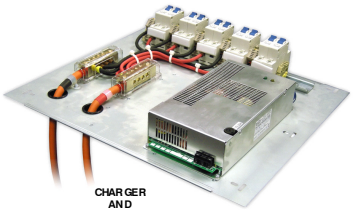
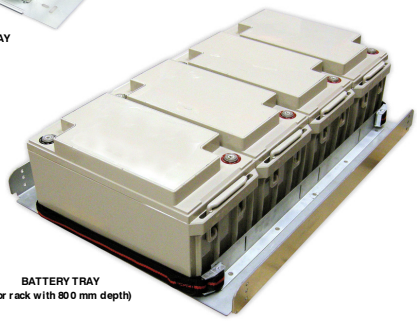
BPC130 / BDIST / MDIST

Battery Pack and Charger - 130AH - EN54
Battery and Mains Power Distribution

- 24V, 130AH Voice Alarm Battery Pack
- 230V AC Power Input
- 19” Rack Mount, 8U High
- 600mm & 800mm Depth Options
- Ten DC Outputs with Circuit Breakers
- Battery Power Distribution Options
- Mains Power Distribution Option
- Mains, Battery & Charger Monitoring
- EN54 Battery Resistance Monitoring
- Change Over Relay Fault Output



CHARGER
AND
BATTERY DISTRIBUTION TRAY



BATTERY TRAY
(for rack with 800 mm depth)

The BPC130 is a self-contained 24V DC 19” rack mounting battery backup system for use with a 230V AC mains supply. The battery pack provides 130AH of battery capacity, with a 6.5A recharge rate from the built-in charger unit, and with the charge voltage being temperature compensated to maximise battery life.

The BPC130 is designed to comply with EN 54-16, ISO 7240-16 and BS 5839-8, and is fully monitored to the requirements of EN 54-4 and BS 5839-8, including monitoring for a high battery resistance in order to predict that the batteries are approaching their end of life. The fault indication is via LED indicators and a change-over relay fault output.

The unit comprises one charger tray, and either one or two battery trays with four 6V batteries. The BPC130 battery system for racks with 800 mm depth uses one charger tray and requires 8U of rack space. The BPC130 battery system for racks with 600 mm depth uses two battery trays and requires 13U of rack space.

The DC power outputs are connected to or disconnected from the attached systems by Miniature Circuit Breakers, with these being provided at the rear of the charger tray. As standard, eight 25A breakers and two 3A breakers are provided. The 25A outputs are normally used for connecting ASL Amplifier Mainframes[1] while the 3A outputs are used with low current 24V DC powered equipment such as the ASL Voice Alarm Routers. Various ‘BDIST’ battery power distribution cable assemblies are available from ASL for connecting the BPC130 to the powered equipment.

The BPC130 is normally powered from an ASL MDIST Mains Distribution system. The MDIST comprises a 32A 230V distribution block and a number of 10A IEC320-IEC320 leads. The leads are primarily designed for connection to ASL Amplifier Mainframes, but are also suitable for other equipment.

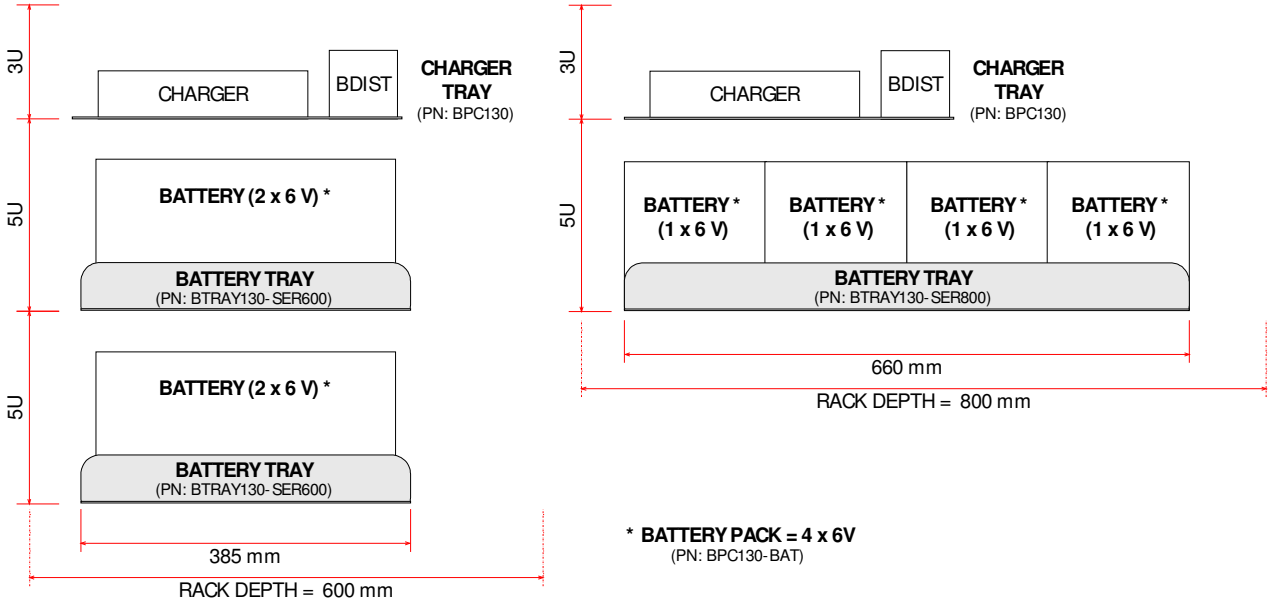
[1] ASL Amplifier Mainframes: V400, X400, iPA400-DC and iPAM400

ASL BATTERY PACK OPTIONS

ASL have two EN54 battery pack options, the 130AH BPC130, as described in this Datasheet, and a smaller 65AH unit.

