 6. ALL 3 PHASE AC POWER CABLES L1, L2, L3, N, PE.
 7. DC CABLES TO BE 600V RATED, 3 WIRE.
 8. UPS INPUT AND OUTPUT CABLES MUST BE REMOVED FOR DUAL MAINS.
 9. UPS INPUT AND OUTPUT CABLES SHOULD BE SEGREGATED.
 10. POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
 11. APPLICABLE UPS SKU NUMBERS LISTED IN SHEET-3.
 12. SYSTEM OUTPUT FOR VARIOUS SKUs LISTED IN SHEET-3.
 13. FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-3.
 14. FOR RECOMMENDED CABLE SIZES, REFER TO SHEET-3.

Runtime Details

SKU Number (Runtime in Minutes)	Type and quantity of battery
G3HT10K3B1S (10 min)	YUASA NPW45-12 (32 blocks) GP1272 (32 blocks)
G3HT15K3B2S (30 min)	NPW45-12 (64 blocks) GP1272 (64 blocks)
G3HT15K3B1S (10 min)	NPW45-12 (32 blocks) GP1272 (32 blocks)
G3HT15K3B2S (30 min)	NPW45-12 (90 blocks) GP1272 (90 blocks)

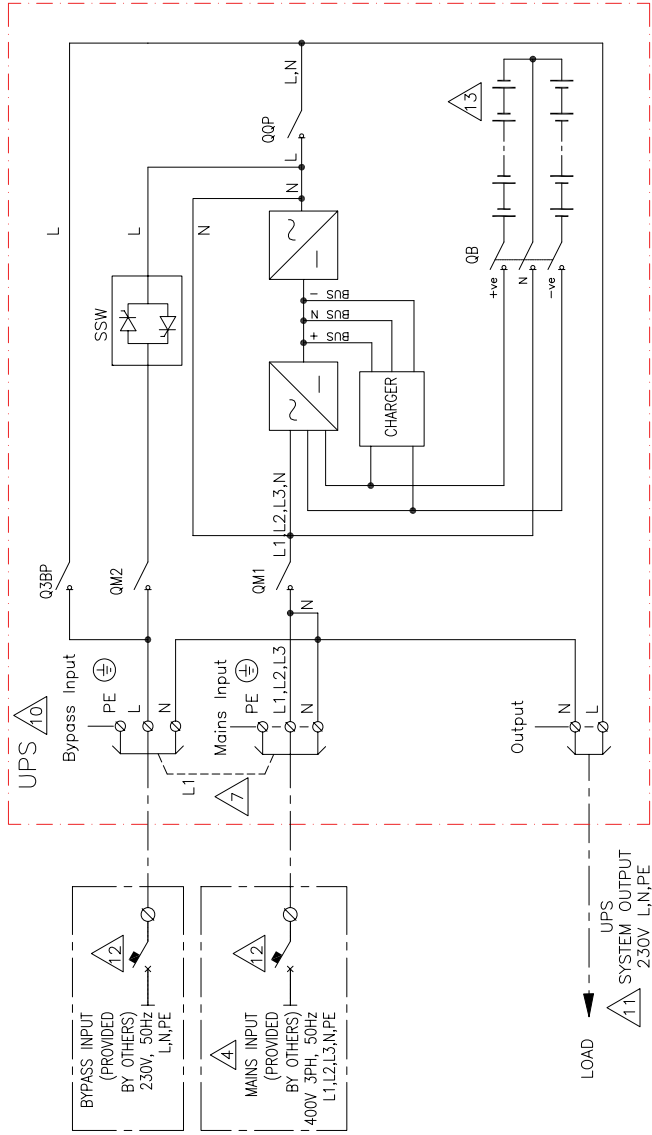
DWG NO: G3HT10K3120C1M2-SD REV. 1
 DRAWN: BALAJIRUKAN 20-APR-11 ANGLE
 ENGINEER: K.MUJ 28-APR-11 PROJECTION
 APPROVED: CLAREV/S.MOH 28-APR-11 N/A

Schneider Electric

TITLE: GALAXY 300 Input: 400/230V AC 3PH DUAL MAINS Output: 10/15/20 kVA 230V AC SYSTEM ONE LINE DIAGRAM

PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 3

MGE Galaxy 300 3:1 30 kVA with Internal Batteries



DEVICE RATINGS (SCHNEIDER ELECTRIC MAKE)

DEVICE ID AND	RATING (A)	DESCRIPTION	MODEL/ TYPE	NUMBER OF AUX. SWITCH (NC)
G3HT30K3B1S	1(QBP)	1(QBP)	APA15093	1
G3HT30K3B2S	1(QB)	1(QB)	APA15059	1
G3HT30K3B1S	2(Q3BP) (Q3BP) (Q2)	2(Q3BP) (Q3BP) (Q2)	APA15091	1
G3HT30K3B2S	1(QM1)	1(QM1)	APA15022	0

