


SOLAR PRODUCTS





SOLARPAK SELECTOR

Franklin's user-friendly SolarPAK Selector helps you determine the optimal system for your solar project. Simply input your location, duty requirements, and solar panel characteristics (if known) and the system will automatically recommend the model and array configuration best for your application.


SolarPAK

Selection Criteria
Decimal
Standard US
Language

APPLICATION Submersible

BASIC OPERATING CONDITIONS

Total Dynamic Head: ft

Solve To: Flow

Flow: USgpm

Thread Type: Auto by location

Catalog Region: Auto by Location

*Maximum allowable water temperature of 86F/30C. Consult factory for higher temperature ratings.

SOLAR PANEL CHARACTERISTICS

Performance Data Type: STC

Watts (Wmpp): W

Volts (Vmpp): V

Volts (Voc): V

Use Solar Tracker Array:

Peak Month For Sizing: Annual Average

WIRE*

Length: ft


Material Type: AWG/MM Copper

Insulation Temperature: 75°C

*Wire sizing and wire lengths must conform to local, national or government electrical wiring standards and regulations.

Search

Solar Irradiation for : 4.95 Solar Hours



Month	Average Monthly Solar Irradiation (Hours)
Jan	3.89
Feb	4.52
Mar	5.21
Apr	5.32
May	5.69
Jun	5.86
Jul	5.93
Aug	5.37
Sep	6.00
Oct	4.67
Nov	3.73
Dec	3.25

**Above screen shot is illustrative only and is subject to continuous improvement*

The Franklin Electric Photon™ SolarPAK Selector and other information on our series of solar products can be found at:

franklinwater.com

SOLAR PRODUCTS

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For the most up-to-date product information, visit franklinwater.com.

SUBDRIVE SOLARPAK (3/4–3 HP, 0.55–2.2 KW)

The SubDrive SolarPAK is the System Solution to your solar pumping requirements. Using Franklin quality components, our technical expertise in groundwater pumping, and innovative thinking based on global market inputs, we have developed a rugged, high-output system which tackles the challenges of remote and harsh environments. No other system delivers the features, benefits, and reliability of SubDrive SolarPAK in just one package!

FEATURES

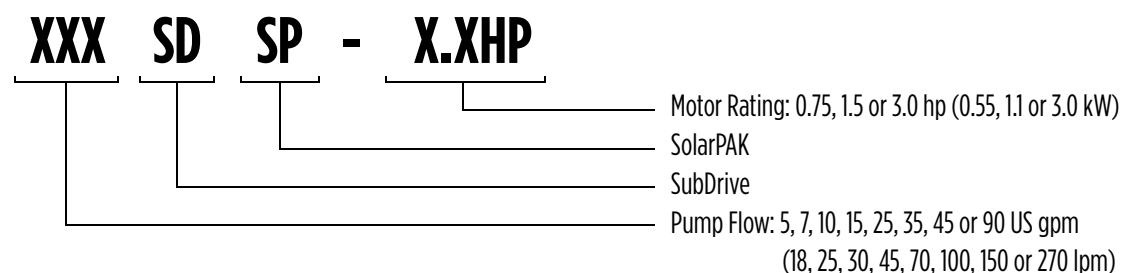
- High flow system for faster tank fill and significant water output
- Proven motor and pump technology for long-term reliability
- Robust IP55, NEMA 3 drive enclosure minimizes impact of wildlife, insects, dust, and weather
- DC and AC power inputs with auto-switching between the solar array and an AC backup source
- Seven segment controller display shows real-time input watts and system status
- Remote telemetry capability through a RS-485 continuous data port
- MPPT – Max Power Point Tracking for maximizing efficiency of input power
- Soft start feature prevents water hammer and increases system life
- Simple installation and no required maintenance
- Built-in diagnostics and protection
- C-tick and cULus approved



SOLARPAK CONTENTS

- Franklin Electric 4" submersible motor
- Franklin Electric 4" submersible pump
- SubDrive solar controller
- Flow switch with 30 ft (10 m) cable
- Variety of flow rates available: 5, 7, 10, 15, 25, 35, 45 or 90 US gpm (18, 25, 30, 45, 70, 100, 150 or 270 lpm)
- Motor and drive ratings available: 0.75, 1.5 or 3.0 hp (0.55, 1.1 or 2.2 kW)

SOLARPAK NOMENCLATURE



SUBDRIVE SOLARPAK

COMPONENTS

Continuous data connection for remote telemetry made available via a RS-485 port.

IP55, NEMA 3 rated enclosure for outdoor use.

DC and AC power supply input. Automatic switching to AC generator backup power if no DC is available from the solar array.

Contacts for up to two level-control switches (can also operate from a pressure switch, used for long pipe runs).

TRIP contact for flow switch to detect dry run conditions and protect the motor.



Easy to read, 3 digit, 7 segment LED display. Provides ease of programming and troubleshooting.

Push button navigation for ease of programming and display control.

Sliding door protects display from wildlife and environmental abuse.

Robust enclosure made of 1.9 and 1.5 mm (14 and 16 gauge) zinc-plated and powder coated steel to stand up to the toughest environmental conditions.



Removable bottom gland plate makes conduit installation simple.

APPLICATIONS

The SubDrive SolarPAK supports submersible pumping applications:

- Livestock watering
- Tank/Cistern filling
- Wildlife refuge and game farms
- Rural water supply for villages and homesteads
- Irrigation systems
- Fountains
- Vineyards
- Renewable energy projects
- Effluent pumping
- Rain harvesting

BUILT-IN DIAGNOSTICS & PROTECTION

The SubDrive SolarPAK includes diagnostic features and built-in protection from potential harmful conditions, including:

- Surge
- Underload/Dry run
- Overvoltage
- Locked pump
- Open circuit
- Short circuit
- Overheated controller
- Reverse polarity
- Dead head



SUBDRIVE SOLARPAK - ORDERING INFORMATION

SOLARPAK MODEL NUMBERS (NPT)

SolarPAK		SubDrive Solar Controller		Solar Pump - NPT				Motor		Flow Switch NPT	
SolarPAK Model	Order No.	Drive Model	Part No.	US GPM	Stages	Solar Pump	Part No.	HP	Part No.	Model	Part No.
5SDSP-0.75HP	90040510	SD Solar 0.55 kW N3	5870300553	5	18	5SL07S4-PE	90020503	0.75	2349029204GS	C25	226014102
7SDSP-0.75HP	90040710	SD Solar 0.55 kW N3	5870300553	7	13	7SL07S4-PE	90020703	0.75	2349029204GS	C25	226014102
10SDSP-0.75HP	90041010	SD Solar 0.55 kW N3	5870300553	10	8	10SL07S4-PE	90021003	0.75	2349029204GS	C25	226014102
15SDSP-0.75HP	90041510	SD Solar 0.55 kW N3	5870300553	15	6	15SL07S4-PE	90021503	0.75	2349029204GS	C25	226014102
5SDSP-1.5HP	90040520	SD Solar 1.1 kW N3	5870301113	5	30	5SL15S4-PE	90020507	1.5	2345049203S	C25	226014102
7SDSP-1.5HP	90040720	SD Solar 1.1 kW N3	5870301113	7	30	7SL2S4-PE	90020710	1.5	2345049203GS	C25	226014102
10SDSP-1.5HP	90041020	SD Solar 1.1 kW N3	5870301113	10	18	10SL2S4-PE	90021010	1.5	2345049203S	C25	226014102
15SDSP-1.5HP	90041520	SD Solar 1.1 kW N3	5870301113	15	15	15SL2S4-PE	90021510	1.5	2345049203S	C25	226014102
25SDSP-1.5HP	90042520	SD Solar 1.1 kW N3	5870301113	25	10	25SL2S4-PE	90022510	1.5	2345049203S	F21	226019102
35SDSP-1.5HP	90043520(a)	SD Solar 1.1 kW N3	5870301113	35	10	35SL2S4-PE	90023510	1.5	2345049203S	F21	226019102
45SDSP-1.5HP	90044520(a)	SD Solar 1.1 kW N3	5870301113	45	7	45SL2S4-PE	90024510	1.5	2345049203S	F21	226019102
90SDSP-1.5HP	90049020(a)	SD Solar 1.1 kW N3	5870301113	90	5	90SL2S4-PE	90029010	1.5	2345049203S	F21	226019102
7SDSP-3.0HP	90040730	SD Solar 2.2 kW N3	5870301223	7	30	7SL2S4-PE	90020710	3	2343062604	C25	226014102
10SDSP-3.0HP	90041030	SD Solar 2.2 kW N3	5870301223	10	18	10SL2S4-PE	90021010	3	2343062604	C25	226014102
15SDSP-3.0HP	90041530	SD Solar 2.2 kW N3	5870301223	15	15	15SL2S4-PE	90021510	3	2343062604	C25	226014102
25SDSP-3.0HP	90042530	SD Solar 2.2 kW N3	5870301223	25	10	25SL2S4-PE	90022510	3	2343062604	F21	226019102
35SDSP-3.0HP	90043530(a)	SD Solar 2.2 kW N3	5870301223	35	10	35SL2S4-PE	90023510	3	2343062604	F21	226019102
45SDSP-3.0HP	90044530(a)	SD Solar 2.2 kW N3	5870301223	45	7	45SL2S4-PE	90024510	3	2343062604	F21	226019102
90SDSP-3.0HP	90049030(a)	SD Solar 2.2 kW N3	5870301223	90	5	90SL2S4-PE	90029010	3	2343062604	F21	226019102

* A-30 foot (10 meter) cable for use with the flow switch is included in the controller packaging

** 316SS motors available on request

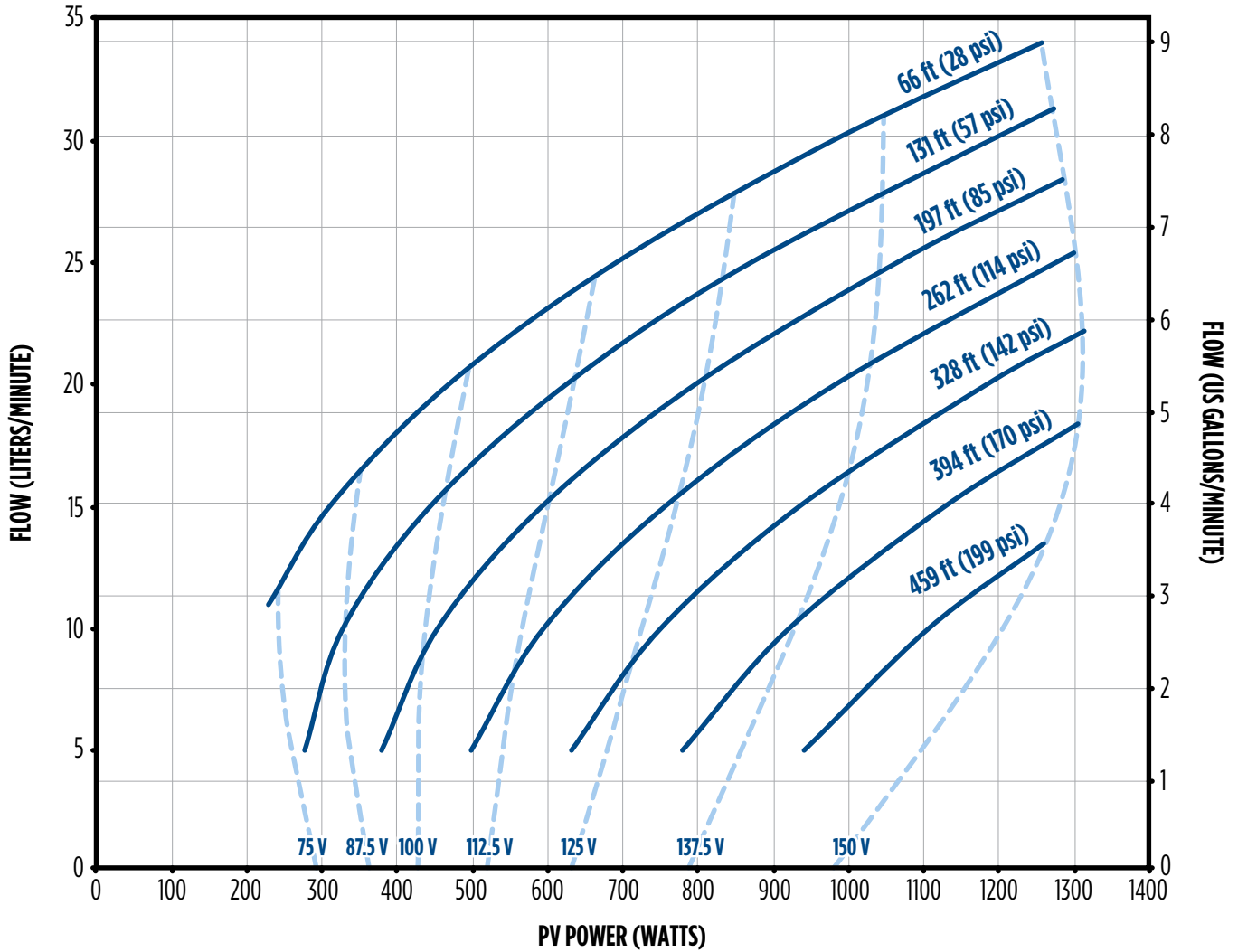
*** Motors shown above include an individual conductor lead installed in the motor. For replacement motors without a lead, use part numbers: 1.5 hp / 1.1 kW (2345041903S) and 3.0 hp / 2.2 kW (2343062504)

(a) High capacity pumps, 35 US gpm (100 lpm) and higher, in a SolarPAK are not supplied with an internal check valve

SUBDRIVE SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

5SDSP-0.75HP

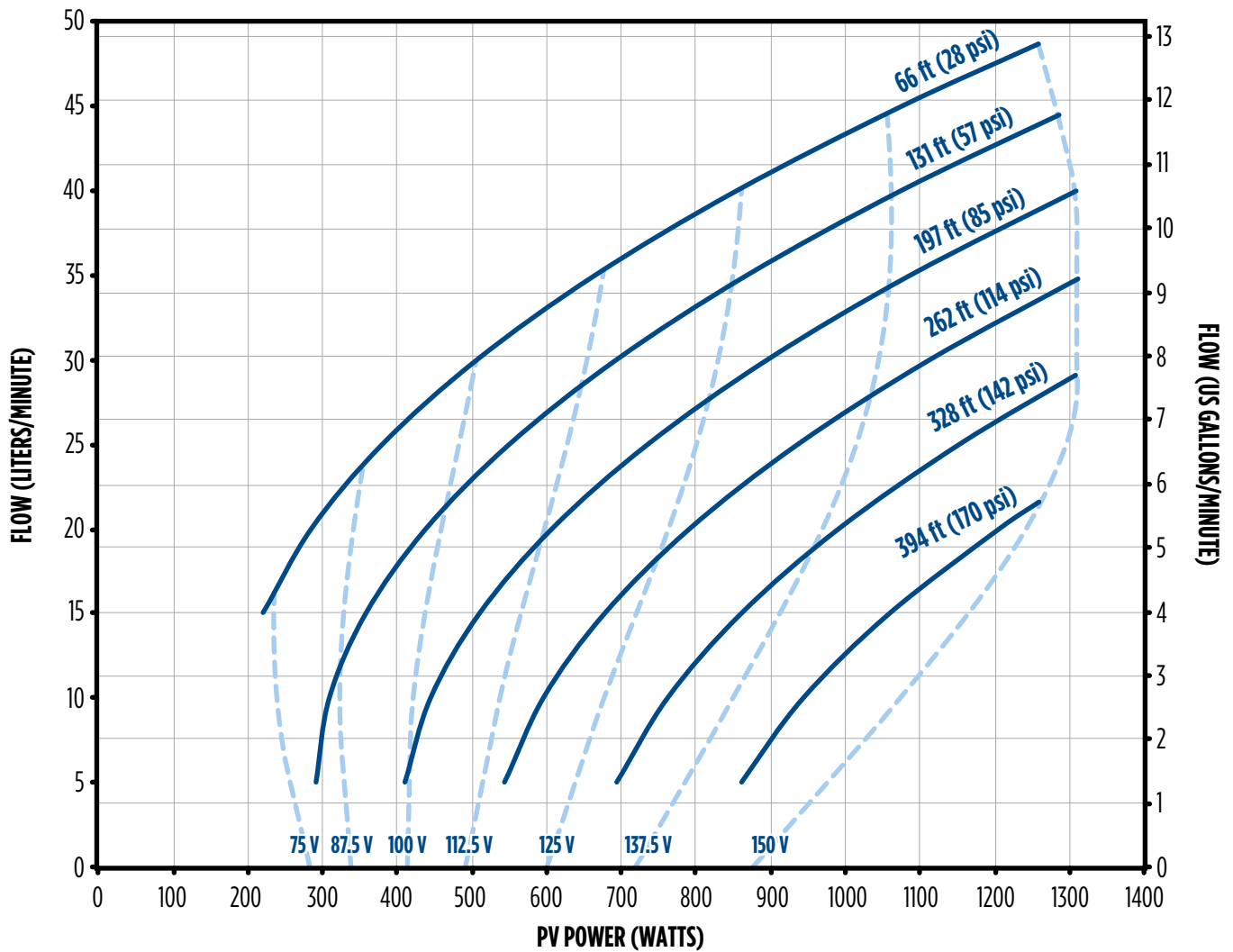
SubDrive Solar 0.75 hp Controller, 5 US gpm 0.75 hp Pump End, 0.75 hp Motor



SUBDRIVE SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

7SDSP-0.75HP

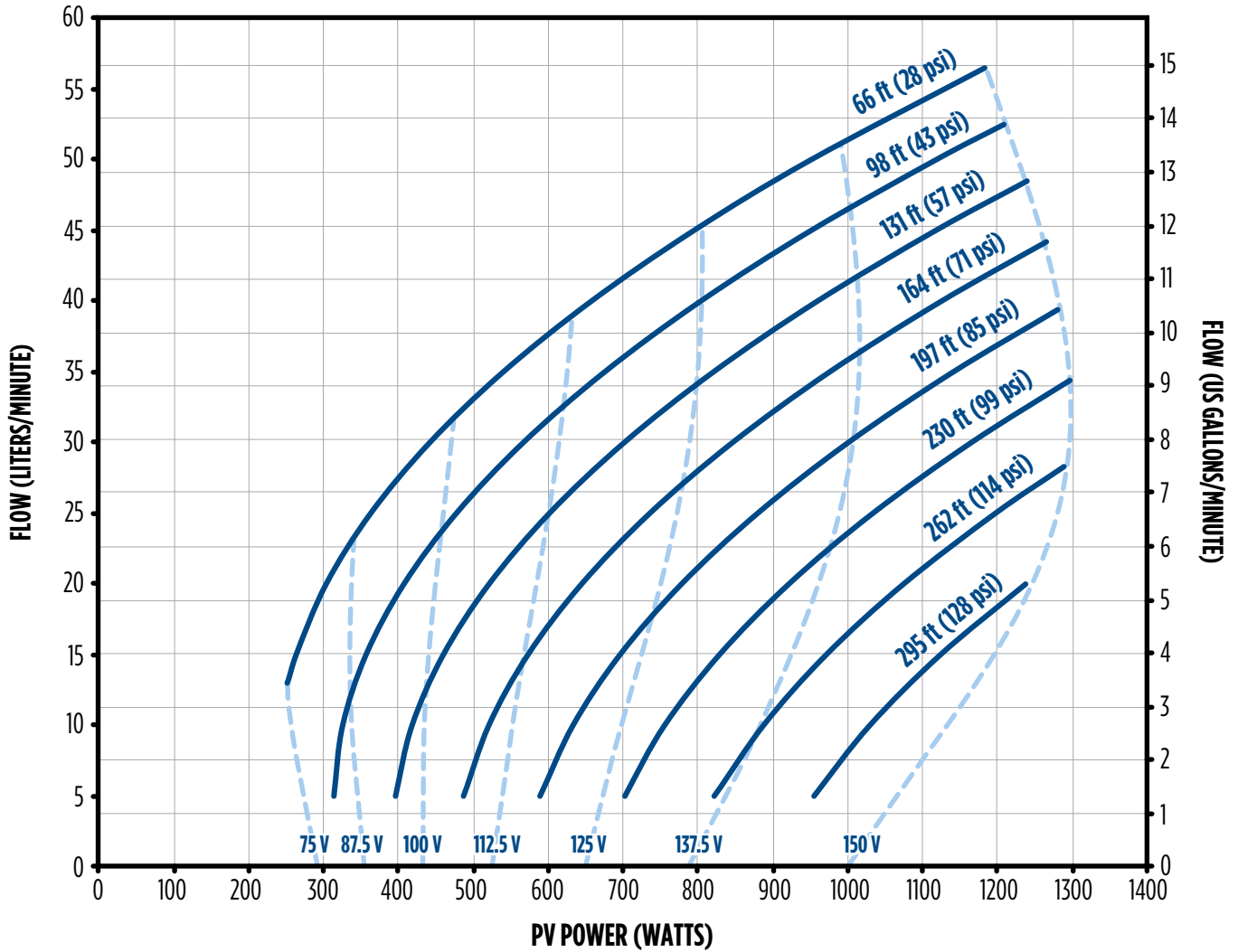
SubDrive Solar 0.75 hp Controller, 7 US gpm 0.75 hp Pump End, 0.75 hp Motor



SUBDRIVE SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

10SDSP-0.75HP

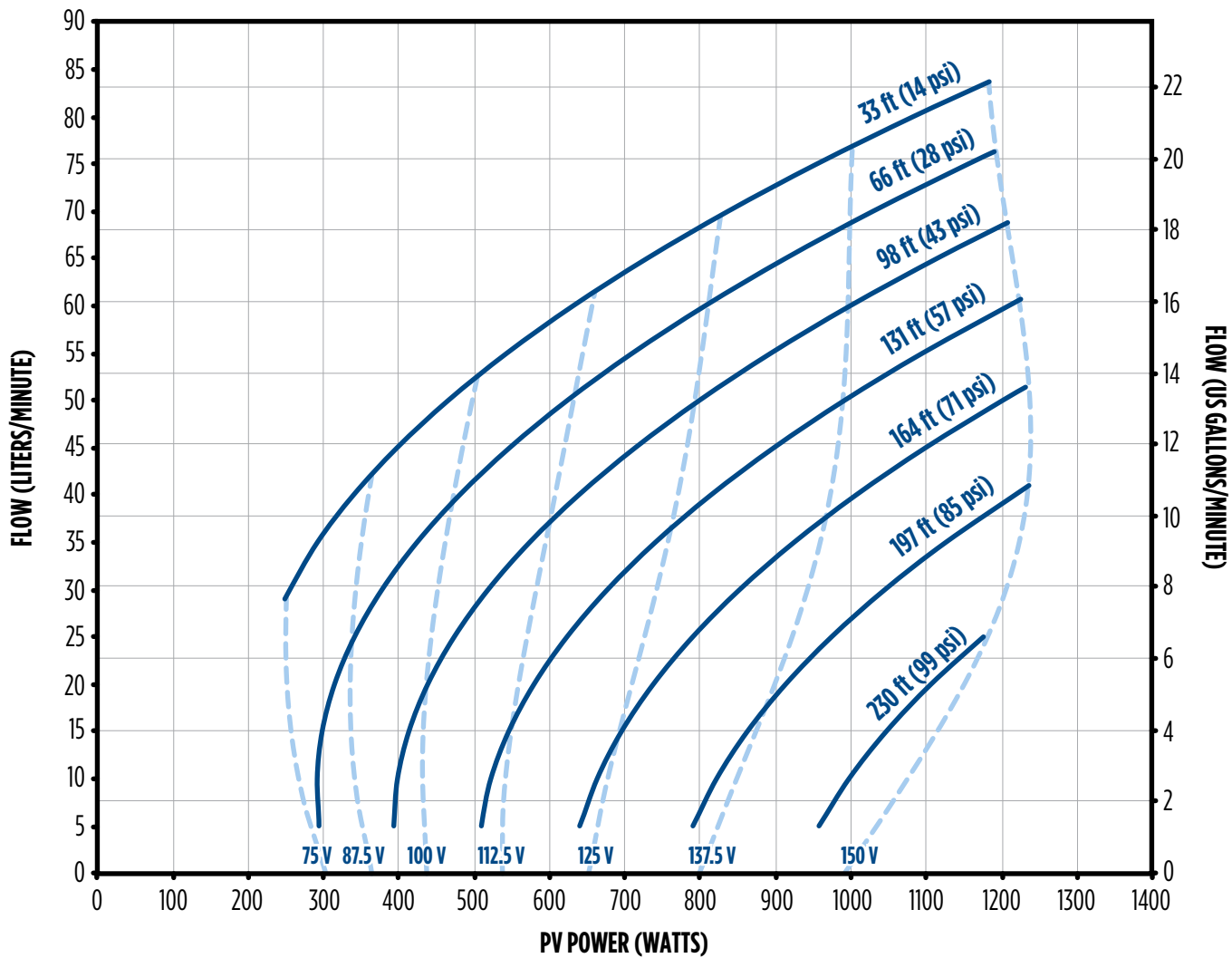
SubDrive Solar 0.75 hp Controller, 10 US gpm 0.75 hp Pump End, 0.75 hp Motor



SUBDRIVE SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

15SDSP-0.75HP

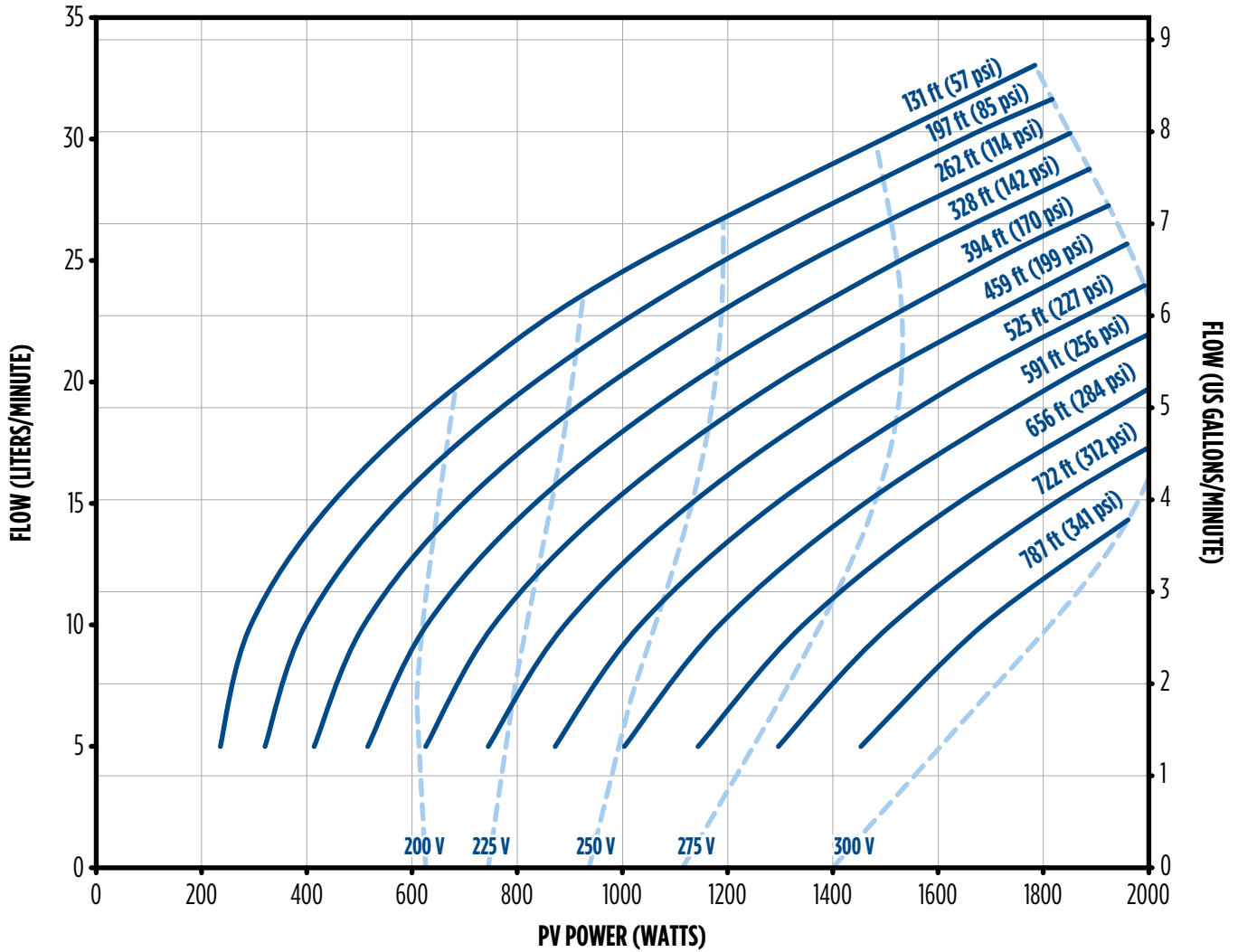
SubDrive Solar 0.75 hp Controller, 15 US gpm 0.75 hp Pump End, 0.75 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

