SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934 (Amendment No. 18)

VICOR CORPORATION

(Name of Issuer)

Common Stock, Par Value \$.01 Per Share (Title of Class of Securities)

925815 10 2

23013 10

(CUSIP Number)

December 31, 2012

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

□ Rule 13d-1(b)

□ Rule 13d-1(c)

☑ Rule 13d-1(d)

| CUSIP N | lo. 925815 | 10 | 2 13G/A | Page 2 of 6 Pages | | | | |
|---------|--|----|--|-------------------|--|--|--|--|
| 1 | NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Patrizio Vinciarelli | | | | | | | |
| 2 | | | | | | | | |
| 2 | (a) \Box (b) \Box | | | | | | | |
| | | | | | | | | |
| 3 | SEC USE ONLY | | | | | | | |
| 4 | 4 CITIZENSHIP OR PLACE OF ORGANIZATION | | | | | | | |
| | | | | | | | | |
| | United States | | | | | | | |
| | | 5 | SOLE VOTING POWER | | | | | |
| NUM | BER OF | | 20,699,128 | | | | | |
| _ | ARES | 6 | SHARED VOTING POWER | | | | | |
| | FICIALLY | | | | | | | |
| | NED BY | - | 0 COLE DISDOSITINE DOMED | | | | | |
| | ACH DRTING | 7 | SOLE DISPOSITIVE POWER | | | | | |
| | RSON | | 20,699,128 | | | | | |
| W | ITH: | 8 | SHARED DISPOSITIVE POWER | | | | | |
| | | | 0 | | | | | |
| 9 | ACCPE | | 0 TE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | | | |
| 3 | AUGRE | JA | TE AMOUNT BENEFICIALET OWNED DT EACH KETOKTING TEKSON | | | | | |
| | 20,699,128 | | | | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES | | | | | | | |
| | | | | | | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | | | | | |
| 11 | TERCEI | (| JE CEASS RELIGENTED DI ANIOUNT IN ROW 5 | | | | | |
| | 50.4 | % | | | | | | |
| 12 | TYPE OF REPORTING PERSON | | | | | | | |
| | IN | | | | | | | |
| | IN | | | | | | | |

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|---------------|--|--|--|--|--|
| ITEM 1(A). | NAME OF ISSUER: | | | | |
| | Vicor Corporation | | | | |
| ITEM 1(B). | ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES: | | | | |
| | 25 Frontage Road, Andover, MA 01810 | | | | |
| ITEM 2(A). | NAME OF PERSON FILING: | | | | |
| | Patrizio Vinciarelli | | | | |
| ITEM 2(B). | ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE: | | | | |
| | Vicor Corporation, 25 Frontage Road, Andover, MA 01810 | | | | |
| ITEM 2(C). | CITIZENSHIP: | | | | |
| | United States | | | | |
| ITEM 2(D) | TITLE OF CLASS OF SECURITIES: | | | | |
| | Common Stock, par value \$.01 per share | | | | |
| ITEM 2(E) | CUSIP NUMBER: | | | | |
| | 925815 10 2 | | | | |
| ITEM 3. | IF THIS STATEMENT IS FILED PURSUANT TO RULE 13D-1(B), OR 13D-2(B) OR (C), CHECK WHETHER THE PERSON FILING IS A: | | | | |
| | Not applicable | | | | |

CUSIP No. 925815 10 2

ITEM 4. OWNERSHIP.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned: 20,699,128

As of December 31, 2012, Mr. Vinciarelli was the beneficial owner of 9,675,480 shares of Vicor Corporation Common Stock (there are no shares which Mr. Vinciarelli has the right to acquire upon the exercise of options to purchase Common Stock within 60 days of December 31, 2012). Additionally, he owned 11,023,648 shares of Vicor Corporation Class B Common Stock, which may be converted at any time into 11,023,648 shares of Common Stock.

(b) Percent of class:

50.4%

- (c) Number of shares as to which such person has:
 - (i) Sole power to vote or to direct the vote: 20,699,128
 - (ii) Shared power to vote or to direct the vote: 0
 - (iii) Sole power to dispose or to direct the disposition of: 20,699,128
 - (iv) Shared power to dispose or to direct the disposition of: 0
- ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.
 - Not applicable.
- ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON. Not applicable.

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|-----------------------|--|---------------------------------|-------------------|--|--|
| ITEM 7. | IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON I THE PARENT HOLDING COMPANY. | | | | |
| | Not applicable. | | | | |
| ITEM 8. | IDENTIFICATION AND CLASSIFIC Not applicable. | CATION OF MEMBERS OF THE GROUP. | | | |
| ITEM 9. | NOTICE OF DISSOLUTION OF GR Not applicable. | OUP. | | | |
| ITEM 10. | CERTIFICATION. Not applicable. | | | | |

13G/A

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 14, 2013

/s/ Patrizio Vinciarelli

Name: Patrizio Vinciarelli Title: Chairman of the Board, President and Chief Executive Officer