SKU Number/ (Runtime in Minutes)	Type and quantity of battery
G3HT20K3B1S (10 min)	YUASA NPW45-12 (64 blocks)
G3HT20K3B2S (25 min)	YUASA NPW45-12 (90 blocks)
G3HT30K3B1S (10 min)	YUASA NPW45-12 (90 blocks)
G3HT30K3B2S (25 min)	YUASA NPW45-12 (150 blocks)

LEGEND: ——— AC CABLE — PROVIDED BY OTHERS.

- NOTES:
1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE LOCAL AND NATIONAL CODES. PLEASE REFER TO APC BY SCHNEIDER ELECTRIC PRODUCT MANUALS FOR DETAILS.
 2. DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT, PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
 3. 3x400/230V TN-S (PROVIDED BY OTHERS). FOR OTHER EARTHING PRINCIPLES, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC. RECOMMENDED UPSTREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC.
 4. ALL 3 PHASE AC POWER CABLES IS L1, L2, L3, N, PE.
 5. DC CABLES TO BE 600V RATED, 3 WIRE.
 6. JUMPERS ARE APPLICABLE FOR SINGLE MAINS, MUST BE REMOVED FOR DUAL MAINS.
 7. UPS INPUT AND OUTPUT CABLES SHOULD BE SEGREGATED.
 8. POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
 9. UPS SYSTEM OUTPUT FOR VARIOUS SKUs LISTED IN SHEET-3.
 10. SYSTEM OUTPUT OVER CURRENT PROTECTION REFER TO SHEET-3.
 11. FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-3.
 12. SKU G3HT30K3B1S HAS NO BATTERIES.
 13. FOR RECOMMENDED CABLE SIZES, REFER TO SHEET-3.
 14. FOR RECOMMENDED CABLE SIZES, REFER TO SHEET-3.

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Schneider Electric

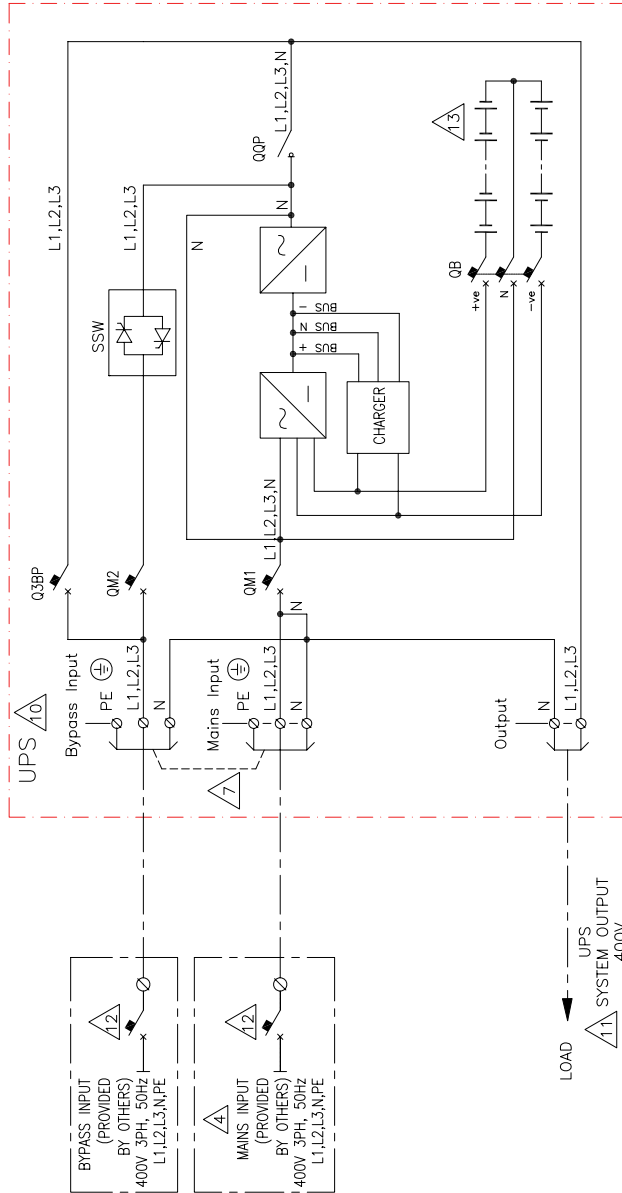
TITLE: GALAXY 300 3:1 30 kVA UPS SYSTEM ONE LINE DIAGRAM
 Input: 400/230V 3PH, 50Hz AC
 Output: 300VA 230V AC, 1PH
 MODULE CAPACITY: 300VA

PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 3

REV. 1

DATE:	20-APR-11	ANGLE
DRAWN:	ENALMURUGAN	PRODUCTION
ENGINEER:	K.JU	
APPROVED:	CJARSEVSKI	

MGE Galaxy 300 3:3 10–20 kVA with Internal Batteries



LOAD
 UPS SYSTEM OUTPUT
 400V
 L1, L2, L3, N, PE

LEGEND:
 --- AC CABLE --- PROVIDED BY OTHERS.

