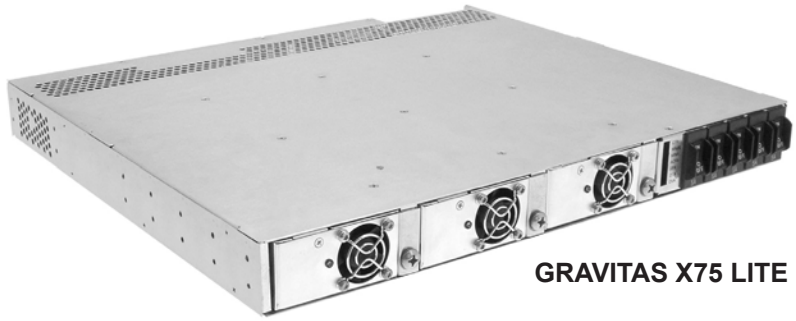
X75 LITE - DC POWER SYSTEMS
1RU HIGH - 48V, 24V and 12V



GRAVITAS X75 LITE SYSTEM

LVD73/23/EEC

KEY FEATURES

- 1RU High Base System
- Fully Integrated System
- Hot-Swap Rectifier Modules
- Up to 36A at -54.4VDC
- Up to 55A at +27.2VDC
- Up to 75A at +13.6VDC
- Wide Range AC Input
- Relay or SNMP Alarm Options
- Up to 10 DC Load Circuits
- Quick and Easy Installation

SAFETY STANDARDS

UL60950-1
CSA22.2 No. 60950-1
EN60950-1

TWO-YEAR WARRANTY

DESCRIPTION

Gravitas X75 Lite is an ultra-compact, integrated DC power system. The system unit is a 1RU shelf holding up to three hot-swap rectifier modules. This system produces up to 1958 watts output at -54.4, +27.2 or +13.6VDC. It can also be operated as a 2+1 redundant system with up to 1305 watts output. Each rectifier module is cooled by a fan that operates at a speed which is a function of load and temperature.

There are up to five circuit-breaker protected DC outputs or up to 10 GMT fuse protected outputs on the system unit. A battery string breaker with Low Voltage Disconnect (LVD) option is available.

The system can also be operated as a battery backup, single feed power system (without load circuit breakers or fuses).

Alarm options include either Form-C relay outputs or SNMP alarm traps delivered over an Ethernet TCP/IP LAN interface.

GRAVITAS X75 LITE SUMMARY FEATURES

- -48, +24, or +12VDC Rectifiers
- Hot-Swap Rectifiers Modules
- Power Factor Corrected
- Class B EMI Input Filter
- N+1 Redundant Operation
- Up to 10 DC Load Circuits
- Circuit Breakers or GMT Fuses
- Battery String Breaker / LVD Option
- Quick, Easy Installation
- 19 or 23-Inch Rack Mounting
- Form-C relay or SNMP Alarm Options

GRAVITAS X75 LITE CAPABILITY GUIDE

SYSTEM CAPABILITY

SYSTEM CAPABILITY	X75L-48	X75L-24	X75L-12
System Voltage System Max. Current System Current, N+1 Redundant	-54.4VDC 36.0A 24.0A	+27.2VDC 55.2A 36.8A	+13.6VDC 75.0A 66.0A
No. of Rectifiers, Max.	3	3	3
Battery String Breaker with Low Voltage Disconnect	Optional		
Total No. DC Loads, Max. Option A - miniature breakers Option B - GMT fuses	10 1-30A x 5 0.5A-12A x 10		
Alarm Options Relay Alarm Outputs SNMP Alarm Outputs	DC Fail, AC Fail, LVD Trip, Fuse/Breaker Trip Relay - Form-C SNMP - Alarm Traps / Email		
Communications (SNMP)	Ethernet TCP/IP		
Shelf Height	1RU		
Mounting Width, Inches	19 or 23 (universal reversible mounting brackets)		

Note:

For applications not requiring battery support consult UNIPOWER sales office about using Front-End power modules instead of rectifier modules.

For 12V systems with batteries, only two rectifier modules should be installed when the load is less than 33A.

