

Mobile Rectifier & Battery Charger Unit

CAPABILITY SHEET · NAVAL SHORE POWER · DELIVERED (INDIAN NAVY)

THE SYSTEM

WHAT	Trailer-mounted megawatt-class DC power station for dockyards: 24-pulse thyristor rectifier converting 415 V shore supply to 175-380 V DC at 200-4000 A with +/-1% regulation - charging battery banks to the DIN 41773 IU characteristic or feeding DC shore supply to berthed vessels.
STATUS	Delivered against Indian Navy dockyard programmes in two ratings: 1520 kW at 4000 A and 1200 kW at 3000 A - tender specification to commissioning, with two-year O&M spares scoped.
MOBILITY	Turntable trailer, locking tow bar, minimum six solid tyres; under 9 x 3 x 3.5 m and under 15 t - moves between berths daily and transfers between yards by road.

KEY PARAMETERS (REFERENCE CONFIGURATION)

OUTPUT	175-380 V DC, 200-4000 A, +/-1% regulation (CV/CC, battery feedback optional); ripple <+/-1%; response <200 ms; continuous duty across the full current range; open-circuit ~455 V.
INPUT	415 V AC +/-10%, 3-phase 50 Hz 4-wire, ~2000 kVA; four 300 sq mm cables per phase, 75 m feed capability; in-built APFC; efficiency >=95%, PF 0.8 lag to unity.
CONTROL	Touchscreen HMI (17-inch class) with hard metering in parallel; data logger with USB export; remote via RS485/USB/Ethernet; safety architecture to IEC 62477-1 with siren, annunciation, charging cut-off, E-stop.
BUSBARS	ETP-grade tinned copper to IS 191 / IS 613, current density <1.2 A/sq mm; output terminates 25 sets of 300 sq mm DC cables.
ENVIRONMENT	NEMA 4X drip-proof marine canopy; class-F VPI insulation; forced-air cooling; 15-50 degC, 98% RH salt-spray jetty duty; noise <75 dB at 1 m; EMI/EMC to MIL-STD-461E; built-in 100 kW load bank for vessel-free test and tune.

VARIANTS & SUPPORT

VARIANTS	Other ratings/voltage windows and 60 Hz variants; fixed shore-supply stations and jetty substations; multi-circuit battery-shop charge/discharge facilities; precision high-current DC test supplies.
TENDERS	Send your tender specification - we reply within two working days with a clause-by-clause compliance matrix and budgetary quotation.
EXPORT	Supplied to government operators internationally on request; export formalities handled as part of the programme.

DEFENCE PROGRAMMES DESK

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Reference configuration as delivered; ratings and interfaces configurable to customer specification. (c) Neometrix Defence Limited.