



# OZip-R1200L

Oztek Intelligent Power Module  
250A, 850V, Liquid-Cooled  
**PRELIMINARY**

## Features

- 250A max continuous phase current
- 850V Max DC link voltage
- 32-Bit floating point control processor
- Choice of inverter, motor drive, or DC/DC controls
- CAN or Modbus RS-485 Interface
- Rugged, IP55 rated, polycarbonate housing
- -40 to +65°C operation
- 100% environmental stress screened
- Easy setup via serial port with included Oztek Power Studio™ configuration tool



Innovative Thinking for Power Control

## Description

**OZip™** Intelligent Power Modules (IPMs) elevate integrated power to the next level. While others claim intelligent power, OZip IPMs go way beyond simple digital protection and fault management with the inclusion of a 32-bit floating point processor running highly configurable, application-optimized control code. OZip IPMs have both the power and the intelligence for your most demanding applications.

OZip IPMs leverage Oztek's 15+ years of experience providing digital power solutions to demanding OEMs. They are compact and rugged, and also easy to use. Choose inverter, motor drive, or DC/DC controls, and let OZip-R1200L accelerate your time to market while simultaneously reducing your development cost and risk.

OZip-R1200L is optimized for systems operating with continuous currents up to 250A, and DC link voltages up to 850V. Safe and reliable operation is ensured by extensive monitoring of all critical parameters, including DC link voltage, phase currents, bias supply voltages, and IGBT and controller temperatures. Proprietary digital gate drivers provide additional, localized protection

against erroneous drive commands and output short circuits. Rated capacity is achieved with 8L/min, 50:50 ethylene glycol and water coolant.

OZip IPMs are designed and qualified for demanding environments. They utilize ruggedized construction throughout, and feature an encapsulated planar DC link with polypropylene film capacitors, and automotive grade components with generous deratings. All OZip IPMs are environmentally stress screened to further ensure high reliability.

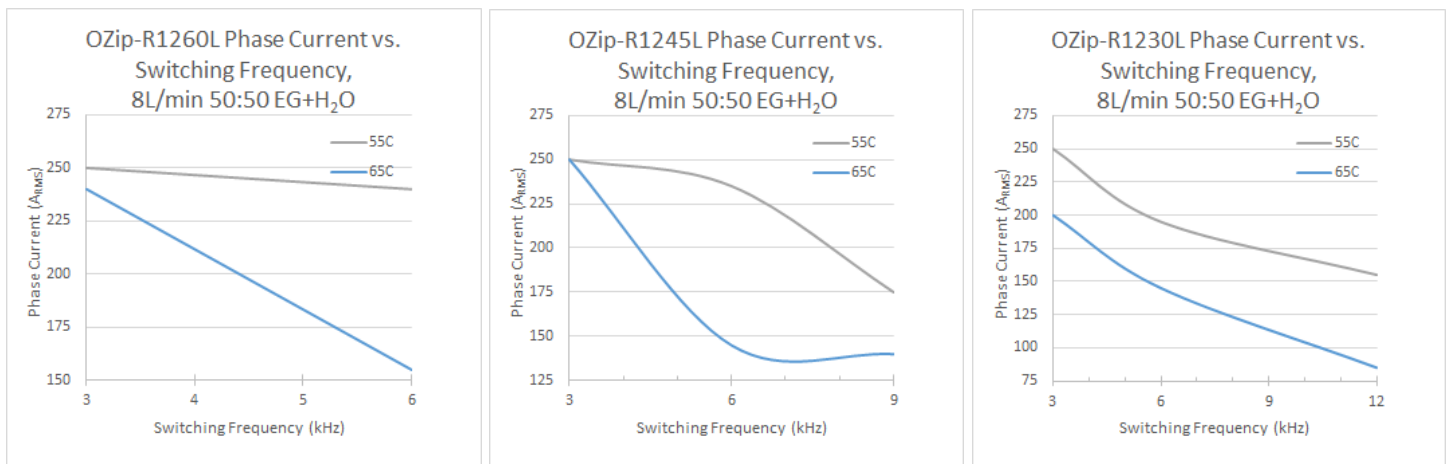
OZip IPMs are controllable through a CAN or Modbus RS-485 serial interface, and are easily configured using the supplied Oztek Power Studio™ configuration tool. Application-optimized interfaces along with general purpose I/O are provided to facilitate system design.

OZip Intelligent Power Modules serve as the foundation for Oztek's complete OEM inverter, motor drive, and DC/DC converter solutions, and are available in multiple air and liquid cooled configurations to satisfy a wide range of application requirements. Visit [oztekcorp.com](http://oztekcorp.com) for more info.

Absolute Maximum Ratings		Recommended Operating Conditions (cont.)	
Operating Temperature	-40°C to 65°C	DC Link Voltage	850V max
Storage Temperature	-55°C to 65°C	Switching Frequency OZip-R1260 OZip-R1245 OZip-R1230	6 kHz max 9 kHz max 12 kHz max
DC Link Voltage [1]	1000V	Bias Supply Voltage	20 to 32V
Phase Current OZip-R1260 OZip-R1245 OZip-R1230	400 A <sub>RMS</sub> 350 A <sub>RMS</sub> 300 A <sub>RMS</sub>	Bias Supply Current at 24VDC	1.2A max
Bias Supply Voltage	36VDC	Mechanical	
Recommended Operating Conditions		Outline Dimensions	439mm x 287mm x 117mm
Maximum continuous phase current 3kHz, 55°C 8L/min 50:50 EG/H <sub>2</sub> O [2]	250 A <sub>RMS</sub>	Power Terminals	M8x1.25 stud
Maximum transient load current (10 seconds max) OZip-R1260 OZip-R1245 OZip-R1230	1.5x cont. current 1.5x cont. current 1.2x cont. current	Control Connector	Ampseal 35

- Notes
- Over-voltage protection disables switching when DC link voltage exceeds 900V.
  - Current ratings and curves are for 50/60Hz inverter operation or DC/DC converter with 50% duty cycle, and 750V DC link voltage. Consult Oztek for capabilities with other operating conditions.

### Continuous Operating Current Capability



## How To Specify