See the separate BPC65 Datasheet for details of this lower capacity battery pack and charger unit.

BPC130 CHARGER TRAY AND BATTERY TRAY LAYOUT



SPECIFICATION

AC Power Supply

AC Supply Voltage ..... 230V ±10% RMS 50Hz AC
In-rush Current (worst case) 40A
Maximum AC VA Rating (110 V) 253VA
AC Supply Fuse Rating T3.15A IEC60127

Charger

Output Voltage ..... 27.3V (@ 20°C)
Charger Output Fuse Rating ..... 15A (mini blade type fuse)
Charging Time ..... 24 hours to charge to 100% capacity
Rated Continuous Maximum Output Current (Imax. a) 3.5A
Rated Maximum Output Current (Imax. b) 10A
Minimum Loading of the Equipment (Imin) 50mA
Maximum value of internal battery resistance for which rack functionality can be maintained (Ri max) 0.1R
Temperature Compensation ..... –36mV/cell/°C
Lowest voltage to which the battery can be discharged 21V
Fault Status Output ..... Volt-free relay contacts (N/O, N/C and COM)

DC Battery Output

Batteries ..... 4 x Yuasa NPL130-6 (VLRA)
Battery Output Current ..... 8 x 25A &, 2 x 3A / Type C Mini Circuit Breaker

Dimensions

Overall Dimensions (H x W x D) / Weight:

- Charger and BDIST Tray ..... 80 mm x 450 mm x 385 mm / 5.5 kg
- Battery Tray with 4 x Batteries (for 800 mm deep rack) ..... 176 mm x 476 mm x 660 mm / 101.4 kg
- Battery Tray with 2 x Batteries (for 600 mm deep rack – 2 off) ..... 176 mm x 476 mm x 460 mm / 51.6 kg
- Battery (Yuasa NPL130-6) ..... 174 mm x 350 mm x 166 mm / 23 kg

Environmental

Temperature ..... –20°C to +50°C (storage, fully charged condition) / –10°C to +50°C (operation)
(battery performance is dependent on average operational temperature; refer to manufacturer's literature)
Humidity Range.....0% to 93% non-condensing

MDIST

Operating Voltage .....230 V ±10% RMS 50 Hz AC
Input Current ..... 32 A max
Output Current (per output) ..... 10 A max

PART NUMBERS

PRODUCT PART NUMBERS

Battery Charger and Tray Assembly .....
BPC130..... BATTERY CHARGER WITH MOUNTING TRAY - 130AH - INC CABLES AND BREAKERS
With 8 x 25A MCB Breakers and 2 x 3A MCB Breakers
Batteries .....
BPC130-BAT .....BATTERY SET - 130AH
4 x 6V YUASA NPL130-6IFR
Battery Trays .....
BTRAY130-SER600 Battery tray for Schroff 600 mm Eurorack with battery interconnect cables and retaining strap
BTRAY130-SER800 Battery tray for Schroff 800 mm Eurorack with battery interconnect cables and retaining strap

ACCESSORY PART NUMBERS

BDIST Battery Power Distribution Assemblies .....
ASL MAINFRAME BATTERY DISTRIBUTION CABLES
BDIST4-CA .....BATTERY DISTRIBUTION FOR 4 MAINFRAMES (EN54)
BDIST6-CA .....BATTERY DISTRIBUTION FOR 6 MAINFRAMES (EN54)
BDIST8-CA .....BATTERY DISTRIBUTION FOR 8 MAINFRAMES (EN54)
MDIST Mains Power Distribution Assemblies .....
12 WAY 32A POWER DISTRIBUTION BLOCK WITH APPROPRIATE CABLES
MDIST4-CA .....MAINS DISTRIBUTION FOR 4 LOADS (EN54)
MDIST6-CA .....MAINS DISTRIBUTION FOR 6 LOADS (EN54)
MDIST8-CA .....MAINS DISTRIBUTION FOR 8 LOADS (EN54)
MDIST10-CA .....MAINS DISTRIBUTION FOR 10 LOADS (EN54)
MDIST12-CA .....MAINS DISTRIBUTION FOR 12 LOADS (EN54)

BDIST and MDIST cable lengths are to suit ASL's rack layout specification; please refer to ASL for details.

Standards and Compatibility

When installed in a Voice Alarm system designed in accordance with the ASL EN 54-16 & ISO 7240-16 System Design Guide (T-0667-0016) and configured as described in its user documentation, this equipment meets the requirement of EN 54-16:2008, ISO 7240-16:2007, BS 5839-8:2008, EN 54-4:1997, EN 54-4:1997/A1:2002 and EN 54-4:1997/A2:2006.

At the time of the publication of this datasheet, only the BPC130 battery system for Schroff 800 mm Eurorack is EN54-16 and EN 54-4:1997+A1:2002+A2:2006 certified. Please refer to ASL for further details.

CE This equipment is designed and manufactured to conform to the following EC standards:
EMC:
EN 61000-6-4:2007, EN 61000-6-2:2005, EN 50121-4:2006, EN 61000-4-13:2002, EN V50204:1995, EN 50130-4:1996
Safety: EN 60950-1:2006 (pollution degree 2)

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