- NOTES:
1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.
 2. PLEASE REFER TO APC BY SCHNEIDER ELECTRIC PRODUCT MANUALS FOR DETAILS.
 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 EARTHING PRINCIPLES, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC. RECOMMENDED UPS/STREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY.
 5. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC.
 6. ALL AC POWER CABLEING IS L1, L2, L3, N, PE.
 7. DC CABLEING TO BE 600V RATED, 3 WIRE.
 8. JUMPERS ARE APPLICABLE FOR SINGLE MAINS. MUST BE REMOVED FOR DUAL MAINS.
 9. POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
 10. APPLICABLE UPS SKU NUMBERS LISTED IN SHEET-3.
 11. SYSTEM OUTPUT FOR VARIOUS SKUS LISTED IN SHEET-3.
 12. FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-3.
 13. SKUS G3HT10KH, G3HT15KH AND G3HT20KH HAVE NO BATTERIES.
 14. FOR RECOMMENDED CABLE SIZES, REFER TO SHEET-3.

Runtime Details

SKU Number/ (Runtime in Minutes)	Type and quantity of battery	
	YUASA	CSB
G3HT10KH1S (10 min)	NPW45-12 (32 blocks)	GP1272 (32 blocks)
G3HT10KH2S (20 min)	NPW45-12 (64 blocks)	GP1272 (64 blocks)
G3HT15KH1S (10 min)	NPW45-12 (32 blocks)	GP12120 (32 blocks)
G3HT15KH2S (20 min)	NPW45-12 (90 blocks)	GP1272 (90 blocks)
G3HT20KH1S (10 min)	NPW45-12 (64 blocks)	GP1272 (64 blocks)
G3HT20KH2S (25 min)	NPW45-12 (90 blocks)	GP12120 (90 blocks)

DEVICE RATINGS (SCHNEIDER ELECTRIC MAKE)

DEVICE ID AND QUANTITY IN EACH SKU		DESCRIPTION	MODEL / TYPE	NUMBER OF AUX. SWITCH (NC)
G3HT10KH1S	1(QOP)	AC SWITCH 4 POLE	APA15016	1
G3HT10KH2S	1(OB)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3C63 + 26924	1
G3HT15KH1S	1(QM1)	AC MINATURE CIRCUIT BREAKER 4 POLE	OSM/C65H4C50	0
G3HT15KH2S	2(QM2)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3D50	1
G3HT20KH1S	2(QM2)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3D50	1
G3HT20KH2S	2(QM2)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3D50	1
G3HT20KH1S	1(QOB)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3C63 + 26924	1
G3HT20KH2S	1(QOB)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3C63 + 26924	1
G3HT20KH1S	1(QOM1)	AC MINATURE CIRCUIT BREAKER 4 POLE	OSM/C65H4C50	0
G3HT20KH2S	2(QOM2)	AC MINATURE CIRCUIT BREAKER 3 POLE	OSM/C65H3D50	1