5SDSP-1.5HP

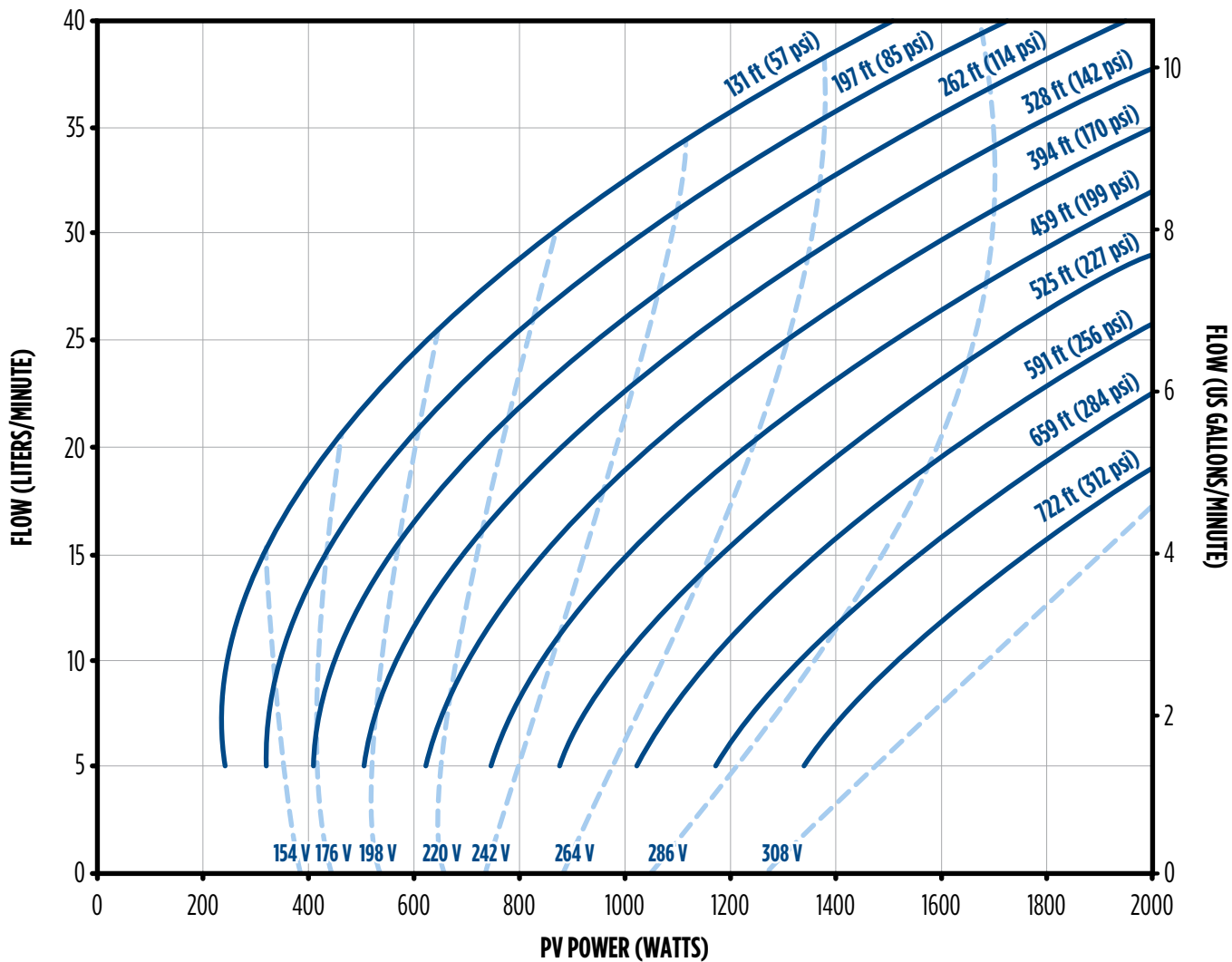
SubDrive Solar 1.5 hp Controller, 5 US gpm 1.5 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

7SDSP-1.5HP

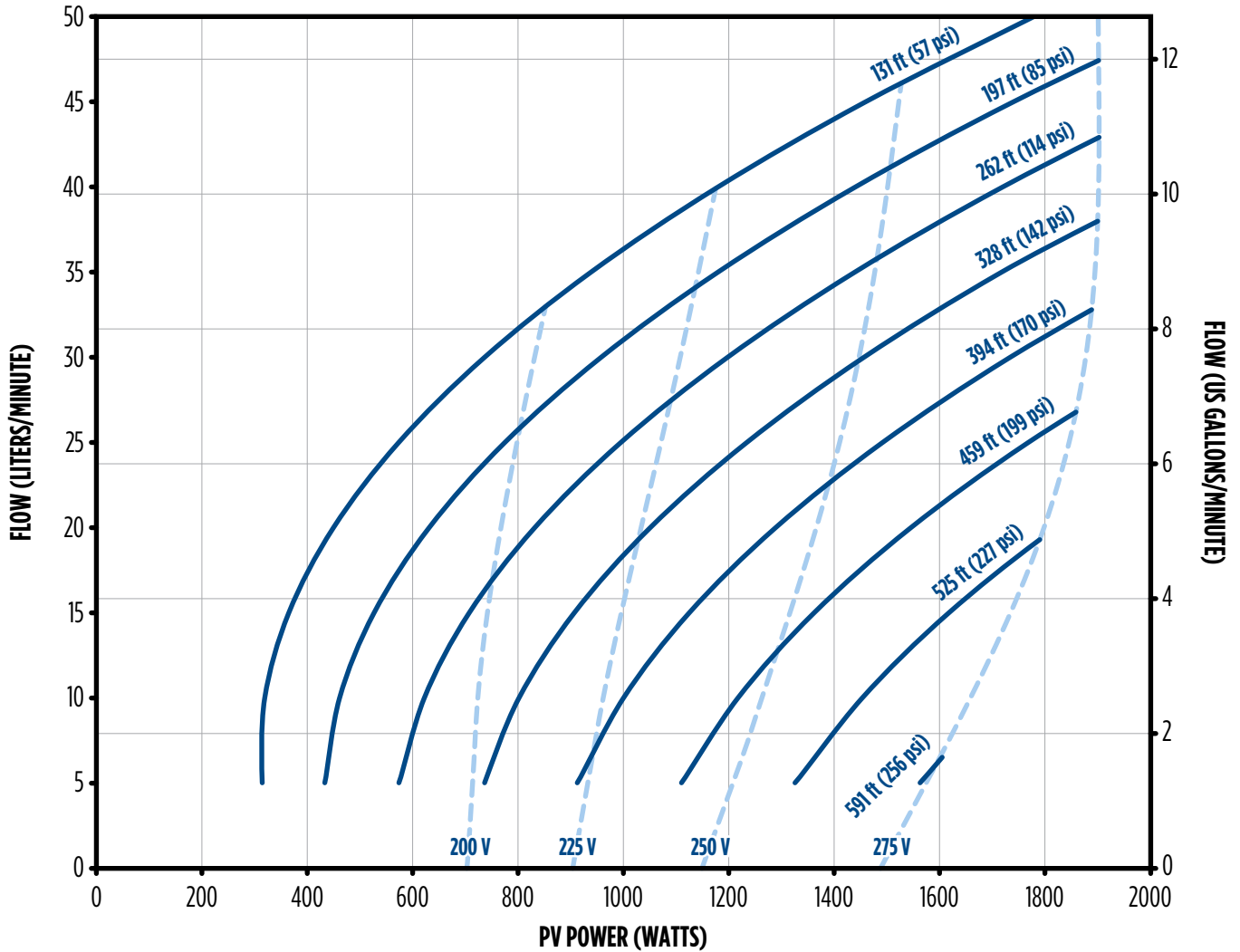
SubDrive Solar 1.5 hp Controller, 7 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

10SDSP-1.5HP

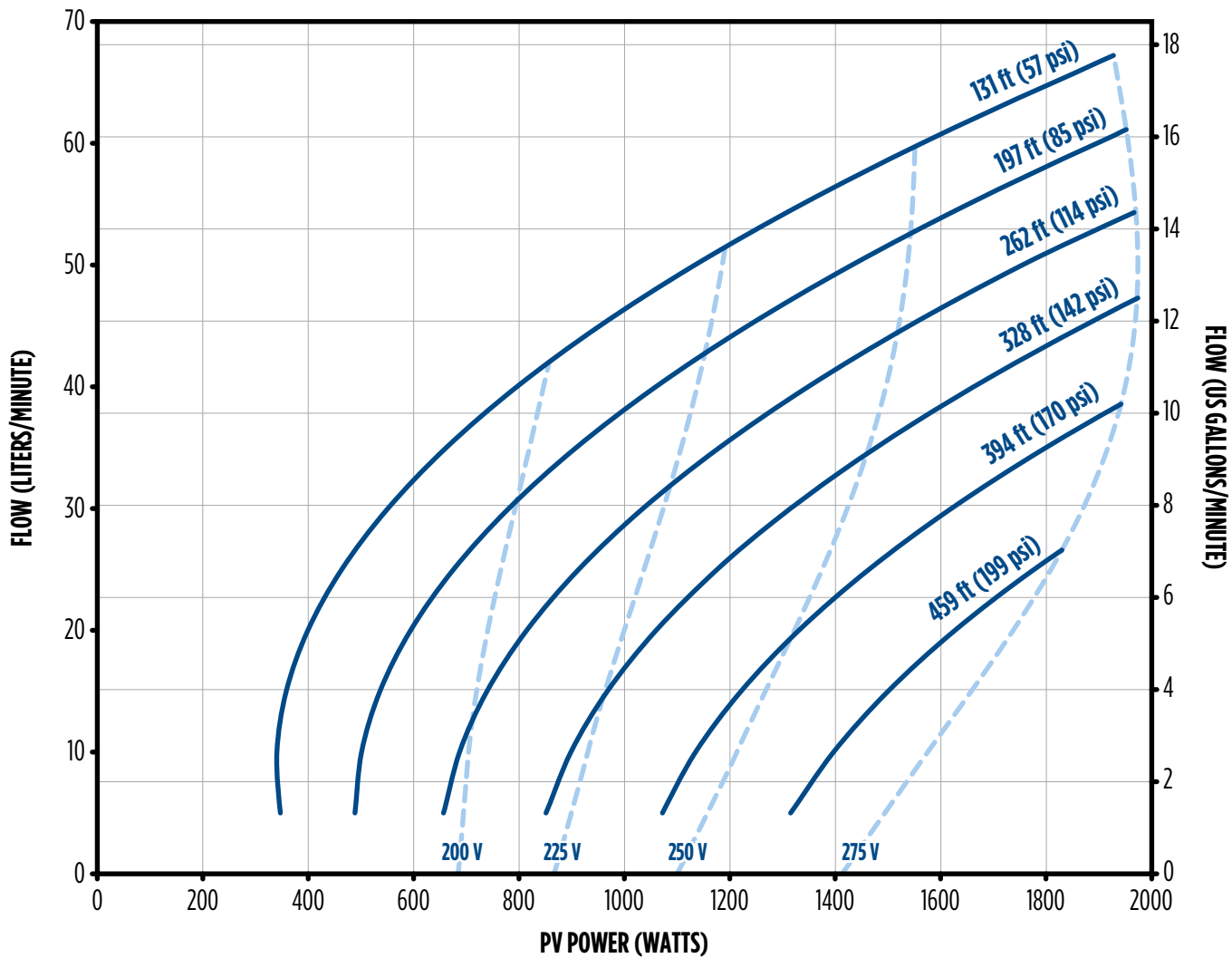
SubDrive Solar 1.5 hp Controller, 10 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

15SDSP-1.5HP

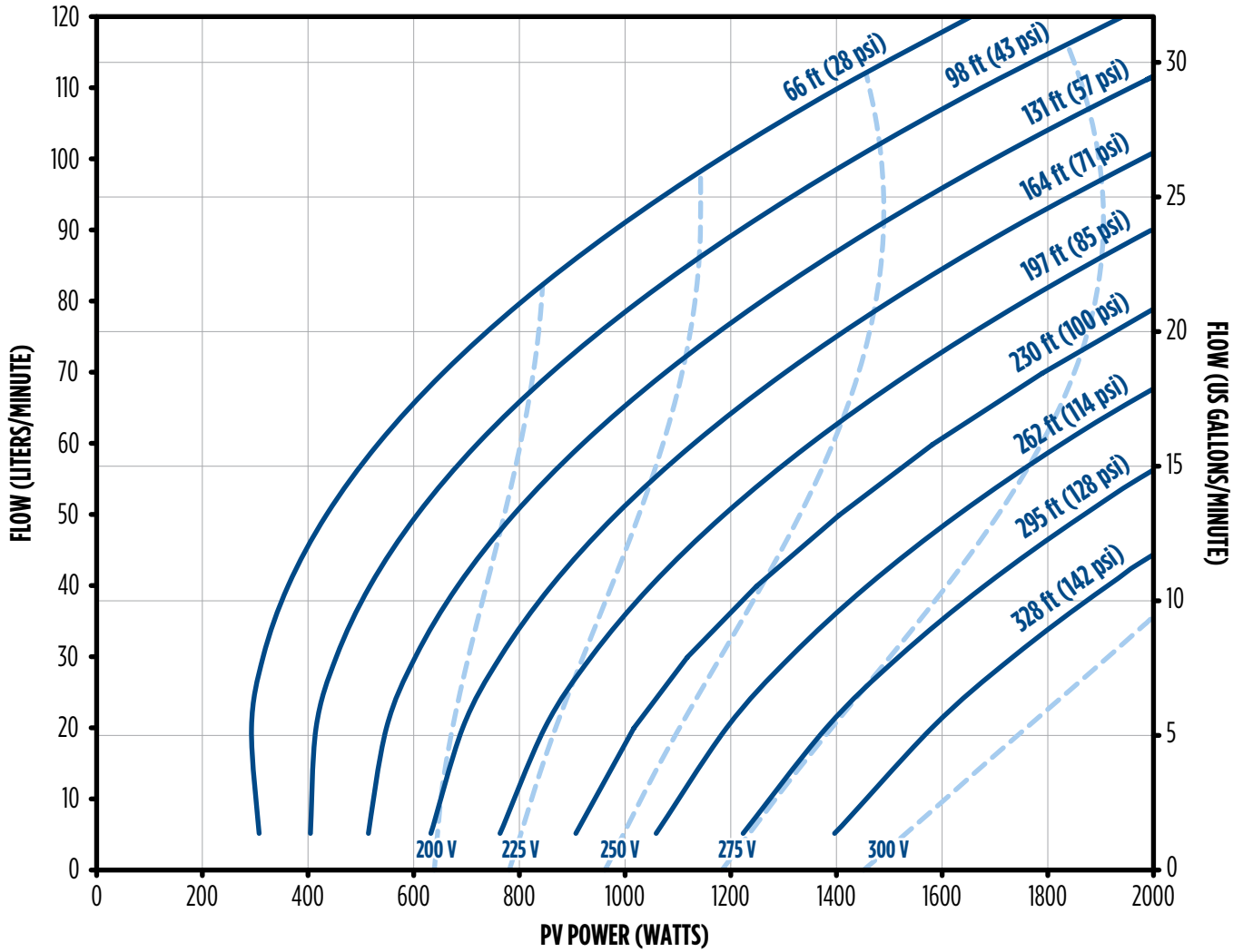
SubDrive Solar 1.5 hp Controller, 15 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

25SDSP-1.5HP

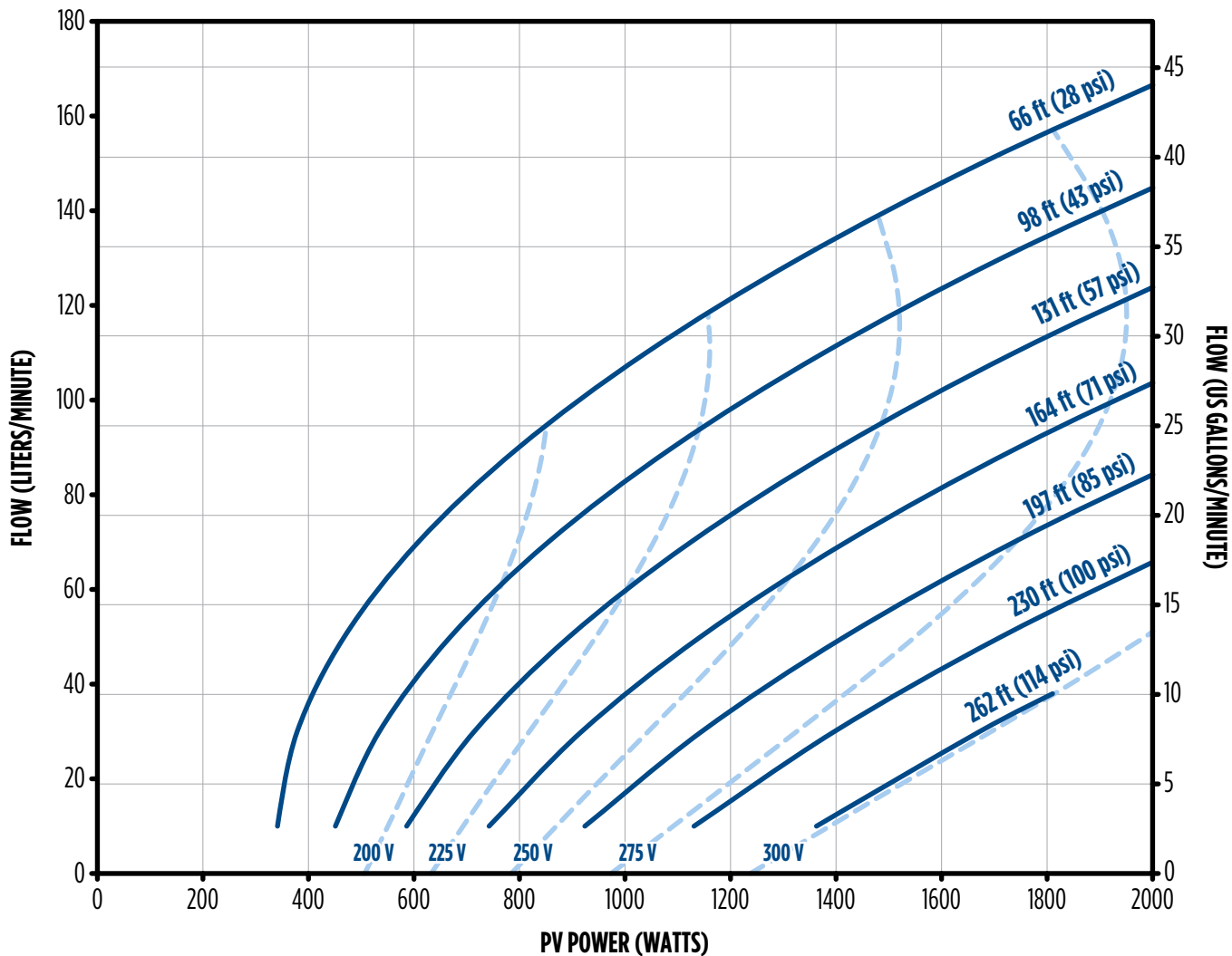
SubDrive Solar 1.5 hp Controller, 25 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

35SDSP-1.5HP

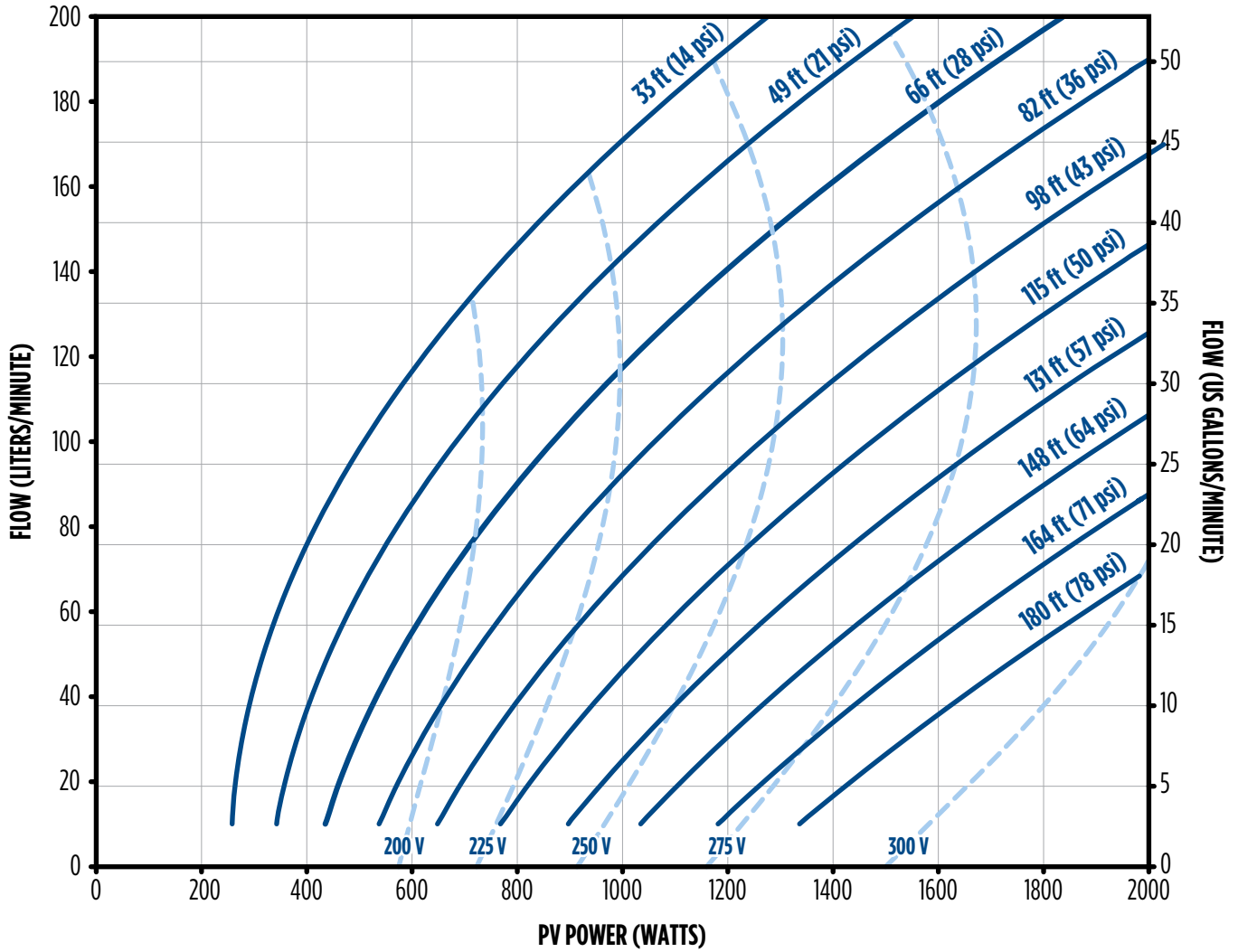
SubDrive Solar 1.5 hp Controller, 35 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

45SDSP-1.5HP

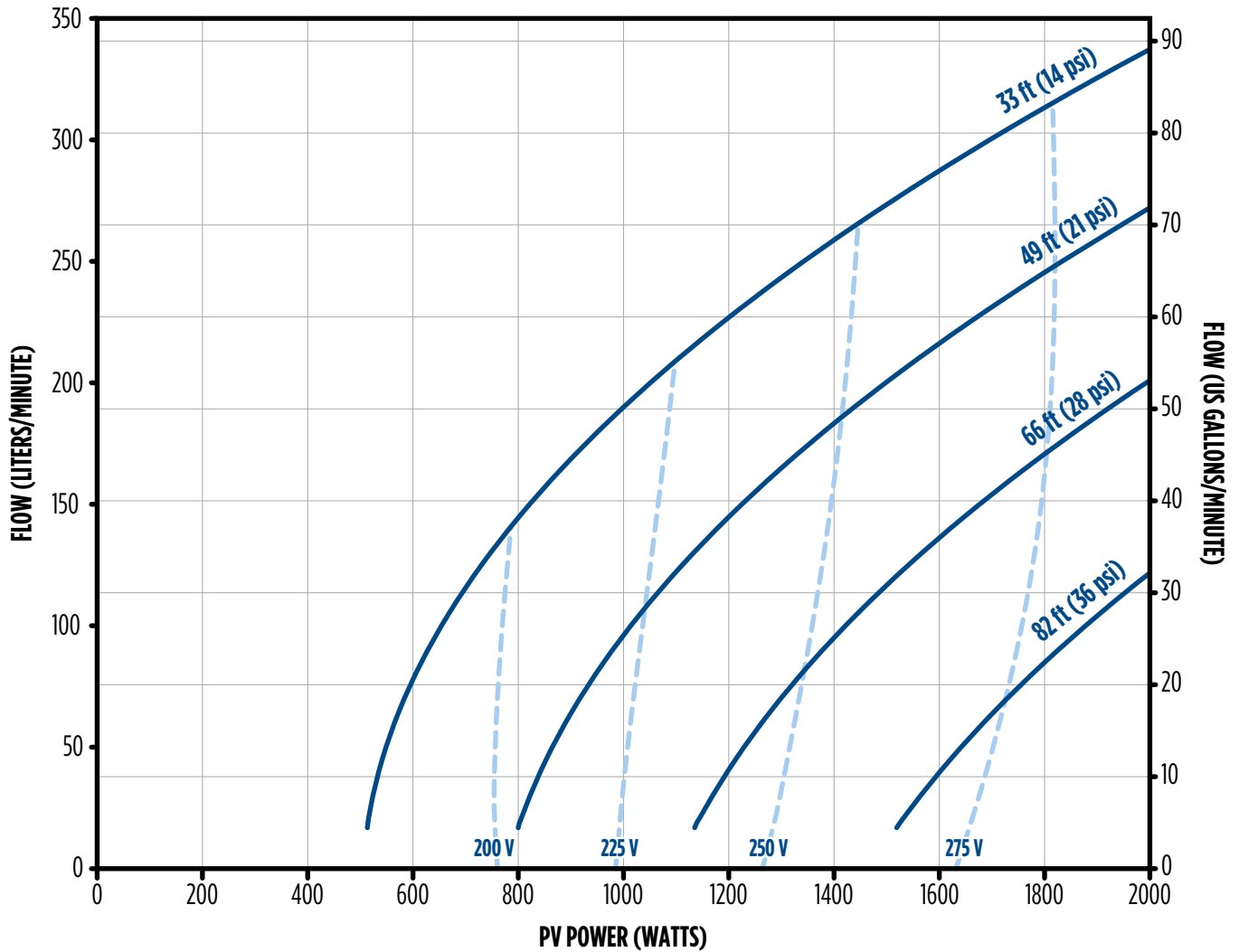
SubDrive Solar 1.5 hp Controller, 45 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

