Powering Business Worldwide

SITE PLANNING DATA 93E 30KVA

METRIC	THIRD ANGLE PROJECTION	EATON CORPORATION			
DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M–1994. SEE NOTES FOR TOLERANCES.					
DESCRIPTION: 93E 30KVA					
ORIGINATED: Atif Rasheed	28-08-2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:1
CHECKED:		DOCUMENT TYPE:		STATE: RELEASED	
SAFETY:		AUTOCAD DRAWING			SHEET: OF
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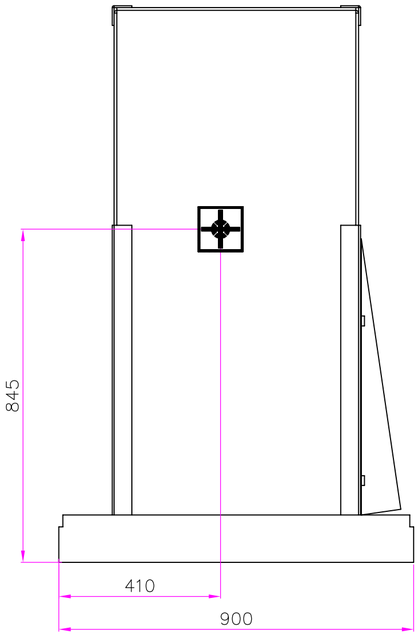
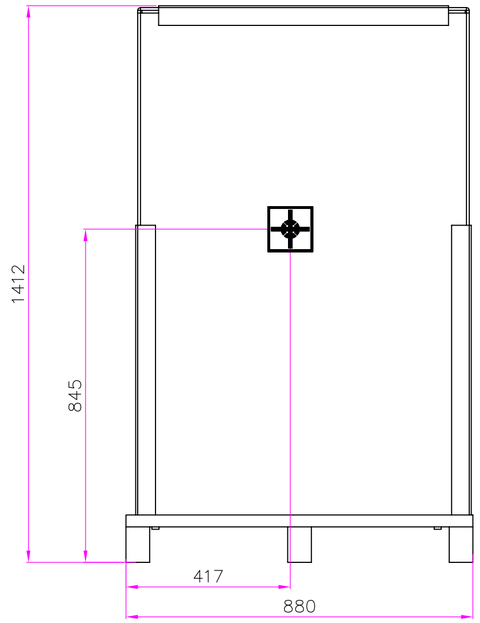
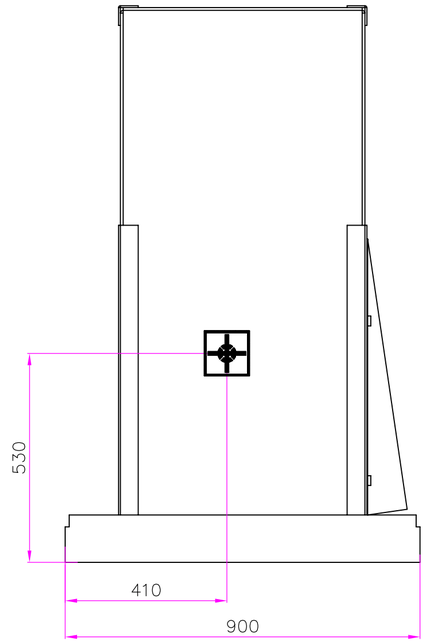
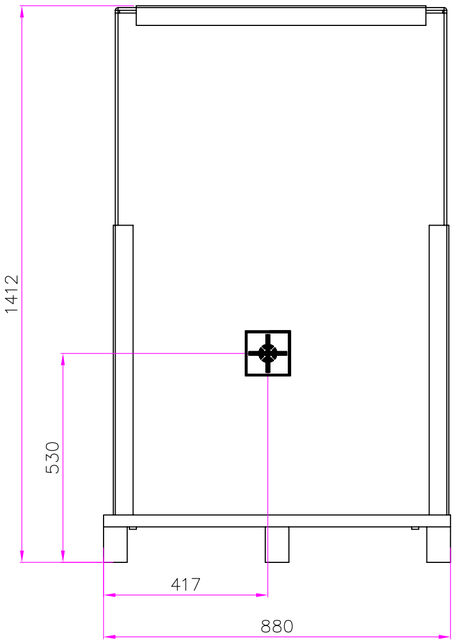


COG dimensions without internal batteries





COG dimensions with internal batteries



Notes:
1. The COG dimensions are approximated values with Pallet and packaging including Batteries and without Batteries.
2. The COG dimensions of UPS cabinet with package are X=410mm,
Y=417mm, Z=530mm including Batteries and X=410mm, Y=417mm, Z=845mm without Batteries.
3. Store the unit in dry and clean environment. Protect the unit from high humidity, rain or other direct exposure to water and also protect it from exposure to dirt and dust.
4. Optimal storing temperature for the unit without batteries is +15°C to +30°C and for batteries +20°C to +25°C.
5. Unites without batteries can be stored in −25°C to +55°C without risk of remediate damaging.
6. Storing batteries above +25°C will shorten the battery lifetime.
7. Batteries can be stored for six months without charging in temperature +20°C to +25°C, but batteries should not be stored uninstalled more than absolute necessary.
8. If batteries are stored above +25°C then batteries should be charged every four months.
9. Storing batteries longer than recommended without charging can harm the battery permanently.