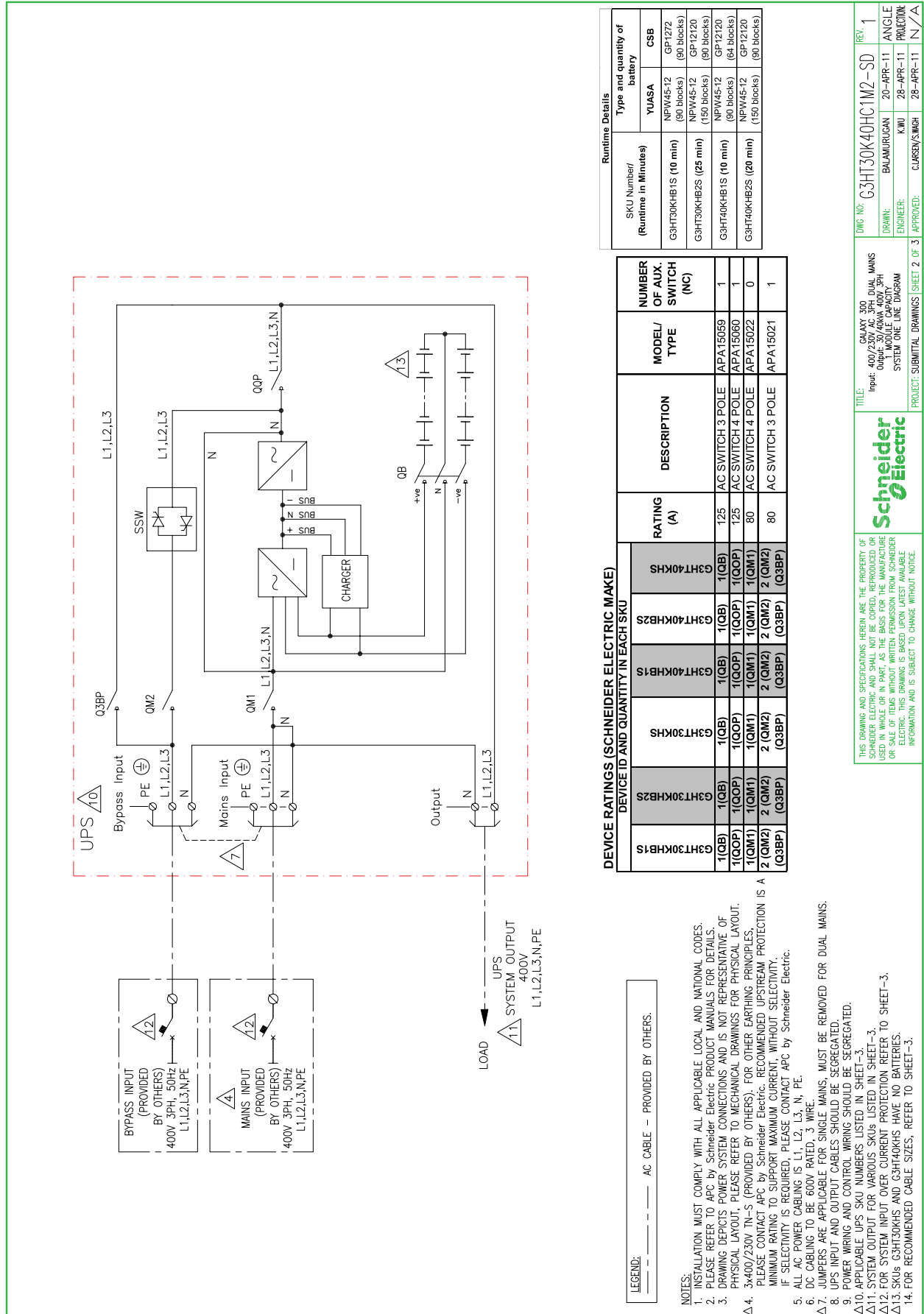
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Schneider Electric

TITLE: GALAXY 300
 Input: 400/230V AC 3PH DUAL MAINS
 Output: 10/15/20 kVA 400V 3PH
 SYSTEM ONE LINE DIAGRAM

DWG NO: G3HT10K20HC1M2-SD REV. 1
 DRAWN: BALAJIRICAN 20-APR-11 ANGLE
 ENGINEER: K.MUJ 28-APR-11 PRODUCTION
 PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 3 APPROVED: CLAREV/S.MOH 28-APR-11 N/A

MGE Galaxy 300 3:3 30–40 kVA with Internal Batteries



SKU Number/ (Runtime in Minutes)	Runtime Details	
	Type	Quantity of battery
G3HT30KHBS (10 min)	YUASA NPW45-12 (90 blocks)	CSB GP1272 (90 blocks)
G3HT30KHBS (25 min)	NPW45-12 (150 blocks)	GP12120 (90 blocks)
G3HT40KHBS (10 min)	NPW45-12 (90 blocks)	GP12120 (64 blocks)
G3HT40KHBS (20 min)	NPW45-12 (150 blocks)	GP12120 (90 blocks)

DEVICE ID AND QUANTITY IN EACH SKU		DESCRIPTION	MODEL/TYPE	RATING (A)	NUMBER OF AUX. SWITCH (NC)
G3HT30KHBS	1(QB)				
G3HT30KHBS	1(QOP)	G3HT30KHBS	1(QOP)	125	1
G3HT30KHBS	1(QM1)	G3HT30KHBS	1(QM1)	80	0
G3HT30KHBS	2(QM2)	G3HT30KHBS	2(QM2)	80	1
G3HT30KHBS	2(Q3BP)	G3HT30KHBS	2(Q3BP)	80	1