90SDSP-1.5HP

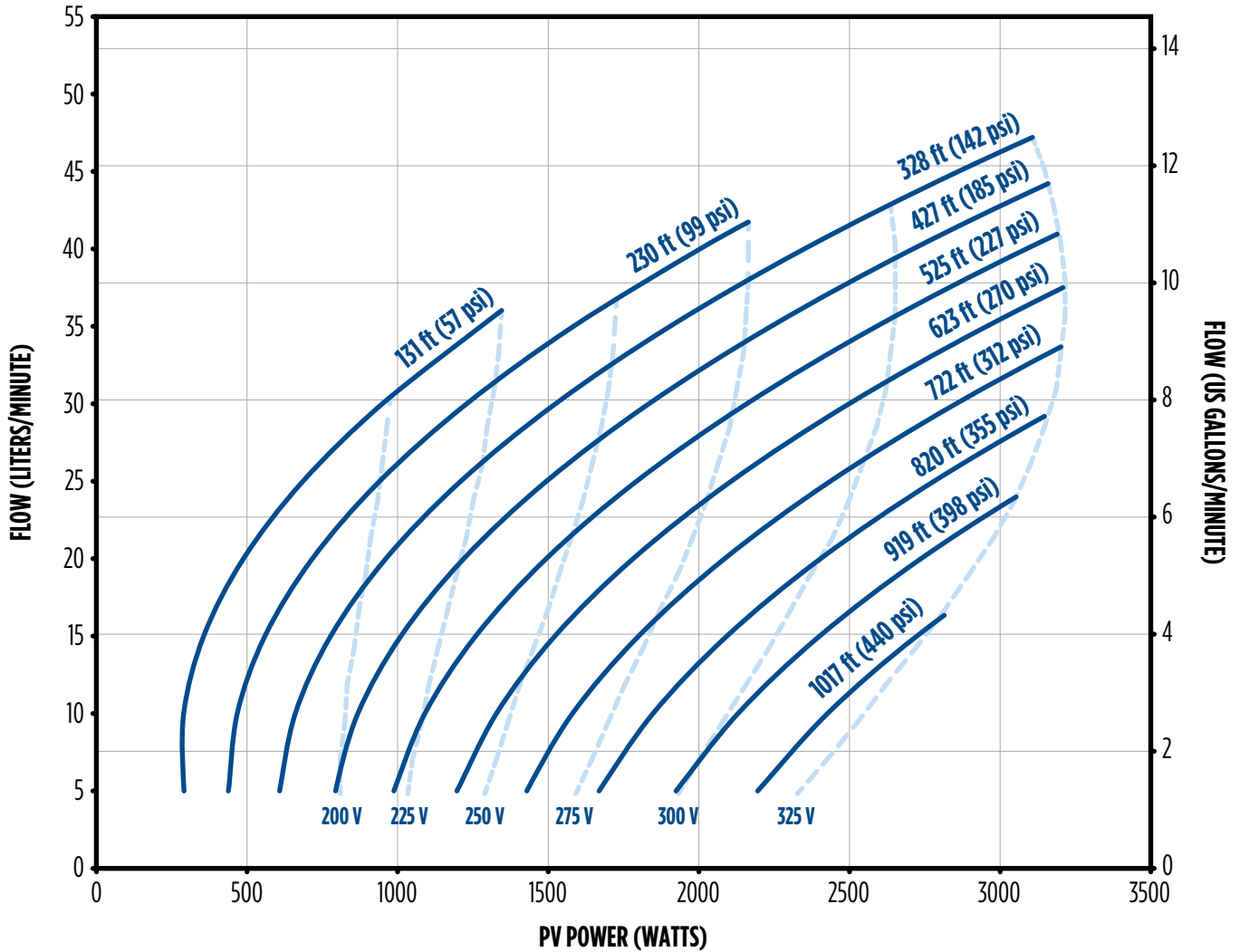
SubDrive Solar 1.5 hp Controller, 90 US gpm 2.0 hp Pump End, 1.5 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

7SDSP-3.0HP

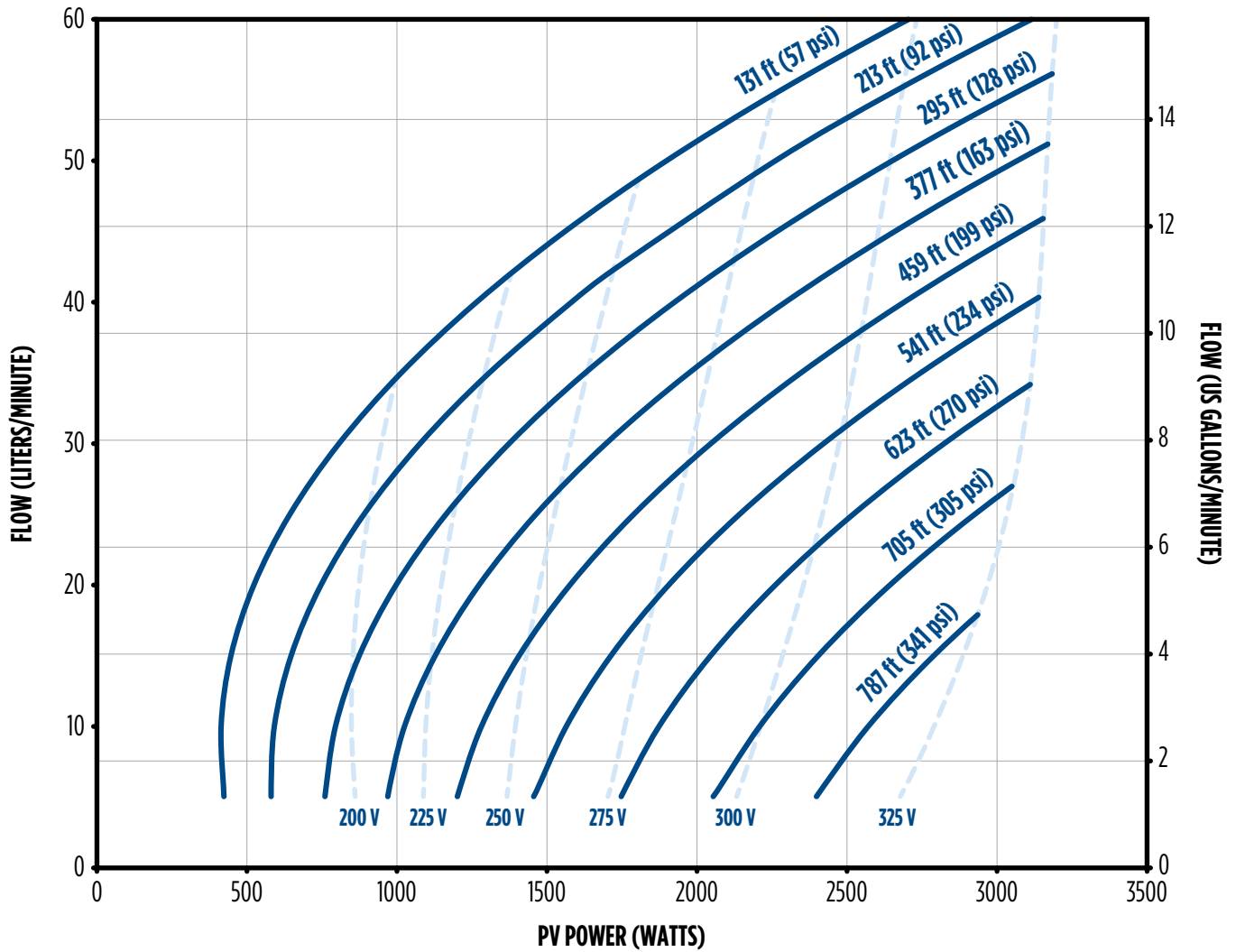
SubDrive Solar 3.0 hp Controller, 7 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

10SDSP-3.0HP

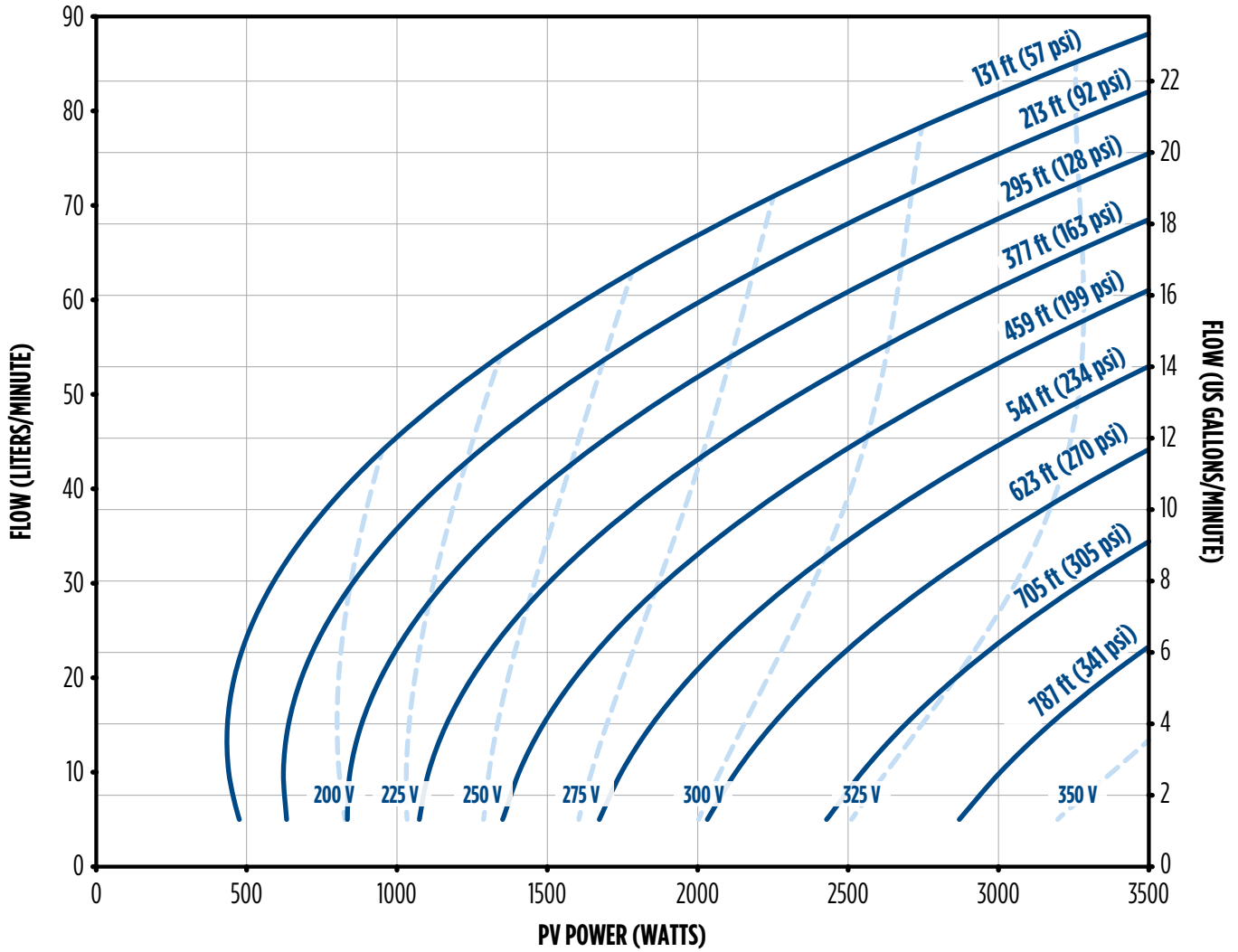
SubDrive Solar 3.0 hp Controller, 10 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

15SDSP-3.0HP

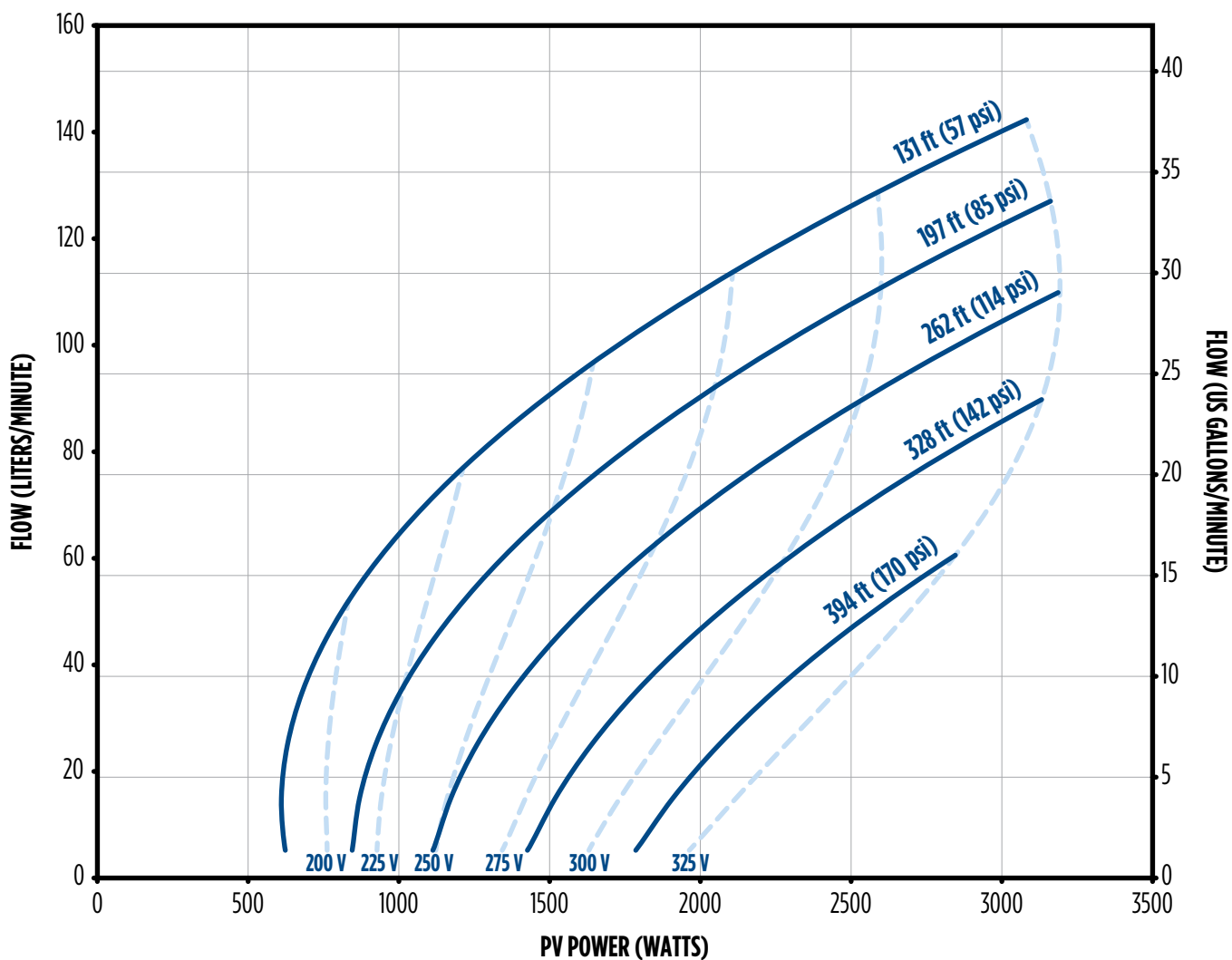
SubDrive Solar 3.0 hp Controller, 15 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

25SDSP-3.0HP

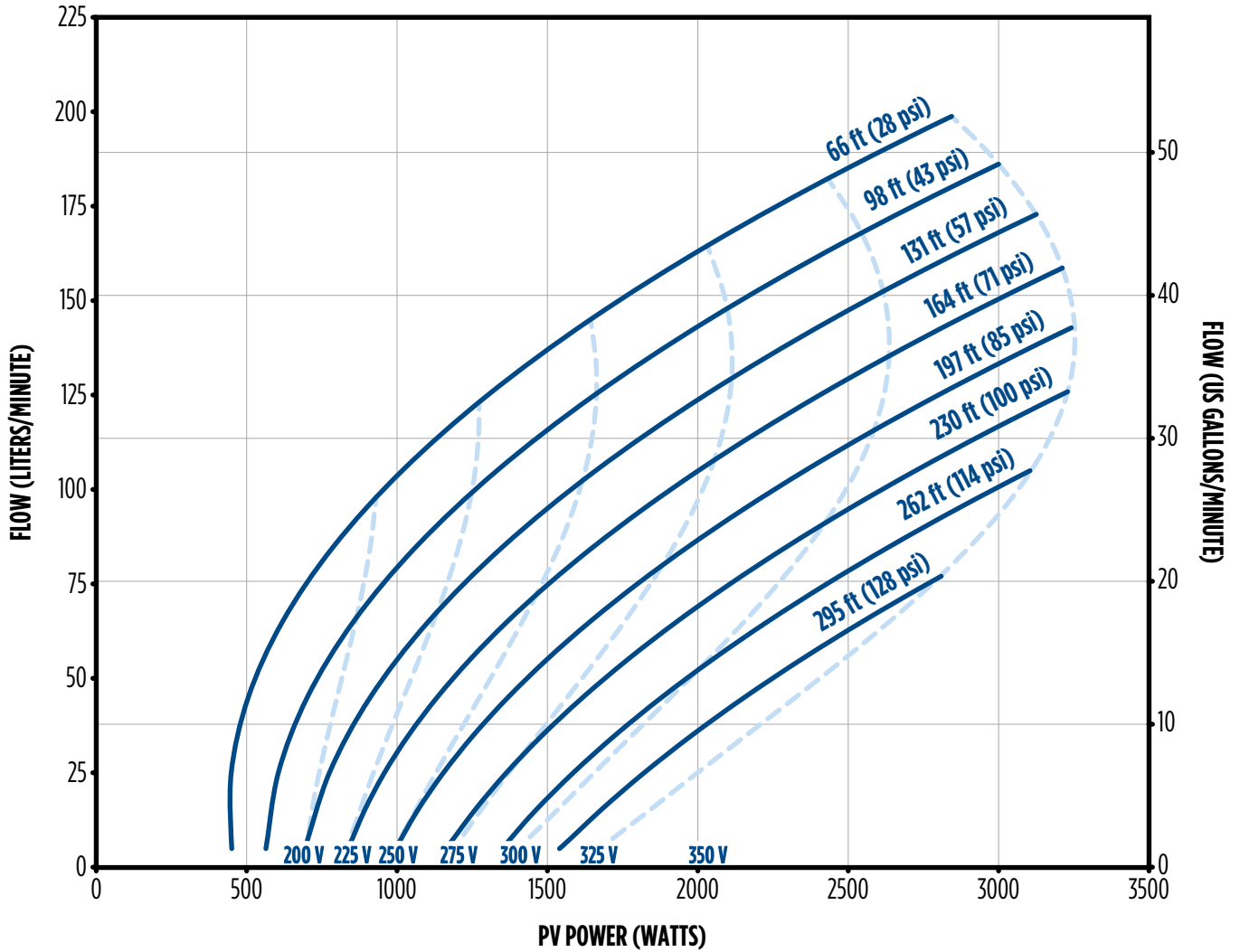
SubDrive Solar 3.0 hp Controller, 25 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

35SDSP-3.0HP

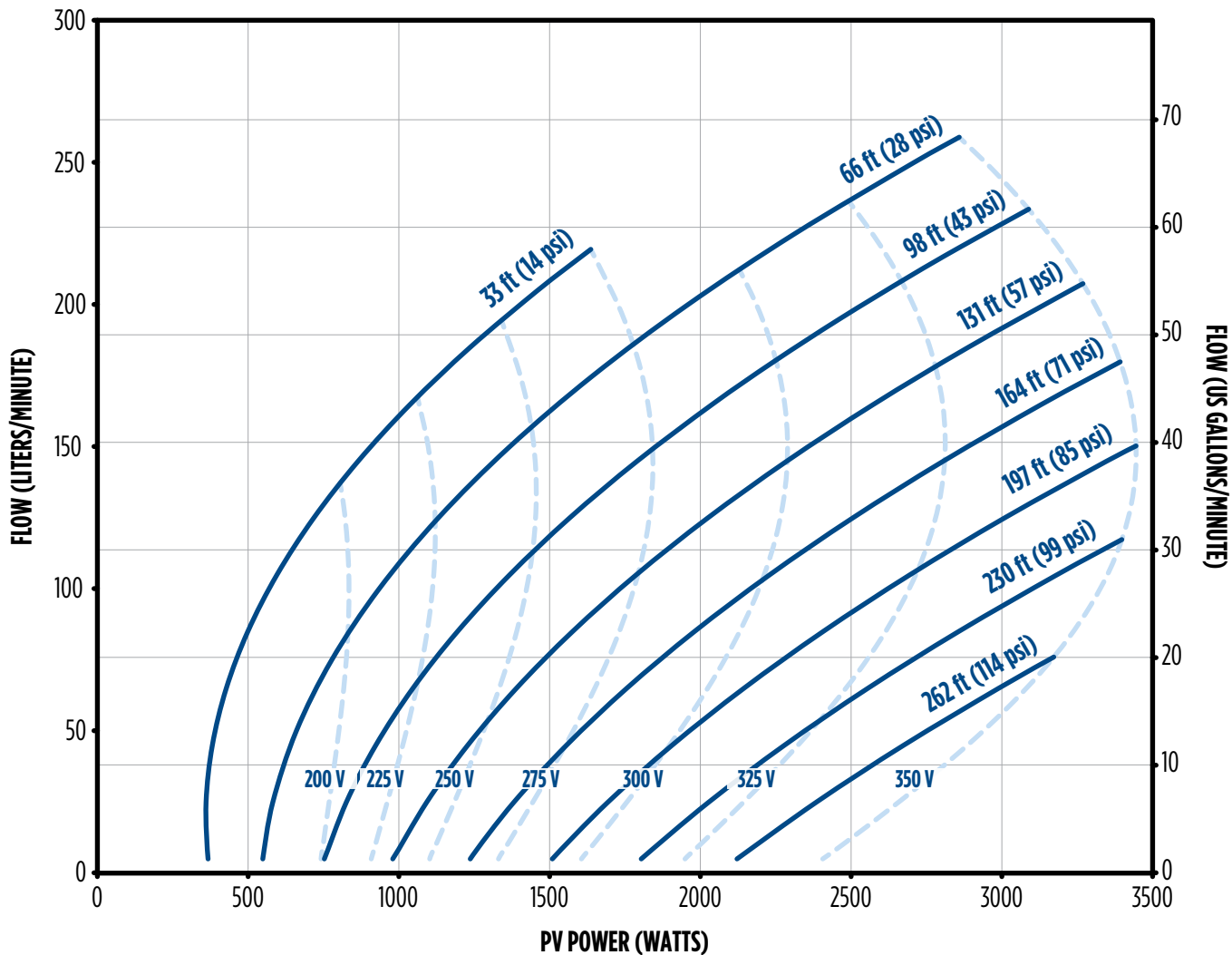
SubDrive Solar 3.0 hp Controller, 35 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

45SDSP-3.0HP

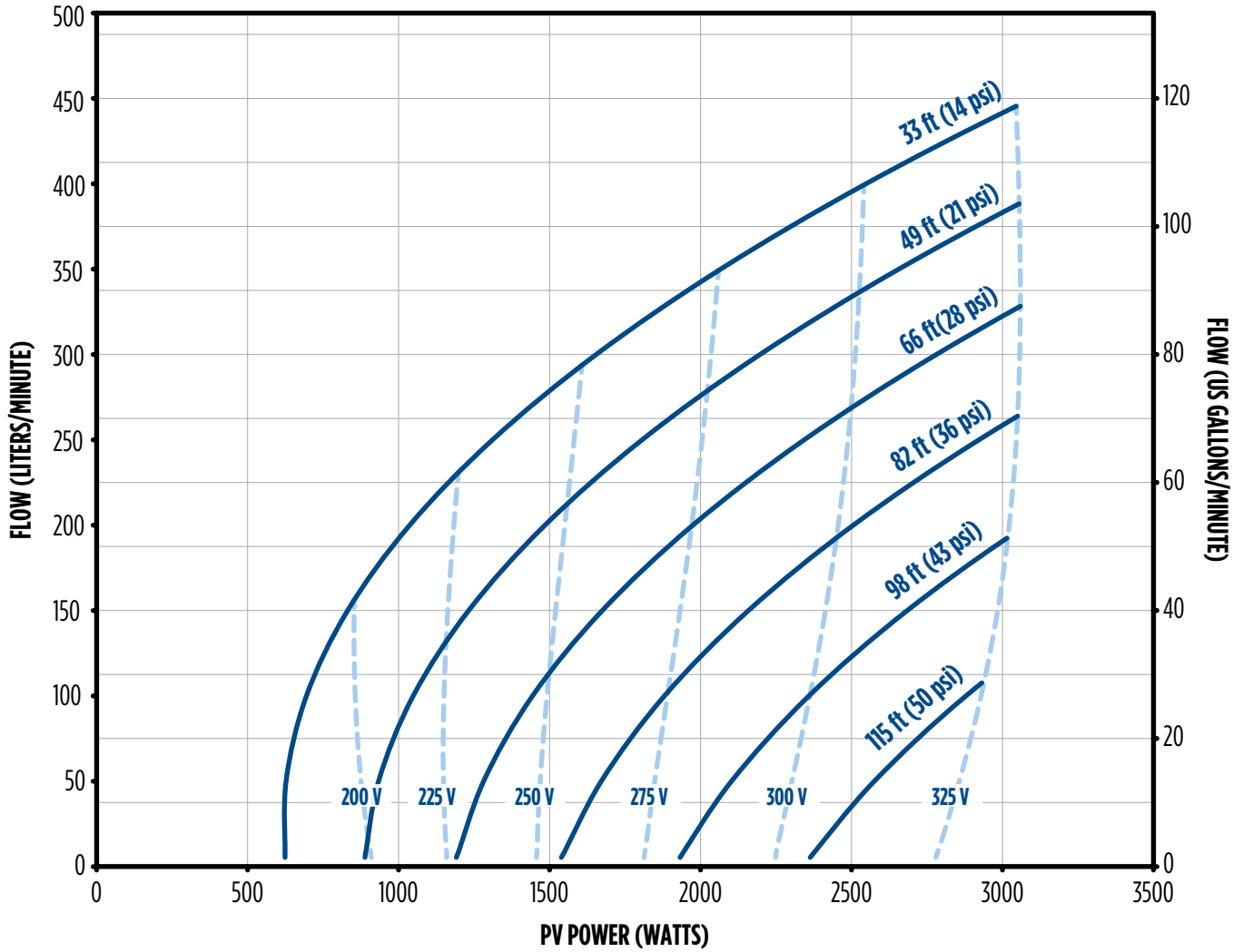
SubDrive Solar 3.0 hp Controller, 45 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - 3.0 HP (2.2 KW) PERFORMANCE

90SDSP-3.0HP

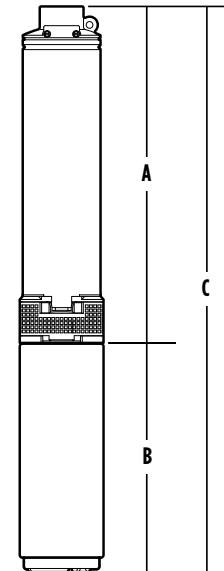
SubDrive Solar 3.0 hp Controller, 90 US gpm 2.0 hp Pump End, 3.0 hp Motor



SUBDRIVE SOLARPAK - DIMENSIONS

SOLAR PMA DIMENSIONS

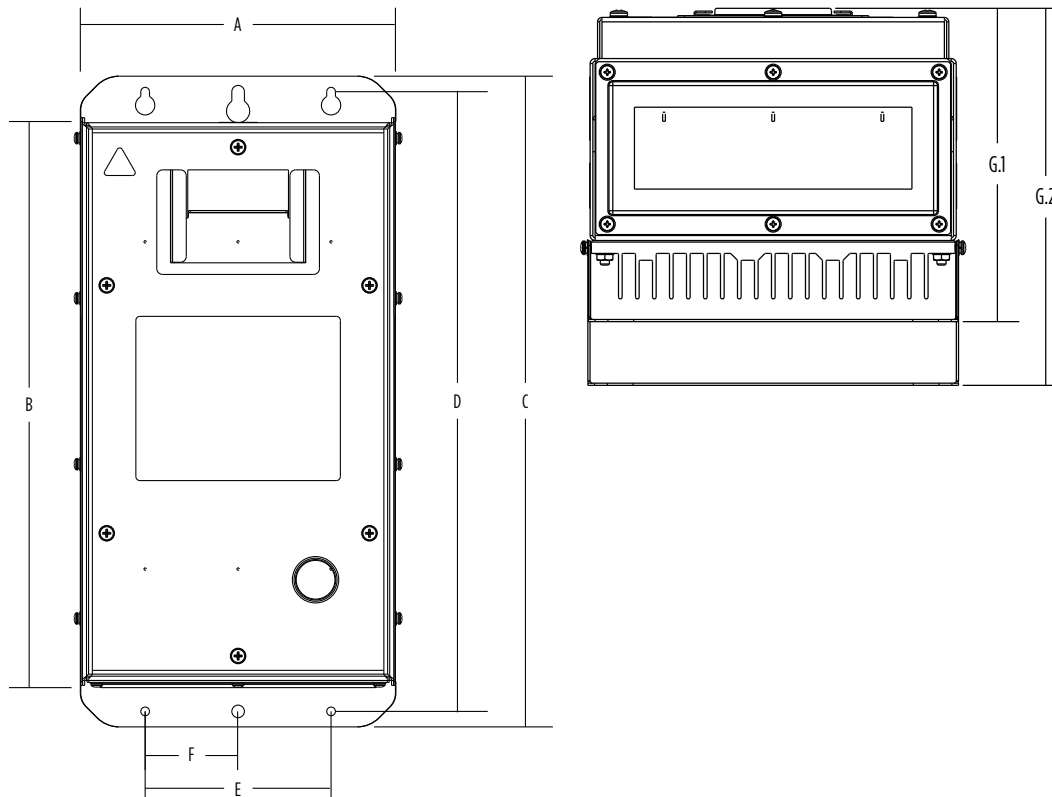
US GPM	LPM	HP	kW	Stages	A		B		C		Discharge (in)	PE Wt.		PMA Wt.	
					in	mm	in	mm	in	mm		lbs	kg	lbs	kg
5	18	0.75	0.55	18	22.6	574	10.6	270	33.2	844	11/4	12	5	33	15
7	25	0.75	0.55	13	18.4	467	10.6	270	29.0	737	11/4	11	5	32	15
10	30	0.75	0.55	8	14.7	373	10.6	270	25.3	643	11/4	8	4	29	13
15	45	0.75	0.55	6	13.0	329	10.6	270	23.6	599	11/4	7	3	28	13
5	18	1.5	1.1	30	34.1	866	11.7	298	45.8	1164	11/4	19	9	48	22
7	25	1.5	1.1	30	34.1	866	11.7	298	45.8	1164	11/4	20	9.1	49	22.3
10	30	1.5	1.1	18	25.3	642	11.7	298	37.0	940	11/4	16	7	45	20
15	45	1.5	1.1	15	20.5	521	11.7	298	32.2	819	11/4	15	7	44	20
25	70	1.5	1.1	10	19.2	488	11.7	298	30.9	786	11/4	10	5	39	18
45	150	1.5	1.1	7	23.3	593	11.7	298	35.1	891	2	16	7	45	20
90	270	1.5	1.1	5	22.6	575	11.7	298	34.4	873	2	15	7	44	20
7	25	3	2.2	30	34.1	866	16.1	408	50.2	1274	11/4	20	9	61	28
10	30	3	2.2	18	25.3	645	16.1	408	41.4	1053	11/4	16	7	57	26
15	45	3	2.2	15	20.5	521	16.1	408	36.6	929	11/4	15	7	56	25
25	70	3	2.2	10	19.2	488	16.1	408	35.3	896	11/4	10	5	51	23
45	150	3	2.2	7	23.3	593	16.1	408	39.4	1001	2	16	7	57	26
90	270	3	2.2	5	22.6	575	16.1	408	38.7	983	2	15	7	56	25



NOTE: Maximum diameter across cable guard is 3.90" (99.1 mm) on all models.