Product Specifications

UPS Rating		Shipping Dimensions WXDXH	Approx. Weight Shipping with Batteries	Approx. Weight Shipping without Batteries
KVA	KW	MM	Kg	Kg
30	27	900X880X1410	405	174

METRIC — THIRD ANGLE PROJECTION — EATON CORPORATION

DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M–1994. SEE NOTES FOR TOLERANCES.

DESCRIPTION: 93E 30KVA Packaging Dimensions

ORIGINATED: Atif Rasheed	26–08–2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:11
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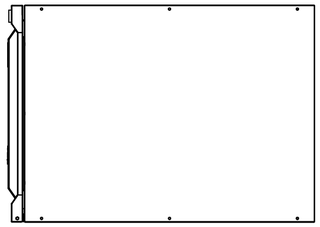
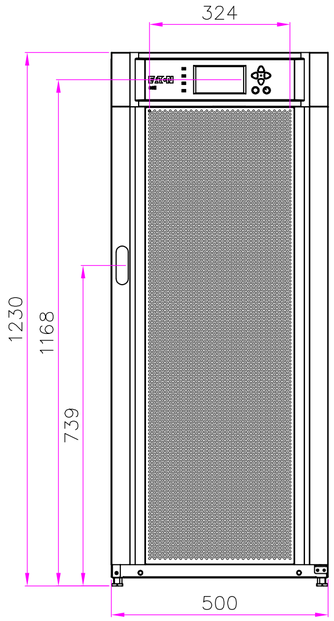
SAFETY:					SHEET: 1 OF 7
APPROVED:					

Product Specifications

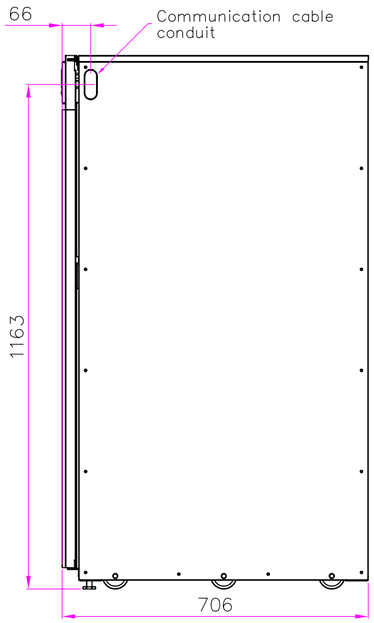
UPS Rating		Max Heat Dissipation at 100% Load	Cabinet Dimensions WXDXH	Shipping Dimensions WXDXH	Approx. Weight Cabinet without Batteries	Approx. Weight Cabinet with Batteries	Approx. Weight Shipping without Batteries	Approx. Weight Shipping with Batteries	Floor Loading without Batteries	Floor Loading with Batteries	Cooling Air
KVA	KW	KW	MM	MM	Kg	Kg	Kg	Kg	Points/Kg	Points/Kg	L/s
30	27	1.84	500X706X1230	900X880X1410	154.5	385.5	174	405	6/26	6/64	170