- NOTES:**
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 - PLEASE REFER TO APC BY SCHNEIDER ELECTRIC PRODUCT MANUALS FOR DETAILS.
 - DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT, PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
 - 3x400/230V TN-S (PROVIDED BY OTHERS). FOR OTHER EARTHING PRINCIPLES, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC. RECOMMENDED UPSTREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT APC BY SCHNEIDER ELECTRIC.
 - ALL AC POWER CABLING IS L1, L2, L3, N, PE.
 - DC CABLING TO BE 600V RATED, 3 WIRE.
 - JUMPERS ARE APPLICABLE FOR SINGLE MAINS, MUST BE REMOVED FOR DUAL MAINS.
 - UPS INPUT AND OUTPUT CABLES SHOULD BE SEGREGATED.
 - POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
 - APPLICABLE UPS SKU NUMBERS LISTED IN SHEET-3.
 - SYSTEM OUTPUT FOR VARIOUS SKUS LISTED IN SHEET-3.
 - FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-3.
 - SKUS G3HT30KHS AND G3HT40KHS HAVE NO BATTERIES.
 - FOR RECOMMENDED CABLE SIZES, REFER TO SHEET-3.

LEGEND: --- AC CABLE - PROVIDED BY OTHERS.

UNQ NO:	G3HT30K40HC1M2-SD	REV:	1
DRAWN:	ENLALMURUGAN	20-APR-11	ANGLE
ENGINEER:	K.VU	28-APR-11	PRODUCTION
APPROVED:	CLARSEN/S.WICH	28-APR-11	N/A

TITLE: GALAXY 300 input: 400V 3PH 50HZ Output: 30/40VA 400V 3PH MODULE CAPACITY SYSTEM ONE LINE DIAGRAM PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 3



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Options

Hardware Options

External Battery Enclosure



Note: External battery enclosures must be used with UPS with CLA only. External battery enclosures permit to get runtimes higher than 30 min - typically from 45 min up to 4 hours (kVA dependent).

- MGE Galaxy 300 Empty battery enclosure (G3HTEFBAT)
- MGE Galaxy 300 Battery enclosure 1 (G3HTBAT1)
- MGE Galaxy 300 Battery enclosure 2 (G3HTBAT2)
- MGE Galaxy 300 Battery enclosure 3 (G3HTBAT3)

Accessories

- MGE Galaxy 300 Parallel Configuration Kit for 2 UPS (redundancy 1+1), Start-up 5x8 (G3HTPARKITS)
- UPS Network Management Card 2 w/ Environmental Monitoring, Out of Band Access and Modbus (AP9635CH)

Adaptation Kit for IP21

- MGE Galaxy 300 Adaptation Kit for IP21 - Narrow Tower (400mm) (G3HTOPT001)
- MGE Galaxy 300 Adaptation Kit for IP21 - Wide Tower (500mm) (G3HTOPT002)

Configuration Options

Battery Enclosure

There are three different external battery enclosures for additional runtime. These external battery enclosures are to be used only with a UPS without internal batteries and a strong charger (0min + CLA). Each battery enclosure contains 12 V batteries providing additional runtime for the UPS. The enclosures have a built-in battery temperature monitoring capability that will communicate with the Galaxy 300. The battery disconnect switch is also placed in this area.

Parallel Capabilities



WARNING:

Two UPSs in parallel CANNOT share the same battery.