RECTIFIER MODULES vs. SYSTEM CAPACITIES

MODULE MODEL NO.	OUTPUT VDC	OUTPUT AMPS	NO. SYST. MODULES	MAX. SYST. AMPS	NO. N+1 MODULES	N+1 SYST. AMPS
RSJ48/12	-54.4VDC	12.0	3	36.0	2+1	24.0
RSG48/10	-54.4VDC	10.1	3	30.3	2+1	20.2
RSF48/7	-54.4VDC	7.4	3	22.2	2+1	14.8
RSG24/18	+27.2VDC	18.4	3	55.2	2+1	36.8
RSF24/13	+27.2VDC	12.9	3	38.7	2+1	25.8
RSG12/33	+13.6VDC	33.0	3	75.0	2+1	66.0
RSF12/22	+13.6VDC	22.1	3	66.3	2+1	44.2

RECTIFIER MODULE SPECIFICATIONS

INPUT

Voltage Range _____ 85-264VAC
Power Factor _____ 0.99
Total Harmonic Distortion, Max. _____ 5%
Frequency _____ 47-63Hz
Inrush Current Limiting _____ 30A Peak
EMI Filter, Conducted _____ FCC20780 pt. 15J Curve B
_____EN55022 Curve B
Input Current, max.
RSJ _____ 3.2A/230VAC, 6.2A/120VAC
RSG_____ 2.7A/230VAC, 5.2A/120VAC
RSF_____ _____ 2.0A/230VAC, 3.8A/120VAC
Input Immunity, Conducted
Fast Transients, Line-Line _ ±2kV (EN61000-4-4 Level 3)
Surges, Line-Line _____ ±2kV (EN61000-4-5 Level 3)
Surges, Line-Ground _____ ±4kV (EN61000-4-5 Level 4)

OUTPUT

Current & Voltage _____see table
Voltage Adjustment Range, 48V Nominal _____45-58VDC
24V Nominal _____22-29VDC
12V Nominal ___ 11-14.5VDC
Total Regulation, Max. _____ 2%
Holdup Time _____ 10msec.
Overvoltage Protection, 48V Nominal _____58V
24V Nominal _____29V
12V Nominal _____ 14.5V
Filtering: Wideband Noise, 20Mhz BW, P-P _____ 1.0%
Voice Band Noise _____ <32dBrnC
Current Limit_____105% Rated Current
Efficiency _____ 85-90%

SAFETY STANDARDS

UL 60950-1, CSA22.2-60950-1, EN60950-1

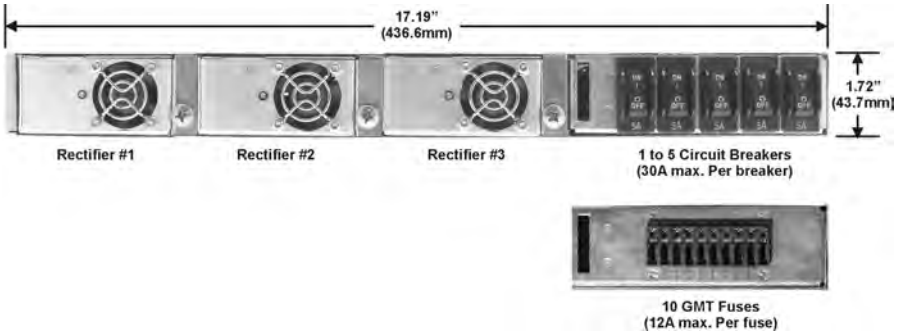
STATUS INDICATOR

DC Good _____ Green LED

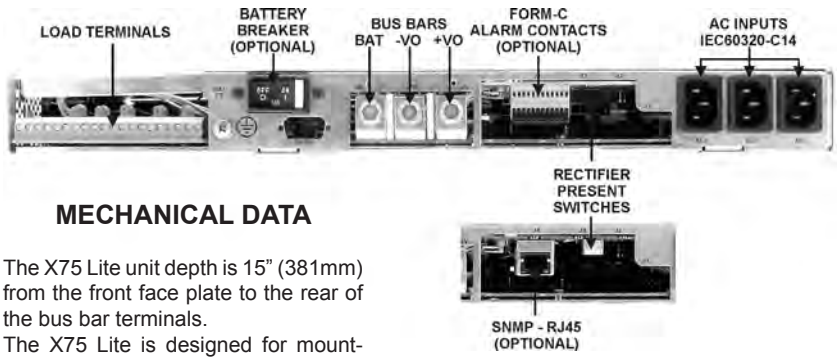
ENVIRONMENTAL

Operating Temp. Range _____ -20°C to +70°C
Output Current Derating _____ 2.5%/°C, 50°C to 70°C
Storage Temp. Range _____-40°C to + 85°C
Humidity _____ 0% to 95%, Non-Condensing
ESD _____Bellcore GR-1089-Core and EN61000-4-2
Cooling _____ Internal Fan

X75 LITE SYSTEM FRONT VIEW



X75 LITE SYSTEM REAR VIEW



MECHANICAL DATA

The X75 Lite unit depth is 15" (381mm) from the front face plate to the rear of the bus bar terminals.
The X75 Lite is designed for mounting in a 1U high space in either a 19" or a 23" rack-mount environment and is supplied as standard with dual purpose rack-mounting brackets.