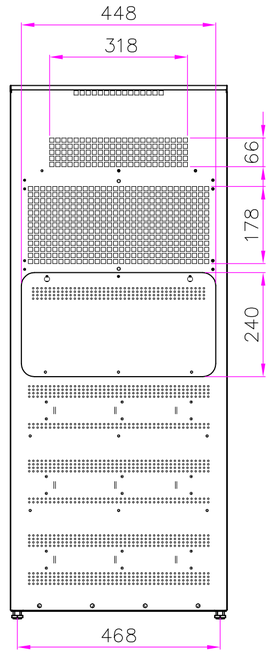
TOP VIEW

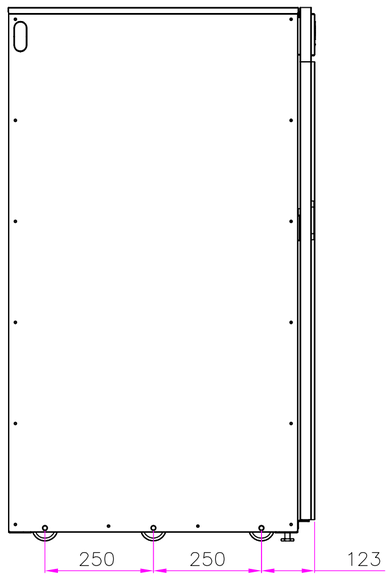


FRONT VIEW

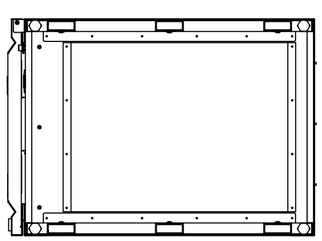


RIGHT VIEW





LEFT VIEW



BOTTOM VIEW

Notes:
1. The system must be installed in a temperature and humidity controlled indoor area free of conductive contaminants.
2. Continues ambient temperature range: 0–40°C (32–104F); Maximum relative humidity: 95% non–condensing.
3. The UPS can be installed in line–up–and–match or standalone configurations.
4. Cable access plates shall be custom–modified to suit conduit sizes.

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DESCRIPTION: 93E 30KVA Dimensional Drawing					
ORIGINATED: Atif Rasheed	26–08–2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:10
CHECKED:		DOCUMENT TYPE:		STATE: RELEASED	
SAFETY:		AUTOCAD DRAWING			SHEET: 2 OF 7
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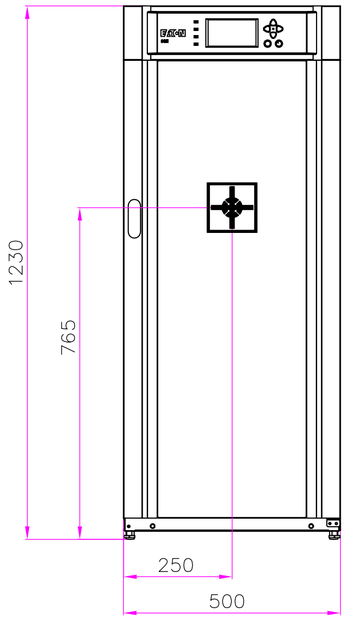
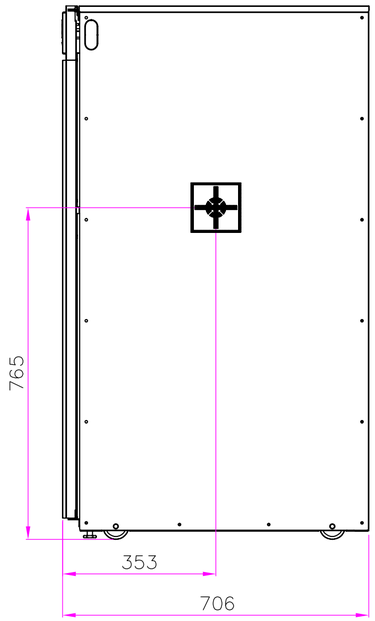
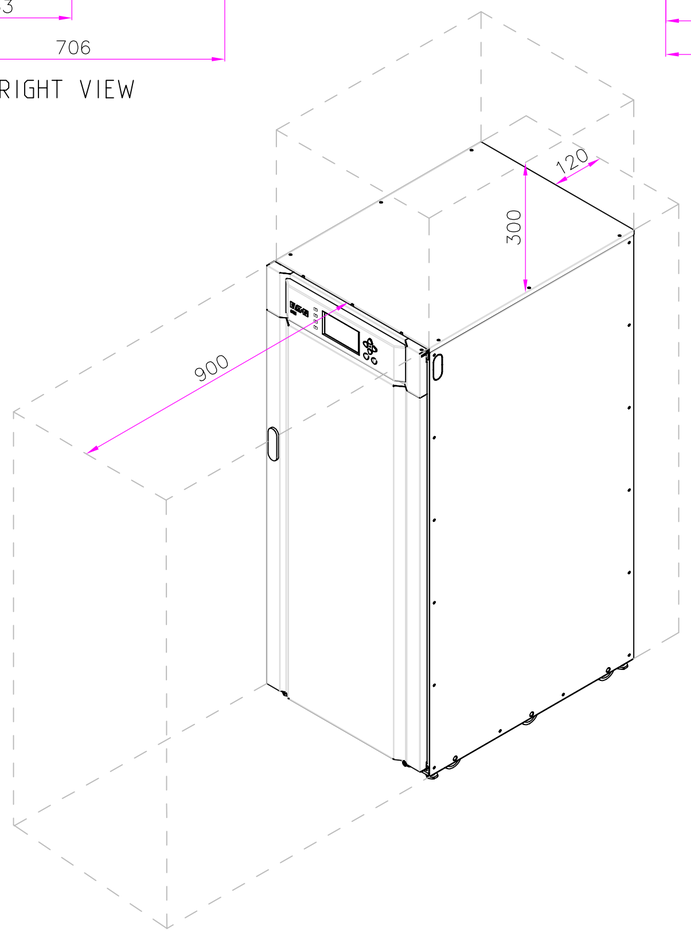