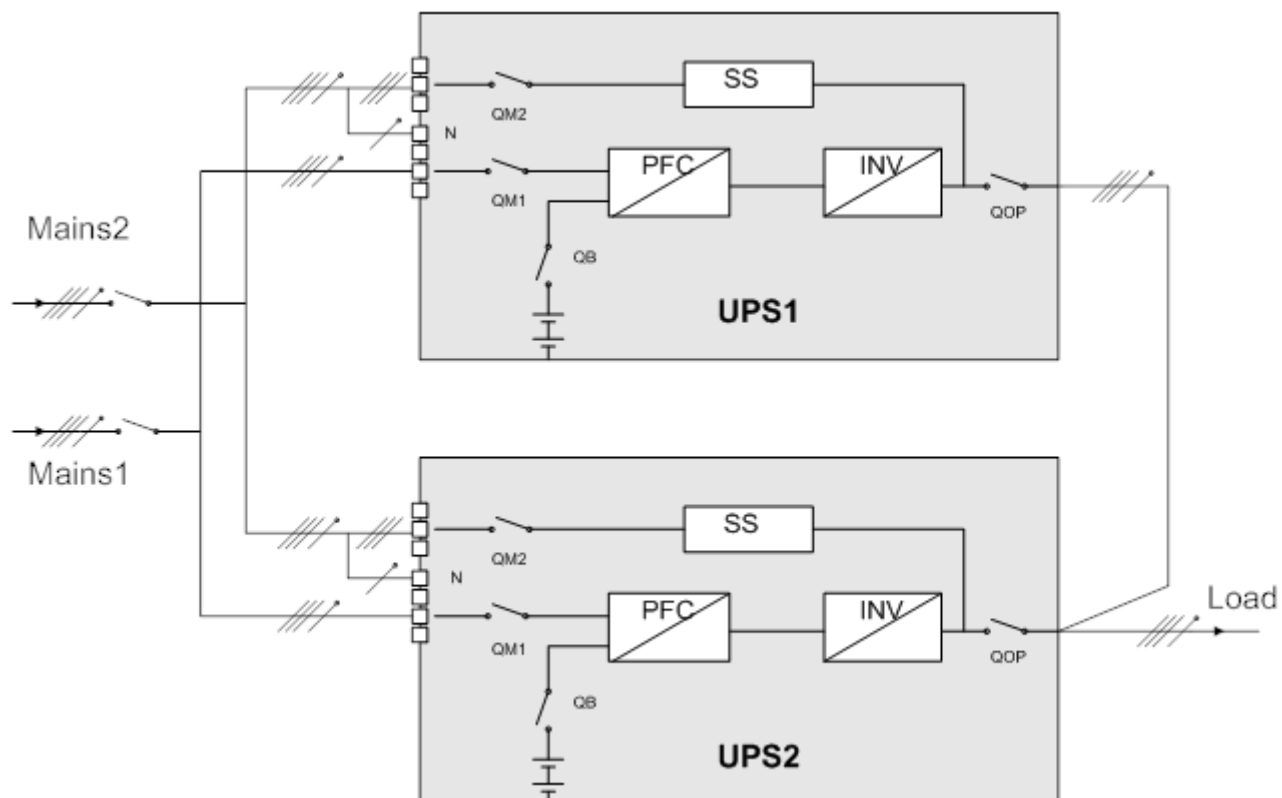
Installation of the parallel cards must ONLY be performed by a qualified Field Service Engineer.

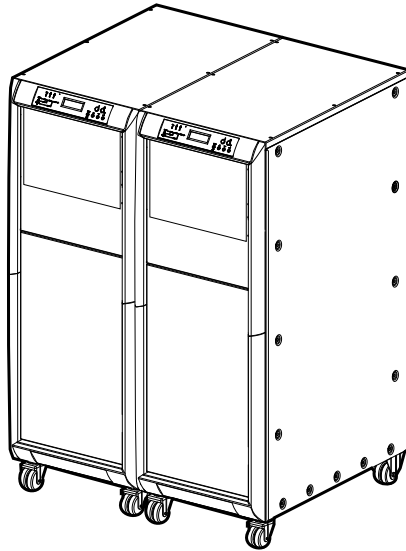


Note: The units leave the factory with standard single-UPS mode parameter settings. These settings must be personalized as parallel mode on customer side.



Note: If mains 1 and mains 2 are using different sources, it is possible to install the transformer enclosure on mains 2.





Galaxy 300 can be installed in parallel to create a redundant system (1+1) with two UPS units of the same kVA range.

In a parallel system, each UPS can still use its own internal bypass. An external system bypass is not mandatory, but may be installed optionally.

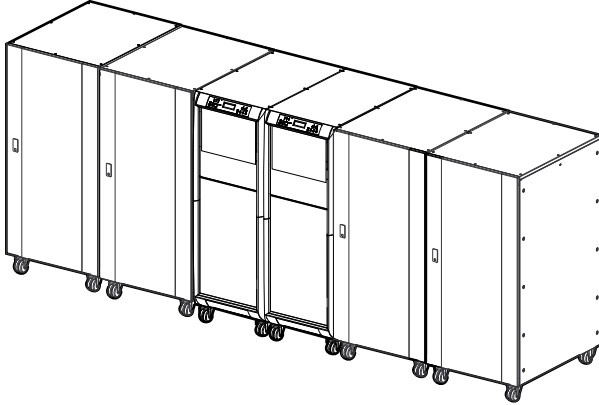
When setting up a parallel system, the Parallel Communications Kit has to be purchased separately (1 kit for 2 UPS units) and be installed by a qualified FSE. The Parallel Communications Kit contains:

- 2 parallel boards (1 for each UPS – to be installed at the rear)
- Cables: 5m and 15m that connects between the DB9 communication ports on the back of each UPS
 - 5m cable to be used when the UPS units are installed side-by-side
 - 15m cable to be used when the 2 UPS are installed further from each other

