

Dynell[®]

The power league.

Ground Support

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DSB 090 + DCB 090

Bridge Systems

Combination of solid-state ground
power unit with cable coil



Bridge Systems

Dynell is your competent partner for aviation ground support equipment. As a system integrator, efficiency, performance and reliability build the foundation of our products. A team of experts with a comprehensive industry knowledge and an innovative mindset is driven by market needs to generate ground-breaking ideas – we set the pace.

Solid-State GPU, DSB 090

Input

Frequency	50 / 60 Hz ± 5 %
Voltage	3 × 400 V ± 10 %, 3 × 480 V ± 10 %, other voltage levels on request
Power Factor	0,99 through PFC (power factor correction)
Current distortion	< 4 %
Inrush current	None (< I nominal)

Output

Power	90 kVA
Voltage	3 × 200 / 115 V
Frequency	400 Hz
Efficiency	> 94 %
Load power factor	0,6 lagging to 0,95 leading
Static voltage regulation	< 0,5 %
Crest factor	1,414 ± 3 %
Phase angle symmetry	120° ± 1° for balanced load 120° ± 2° for unbalanced load
Total harmonic content	< 2 %

Protection

Protection class	IP55 Standard
Input/Output	Short circuit protection Over and under voltage protection Overload protection
General	No break power transfer Over-temperature protection

Overload

125 % for 10 min, 150 % for 1 min, 200 % for 30 sec., 300 % for 10 sec., 400 % for 1 sec.

Cable Coil, DCB 090

Cable Coil

Usable cable length	Up to 28 m
Coiling speed	Variable, Standard 0,4 m/s
400 Hz cable entries	Top/ Back/ Bottom
Protection	IP55 (control panel)

Variable Frequency Drive (VFD)

Voltage	3 × 400 V ± 10 %, 3 × 480 V ± 10 % other voltage levels on request
Frequency	50 / 60 Hz
Engine power	350 W

Cables

Spiral cable	Unique spiral cable to transfer the power from the fixed to the moving part	
400 Hz cable	Flexible jet cable with up to 24 control wires, symmetrical construction	
400 Hz connector	Push buttons	Start, Stop, Cable In, Cable Out
	Indications	28 V, Pilot, Power

DSB 090 + DCB 090

Ambient conditions

Operating temperature	-30° C – +52° C (other temperatures on request)
Relative humidity	Up to 95 %
Noise level	< 65 dB (A) at 1 m

Products

Mean-time to repair	< 10 min
Materials	Stainless steel and PMMA for highest corrosion resistance - fully recyclable
Mounting	Combined fitted to the PBB with mounting brackets

Versions

Floor-mounted	Bridge-mounted
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Options

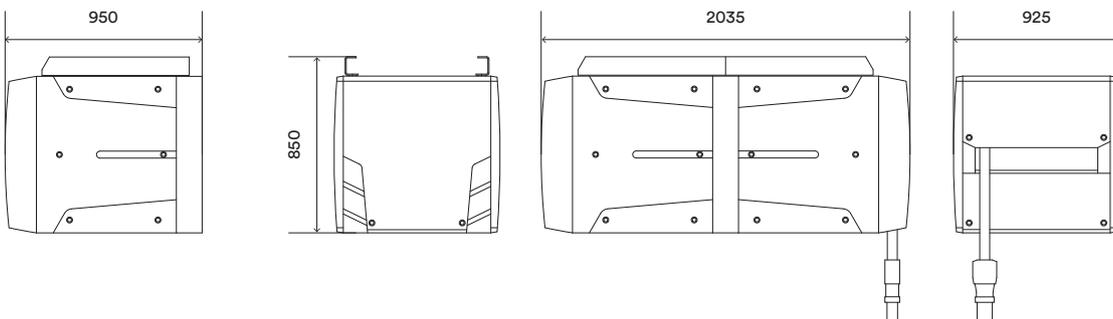
Remote control and monitoring	90 % interlock
TCP / IP modbus connection	BMS integration
Military interlock	Neutral voltage supervision
Engine with crank handle	Broken neutral supervision
Leakage current supervision	User management integrated in the HMI
Additional safety precautions	Protective isolation (DFS 400 - 4 kV)

Standards

ISO 6858:2017 / EN2282 / BS 2G 219 / EN1915-1&2 / DFS 400 / MIL-STD-704F / SAE ARP 5015 / EN61000-6-4 / EN12312-20

Weight

DSB 090 + DCB 090	~ 750 kg
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Based on a balanced mix of knowledge, experience and innovation, we design, build, distribute and maintain aviation ground support and charging equipment. Our ground-breaking ideas generate the greatest possible customer value for future markets around the globe.

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