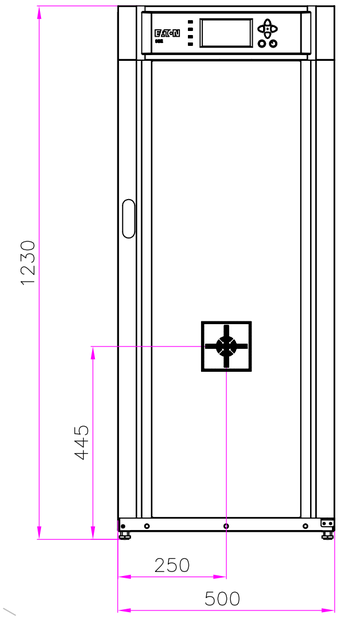
FRONT VIEW



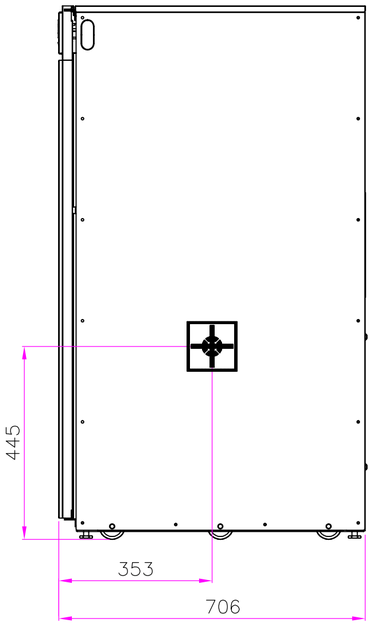
RIGHT VIEW

COG dimensions without internal batteries





FRONT VIEW



RIGHT VIEW

COG dimensions with internal batteries

Notes:
1. The COG dimensions for UPS cabinet are approximated values including internal Batteries and without Batteries.
2. The COG dimensions of UPS cabinet without package are X=250mm , Y=353mm, Z=445mm including Batteries and X=250mm , Y=353mm, Z=765mm without Batteries.
3. Minimum overhead clearance above the UPS cabinet is 300mm (12in.) for servicing space.
4. Minimum 900mm (35in.) clearance in front of the UPS cabinet is required for cooling air intake and servicing space.
5. Minimum 120mm (5in.) clearance in back of the UPS cabinet is required for cooling air exhaust and servicing space at a ambient temperature of 25–30°C.If the ambient temperate is around 35–40°C then minimum of 150mm clearance is required.

Cabinet Installation Clearances	
From Top of cabinet	300 mm
From Front of cabinet	900 mm
From Back of cabinet[5]	120 mm

METRIC | THIRD ANGLE PROJECTION | EATON CORPORATION

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DESCRIPTION: 93E 30KVA Clearance and COG

ORIGINATED: Atif Rasheed	26-08-2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:10
CHECKED:		DOCUMENT TYPE: AUTOCAD DRAWING		STATE: RELEASED	
SAFETY:					SHEET: 3 OF 7
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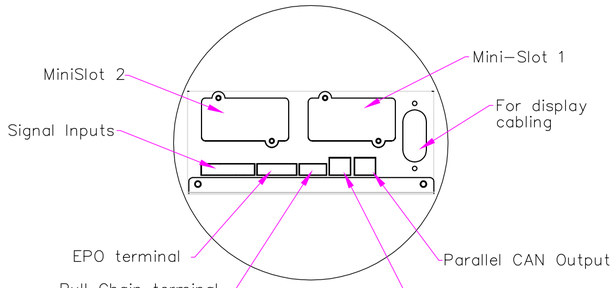
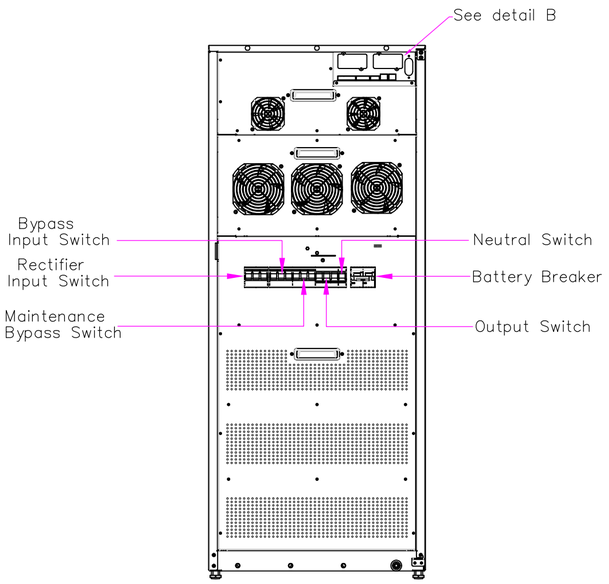
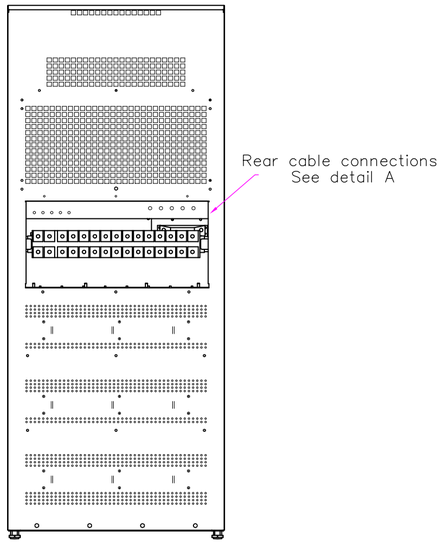