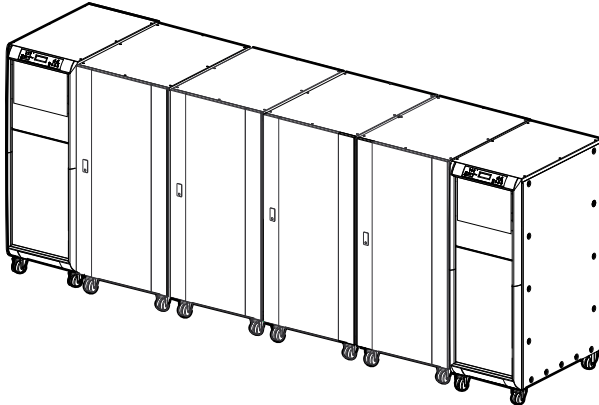
Placement of the two UPS Units in Parallel

The two UPS units in parallel can be placed anywhere in the setup, as long as the 15m cable can still reach between them.

Example with the two UPS unit in parallel placed together in the middle



Example with the two UPS units in parallel placed at opposite ends of the setup



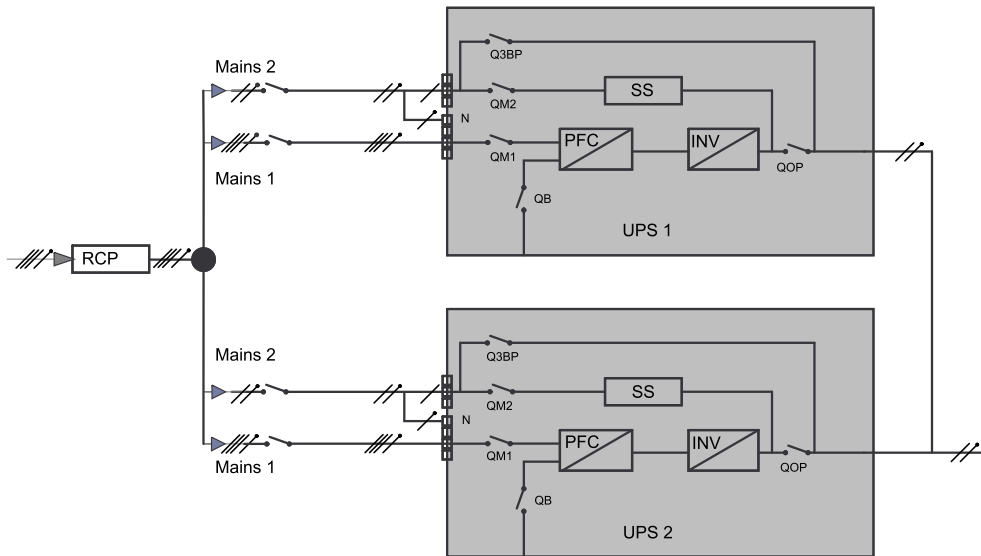
Typical Parallel System Installation



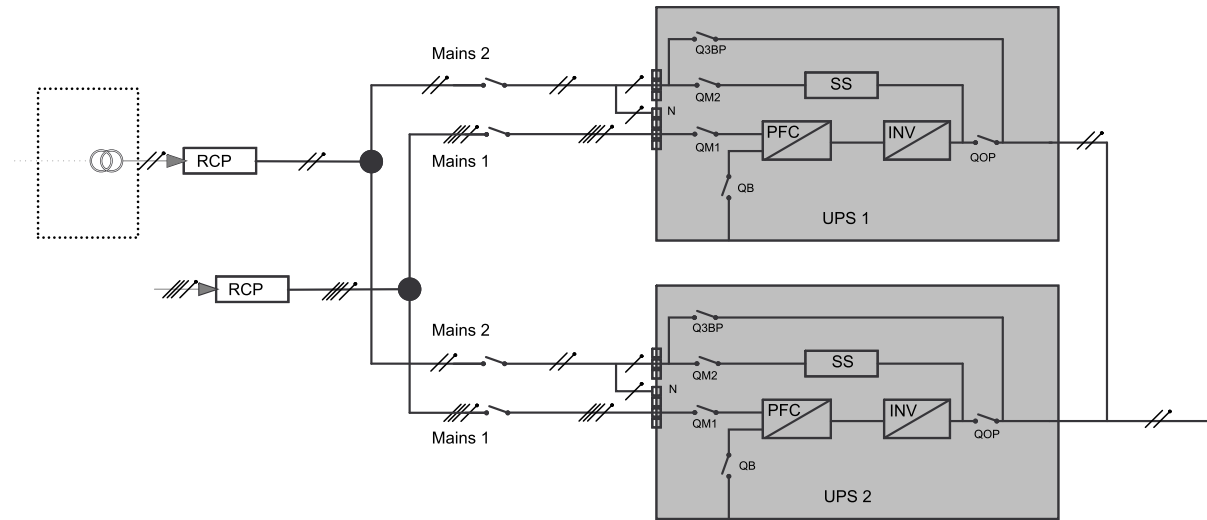
WARNING:

- If a Residual Current Protection (RCP) is used, use only one RCP per source. Example: If the whole installation is single source then only one RCP must be used (see drawings below).
- The power cables connected to the two UPSs in parallel must have the same dimension and length.