SOLAR CONTROLLER DIMENSIONS

Dimensions	A	B	C	D	E	F	G.1	G.2
Inches	10.2	18.3	21.0	20.0	6.0	3.0	8.7	10.4
Centimeters	25.9	46.4	53.4	50.8	15.2	7.6	22.1	26.5



SUBDRIVE SOLARPAK - DRIVE SPECIFICATIONS

SOLAR CONTROLLER

	0.75 hp (0.55 kW) Model		1.5 hp (1.1 kW) Model		3.0 hp (2.2 kW) Model		
Controller Model No.	5870300553		5870301113		5870301223		
Output							
Output Voltage, Max	100 V AC, 3-phase		200 V AC, 3-phase		200 V AC, 3-phase		
Max Amps (RMS)	8.6 A, each phase		6.8 A, each phase		12.5 A, each phase		
Output Frequency	30-60 Hz		30-58 Hz		30-68 Hz		
Efficiency at Max Power	96%		96%		96%		
PV Source							
Input Voltage, at mpp	*95 - 330 V DC		**190 - 330 V DC		190* - 330 V DC		
Max Amps Input	8.7 A DC, continuous		7 A DC, continuous		12 A DC, continuous		
Power at mpp	Up to 1400 Watts		Up to 2000 Watts		Up to 3500 Watts		
Alternate AC Generator							
Input Voltage games	230 V AC, single-phase		230 V AC, single-phase		230 V AC, single-phase		
Max Amps (RMS)	9.6 A		16 A		25 A		
Power and VA capability	Follow Instruction Manual for proper Generator Sizing Data						
For Use With							
Franklin Electric Motor	234902----		234504----		234306----		
SubDrive Solar Pumps (NPT)	US GPM	Stages	Model No.	Stages	Model No.	Stages	Model No.
	5	18	90020503	30	90020507	30	-
	7	13	90020703	30	-	30	90020710
	10	8	90021003	18	90021010	18	90021010
	15	6	90021503	15	90021510	15	90021510
	25	-	-	10	90022510	10	90022510
	35	-	-	10	90023510	10	90023510
	45	-	-	7	90024510	7	90024510
90	-	-	5	90029010	5	90029010	
Controller Size (L x W x D)							
in (cm)	21.00 x 10.19 x 8.61 (53.34 x 25.87 x 21.87)		21.00 x 10.19 x 8.61 (53.34 x 25.87 x 21.87)		21.00 x 10.19 x 10.36 (53.34 x 25.87 x 26.31)		
Controller Weight							
lbs (kg)	41 (19)		41 (19)		47 (22)		
Operating Conditions							
Temperature Range	122 °F (104 °F max when using AC generator); -25 °C to 50 °C (40 °C max when using AC generator)						
Relative Humidity Range	0 to 100% Condensing						

* Drive will attempt to start the pump/motor at 95 V DC, and attempt to continue operation down to 75 V DC.

** Drive will attempt to start the pump/motor at 190 V DC, and attempt to continue operation down to 150 V DC. Absolute maximum open circuit voltage input to the controller = 410 Voc for all controller models.

*** Motors shown above include an individual conductor lead installed in the motor. For replacement motors without a lead, use part numbers: 1.5 hp / 1.1 kW (2345041903S) and 3.0 hp / 2.2 kW (2343062504)

FHOTON™ SOLARPAK (1/2–1.5 HP, 0.37–1.1 KW)

The Photon™ SolarPAK is the system solution to your solar pumping requirements. By utilizing quality components, innovative thinking based on global market inputs, and a technical expertise in groundwater pumping, Franklin Electric has developed a rugged system which tackles the challenges of harsh and remote environments. No other system delivers the features, benefits, and reliability in just one package!

FEATURES

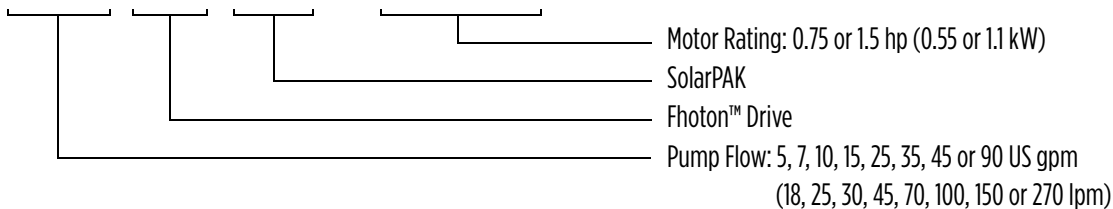
- High-flow system for faster tank-fill and significant water output
- Proven motor and pump technology for long-term reliability
- Robust IP66, NEMA 4 enclosure minimizes impact from wildlife, insects, dust, and weather
- Operating status and fault conditions indicated by multi-color LED
- Terminals provided for an optional data communications board
- Maximum Power Point Tracking (MPPT) for maximizing efficiency of input power
- Soft-start feature prevents water hammer and increases system life
- Simple installation with no required maintenance
- Built-in diagnostics and protection
- cULus and UL approved

SOLARPAK CONTENTS

- Franklin Electric 4" submersible motor
 - Motor and drive ratings available: 0.5, 0.75 or 1.5 hp (0.38, 0.55 or 1.1 kW)
- Franklin Electric 4" submersible pump
 - Variety of flow rates available: 5, 7, 10, 15, 25, 35, 45 or 90 US gpm (18, 25, 30, 45, 70, 100, 150 or 270 lpm)
- Photon™ solar controller
- Flow switch with 30 ft (10 m) cable

SOLARPAK NOMENCLATURE

XXX FD SP - X.XHP



FHOTON™ SOLARPAK

By utilizing a minimum number of solar panels to generate substantial water pressure, the Photon™ HR SolarPAK delivers a solution for applications with flexible volume requirements.

FEATURES

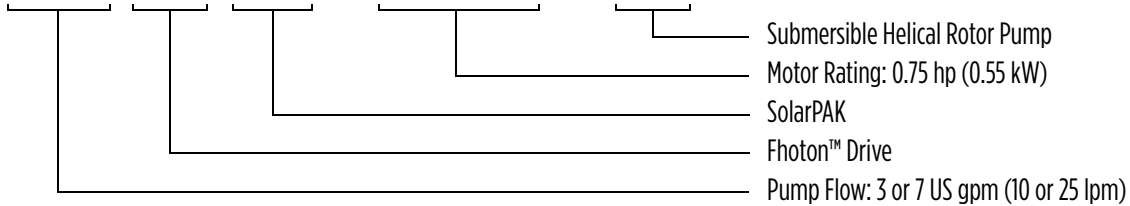
- Four-inch NEMA standard construction dimensions
- Flex-shaft that allows for minimal radial wear to the motor
- Proprietary software provides increased dry-run and low-flow protection without the need for external devices
- Legendary four-inch Franklin Electric motor
- Built-in waffer style check valve
- Pump upthrust washer serves as additional shaft protection from excessive wear in the event of reversed rotation
- Serviceability by pump and motor detaching when needed
- Greater flexibility in performance with wider range of input voltages (up to 300 V DC)
- Unique Photon™ drive algorithm provides increased starting torque levels to maximize the available sun power
- cULus and UL approved silicon grease provided for added motor spline protection

HR SOLARPAK CONTENTS

- Photon™ solar controller: 0.75 hp (0.55 kW)
- Franklin Electric 4" submersible motor: 0.75 hp (0.55 kW)
- Franklin Electric 4" submersible helical rotor pump: 3 or 7 US gpm (10 or 25 lpm)

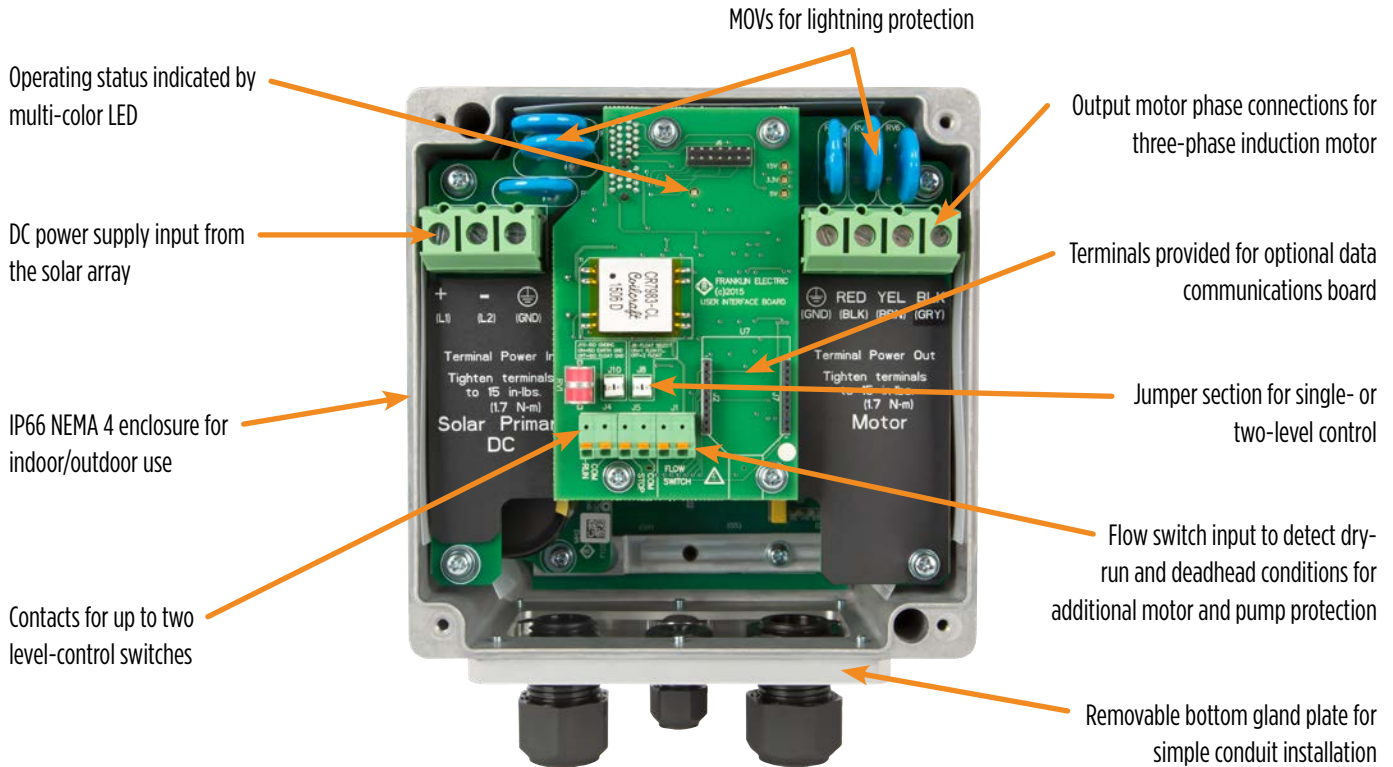
HR SOLARPAK NOMENCLATURE

XXX FD SP - X.XHP - HR



PHOTON™ SOLARPAK

COMPONENTS



APPLICATIONS

The Photon™ drive supports submersible pumping applications:

- Livestock watering
- Tank/Cistern filling
- Wildlife refuge and game farms
- Rural water supply for villages and homesteads
- Irrigation systems
- Fountains
- Vineyards
- Renewable energy projects
- Effluent pumping
- Rain harvesting

BUILT-IN DIAGNOSTICS & PROTECTION

The Photon™ SolarPAK includes diagnostic features and built-in protection from potential harmful conditions, including:

- | | |
|---------------------|-------------------------|
| ■ Surge | ■ Short circuit |
| ■ Underload/Dry run | ■ Overheated controller |
| ■ Overvoltage | ■ Reverse polarity |
| ■ Locked pump | ■ Deadhead |
| ■ Open circuit | |



PHOTON™ SOLARPAK - ORDERING INFORMATION

SOLARPAK MODEL NUMBERS (NPT)

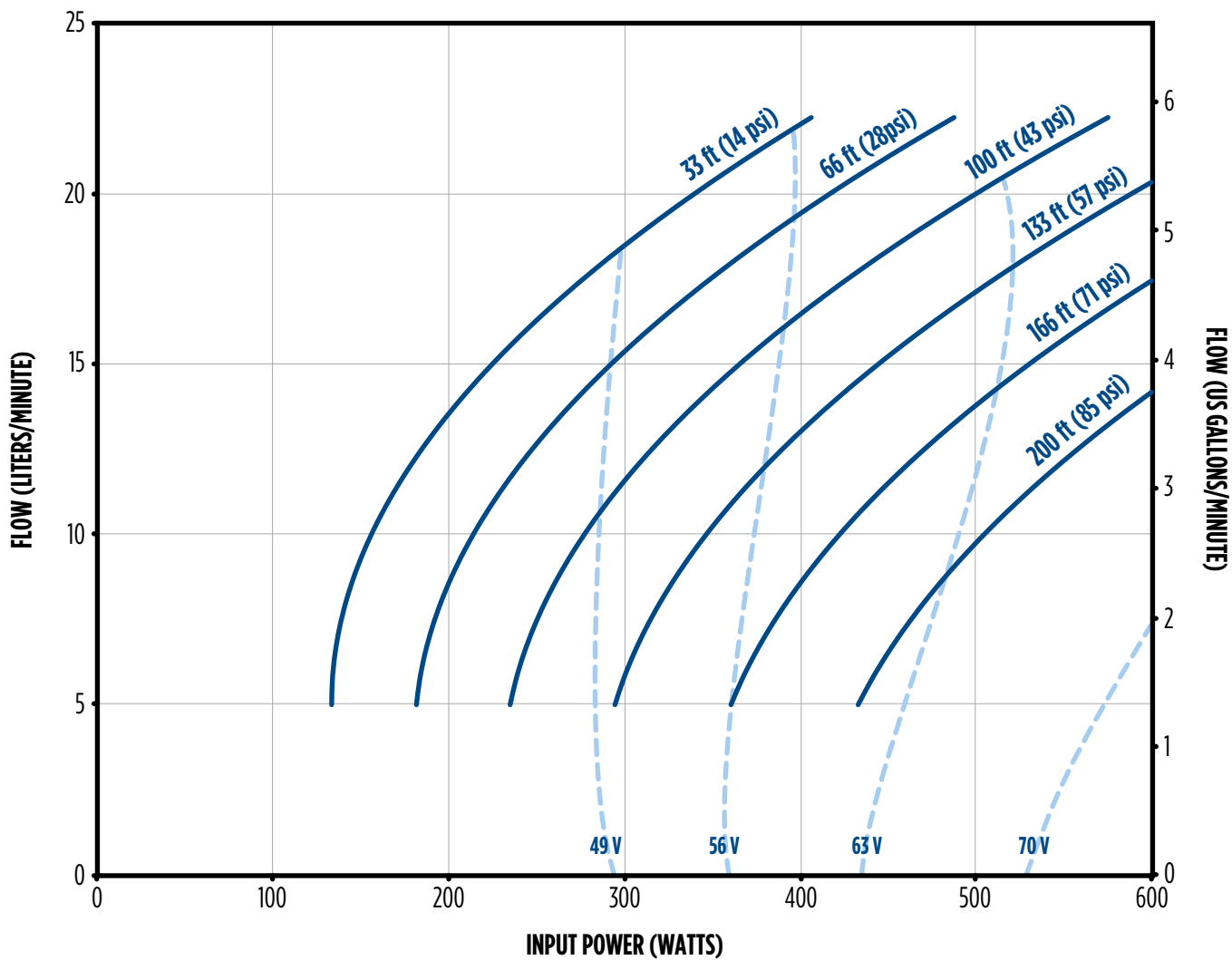
SolarPAK		Photon Solar Controller		Solar Pump (NPT)				Motor		Flow Switch (NPT)	
Model	Order No.	Model	Part No.	US GPM	Stages	Solar Pump	Part No.	HP	Part No.	Model	Part No.
3FDSP-0.75HP-HR	90140314	FD Solar 0.55 kW N4	581013000864-SPIP000	3	-	03SL07S4-HR	830012504	0.75	2349029204GS	-	-
7FDSP-0.75HP-HR	90140714	FD Solar 0.55 kW N4	581013000864-SPIP001	7	-	07SL07S4-HR	830012502	0.75	2349029204GS	-	-
5FDSP-0.5HP	90040504	FD Solar 0.37 kW N4	581011000984-SP050HP	5	13	5FR05S4-PE	96320500	0.5	2349049204GS	C25	226014102
7FDSP-0.5HP	90040704	FD Solar 0.37 kW N4	581011000984-SP050HP	7	10	7FR05S4-PE	96320700	0.5	2349049204GS	C25	226014102
15FDSP-0.5HP	90041504	FD Solar 0.37 kW N4	581011000984-SP050HP	15	4	15FA05S4-PE	93821505	0.5	2349049204GS	C25	226014102
20FDSP-0.5HP	90042004	FD Solar 0.37 kW N4	581011000984-SP050HP	20	5	20FA05S4-PE	93822005	0.5	2349049204GS	C25	226014102
5FDSP-0.75HP	90040514	FD Solar 0.55 kW N4	581013000864-SP075HP	5	18	5SL07S4-PE	90020503	0.75	2349029204S	C25	226014102
7FDSP-0.75HP	90040714	FD Solar 0.55 kW N4	581013000864-SP075HP	7	13	7SL07S4-PE	90020703	0.75	2349029204S	C25	226014102
10FDSP-0.75HP	90041014	FD Solar 0.55 kW N4	581013000864-SP075HP	10	8	10SL07S4-PE	90021003	0.75	2349029204S	C25	226014102
15FDSP-0.75HP	90041514	FD Solar 0.55 kW N4	581013000864-SP075HP	15	6	15SL07S4-PE	90021503	0.75	2349029204S	C25	226014102
5FDSP-1.5HP	90040524	FD Solar 1.1 kW N4	581014200864-SP150HP	5	30	5SL15S4-PE	90020507	1.5	2345049203S	C25	226014102
7FDSP-1.5HP	90040724	FD Solar 1.1 kW N4	581014200864-SP150HP	7	30	7SL2S4-PE	90020710	1.5	2345049203GS	C25	226014102
10FDSP-1.5HP	90041024	FD Solar 1.1 kW N4	581014200864-SP150HP	10	18	10SL2S4-PE	90021010	1.5	2345049203S	C25	226014102
15FDSP-1.5HP	90041524	FD Solar 1.1 kW N4	581014200864-SP150HP	15	15	15SL2S4-PE	90021510	1.5	2345049203S	C25	226014102
25FDSP-1.5HP	90042524	FD Solar 1.1 kW N4	581014200864-SP150HP	25	10	25SL2S4-PE	90022510	1.5	2345049203S	F21	226019102
35FDSP-1.5HP	90033524*	FD Solar 1.1 kW N4	581014200864-SP150HP	35	10	35SL2S4-PE	90023510	1.5	2345049203S	F21	226019102
45FDSP-1.5HP	90034524*	FD Solar 1.1 kW N4	581014200864-SP150HP	45	7	45SL2S4-PE	90024510	1.5	2345049203S	F21	226019102
90FDSP-1.5HP	90039024*	FD Solar 1.1 kW N4	581014200864-SP150HP	90	5	90SL2S4-PE	90029010	1.5	2345049203S	F21	226019102

*High capacity pumps, 35 US gpm (100 lpm) and higher, in a SolarPAK are not supplied with an internal check valve

PHOTON™ SOLARPAK - 0.5 HP (0.37 KW) PERFORMANCE

5FDSP-0.5HP

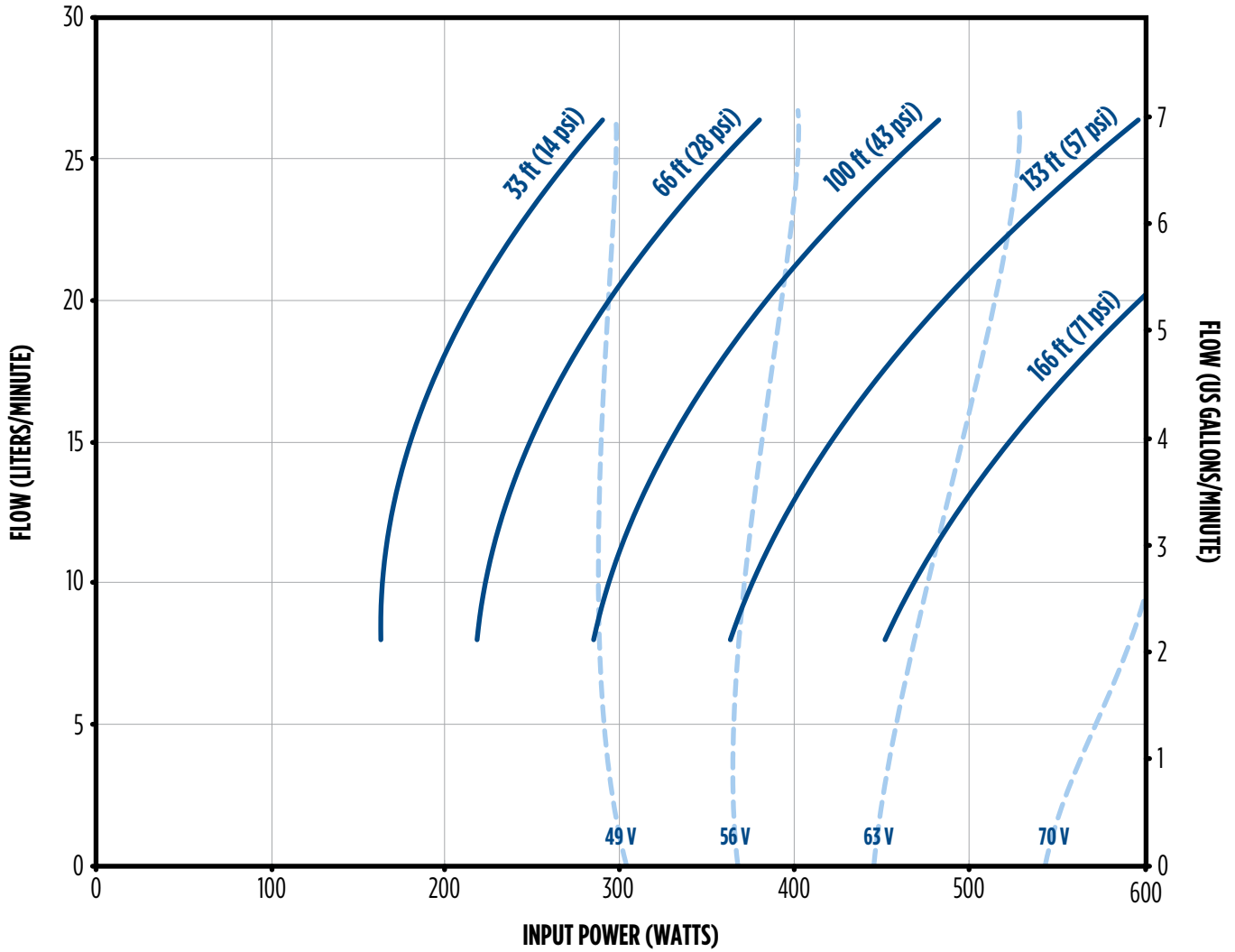
Photon™ Solar 0.5 hp Controller, 3200 Series 5 gpm (18 lpm) 0.5 hp Pump End, 0.5 hp Motor



PHOTON™ SOLARPAK - 0.5 HP (0.37 KW) PERFORMANCE

7FDSP-0.5HP

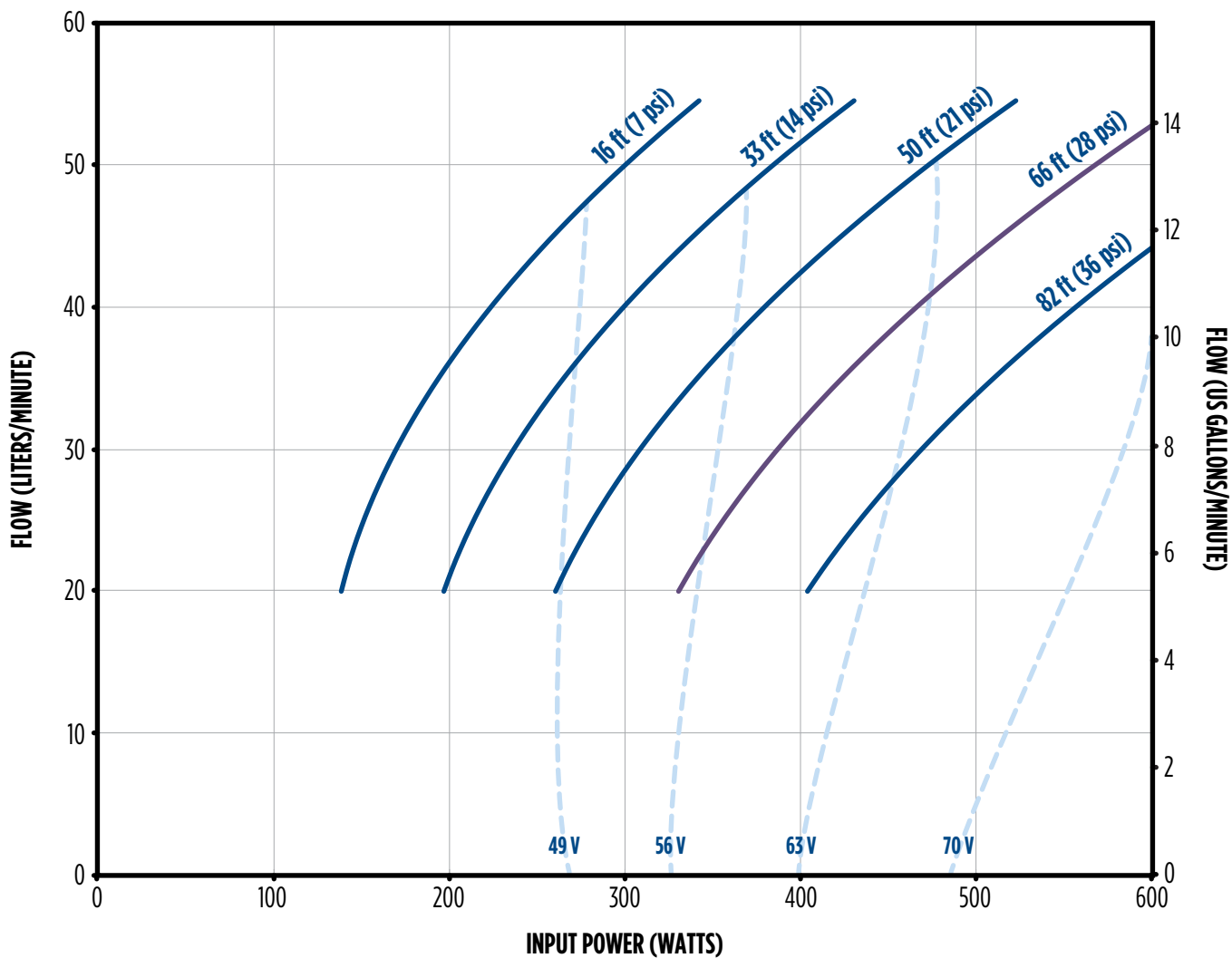
Photon™ Solar 0.5 hp Controller, 3200 Series 7 US gpm (25 lpm) 0.5 hp Pump End, 0.5 hp Motor