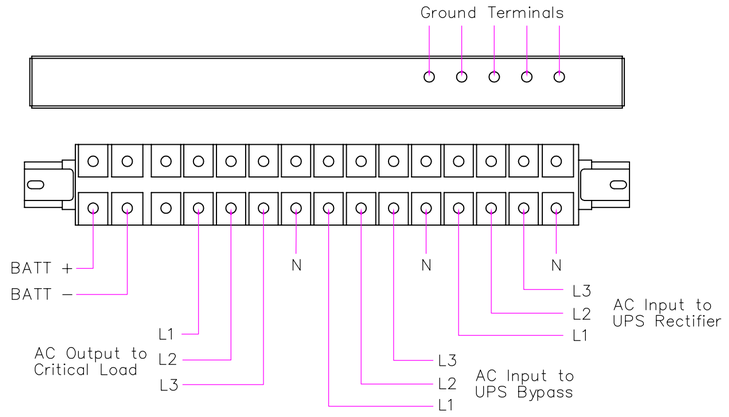
Interface Terminals
Detail B



FRONT VIEW



REAR VIEW



Power cable connections
Detail A

Notes:
1. The bus bars are Tin coated and suitable for both Cu and Al connections.
2. M8 size power cable bolts are used for UPS input and output (L1,L2,L3,N) connections. It requires approximately 12Nm of tightening torque.
3. M8 size power cable bolts are used for PE connections and it requires approximately 24Nm of tightening torque.