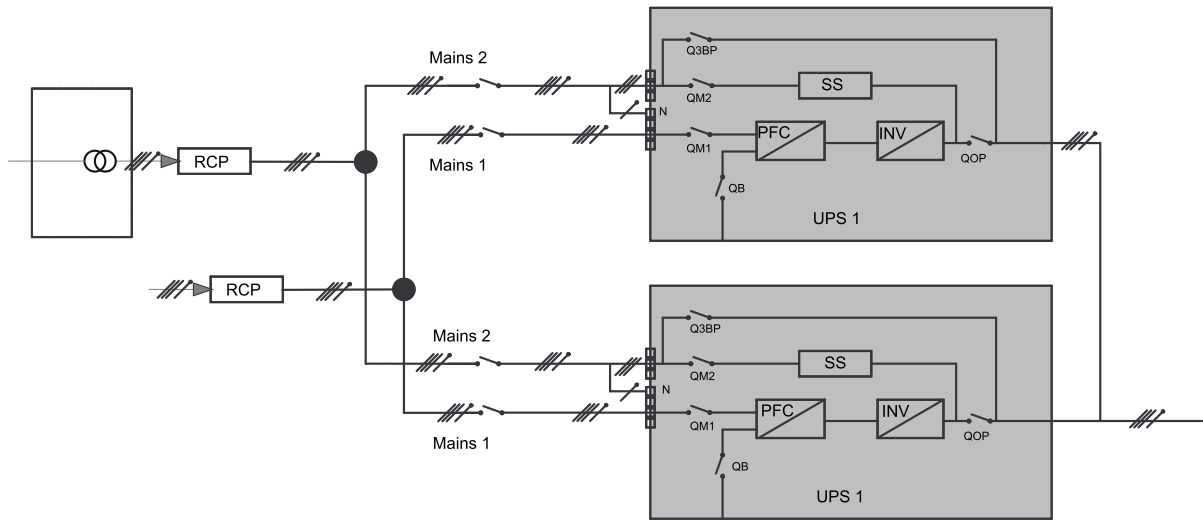
3:1 Single Source



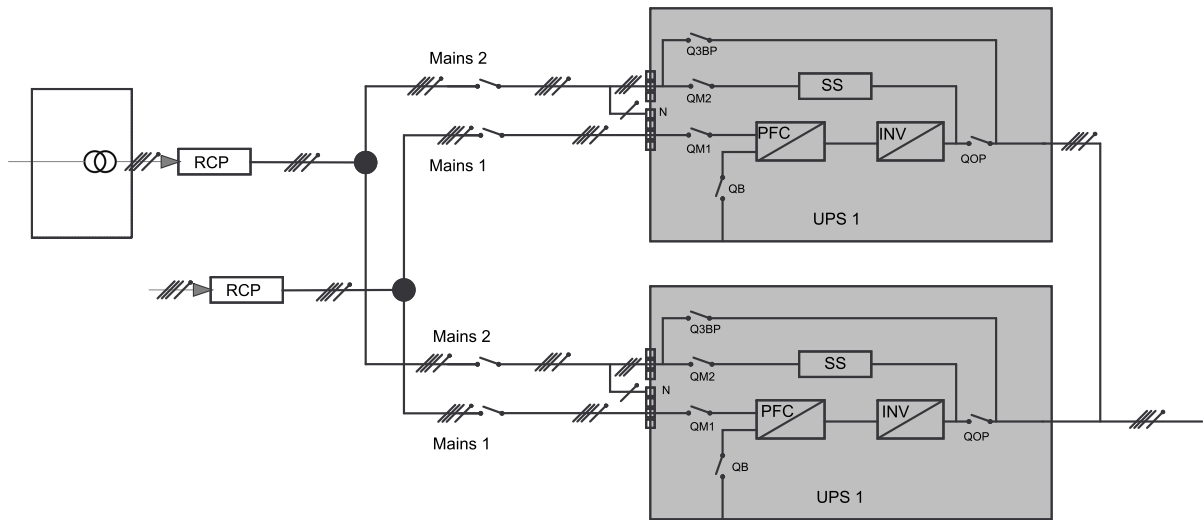
3:1 Dual Source



3:3 Single Source



3:3 Dual Source



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