

# FRENIC-Ace for Solar Pumping

**FE** Fuji Electric  
**3-YEAR  
WARRANTY**



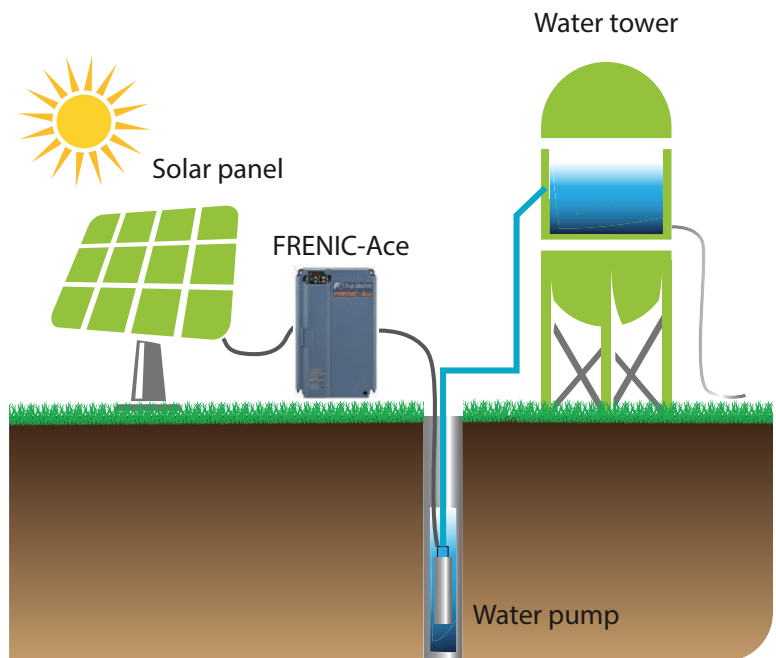
High-performance, full-featured Drives  
designed to suit a wide variety of applications.

**FE** Fuji Electric

# Specific Functions of Solar Pumping



- True and outstanding MPPT function (Maximum Power Point Tracking)
- Start criteria by system conditions and time
- Stop criteria selectable by frequency or power
- Dry pump detection function
- Low power function
- It allows to control asynchronous motors and permanent magnets synchronous motors
- Detection of sudden changes of conditions (especially irradiance)
- Two sets of PID gains, for a fast and smooth operation
- Water tank level control
- Grid connection selectable for maintenance and backup system



Generic Specifications	400 V Motor	200 V Motor
Maximum input voltage (Voc)	800 VDC	360 VDC
Minimum input voltage	400 VDC	180 VDC
Recommended voltage DC (VMPP)	550 - 620 VDC	280 - 330 VDC
Nominal input voltage AC	3ph 380 - 480 V, 50/60 Hz	3ph 200 - 240 V, 50/60 Hz
Nominal output voltage AC	3ph 400 V	3ph 200 V
Output frequency	0 - 400 Hz	
Efficiency (inverter)	97 - 98%	
Ambient temperature range	-10 to 50° C	
Cooling	Natural / by means of internal fan	
Recommended input power	1.2 times the pump capacity (minimum)	
Warranty	3 years	

## Power Range and Dimensions

HP Rating HND (VT/LD)	Rated Current (Amps) HND [VT/LD]	Model Number	Dimensions W x H x D (inches)	Weight (lbs)	Optional NEMA/UL Type 1 Kit Model Number
<b>230VAC - 3-Phase Input</b>					
1/4	1.3	FRN0001E2S-2GB-CLI-SOL	2.68 x 5.00 x 3.35	1.1	230
1/2	2	FRN0002E2S-2GB-CLI-SOL			460
1	3.5	FRN0004E2S-2GB-CLI-SOL	2.68 x 5.00 x 3.94	1.3	230/460
1.5	6.0	FRN0006E2S-2GB-CLI-SOL	2.68 x 5.00 x 5.2	1.8	115/230
3	9.6	FRN0010E2S-2GB-CLI-SOL	4.33 x 5.51 x 5.63	3.3	230/460
4	12	FRN0012E2S-2GB-CLI-SOL			115/230
7.5	19.6	FRN0020E2S-2GB-CLI-SOL	5.51 x 5.51 x 5.63	4	575
10	30	FRN0030E2S-2GB-CLI-SOL	7.09 x 9.05 x 6.22	11	230/460
15	40	FRN0040E2S-2GB-CLI-SOL			115/230
20	56	FRN0056E2S-2GB-CLI-SOL	8.66 x 10.63 x 7.48	18	115/230
25	69	FRN0069E2S-2GB-CLI-SOL		20	575
30	88	FRN0088E2S-2GB-CLI-SOL	9.84 x 15.75 x 7.68	21	230/460
40	115	FRN0115E2S-2GB-CLI-SOL		22	115/230
<b>230VAC - 1-Phase Input</b>					
1/8	0.8	FRN0001E2S-7GB-CLI-SOL	2.68 x 5.00 x 3.35	1.1	NEMA1-02E2-27
1/4	1.6	FRN0002E2S-7GB-CLI-SOL			
1/2	3.0	FRN0003E2S-7GB-CLI-SOL	2.68 x 5.00 x 4.21	1.3	NEMA1-03E2-7
1	5.0	FRN0005E2S-7GB-CLI-SOL	2.68 x 5.00 x 5.98	2	NEMA1-05E2-7
2	8.0	FRN0008E2S-7GB-CLI-SOL	4.33 x 5.51 x 6.02	3.5	NEMA1-08E2-7
3	11.0	FRN0011E2S-7GB-CLI-SOL	5.51 x 5.51 x 5.63	4	NEMA1-20E2-247
<b>460VAC - 3-Phase Input</b>					
1	1.8	FRN0002E2S-4GB-CLI-SOL	4.33 x 5.51 x 4.69	2.6	NEMA1-02E2-4
1.5	3.4	FRN0004E2S-4GB-CLI-SOL	4.33 x 5.51 x 5.63	3.3	NEMA1-12E2-24
3	5.0	FRN0006E2S-4GB-CLI-SOL			
4	6.3	FRN0007E2S-4GB-CLI-SOL	5.51 x 5.51 x 5.63	3.5	NEMA1-20E2-247
7.5	11	FRN0012E2S-4GB-CLI-SOL			
10	17.5	FRN0022E2S-4GB-CLI-SOL	7.09 x 9.05 x 6.22	11	NEMA1-40E2-24
15	23	FRN0029E2S-4GB-CLI-SOL			
20	31	FRN0037E2S-4GB-CLI-SOL	8.66 x 10.63 x 7.48	18	NEMA1-69E2-24
25	38	FRN0044E2S-4GB-CLI-SOL		20	
30	45	FRN0059E2S-4GB-CLI-SOL	9.84 x 15.75 x 7.68	21	NEMA1-72E2-4
40	60	FRN0072E2S-4GB-CLI-SOL		22	

HND = 120% overload for one minute.