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DESCRIPTION: 93E 30KVA Customer Connections					
ORIGINATED: Atif Rasheed	26–08–2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:10
CHECKED:		DOCUMENT TYPE: AUTOCAD DRAWING		STATE: RELEASED	
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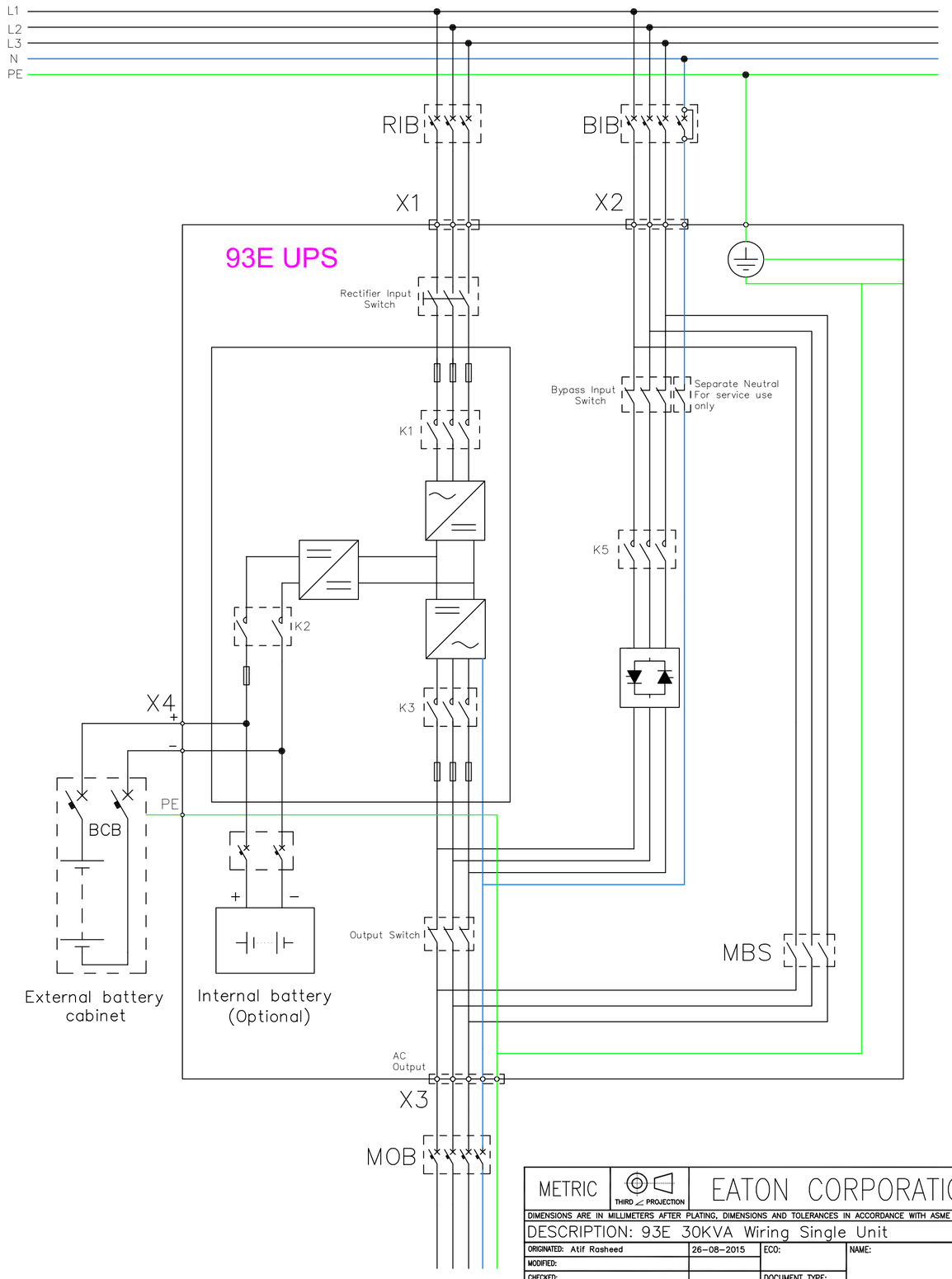

