

**398,341 Shares
of
Common Stock**

Power Solutions International, Inc.

This Prospectus Supplement No. 3 supplements information contained in that certain Prospectus, dated August 20, 2013, as amended by Prospectus Supplement No. 1, dated October 21, 2013, and Prospectus Supplement No. 2, dated February 13, 2014 (the “**Prospectus**”), and relates to the sale or other disposition from time to time by selling securityholders of (a) 1,500 outstanding shares of our common stock issued upon conversion of shares of preferred stock and (b) 396,841 shares of our common stock issuable from time to time upon exercise of outstanding warrants, in each case originally issued by us pursuant to the Purchase Agreement, dated as of April 29, 2011, by and among us and the investors party thereto. This Prospectus Supplement No. 3 is not complete without, and may not be delivered or utilized except in connection with, the Prospectus, including any amendments and other supplements thereto.

The selling securityholders may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of our common stock or interests in shares of our common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. If these shares are sold through underwriters, broker-dealers or agents, the selling securityholders will be responsible for underwriting discounts or commissions or agents’ commissions.

None of the warrants to purchase shares of our common stock are listed on any exchange or quoted on any over-the-counter market, and we do not intend to list any of these warrants on any exchange or to seek any such quotation.

Our common stock is traded on The NASDAQ Capital Market under the symbol “PSIX.” On May 2, 2014, the closing price of our common stock on The NASDAQ Capital Market was \$83.86 per share.

**Neither the Securities and Exchange Commission nor any state securities commission has approved
or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any
representation to the contrary is a criminal offense.**

The date of this Prospectus Supplement No. 3 is May 6, 2014

On May 6, 2014, BTG Investments LLC completed the sale of warrants exercisable for 69,333 shares of our common stock to OTA LLC. The following table amends and supplements the information set forth in the Prospectus, as of May 6, 2014, under the caption “Selling Stockholders” by superseding the information contained in the Prospectus with respect to OTA LLC and BTG Investments LLC:

Name	Number of Shares Beneficially Owned Prior to This Offering	Number of Shares of Common Stock Offered Hereby	Number of Shares of Common Stock/Percent of Class After This Offering
OTA LLC (1)	69,333(2)	69,333(2)	—
BTG Investments LLC (3)	17,500(4)	17,500(4)	—

- (1) OTA LLC is a registered broker-dealer and a member of FINRA, but did not participate in the private placement. Ira M. Leventhal has voting and dispositive control over the securities held by OTA LLC.
- (2) Represents 69,333 shares of our common stock issuable upon the exercise of a warrant held by the selling securityholder.
- (3) BTG Investments LLC is a wholly owned affiliate of Roth Capital Partners, LLC, which is a registered broker dealer and served as the placement agent for the private placement. Byron C. Roth and Gordon J. Roth share voting and dispositive control over the securities held by BTG Investments LLC.
- (4) Represents 17,500 shares of our common stock issuable upon exercise of a warrant held by the selling securityholder. BTG Investments LLC is engaged in the business of buying, holding and selling securities and has certified to us that (i) it purchased the shares being registered for resale in the ordinary course of business; and (ii) at the time of the purchase, it had no agreements or understandings, directly or indirectly, with any person to distribute the securities.

The Prospectus, together with this Prospectus Supplement, constitutes the prospectus required to be delivered by Section 5(b) of the Securities Act of 1933, as amended, with respect to offers and sales of the common stock issuable upon exercise of the warrants.