PHOTON™ SOLARPAK - 0.5 HP (0.37 KW) PERFORMANCE

15FDSP-0.5HP

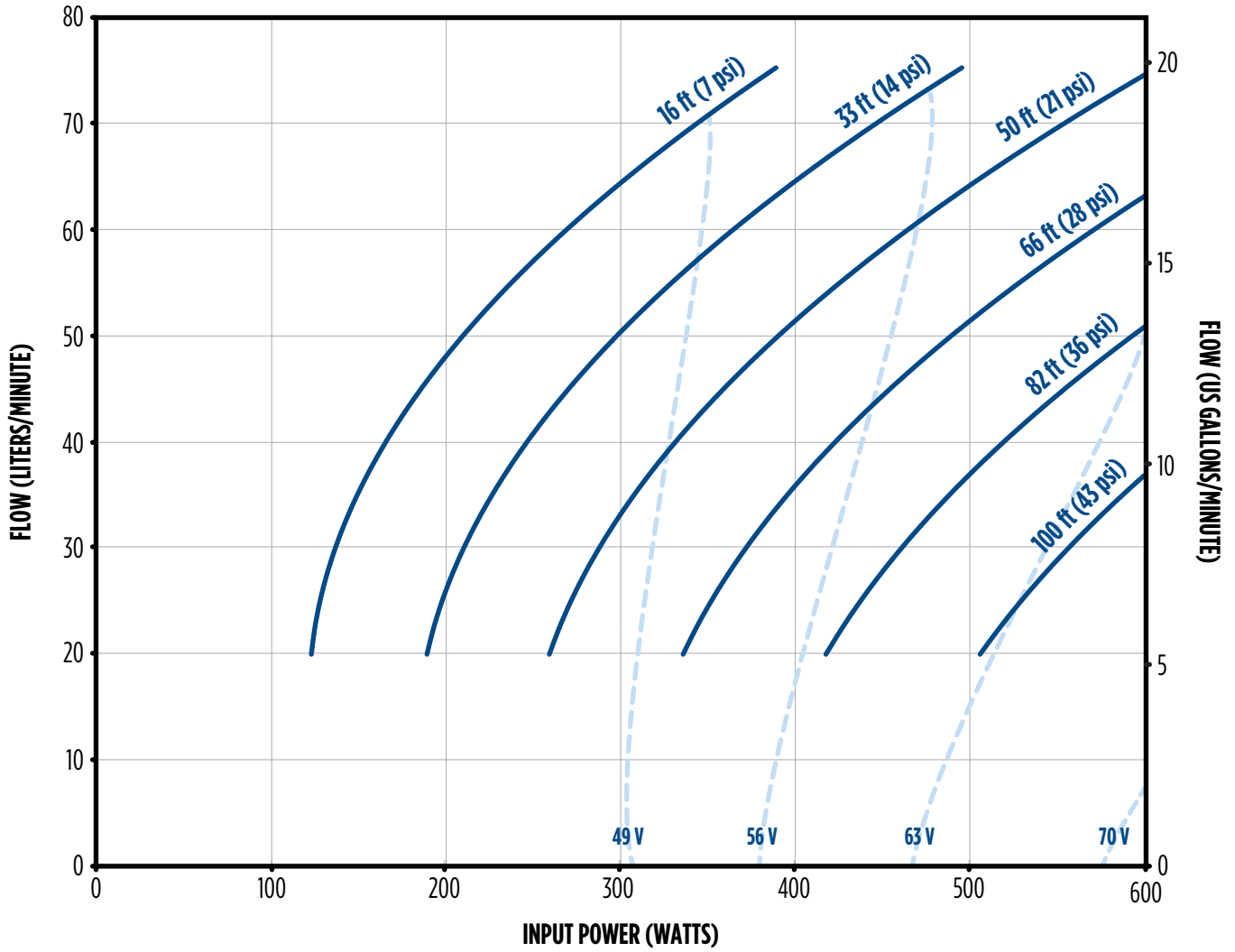
Photon™ Solar 0.5 hp Controller, Tri-Seal 15 gpm (45 lpm) 0.5 hp Pump End, 0.5 hp Motor



PHOTON™ SOLARPAK - 0.5 HP (0.37 KW) PERFORMANCE

20FDSP-0.5HP

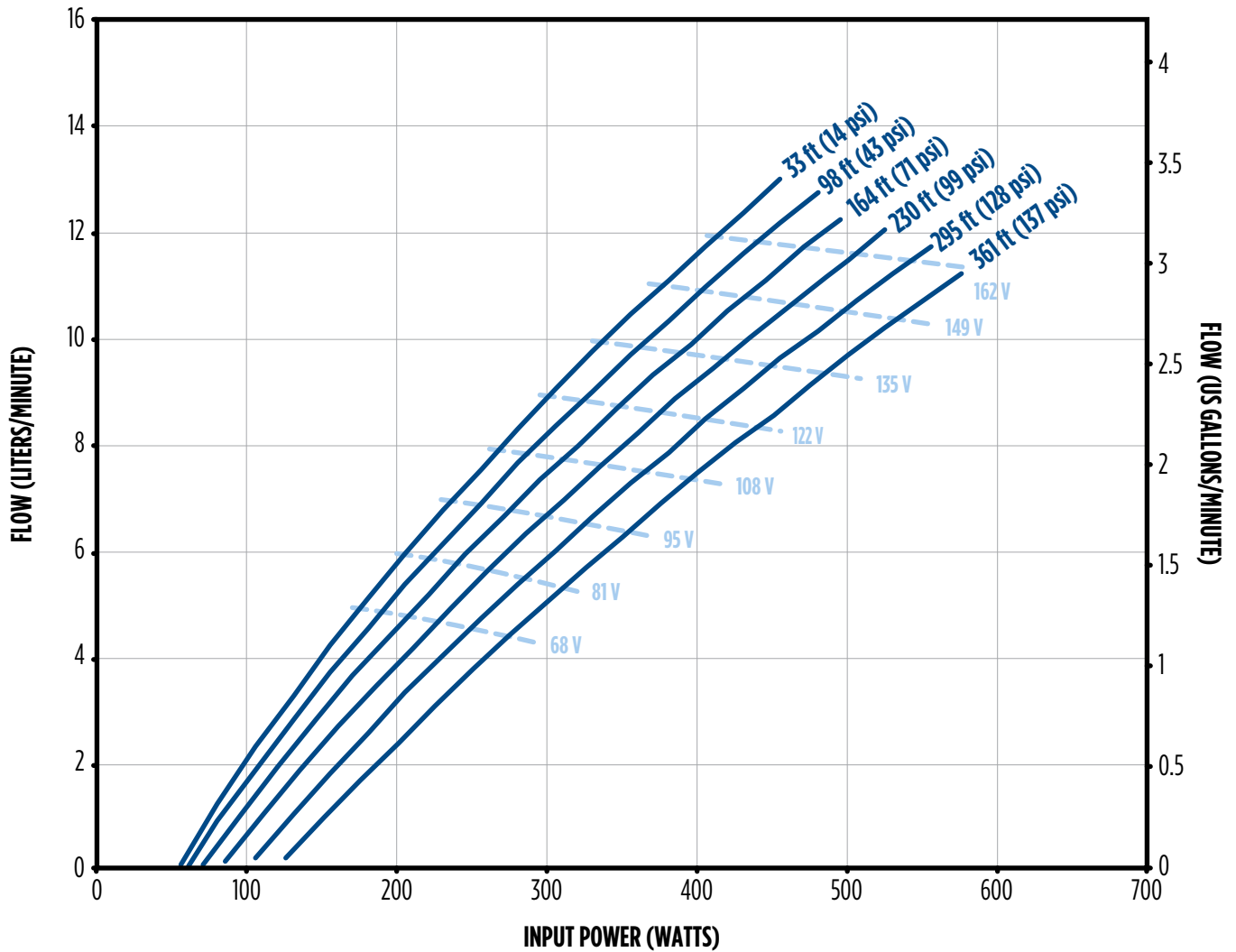
Photon™ Solar 0.5 hp Controller, Tri-Seal 20 US gpm (60 lpm) 0.5 hp Pump End, 0.5 hp Motor



PHOTON™ SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

3FDSP-0.75HP-HR

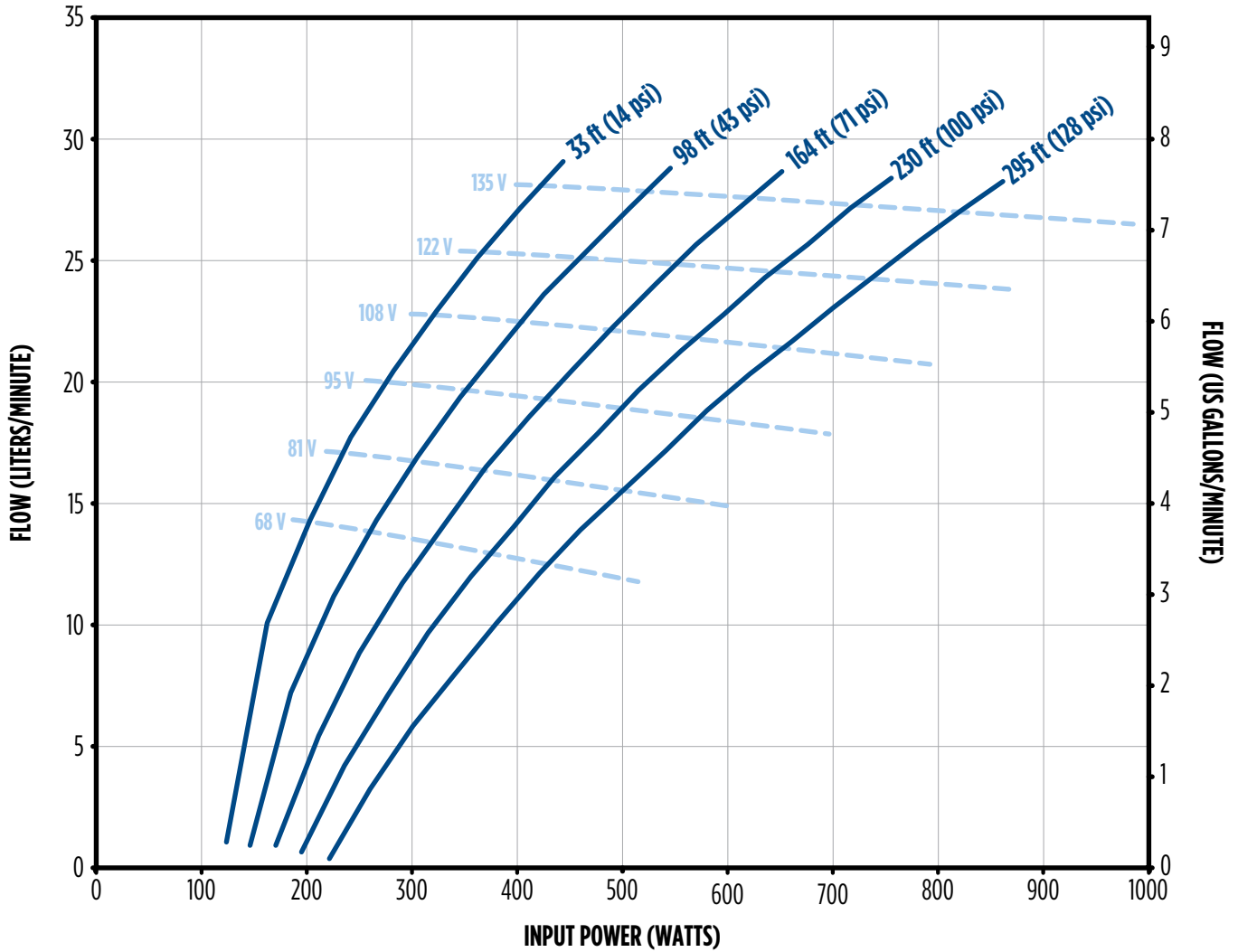
Photon™ Solar 0.75 hp Controller, Helical Rotor 3 gpm (10 lpm) 0.75 hp Pump End, 0.75 hp Motor



PHOTON™ SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

7FDSP-0.75HP-HR

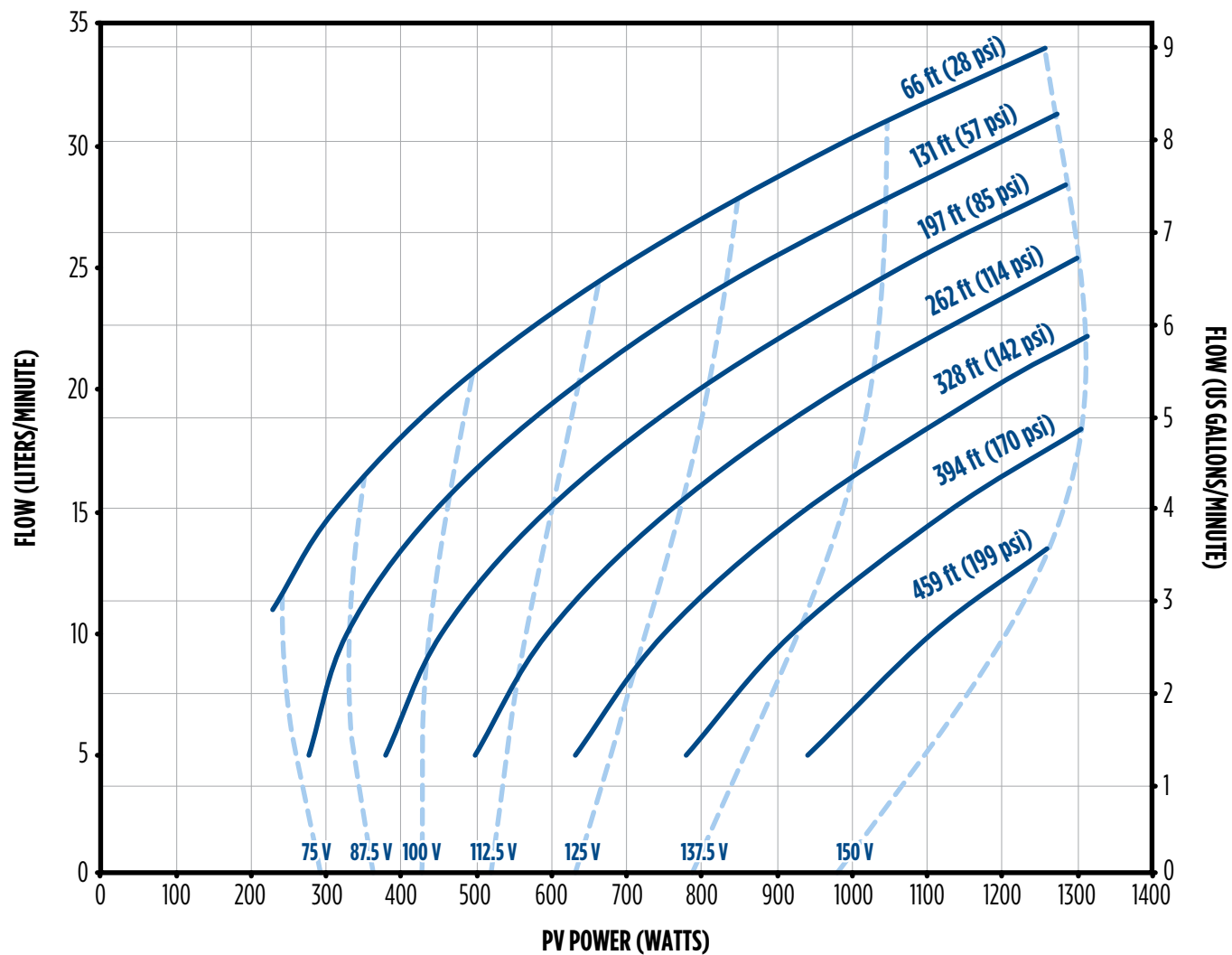
Photon™ Solar 0.75 hp Controller, Helical Rotor 7 US gpm (25 lpm) 0.75 hp Pump End, 0.75 hp Motor



PHOTON™ SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

5FDSP-0.75HP

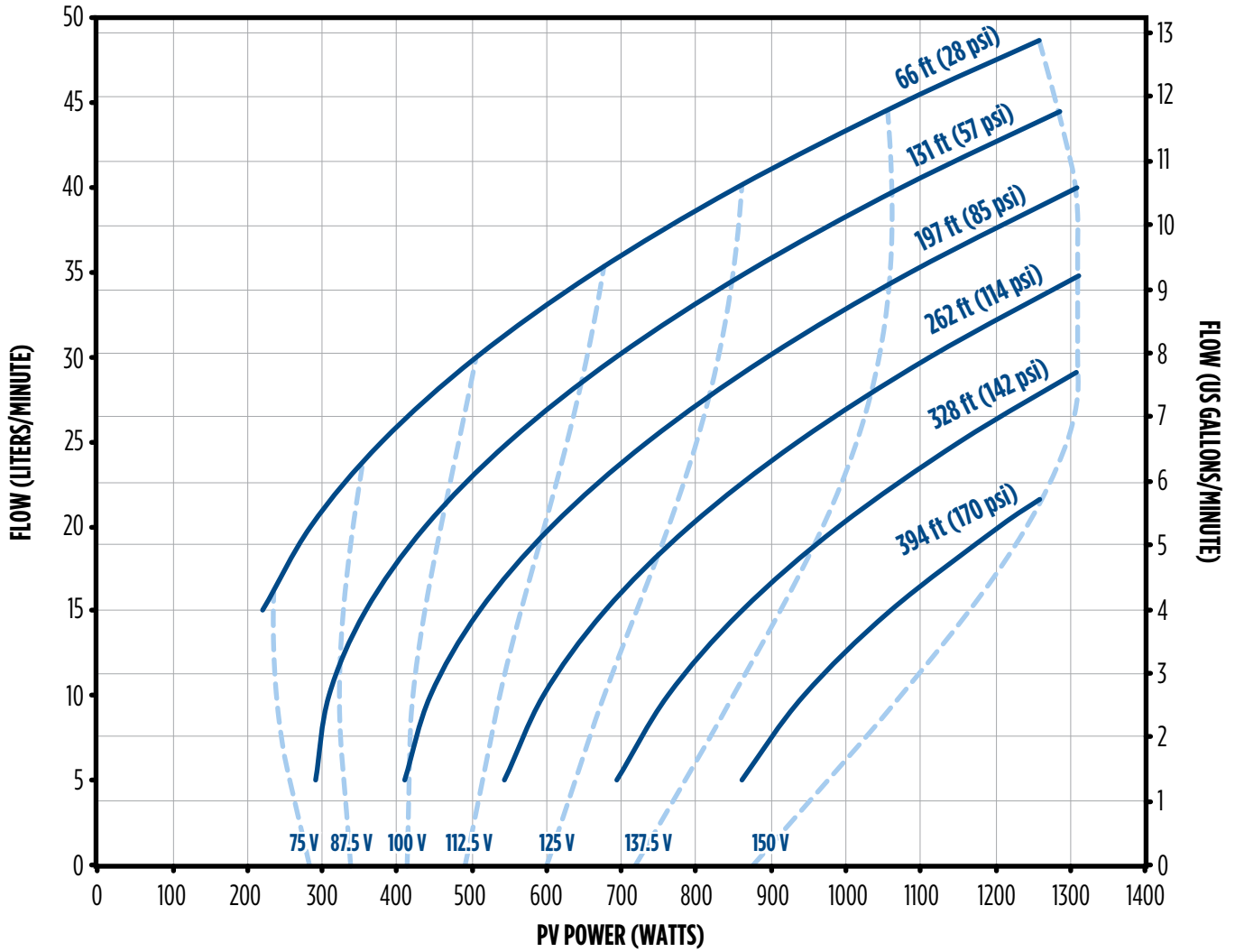
Photon™ Solar 0.75 hp Controller, 5 US gpm (18 lpm) 0.75 hp Pump End, 0.75 hp Motor



PHOTON™ SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

7FDSP-0.75HP

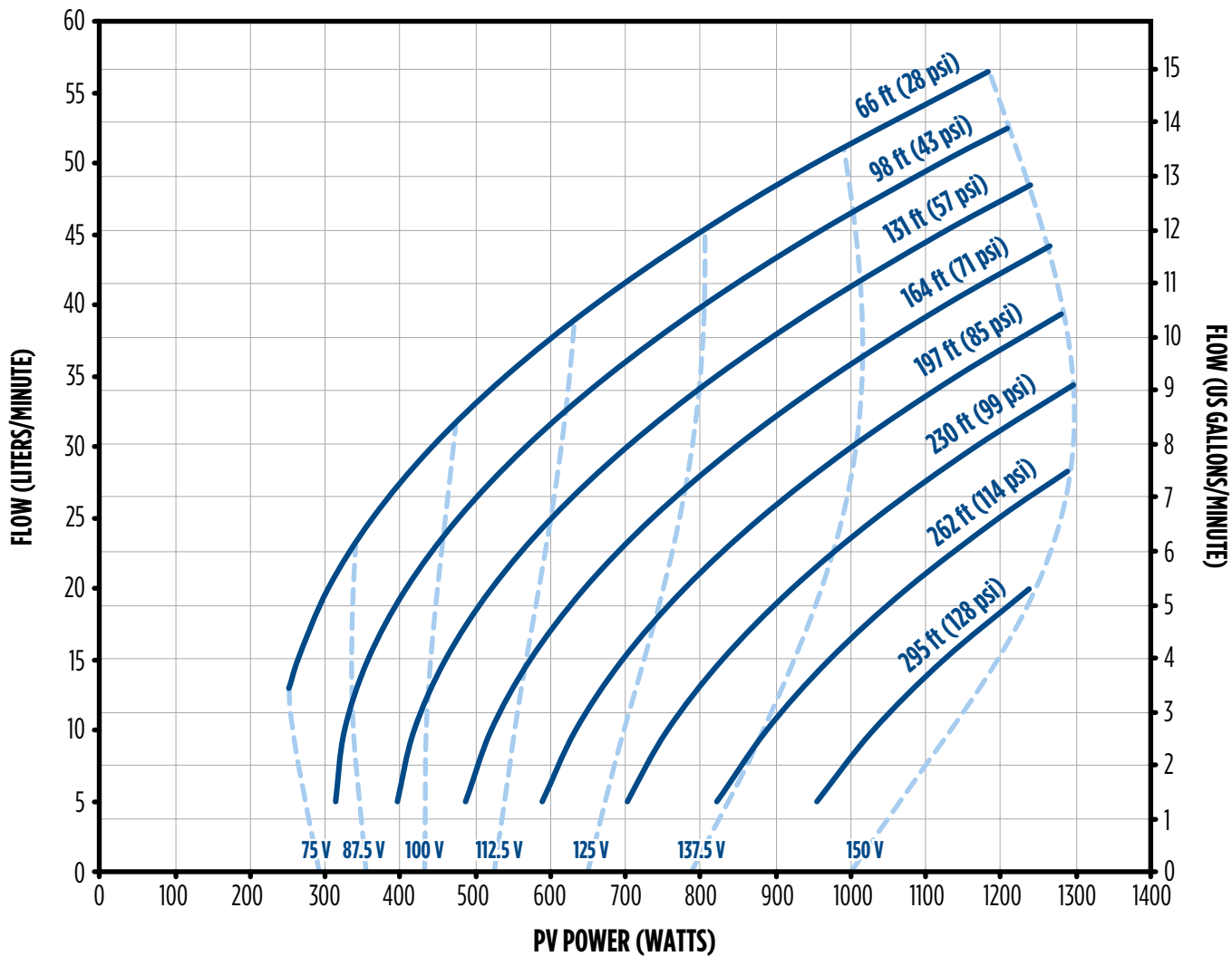
Photon™ Solar 0.75 hp Controller, 7 US gpm (25 lpm) 0.75 hp Pump End, 0.75 hp Motor



PHOTON™ SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

10FDSP-0.75HP

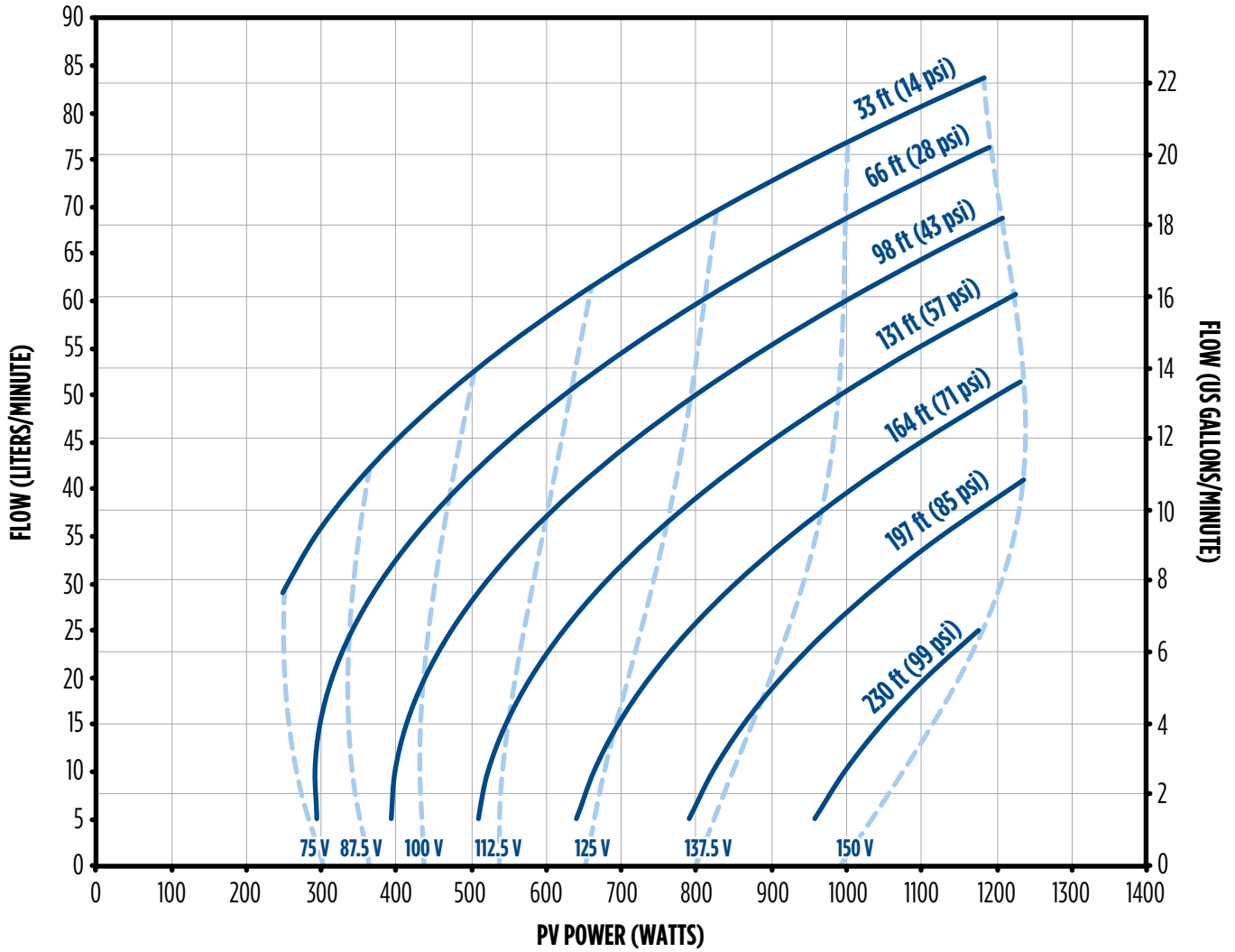
Photon™ Solar 0.75 hp Controller, 10 US gpm (30 lpm) 0.75 hp Pump End, 0.75 hp Motor