Relay Alarm Contact Details

Pin	Function
1	AC Fail - n/o
2	AC Fail - common
3	AC Fail - n/c
4	DC Fail - n/o
5	DC Fail - common
6	DC Fail - n/c
7	Fuse/Bkr Alarm - n/o
8	Fuse/Bkr Alarm - common
9	Fuse/Bkr Alarm - n/c
10	LVD Alarm - n/o
11	LVD Alarm - common
12	LVD Alarm - n/c

Notes:
Pin 1 is at the right side when viewing the unit from the rear.
Relays are energised with the alarm condition is GOOD. The contact states shown above are when the unit is either switched off or the alarm is active.

For details of the SNMP alarm function see the separate X75 Lite SMNP option user manual

gravitas ENERGY SYSTEMS X75 LITE

UNIPOWER TELECOM

CONFIGURATION GUIDE

1. Determine the capacity of the system desired, taking into account future expansion, then check the type of rectifier required and fill in the initial quantity to be ordered including spares. This will determine the system unit base number.

SYSTEM OUTPUT, MAX.	SYSTEM OUTPUT, N+1	RECTIFIER MODULES CHECK TYPE REQ.	NO. MODULES REQUIRED	SYSTEM UNIT BASE NUMBER
-54.4VDC@36.0A -54.4VDC@30.3A -54.4VDC@22.2A	-54.4VDC@24.0A -54.4VDC@20.2A -54.4VDC@14.8A	❑ RSJ48/12 ❑ RSG48/10 ❑ RSF48/7	_____	**X75L-48**
+27.2VDC@55.2A +27.2VDC@38.7A	+27.2VDC@36.8A +27.2VDC@25.8A	❑ RSG24/18 ❑ RSF24/13	_____	**X75L-24**
+13.6VDC@75.0A +13.6VDC@66.3A	+13.6VDC@66.0A +13.6VDC@44.2A	❑ RSG12/33 ❑ RSF12/22	_____	**X75L-12**

2. Check either configuration A or B for DC distribution. For configuration A fill in the rating and code for each breaker to be installed.
For configuration B fill in the number of fuses for each value required including spares.

DC DISTRIBUTION

❑ **CONFIGURATION A:** Up to 5 Breakers Total, maximum 30A each.

1. Breaker ___ A, code ___ 3. Breaker ___ A, code ___ 5. Breaker ___ A, code ___
2. Breaker ___ A, code ___ 4. Breaker ___ A, code ___

Enter rating & code above: 1A(F), 2.5A(G), 5A(H), 10A(I), 15A(J), 20A(K), 25A(L) & 30A(M), Not required(X).

❑ **CONFIGURATION B:** Up to 10 GMT Fuses Total. Enter the number required below.

AMPS	BUSSMAN NO.	COLOR	NO. REQ'D
0.5A	GMT - 1/2	Red	
0.75	GMT - 3/4	Brown	
1	GMT - 1	Gray	
1.33	GMT - 1 1/3	White	
2	GMT - 2	Orange	

AMPS	BUSSMAN NO.	COLOR	NO. REQ'D
3	GMT - 3	Blue	
5	GMT - 5	Green	
10	GMT - 10	Red-White	
12	GMT - 12	Green-Yel	
0	GMT - Dummy	Orange	

❑ **CONFIGURATION C:** Bulk Feed.

3. Check any options/accessories required and fill in the number of line cords if checked.

OPTIONS & ACCESSORIES

❑ Form-C Relay Alarms ❑ SNMP Alarms ❑ Battery String Breaker and LVD

AC Line Cords: 6ft. (1.8m) with IEC60320 C-13 connector, one per rectifier position in use.

❑ 125VAC with NEMA 6-15 plug. 3x14AWG Qty. _____ Pt. No. 364-1412-0000

OR

❑ 250VAC with NEMA 6-15 plug. 3x14AWG Qty. _____ Pt. No. 364-1414-0000

OR

❑ 250VAC unterminated 3 x 18AWG Qty. _____ No. 364-1421-0000

4. Send the completed form to the relevant UNIPOWER sales office and we will issue a configuration Model Number which will use the following format.

- System unit Configuration A: **X75L-vv-A-bbbbb-yz**
- System unit Configuration B: **X75L-vv-B-yz**
- System unit Configuration C: **X75L-vv-C-yz**

Key:
vv = system voltage.
b = breaker code, five characters total.
y = L for battery string breakers & LVD option. (add as suffix)
z = R for Relay Alarm option or S for SNMP Alarm option. (add as suffix)

NOTE: Fuses, rectifiers and accessories are supplied as separate items from the main system unit and will be detailed separetely in quotations, proposals and Sales Order documentation.