



Kestrel

DC rectifier range for traction power supplies

Features

- Compact footprint up to 40% smaller than equivalent rated units
- 7 year warranty
- Low whole life cost
- Environmentally friendly, 99% recyclable
- Standard modular design
- 5 ratings up to 3 MW, 750 V DC
- Conforms to IEC62590, EN50328

Ultra Electronics PMES is the UK's leading manufacturer of DC traction substations including transformer/rectifier units, with a wide portfolio of iconic customers who have used our products over the 50 years we have been in operation.

The new **Kestrel** range of traction rectifier represents a standardised design, low cost solution, without compromise in quality or reliability.

Kestrel rectifiers complement the bespoke range of traction power supply equipment manufactured by Ultra PMES, including DC package substations, and a new AC mainline substation for 25 kV railways, as well as our established bespoke designs of rectifiers and transformers.



PMES

Ultra
ELECTRONICS

Kestrel

DC rectifier range for traction power supplies

Cubicle arrangement	Power rating (kW)	Unfused		Fused	
		1 Device	2 Devices	2 Devices	4 Devices
A 2100 x 2500 x 800 mm (H x W x D)	3000				
	2500				
B 2100 x 1900 x 800 mm (H x W x D)	2000				
	1500				
	1000				

No redundancy Partial redundancy Full redundancy

Technical specification – Diode rectifier parameters						
Rated power		1000 kW	1500 kW	2000 kW	2500 kW	3000 kW
Normal voltage U_n		750 Vdc	750 Vdc	750 Vdc	750 Vdc	750 Vdc
Basic direct current I_{Bd}		1334 A	2000 A	2667 A	3334 A	4000 A
Rated insulation voltage U_{Nm}		1200 Vdc	1200 Vdc	1200 Vdc	1200 Vdc	1200 Vdc
Duty class		EN50328 or IEC62590 class VI				
Rectifier connection		Parallel Bridge with Interbridge Reactor (EN50328 Connection 9)				
Pulse Number		12 pulse				
Auxiliary supply		110 Vdc (other voltages available)				
Cooling		Air natural (based on max ambient of 40°C and below 1000 m installation height)				
Degree of protection		IP30 (EN60529)				
Dimensions	A	width 2500 mm, depth 800 mm, height 2100 mm				
	B	width 1900 mm, depth 800 mm, height 2100 mm				
Standards		EN50328 / IEC62590				

Standard protection includes frame leakage, rectifier overtemperature, door interlocking, surge circuit and auxiliary supply monitoring

Optional extras

- Single device (fused/unfused) and multiple fused device options available offering partial and full redundancy.
- Optional main terminal locations to suit installation.
- Other protection options available including PLC microprocessor control and supervision with output current and voltage monitoring.
- Choice of aluminium or copper busbars.



making a difference

Ultra Electronics Limited
 PMES
 Towers Business Park
 Wheelhouse Road
 Rugeley
 Staffordshire WS15 1UZ
 England
 Tel: +44 (0) 1889 503300
 Fax: +44 (0) 1889 572910
 e-mail: enquiries@ultra-pmes.com
 www.ultra-pmes.com
 www.ultra-electronics.com

Ultra Electronics reserves the right to vary these specifications without notice.
 © Ultra Electronics Limited 2017.
 PMES is a wholly owned subsidiary of
 Ultra Electronics Holdings plc.
 Printed in England
 AF/GF/09/2017