PHOTON™ SOLARPAK - 0.75 HP (0.55 KW) PERFORMANCE

15FDSP-0.75HP

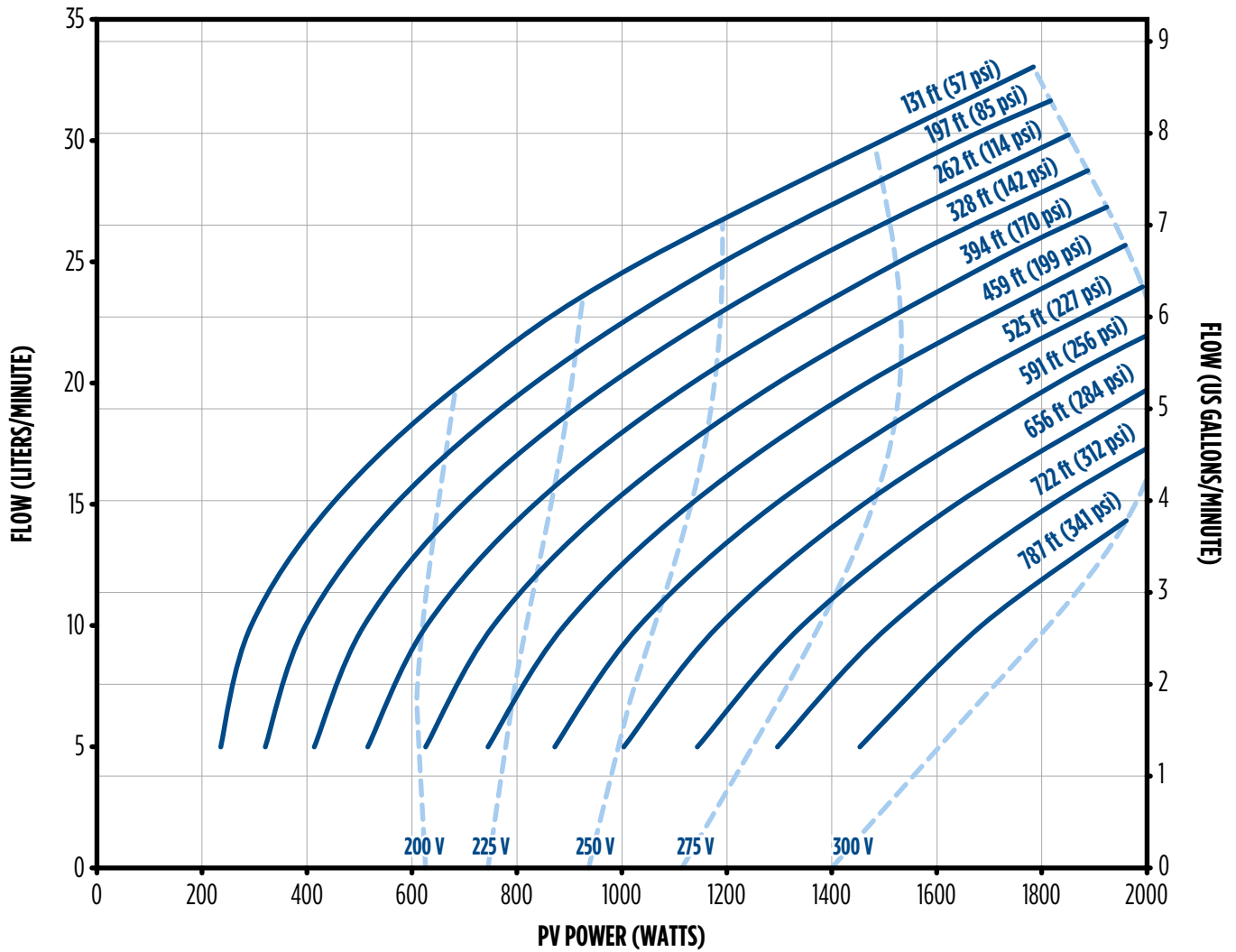
Photon™ Solar 0.75 hp Controller, 15 US gpm (45 lpm) 0.75 hp Pump End, 0.75 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

5FDSP-1.5HP

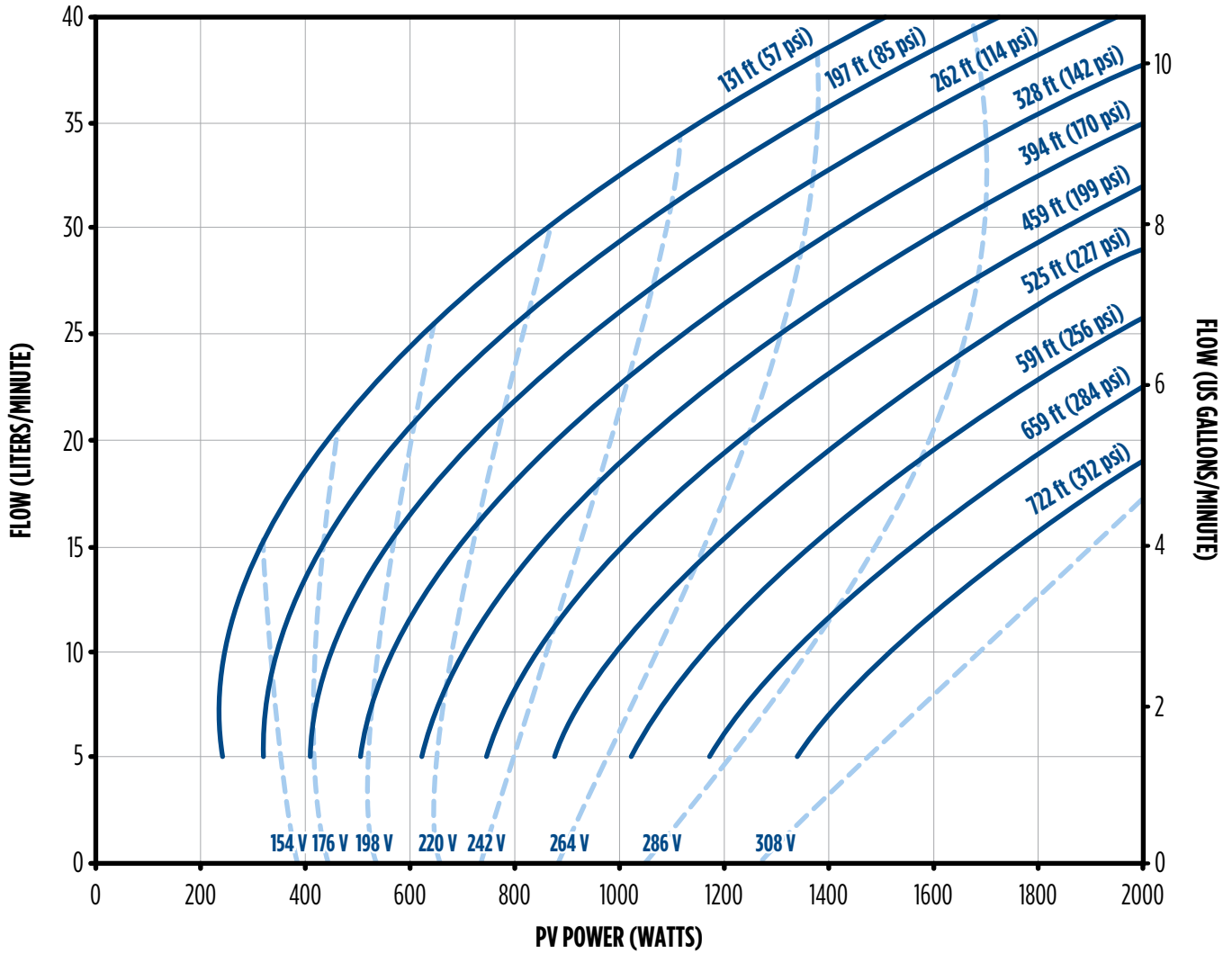
Photon™ Solar 1.5 hp Controller, 5 US gpm (18 lpm) 1.5 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

7FDSP-1.5HP

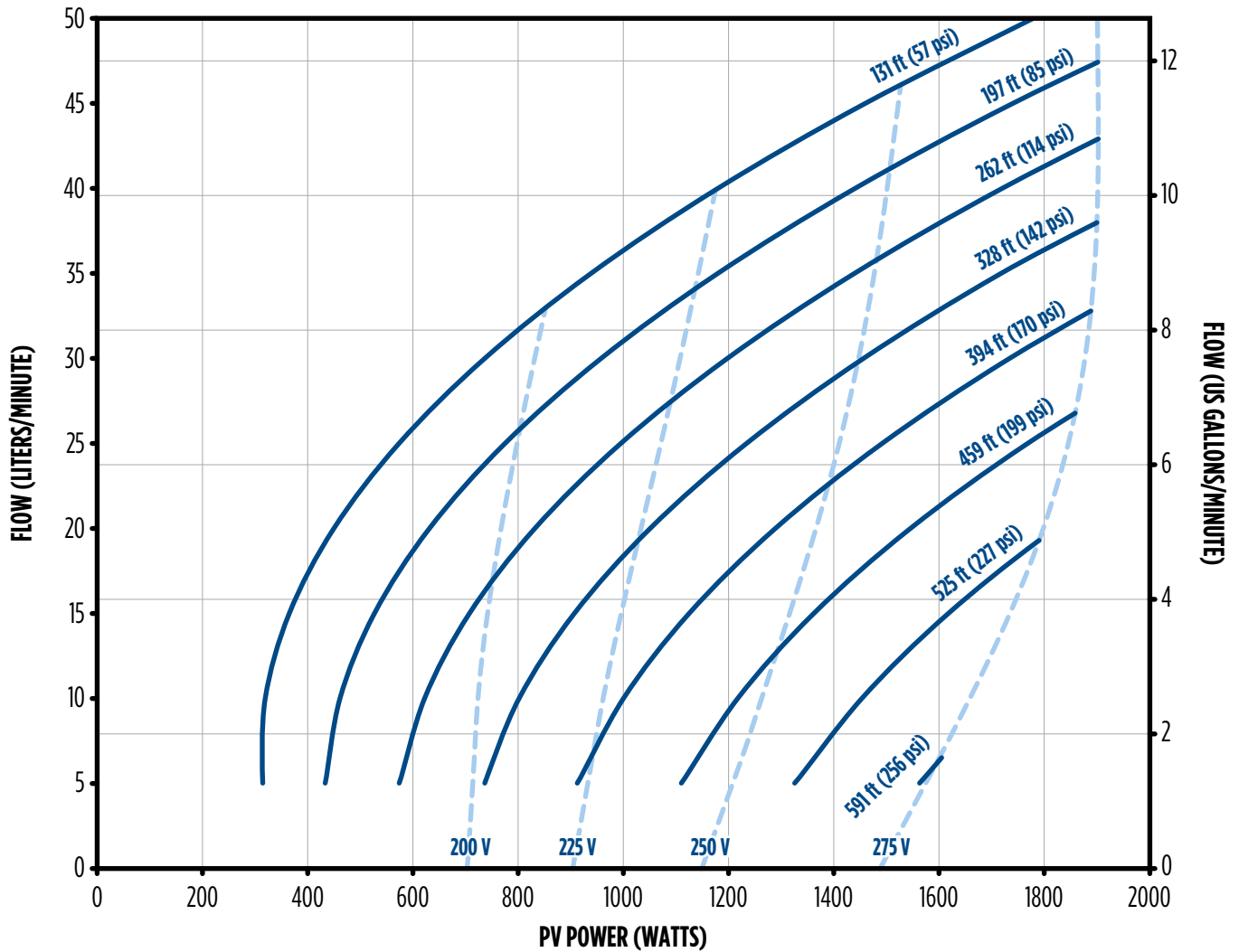
Photon™ Solar 1.5 hp Controller, 7 US gpm (25 lpm) 2.0 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

10FDSP-1.5HP

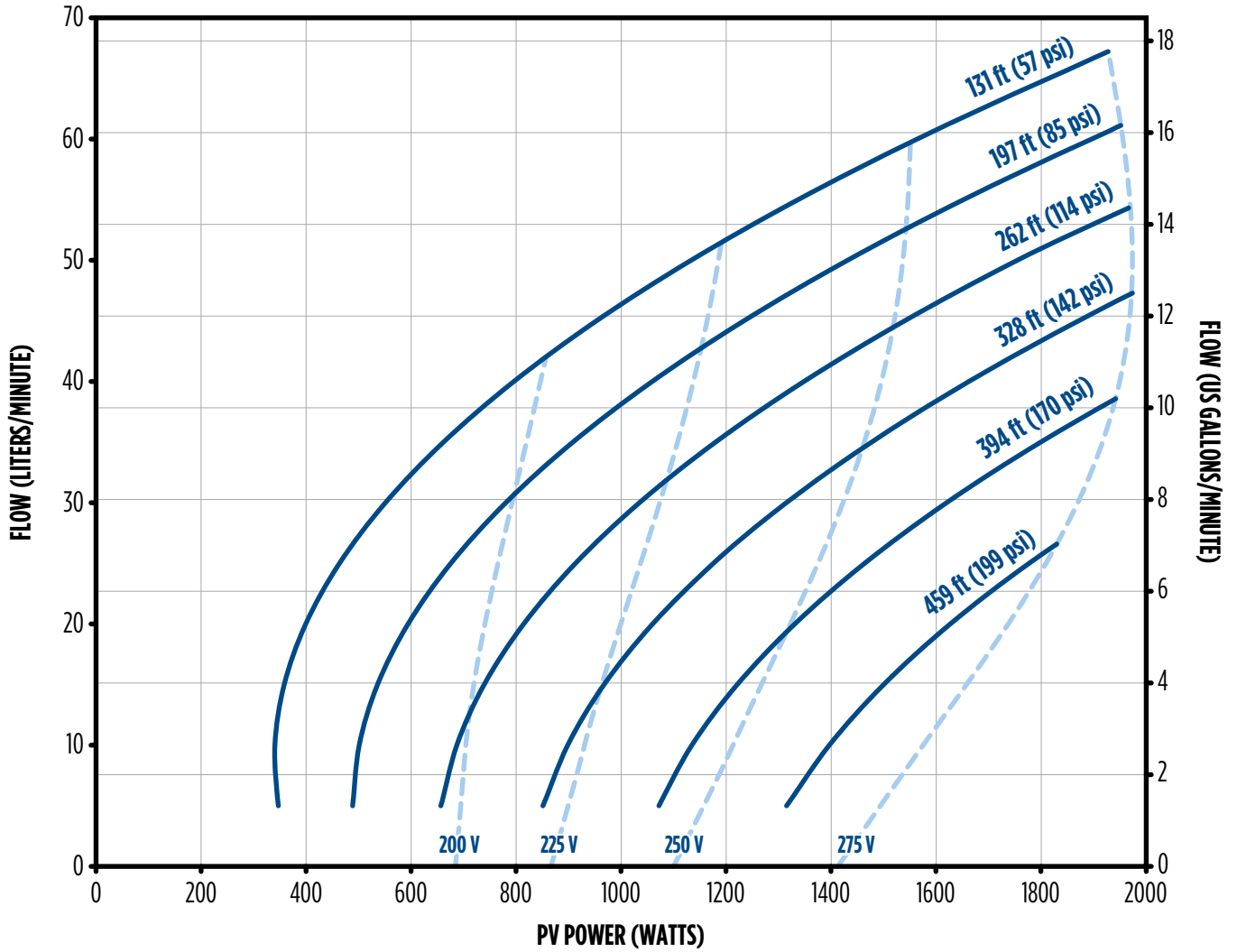
Photon™ Solar 1.5 hp Controller, 10 US gpm (30 lpm) 2.0 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

15FDSP-1.5HP

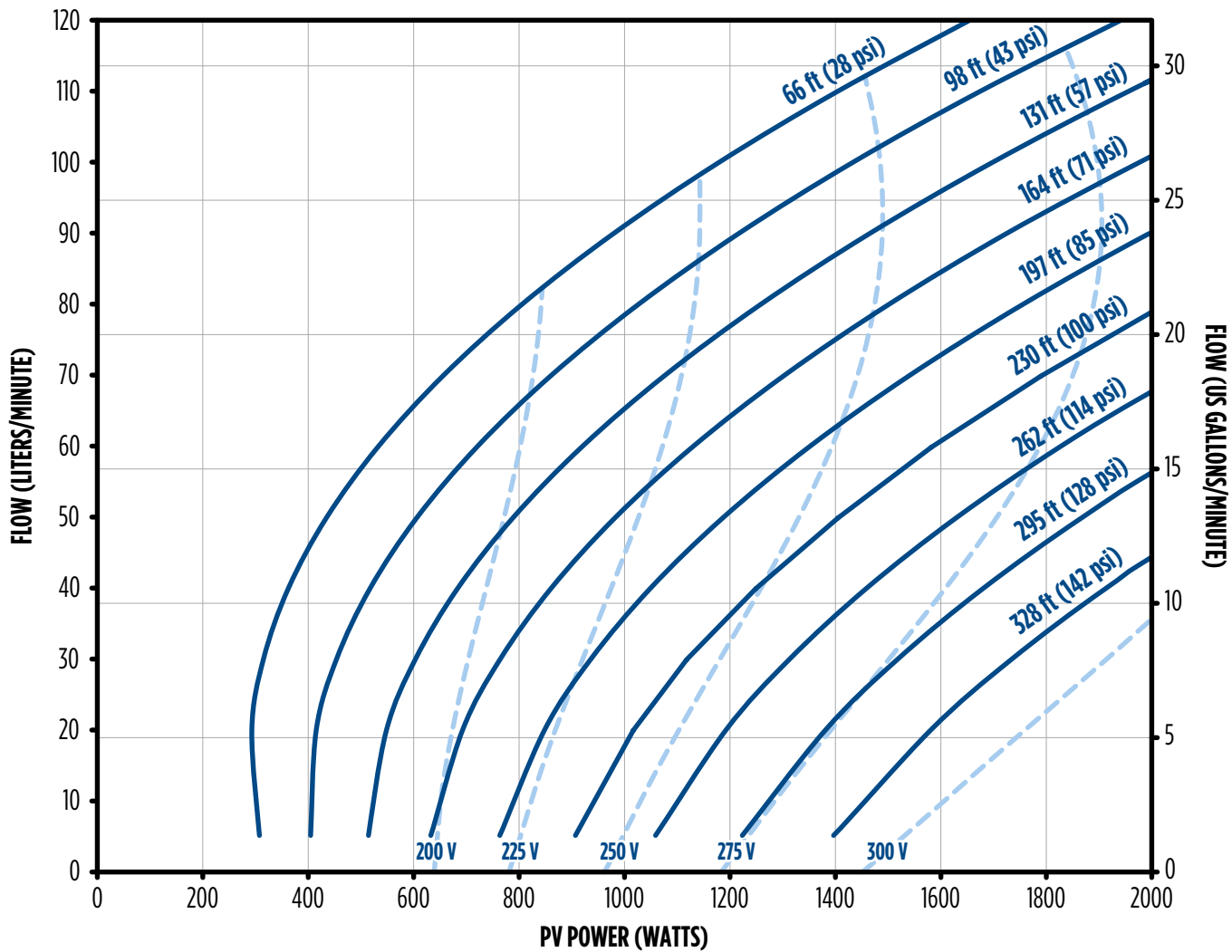
Photon™ Solar 1.5 hp Controller, 15 US gpm (45 lpm) 2.0 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

25FDSP-1.5HP

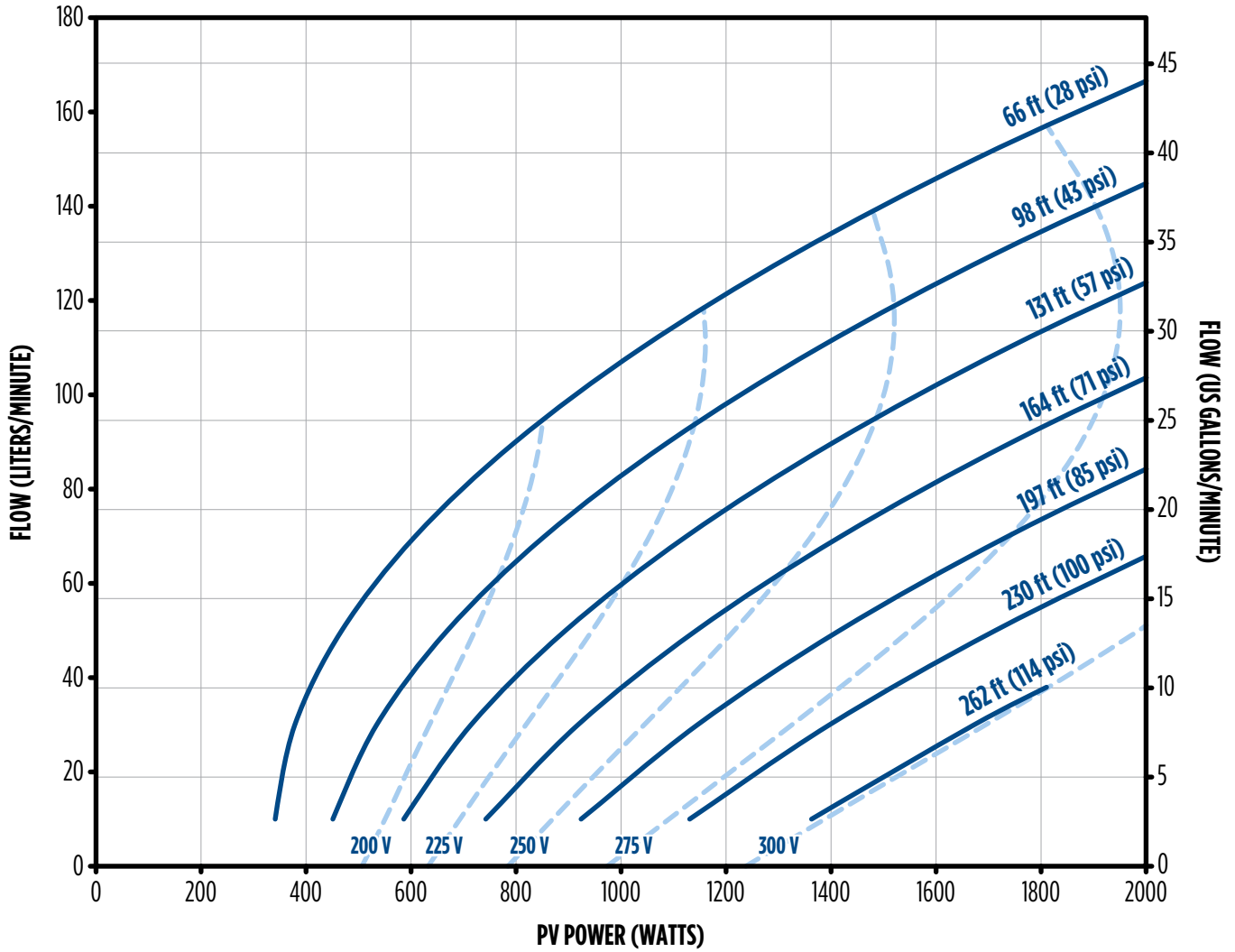
Photon™ Solar 1.5 hp Controller, 25 US gpm (70 lpm) 2.0 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

35FDSP-1.5HP

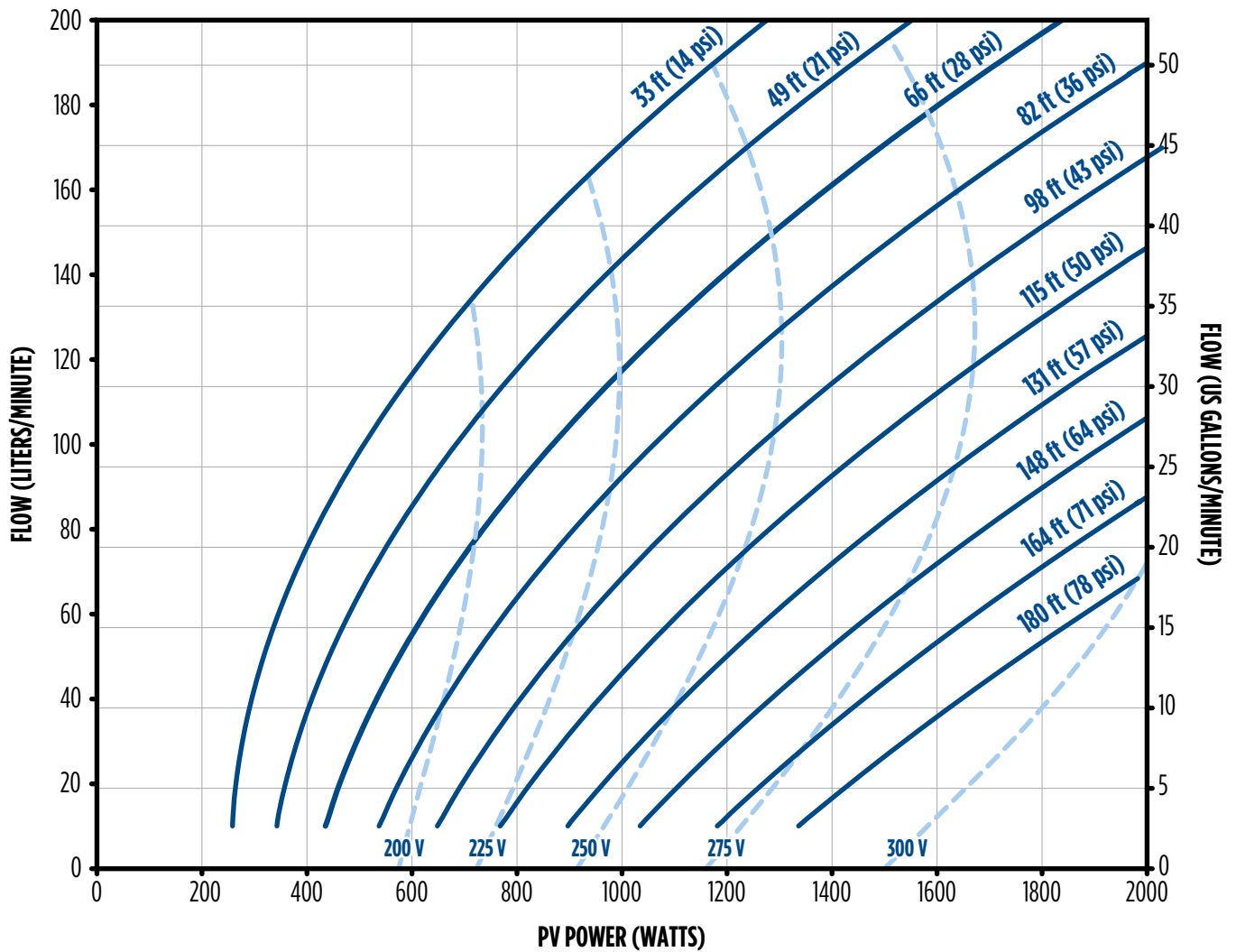
Photon™ Solar 1.5 hp Controller, 35 US gpm (100 lpm) 2.0 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