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DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M–1994. SEE NOTES FOR TOLERANCES.					
DESCRIPTION: 93E 30KVA Wiring Single Unit					
ORIGINATED: Atif Rasheed	26-08-2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:10
CHECKED:		DOCUMENT TYPE:		STATE: RELEASED	
SAFETY:		AUTOCAD DRAWING			SHEET: 4 OF 7
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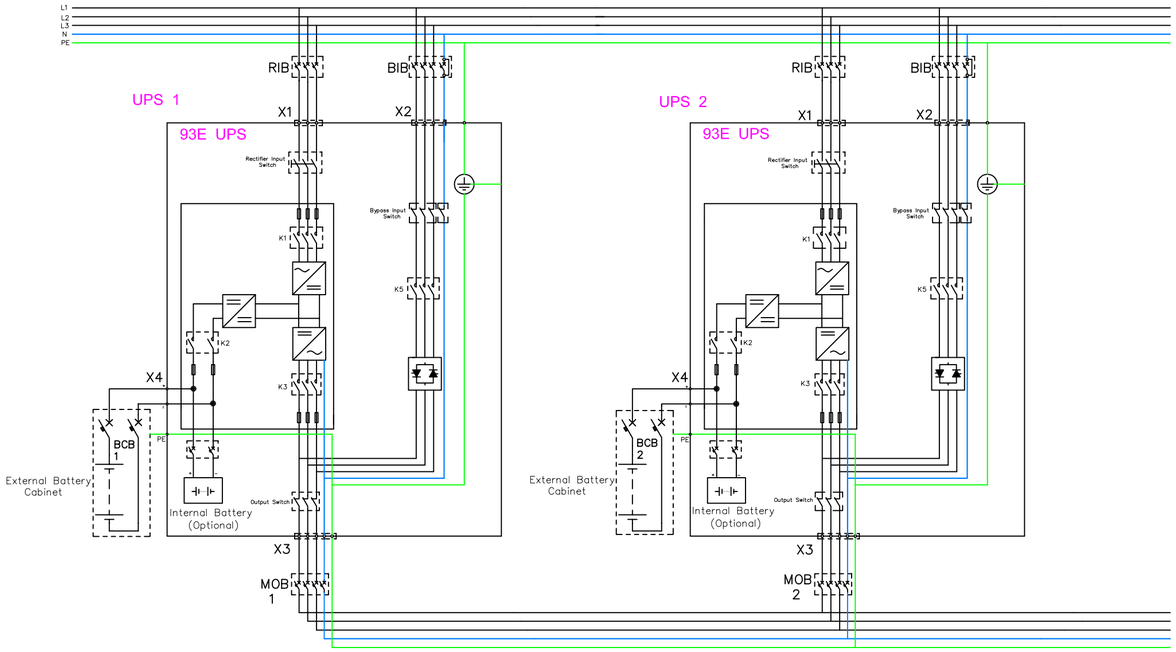
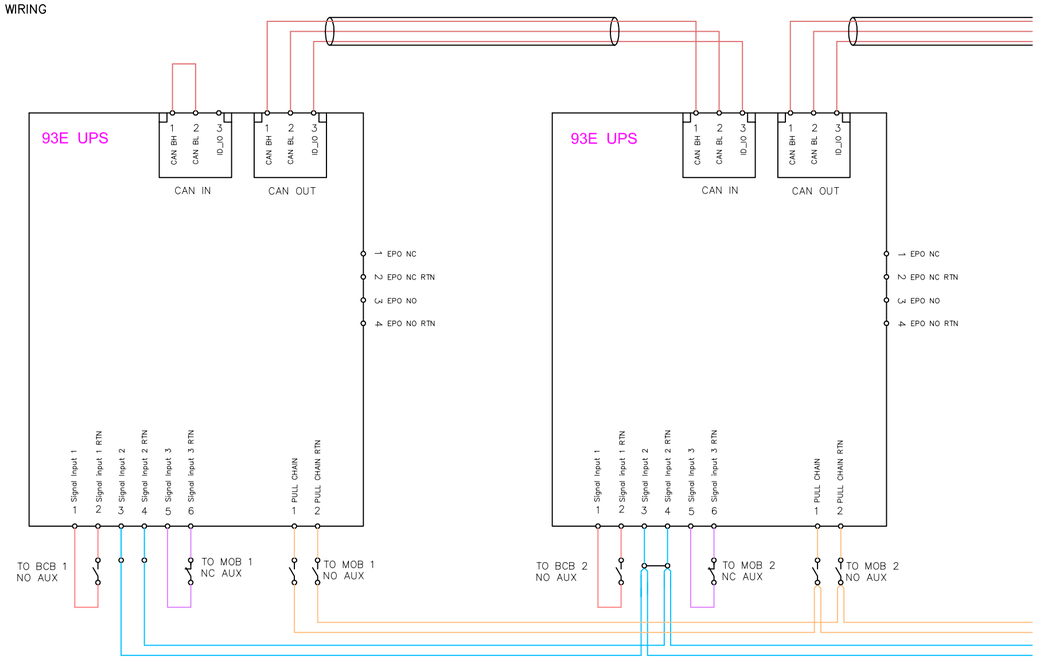


POWER WIRING

SIGNAL WIRING



MBS STATUS (Provided by others, Installed by others)
0.75 - 2.5mm² twisted pair (if possible, else shielded)
No earth needed

MOB STATUS (Provided by others, Installed by others)
0.75 - 2.5mm² twisted pair (if possible, else shielded)
No earth needed

PULL CHAIN (REDUNDANT ON BYP STATUS)
Provided by Eaton, Installed by Eaton

PCAN (DUAL AS OPTION)
Provided by Eaton, Installed by Eaton

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DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M–1994. SEE NOTES FOR TOLERANCES.

DESCRIPTION: 93E 30KVA Wiring Parallel Units

ORIGINATED: Atif Rasheed	26–08–2015	ECO:	NAME:	REVISION: 001	SIZE: A2
MODIFIED:					SCALE: 1:1
CHECKED:		DOCUMENT TYPE:		STATE: RELEASED	
SAFETY:		AUTOCAD DRAWING			SHEET: 6 OF 7
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93E 30KVA UPS Site Planning Data

Product Specifications																		
UPS Rating		AC Input	3P Rectifier Input Breaker (RIB)		3P+Bolted N Bypass Input Breaker (BIB)		AC Output	4P Inverter AC output Breaker MOB				Battery Breaker (BCB) (Ratings at the end of discharge, 1.67VPC) (32 Blocks)			For Single Unit Maintenance Bypass Switch (MBS)	For Parallel Units Common Maintenance Bypass Switch (MBS)	
			Nominal Current	Maximum Current	Nominal Current at 400v Input	Maximum Current at 15% under voltage		Output Current	Inverter Short Circuit Current		Auxiliary Switches	Rating	Battery end of discharge Current	Auxiliary Switches	Rating	Rating	Auxiliary Switches
KVA	KW	v	A	A	A	A	v	A	A / 0...100ms	A / 100...160ms	Qty	VDC	A	Qty	A	A	Qty
30	27	400	46	51	43	50	400	43	80	51	1	500	92	1	43	43x N	1

