

## Veichi SI10 Solar Pumping Inverter



VEICHI-SI10 Variable Frequency Drive is positioned in environmental-friendly and economical PV market, the product is applicable to PV pumping system, replaces water storage with electric storage and needs no battery modules. The direct current generated by solar modules is input to the inverter and then converted into the alternating current to drive various pumps directly. Additionally, the output frequency is adjustable in real time according to sunlight intensity change.

### Specification

200 -400VDC input, 220VAC output, 0.75 to 3.7kw  
350-780VDC input, 380VAC output, 0.75 to 160kw.

#### Descriptions and Features:

Internal diagnostics will tolerate a lower input voltage

Whenever possible, the controller attempts to regulate the pump load in a manner that optimizes for maximum power transfer from the solar array.

The drive manually switches to AC backup power( when available) if the DC primary source is unable to support pump operation

TI/Fuji DSP technology and Infineon PIM design, high quality.

MPPT function is available , CVT function also is available.

High converter efficiency, up to 99% of MPPT converter efficiency.

#### An easy to interface is provided to enhance configurability and enable remote system monitors

A four-digit seven-segment display provides a detailed indication of systems status.

Two line display keypad is options

Built in RS485 ports through 7.5kw, laptop software control is available

#### Protection features

Electronic monitoring gives the controller the capability to monitor the system and automatically shut down in the even of: Dry run conditions- with smart pump monitoring, High voltage surge, Low input voltage, Open motor circuit, Short circuit, Over heat, Earth fault, Phase missing...

### Technical features 1

Model	Power of Controller(KW)	Power of Solar Arrays (KW)	Max. Input Voltage of Solar Arrays(V)	Range of MPPT(VDC)	Output Current (A)	Output Freq. (Hz)
SI10-S2-R75	0.75	0.975	390	220~400	4A	0-50
SI10-S2-1R5	1.5	1.95	390	220~400	7A	0-50
SI10-D3-2R2 *	2.2	2.86	390	220~400	10A	0-50
SI10-D3-3R7 *	3.7	4.81	390	220~400	17A	0-50
SI10-T3-R75	0.75	0.975	780	350~780	2.5A	0-50
SI10-T3-1R5	1.5	1.95	780	350~780	3.7A	0-50
SI10-T3-2R2	2.2	2.86	780	350~780	5A	0-50
SI10-D5-3R7 *	3.7	4.81	780	350~780	8.5A	0-50
SI10-D5-5R5 *	5.5	7.15	780	350~780	13A	0-50
SI10-D5-7R5 *	7.5	9.75	780	350~780	17A	0-50
SI10-D5-011 *	11	14.3	780	350~780	25A	0-50
SI10-T3-015	15	19.5	780	350~780	32A	0-50
SI10-T3-018	18	23.4	780	350~780	38A	0-50
SI10-T3-022	22	28.6	780	350~780	45A	0-50
SI10-T3-030	30	39	780	350~780	60A	0-50
SI10-T3-037	37	48.1	780	350~780	75A	0-50
SI10-T3-045	45	58.5	780	350~780	90A	0-50
SI10-T3-055	55	71.5	780	350~780	110A	0-50
SI10-T3-075	75	97.5	780	350~780	150A	0-50
SI10-T3-093	93	120.9	780	350~780	170A	0-50
SI10-T3-110	110	143	780	350~780	210A	0-50
SI10-T3-132	132	171.6	780	350~780	250A	0-50
SI10-T3-160	160	208	780	350~780	300A	0-50

### Technical features 2

Recommended MPPT voltage range	220~400VDC for 220VAC output 1.5kw to 3.7kw. 350~780VDC, for 380VAC output 1.5kw to 11kw. Bigger power above 15kw only with CVT control . 11kw to 160kw.
Recommended input voltage	350V DC for 220VAC motor output 620V DC for 380V AC motor output
MPPT efficiency	Up to 97%
Input channel	0-10V, 0/4-20mA
Maximum DC power input	400VDC for 220VAC output /780VDC for 380V AC output
Rated output voltage	3-phase , 0-220VAC 3-phase 0-380VAC
Output frequency range	0~50Hz
Max efficiency of the machine	97%
Ambient temperature range	(G-type inverter with water pump)
Cooling method	Air cooling
Protection degree	IP20
Running mode	MPPT or CVT
Altitude	Below 1000m; above 1000m, derated 1% for every additional 100m.
Standard AC input backup circuit	CE Design based on Veichi AC60 series, more specification please refer to AC60 general purpose inverter manual