45FDSP-1.5HP

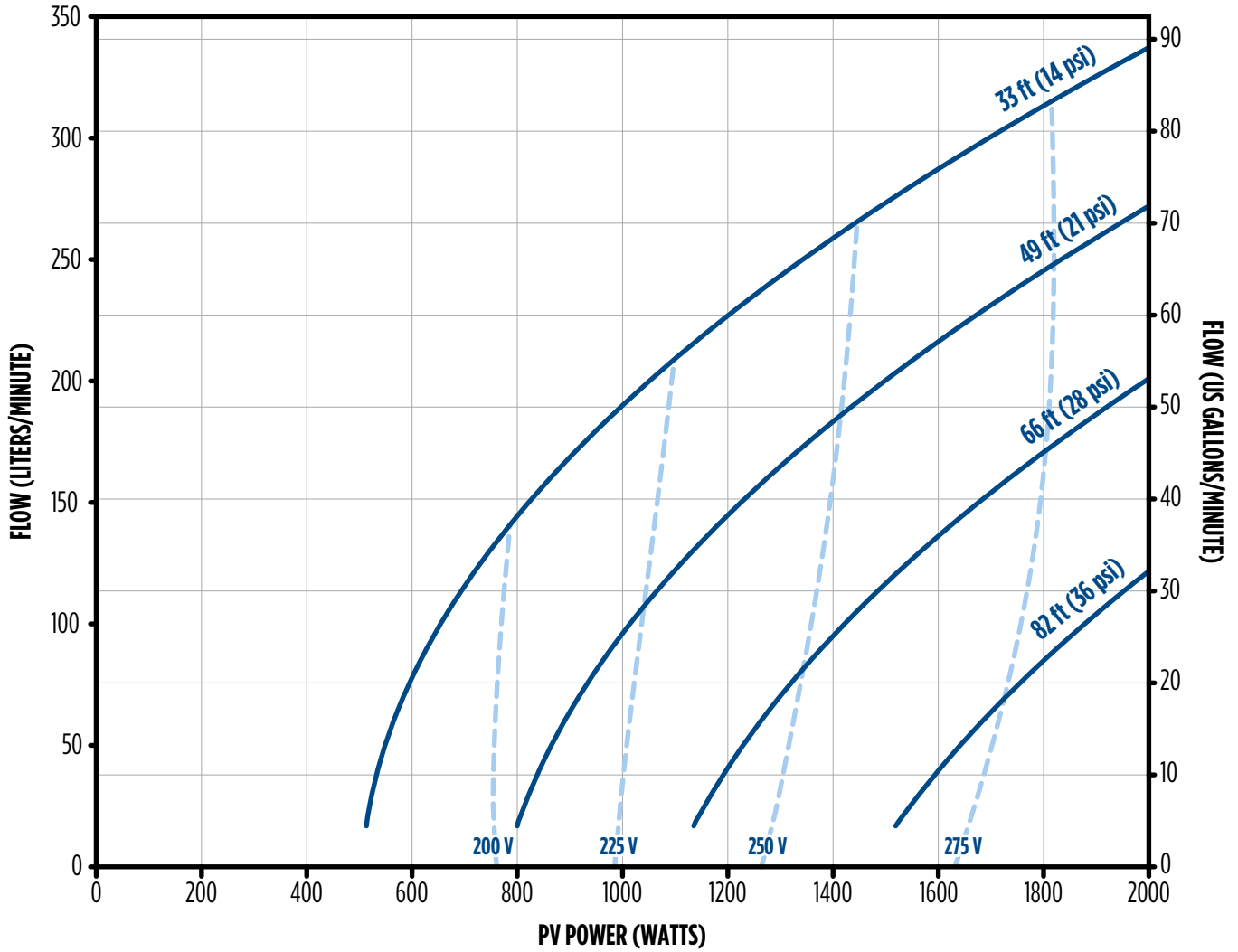
Photon™ Solar 1.5 hp Controller, 45 US gpm (150 lpm) 2.0 hp Pump End, 1.5 hp Motor



PHOTON™ SOLARPAK - 1.5 HP (1.1 KW) PERFORMANCE

90FDSP-1.5HP

Photon™ Solar 1.5 hp Controller, 90 US gpm (270 lpm) 2.0 hp Pump End, 1.5 hp Motor



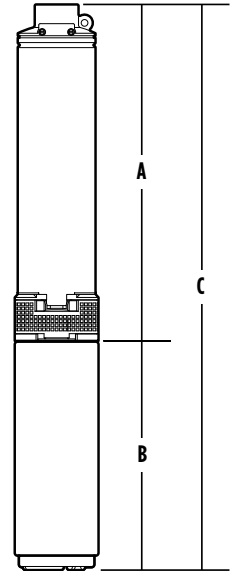
PHOTON™ SOLARPAK - DIMENSIONS

SOLAR PMA DIMENSIONS

US GPM	LPM	HP	kW	Stages	A		B		C		Discharge		PE Weight		PMA Weight	
					in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
3*	10	0.75	0.55	-	24.81	630	10.64	270	35.45	900	11/4	32	10	4.5	31	14.1
7*	25	0.75	0.55	-	24.81	630	10.64	270	35.45	900	11/4	32	12	5.5	33	15.0
5	18	0.75	0.55	18	22.6	574	10.6	270	33.2	844	11/4	32	12	5	33	15
7	25	0.75	0.55	13	18.4	467	10.6	270	29.0	737	11/4	32	11	5	32	15
10	30	0.75	0.55	8	14.7	373	10.6	270	25.3	643	11/4	32	8	4	29	13
15	45	0.75	0.55	6	13.0	329	10.6	270	23.6	599	11/4	32	7	3	28	13
5	18	1.5	1.1	30	34.1	866	11.7	298	45.8	1164	11/4	32	19	9	48	22
7	25	1.5	1.1	30	34.1	866	11.7	298	45.8	1164	11/4	32	20	9.1	49	22.3
10	30	1.5	1.1	18	25.3	642	11.7	298	37.0	940	11/4	32	16	7	45	20
15	45	1.5	1.1	15	20.5	521	11.7	298	32.2	819	11/4	32	15	7	44	20
25	70	1.5	1.1	10	19.2	488	11.7	298	30.9	786	11/4	32	10	5	39	18
35	100	1.5	1.1	10	20	508	11.7	298	31.7	806	2	51	11	5	40	18
45	150	1.5	1.1	7	23.3	593	11.7	298	35.1	891	2	51	16	7	45	20
90	270	1.5	1.1	5	22.6	575	11.7	298	34.4	873	2	51	15	7	44	20

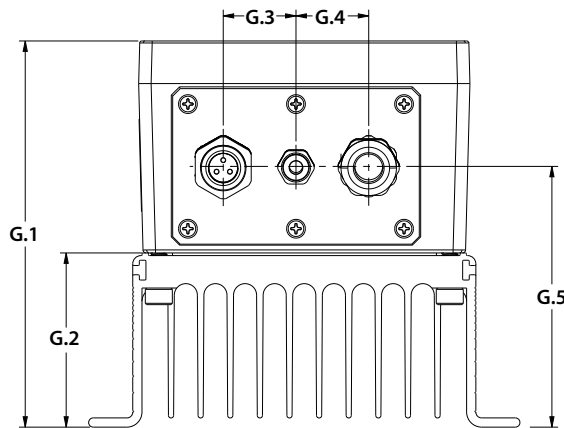
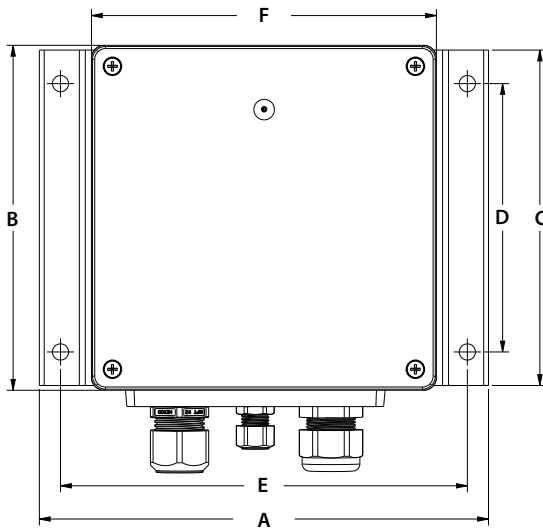
* Photon™ HR Models

NOTE: Maximum diameter across cable guard is 3.90" (99.1 mm) on all models



SOLAR CONTROLLER DIMENSIONS

Dimensions	A	B	C	D	E	F	G1	G2	G3	G4	G5
Inches	8.17	6.28	6.10	4.88	7.40	6.28	7.32	3.30	1.38	1.38	4.94
Millimeters	207.52	159.50	155.00	124.00	188.00	159.50	185.93	83.82	35.00	35.00	125.48



HR SOLAR CONTROLLER DIMENSIONS

Photon™ Solar Controller	For use with pump	Motor rating	Input Voltage	Controller size, in (mm)		
				L	W	D
581013000864-SPIP000	HR 3 gpm 3/4 hp (10 lpm 0.55 kW)	3/4 hp (0.5 kW), 100 V 60 Hz 3 ph	45-300 V DC	6.28 (159.5)	6.28 (159.5)	7.32 (185.93)
581013000864-SPIP001	HR 7 gpm 3/4 hp (25 lpm 0.55 kW)	3/4 hp (0.55 kW), 100 V 60 Hz 3 ph	45-300 V DC	6.28 (159.5)	6.28 (159.5)	7.32 (185.93)

PHOTON™ SOLARPAK - DRIVE SPECIFICATIONS

SOLAR CONTROLLER

	0.5 hp (0.37 kW) Model	0.75 hp (0.55 kW) Model	1.5 hp (1.1 kW) Model		
Controller Model No.	58101100984-SP050HP	581013000864-SP075HP	581014200864-SP150HP		
Output					
Max. Output Voltage	48 V AC, 3-phase	100 V AC, 3-phase	200 V AC, 3-phase		
Max. Amps (RMS)	9.8 A, each phase	8.6 A, each phase	6.8 A, each phase		
Output Frequency	20-60 Hz				
Efficiency at Max Power	98% (Approx.)				
PV Source					
Input Voltage	40* - **110 V DC	*45 - **300 V DC	*115 - **420 V DC		
Max. Amps Input	7.2 A DC, continuous	7.2 A DC, continuous	6.2 A DC, continuous		
Power at MPP	Up to 0.38 kW	Up to 1200 Watts	Up to 2000 Watts		
For Use With					
Franklin Electric Motor	2349049204G	234902----	234504----		
Solar Pumps (NPT)	US GPM	Stages	Model No.	Stages	Model No.
	5	18	90020503	30	90020507
	7	13	90020703	30	90020710
	10	8	90021003	18	90021010
	15	6	90021503	15	90021510
	25	-	-	10	90022510
	35	-	-	10	90023510
	45	-	-	7	90024510
90	-	-	5	90029010	
Controller Size - L x W x D					
in (mm)	6.28 x 6.28 x 7.32 (159.5 x 159.5 x 185.9)				
Controller Weight					
lbs (kg)	10 (4.5)				
Operating Conditions					
Temperature Range	-13 °F to 122 °F / -25 °C to 50 °C				
Relative Humidity Range	0 to 100% Condensing				
Enclosure Rating	NEMA 4				

*Low V DC limit should not be interpreted as an adequate rated PV array output voltage for any installation. See the PV Solar Array Specifications and system sizing program for indication of adequate array voltage to provide useful pumping capability.

** Absolute maximum open circuit voltage input to the controller - 300 VOC for 581013000864-SP075HP and 420 VOC for 581014200864-SP150HP

FHOTON™ SOLARPAK (5–10 HP, 3.7–7.5 kW)

The Photon™ SolarPAK is the system solution to your solar pumping requirements. By utilizing quality components, innovative thinking based on global market inputs, and a technical expertise in groundwater pumping, Franklin Electric has developed a rugged, high-output system that tackles the challenges of harsh and remote environments. No other system delivers the features, benefits, and reliability in just one package!

FEATURES

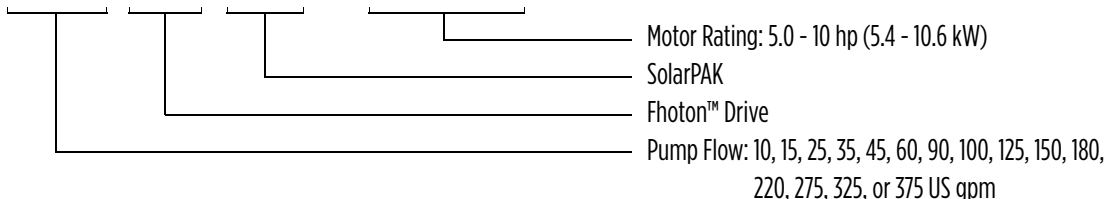
- High-flow system for faster tank-fill and significant water output
- Proven motor and pump technology for long-term reliability
- Patented software provides enhanced dry-run protection
- Robust IP66, NEMA 4 enclosure minimizes impact from wildlife, insects, dust, and weather
- Operating status and fault conditions indicated by multi-color LED
- Increased performance flexibility compatible with a wider range of input voltages (up to 850 VDC)
- Terminals provided for an optional data communications board using the FE Connect App
- Maximum Power Point Tracking (MPPT) for maximizing efficiency of input power
- Soft-start feature prevents water hammer and increases system life
- Simple installation with no required maintenance
- Built-in diagnostics and protection
- cULus and UL approved

SOLARPAK CONTENTS

- Franklin Electric 4" and 6" submersible motors
 - Motor and drive ratings available: 5.0–10 hp (5.4 - 10.6 kW)
- Franklin Electric 4" and 6" submersible pumps
 - Variety of flow rates available: 10, 15, 25, 35, 45, 60, 90, 100, 125, 150, 180, 220, 275, 325, or 375 US gpm
- Photon™ solar controller
- Flow switch with 30 ft (10 m) cable

SOLARPAK NOMENCLATURE

XXX FD SP - X.XHP



PHOTON™ SOLARPAK (5–10 HP, 3.7–7.5 KW)

COMPONENTS

IP56/NEMA 4 enclosure for indoor/outdoor use

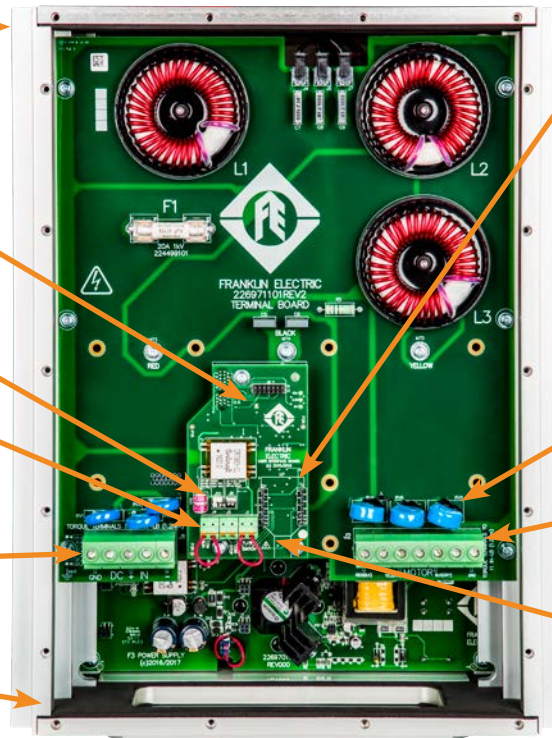
Operating status indicated by multi-color LED

Jumper section for single- or two-level control

Contacts for up to two-level control switches (can also operate from a pressure switch)

DC power supply input from the solar array

Removable bottom gland plate for simple conduit installation



Terminals provided for optional data communications board through use of Photon™ FE Connect App



MOVs for additional lightning protection

Output connections for 230/380 V, 3-phase FE motors allowing for lower voltage needs from solar array

Flow switch input to detect dry-run conditions for additional motor and pump protection

APPLICATIONS

The Photon™ drive supports submersible pumping applications:

- Livestock watering
- Tank/Cistern filling
- Wildlife refuge and game farms
- Rural water supply for villages and homesteads
- Irrigation systems
- Fountains
- Vineyards
- Renewable energy projects
- Effluent pumping
- Rain harvesting

BUILT-IN DIAGNOSTICS & PROTECTION

The Photon™ SolarPAK includes diagnostic features and built-in protection from potential harmful conditions, including:

- Surge
- Underload/Dry run
- Overvoltage
- Locked pump
- Open circuit
- Short circuit
- Overheated controller
- Reverse polarity
- Deadhead



PHOTON™ SOLARPAK - ORDERING INFORMATION

SOLARPAK MODEL NUMBERS (NPT)

SolarPak		Photon™ Solar Controller		Solar Pump (NPT)				Motor			
Model	Order No.	Drive Model	Part. No.	USGPM	Pump Line	Solar Pump	Part No.	HP	Volts	Dia.	Part No.
10FDSP-5HP	90041054	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	10	4" Tri-Seal	10FA554-PE	93821035	5	230	4"	2343178602G
15FDSP-5HP	90041554	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	15	4" Tri-Seal	15FA554-PE	93821535	5	230	4"	2343178602G
25FDSP-5HP	90042554	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	25	4" Tri-Seal	25FA554-PE	93822535	5	230	4"	2343178602G
35FDSP-5HP	90043554	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	35	4" High Cap	35FA554-PE	93613522*	5	230	4"	2343178602G
45FDSP-5HP	90044554	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	45	4" High Cap	45FA554-PE	93614518*	5	230	4"	2343178602G
60FDSP-5HP	90046054	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	60	4" High Cap	60FA554-PE	93616013*	5	230	4"	2343178602G
90FDSP-5HP	90049054	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	90	4" High Cap	90FA554-PE	93619012*	5	230	4"	2343178602G
100FDSP-5HP	90040154	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	100	6" High Cap	100FA556-PE	94820003*	5	230	4"	2343178602G
125FDSP-5HP	90041254	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	125	6" High Cap	125FA556-PE	94822502*	5	230	4"	2343178602G
150FDSP-5HP	90040254	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	150	5" STS Turbine	150STS5D5A-0243	97050150002*	5	230	4"	2343178602G
180FDSP-5HP	90041854	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	180	5" STS Turbine	180STS5D5X-0344	97050180003*	5	230	4"	2343178602G
220FDSP-5HP	90042254	F3, 5HP, 230VAC, 60Hz, 4"	581038501994-SPIS000	220	5" STS Turbine	220STS5D5A-0244	97050220002*	5	230	4"	2343178602G
275FDSP-5HP	90042754	F3, 5HP, 230VAC, 60Hz, 6"	581038501994-SPIS006	275	6" STS Turbine	275STS5D6A-0164	97060275001*	5	230	6"	2366009020
325FSP-5HP	90043254	F3, 5HP, 230VAC, 60Hz, 6"	581038501994-SPIS006	325	6" STS Turbine	325STS5D6C-0264	97060325202*	5	230	6"	2366009020
375FDSP-5HP	90043754	F3, 5HP, 230VAC, 60Hz, 6"	581038501994-SPIS006	375	6" STS Turbine	375STS5D6A-0164	97060375001*	5	230	6"	2366009020
20FDSP-7.5HP	90042074	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	20	4" Tri-Seal	20FA754-PE	93822040	7.5	380	4"	2343488602G
25FDSP-7.5HP	90042574	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	25	4" Tri-Seal	25FA754-PE	93822540	7.5	380	4"	2343488602G
35FDSP-7.5HP	90043574	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	35	4" High Cap	35FA754-PE	93613534*	7.5	380	4"	2343488602G
45FDSP-7.5HP	90044574	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	45	4" High Cap	45FA754-PE	93614526*	7.5	380	4"	2343488602G
60FDSP-7.5HP	90046074	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	60	4" High Cap	60FA754-PE	93616017*	7.5	380	4"	2343488602G
90FDSP-7.5HP	90049074	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	90	4" High Cap	90FA754-PE	93619019*	7.5	380	4"	2343488602G
100FDSP-7.5HP	90040174	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	100	6" High Cap	100FA756-PE	94820005*	7.5	380	4"	2343488602G
125FDSP-7.5HP	90041274	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	125	6" High Cap	125FA756-PE	94822503*	7.5	380	4"	2343488602G
150FDSP-7.5HP	90040274	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	150	5" STS Turbine	150STS7D5A-0343	97050150003*	7.5	380	4"	2343488602G
180FDSP-7.5HP	90041874	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	180	5" STS Turbine	180STS7D5X-0444	97050180004*	7.5	380	4"	2343488602G
220FDSP-7.5HP	90042274	F3, 7.5HP, 380VAC, 60Hz, 4"	581038501994-SPIS009	220	5" STS Turbine	220STS7D5X-0444	97050220004*	7.5	380	4"	2343488602G
275FDSP-7.5HP	90042774	F3, 7.5HP, 380VAC, 60Hz, 6"	581038501994-SPIS004	275	6" STS Turbine	275STS7D6X-0264	97060275002*	7.5	380	6"	2366619020
325FSP-7.5HP	90043274	F3, 7.5HP, 380VAC, 60Hz, 6"	581038501994-SPIS004	325	6" STS Turbine	325STS7D6X-0264	97060325302*	7.5	380	6"	2366619020
375FDSP-7.5HP	90043774	F3, 7.5HP, 380VAC, 60Hz, 6"	581038501994-SPIS004	375	6" STS Turbine	375STS7D6B-0264	97060375102*	7.5	380	6"	2366619020
20FDSP-10HP	90042084	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	20	4" Tri-Seal	20FA10S4-PE	93822045	10	380	4"	2345498602G
25FDSP-10HP	90042584	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	25	4" Tri-Seal	25FA10S4-PE	93822545	10	380	4"	2345498602G
35FDSP-10HP	90043584	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	35	4" High Cap	35FA10S4-PE	93613542*	10	380	4"	2345498602G
45FDSP-10HP	90044584	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	45	4" High Cap	45FA10S4-PE	93614531*	10	380	4"	2345498602G
60FDSP-10HP	90046084	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	60	4" High Cap	60FA10S4-PE	93616024*	10	380	4"	2345498602G
90FDSP-10HP	90049084	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	90	4" High Cap	90FA10S4-PE	93619020*	10	380	4"	2345498602G
100FDSP-10HP	90040184	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	100	6" High Cap	100FA10S6-PE	94820006*	10	380	4"	2345498602G
125FDSP-10HP	90041284	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	125	6" High Cap	125FA10S6-PE	94822504*	10	380	4"	2345498602G
150FDSP-10HP	90040284	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	150	5" STS Turbine	150STS10D5A-0443	97050150004*	10	380	4"	2345498602G
180FDSP-10HP	90041884	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	180	5" STS Turbine	180STS10D5A-0544	97050180005*	10	380	4"	2345498602G
220FDSP-10HP	90042284	F3, 10HP, 380VAC, 60Hz, 4"	581038501994-87IS004	220	5" STS Turbine	220STS10D5X-0544	97050220005*	10	380	4"	2345498602G
275FDSP-10HP	90042784	F3, 10HP, 380VAC, 60Hz, 6"	581038501994-SPIS005	275	6" STS Turbine	275STS10D6X-0364	97060275303*	10	380	6"	2366628120
325FSP-10HP	90043284	F3, 10HP, 380VAC, 60Hz, 6"	581038501994-SPIS005	325	6" STS Turbine	325STS10D6B-0364	97060325103*	10	380	6"	2366628120
375FDSP-10HP	90043784	F3, 10HP, 380VAC, 60Hz, 6"	581038501994-SPIS005	375	6" STS Turbine	375STS10D6A-0264	97060375002*	10	380	6"	2366628120

* Indicates pumps w/o built-in check valve. Output flow may vary due to additional head requirements from check-valve

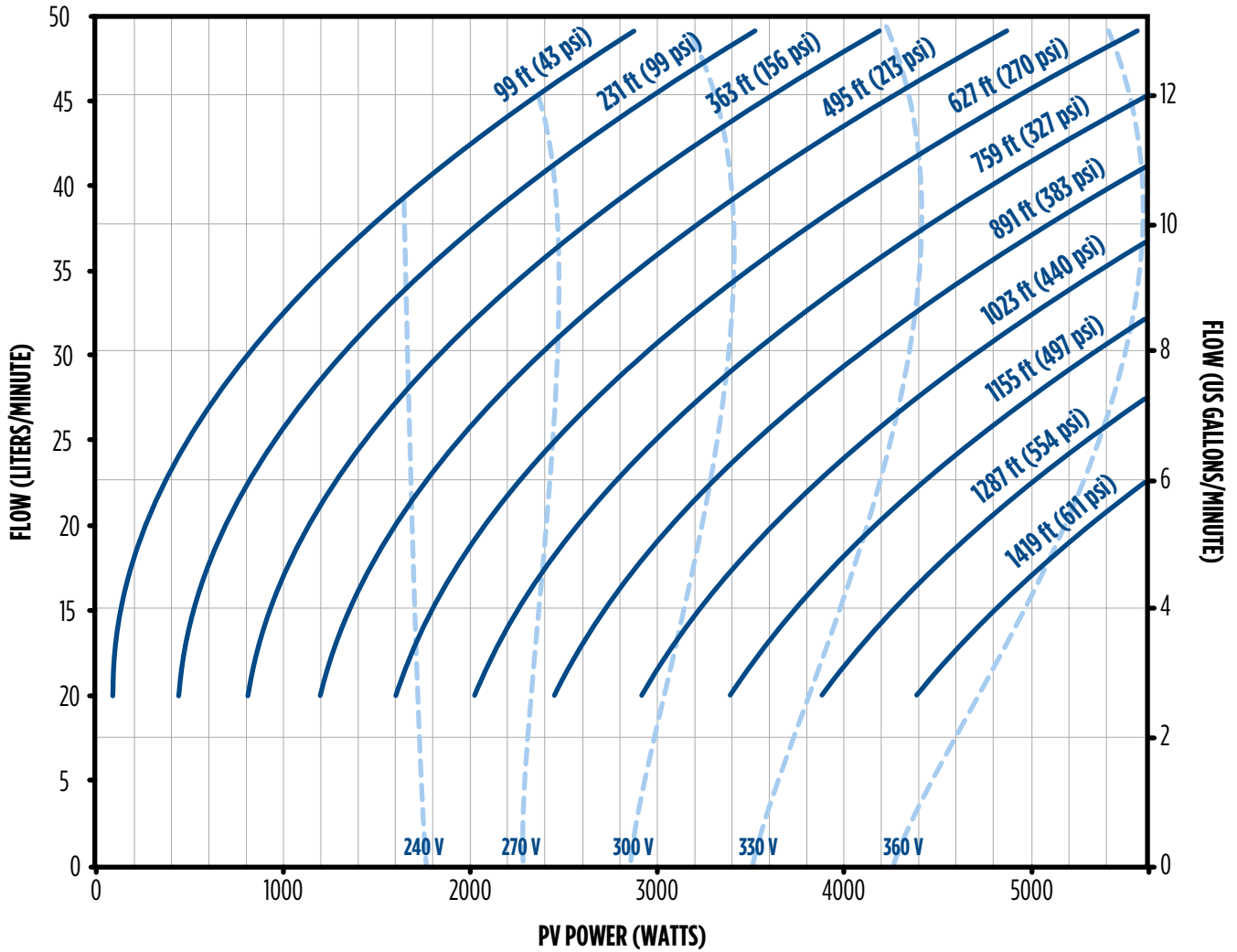
Included Flow Switch (NPT)	
Model	Part No.
F21	226019102

NOTE: 30 ft. (10 meter) cable for use with the flow switch is included in the controller packaging

PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

10FDSP-5.0HP

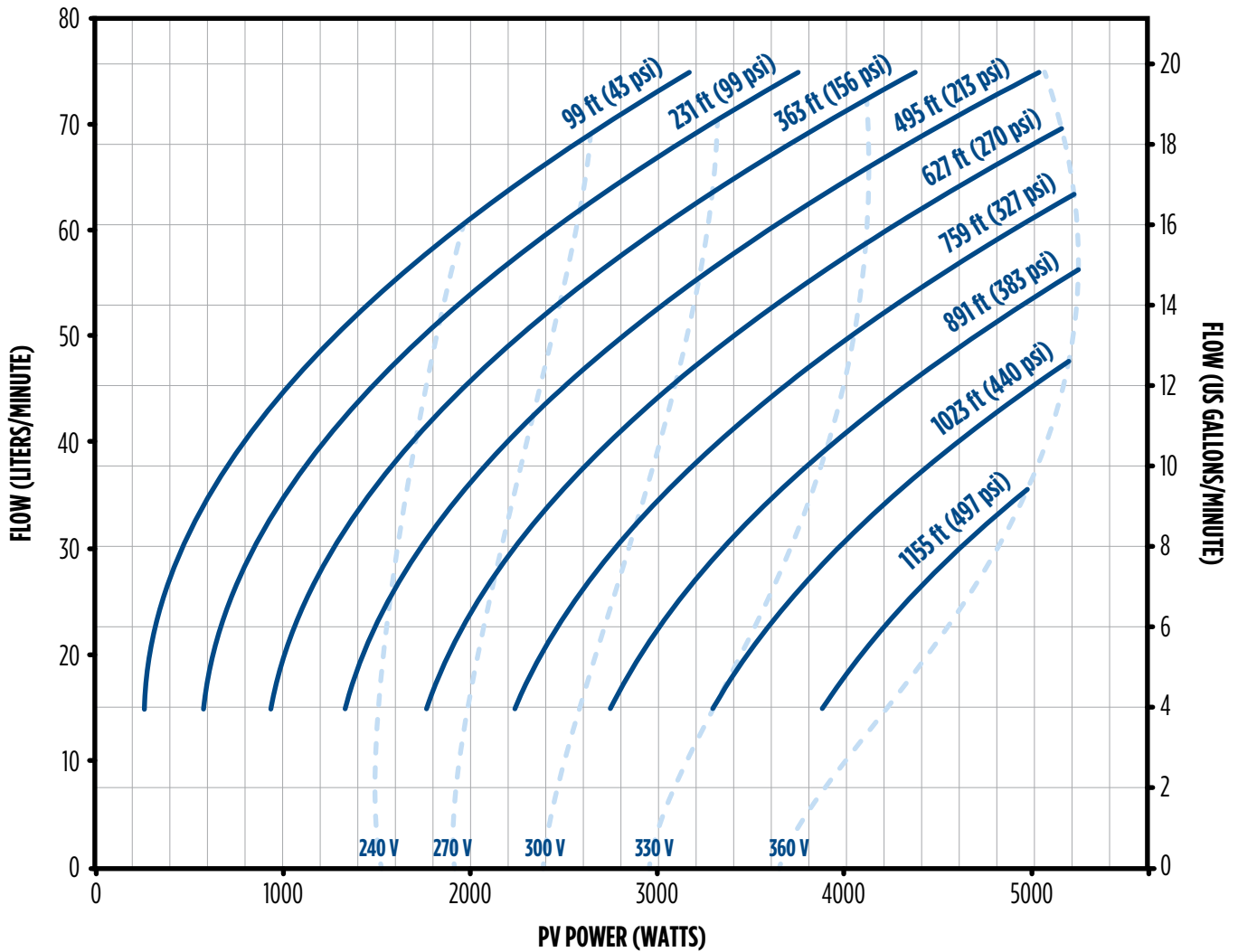
Photon™ Solar 5.0 hp Controller, 10 US gpm 5.0 hp Pump End, 5.0 HP 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

