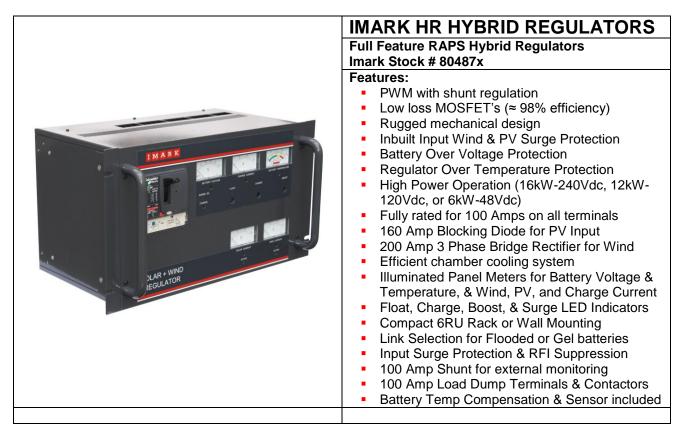
IMARK PRODUCT DESCRIPTION



PRODUCT DESCRIPTION:

The IMARK HR range of Hybrid regulators utilise high power low R_{DS(on)} MOSFET's for switching. The HR Range are shunt regulators that only regulate when the battery is fully charged, thus providing maximum efficiency while minimising heat generation. A 160A Blocking diode is provided for the PV input, while a 200A 3 phase bridge rectifier is included for the Wind input. The IMARK HR range solar regulators are housed in a metal 6RU size cabinet and can be either wall or rack mounted. The mechanical construction provides fan forced air to the heatsink cooling chamber with the fans activating at 60°C. 10way & 12way interface connectors on the rear panel enables easy interfacing to external devices or popular inverters. A signal terminal is provided for customers wishing to use an external PLC (or similar) to activate external load dumps such as heaters, water pumps, etc. Large capacity Metal Oxide Varistors are fitted internally for surge protection on both Wind and PV inputs. 100 Amp binding posts for battery, PV, Wind, Load Dump, & Earth connections are fitted on the rear panel. Internal Contactors switch the load dump circuit as/when required. LED's are used to indicate the battery charging mode, & the Surge Protection condition. Illuminated panel meters show Battery Voltage, Battery Charge Current, Wind Current, PV Current & Battery Temperature. Easy to read meters provide non-technical people with easily understood information that can be very helpful for remote diagnosis of system performance.

Wind Input only (WR models) are available for wind only applications.

SPECIFICATIONS			
MODEL	HR48V6K WR18V6K	HR120V12K WR120V12K	HR240V16K WR240V16K
IMARK Stock #	804872 804882	804873 804883	804874 804884
Input Voltage (nominal)	48 Vdc	120 Vdc	240 Vdc
Input Voltage (Maximum)	150 Vdc	250 Vdc	400 Vdc
Input Power (maximum)	6K Watts	12K Watts	16K Watts
Regulation Method	Shunt, Pulse Width Modulation		
Efficiency	Greater than 98% when battery charging		
Charge Setpoints	Float, Charge, & Boost		
Charge Setpoint Adjustment	Set by Rotary Switch on PCB, calibrated in cell voltage		
Battery Conditioning	Batteries held at Charge voltage for 2 hours each day, followed by Float Charging		

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Voltage Setpoint Range	2.225V to 2.600V per cell		
Temperature Compensation	None, or Optional External Sensor, set by link, 6mV/°C/cell		
Over Temperature Protection	Over Temperature sensor trips circuit breaker on high (90°C) heatsink		
	temperature		
Over Voltage Protection	Independent Battery Over Voltage circuit trips circuit breaker after 2 minute		
	delay		
Inbuilt Load Dump Contactor	100 Amps continuous		
Rating			
Unit Size & Weight	260(L) x 483(W) x 264(H) mm 21.8 Kilograms		
Shipping Size & Weight	575(L) x 540(W) x 305(H) mm 23.5 Kilograms		
Design & Construction	Australian designed and manufactured		
OPTIONS			
Load Dump	Various power models are available to suit customer requirements		