Minimum recommended cable and fuse sizes										Recharge curent	
UPS RATING KVA	Rectifer Input Cable [mm²] (3P)	Rectifier Fuse [A]	Bypass Input Cable [mm²] (3P+N)	Bypass Fuse [A]	UPS Output Cable [mm²] (3P+N)	Output Fuse [A]	POS. & NEG. Line [mm²]	Battery Fuse [A]	PE Cable [mm²]	Default Recharge Current [A]	Maximum Recharge Current [A]
30	1 x 16	63	1 x 10	50	1 x 10	50	1 x 25	100	1 x 16	8	8

Notes:
1. Rectifier AC input current calculations: Nominal – 100% load without charging; Maximum – 100% load with maximum charging (Rectifier current limit).
2. Inverter AC output current calculation: At 100% rated output load.
3. The system must be installed on a level floor suitable for computer or electronic equipment.
4. All wiring and installations must be in accordance with applicable National and Local Electric Regulations.
5. AC input to UPS: (3) phases, (1) neutral, (1) ground.
   AC output to load: (3) phases, (1) neutral, (1) ground.
   DC input from battery to UPS: (1) positive, (1) negative, (1) ground.
6. All breakers should be adjusted according to the specified Ampere values to protect the UPS and installation.
7. For UPS installation that utilizes single feed input, The input breaker should be configured according to the rated rectifier input current.
8. Cable sizing is based on the standard IEC 60364–5–52 and IEC 60364–5–54.The sizing is for 70°C rated copper cables.
8. Specifications are subject to change.

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DIMENSIONS ARE IN MILLIMETERS AFTER PLATING, DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M–1994. SEE NOTES FOR TOLERANCES.			
DESCRIPTION: 93E 30KVA Specifications			
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	SHEET: 7 OF 7		

93E 30KVA UPS Site Planning Data

Product Specifications																		
UPS Rating		AC Input	3P Rectifier Input Breaker (RIB)		3P+Bolted N Bypass Input Breaker (BIB)		AC Output	4P Inverter AC output Breaker MOB				Battery Breaker (BCB) (Ratings at the end of discharge, 1.67VPC) (32 Blocks)			For Single Unit Maintenance Bypass Switch (MBS)	For Parallel Units Common Maintenance Bypass Switch (MBS)	
			Nominal Current	Maximum Current	Nominal Current at 400v Input	Maximum Current at 15% under voltage		Output Current	Inverter Short Circuit Current		Auxiliary Switches	Rating	Battery end of discharge Current	Auxiliary Switches	Rating	Rating	Auxiliary Switches
KVA	KW	v	A	A	A	A	v	A	A / 0...100ms	A / 100...160ms	Qty	VDC	A	Qty	A	A	Qty
30	27	400	46	51	43	50	400	43	80	51	1	500	92	1	43	43x N	1

Minimum recommended cable and fuse sizes										Recharge current	
UPS RATING KVA	Rectifier Input Cable [mm²] (3P)	Rectifier Fuse [A]	Bypass Input Cable [mm²] (3P+N)	Bypass Fuse [A]	UPS Output Cable [mm²] (3P+N)	Output Fuse [A]	POS. & NEG. Line [mm²]	Battery Fuse [A]	PE Cable [mm²]	Default Recharge Current [A]	Maximum Recharge Current [A]
30	1 x 16	63	1 x 10	50	1 x 10	50	1 x 25	100	1 x 16	8	8

Notes:
1. Rectifier AC input current calculations: Nominal – 100% load without charging; Maximum – 100% load with maximum charging (Rectifier current limit).
2. Inverter AC output current calculation: At 100% rated output load.
3. The system must be installed on a level floor suitable for computer or electronic equipment.
4. All wiring and installations must be in accordance with applicable National and Local Electric Regulations.
5. AC input to UPS: (3) phases, (1) neutral, (1) ground.
   AC output to load: (3) phases, (1) neutral, (1) ground.
   DC input from battery to UPS: (1) positive, (1) negative, (1) ground.
6. All breakers should be adjusted according to the specified Ampere values to protect the UPS and installation.
7. For UPS installation that utilizes single feed input, The input breaker should be configured according to the rated rectifier input current.
8. Cable sizing is based on the standard IEC 60364–5–52 and IEC 60364–5–54.The sizing is for 70°C rated copper cables.
8. Specifications are subject to change.

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DESCRIPTION: 93E 30KVA Specifications

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