15FDSP-5.0HP

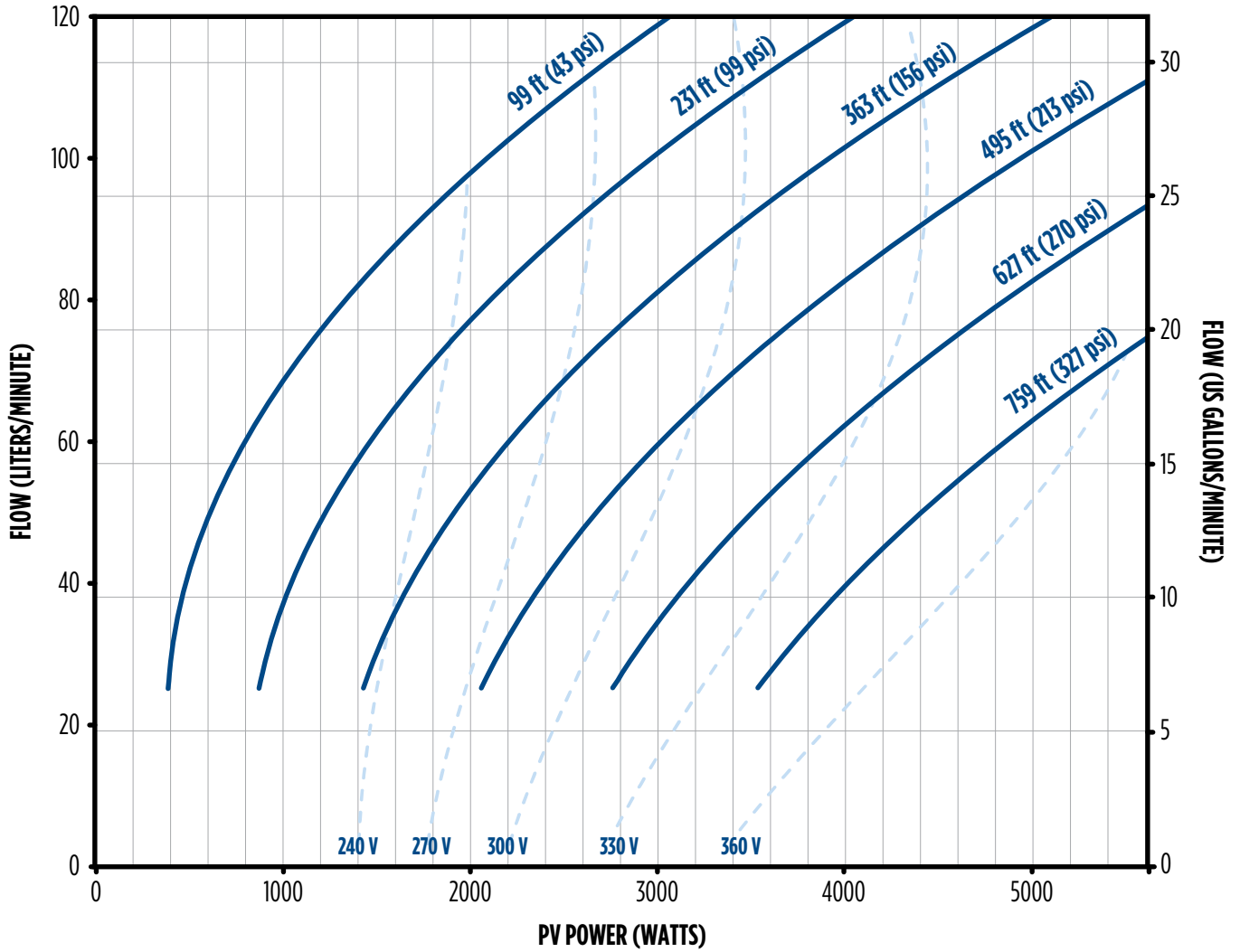
Photon™ Solar 5.0 hp Controller, 15 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

25FDSP-5.0HP

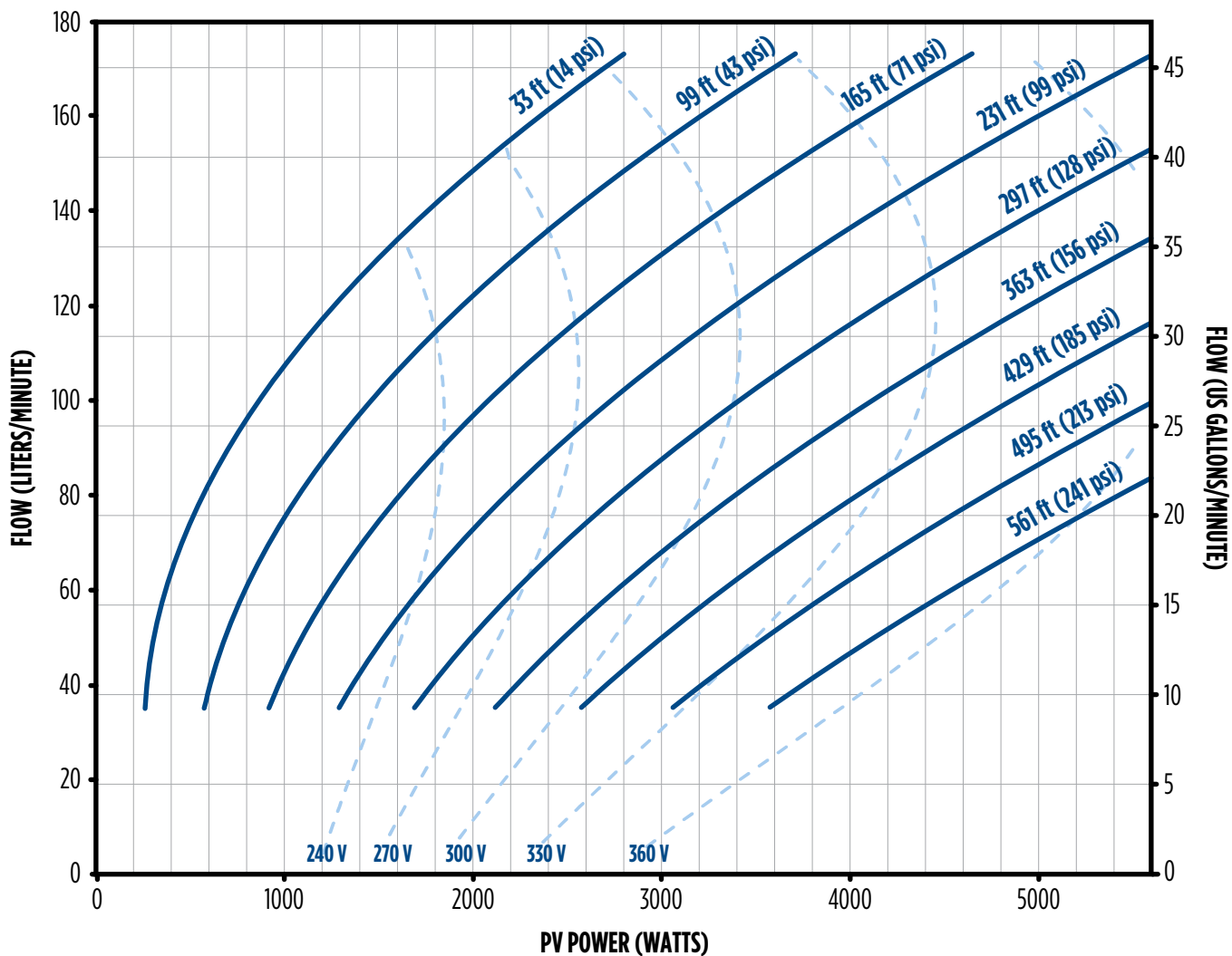
Photon™ Solar 5.0 hp Controller, 25 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

35FDSP-5.0HP

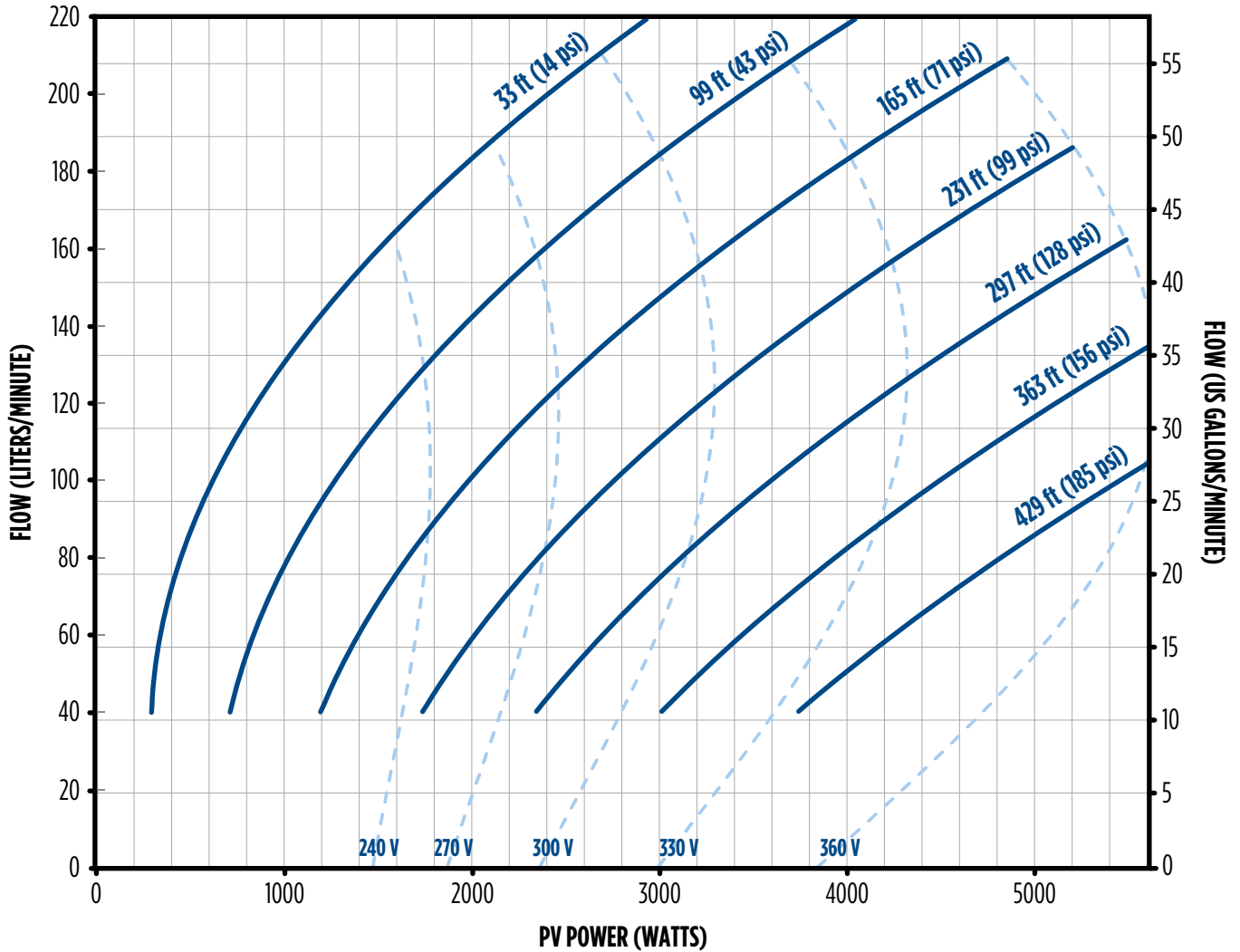
Photon™ Solar 5.0 hp Controller, 35 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

45FDSP-5.0HP

Photon™ Solar 5.0 hp Controller, 45 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor

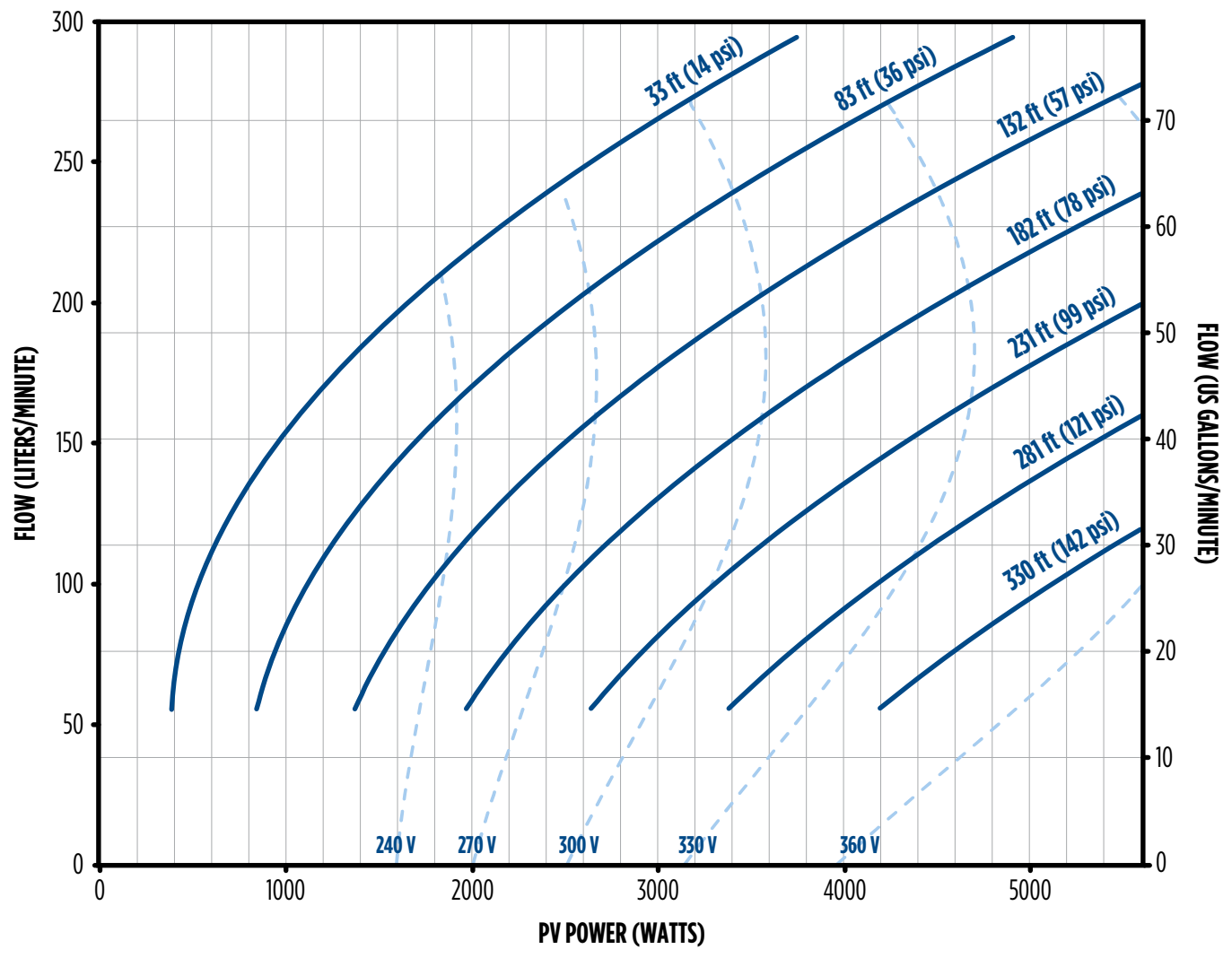




PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

60FDSP-5.0HP

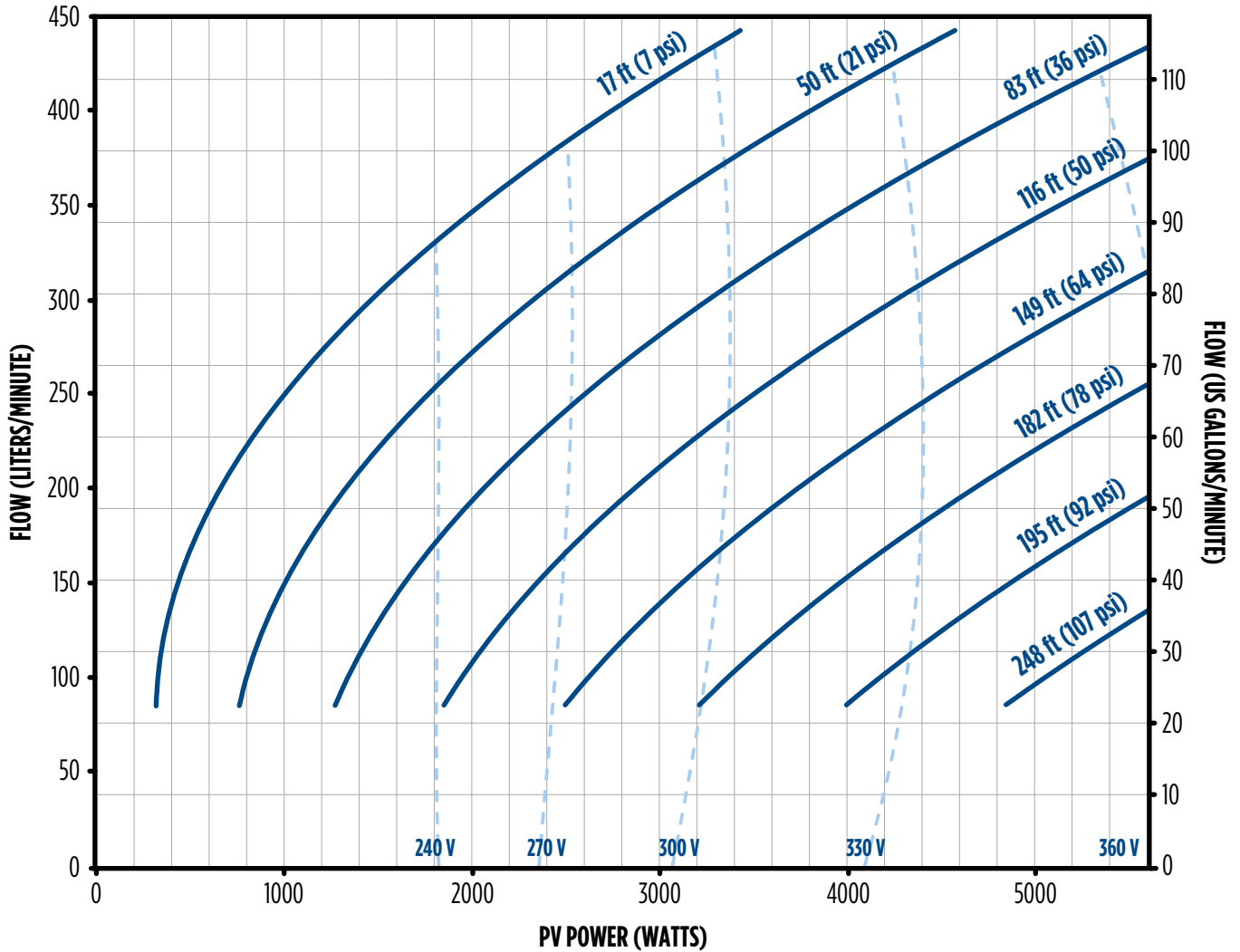
Photon™ Solar 5.0 hp Controller, 60 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

90FDSP-5.0HP

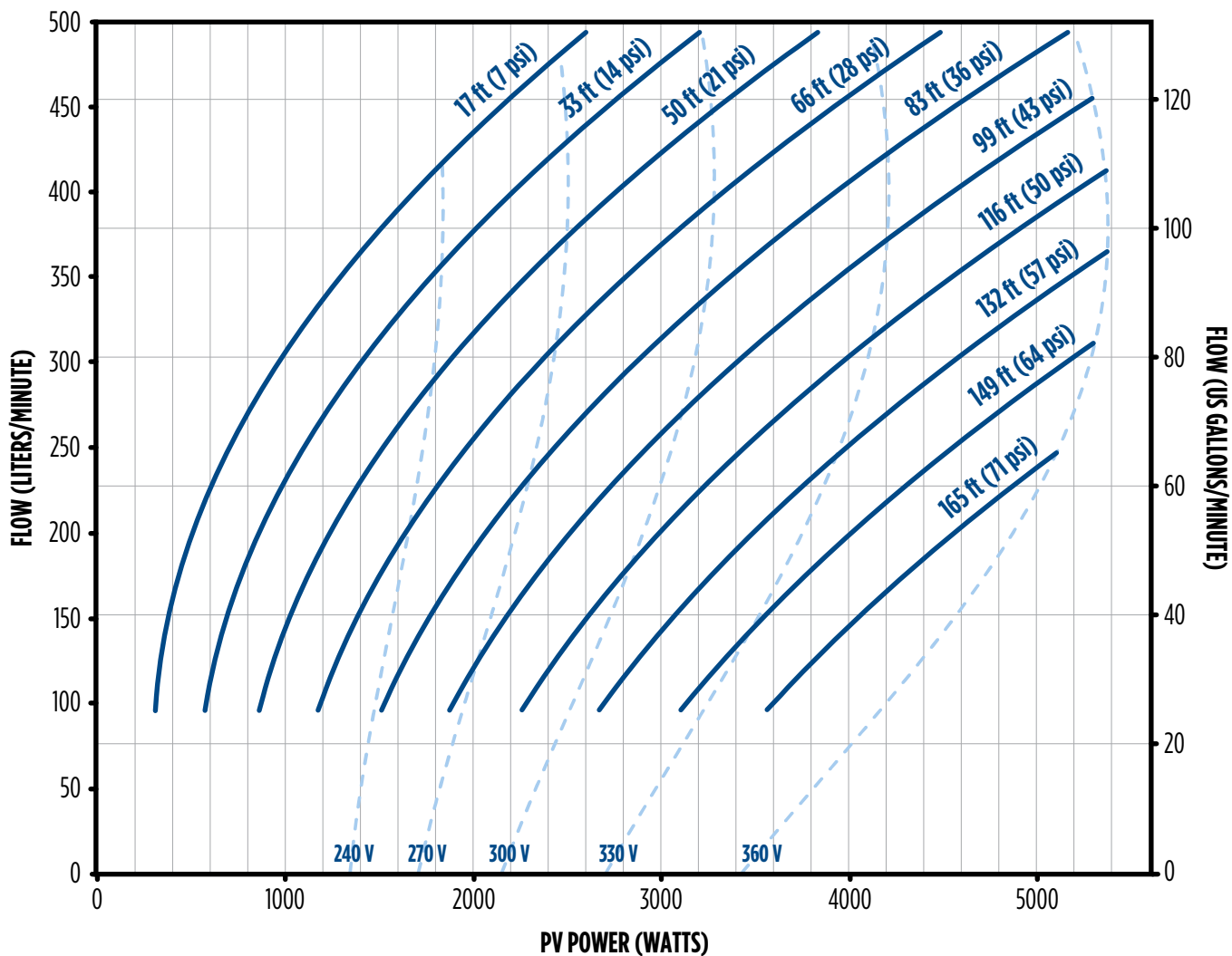
Photon™ Solar 5.0 hp Controller, 90 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

100FDSP-5.0HP

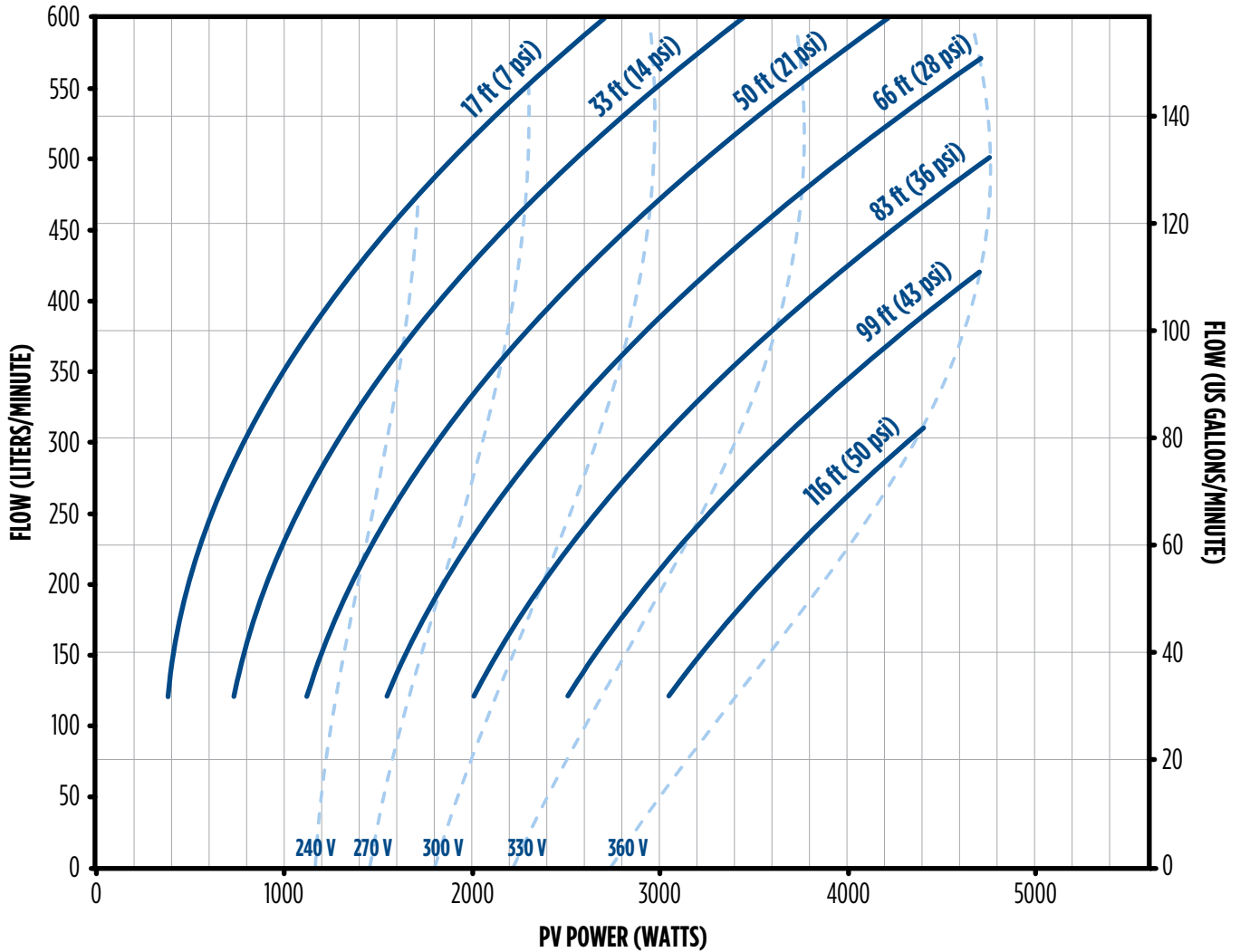
Photon™ Solar 5.0 hp Controller, 100 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

125FDSP-5.0HP

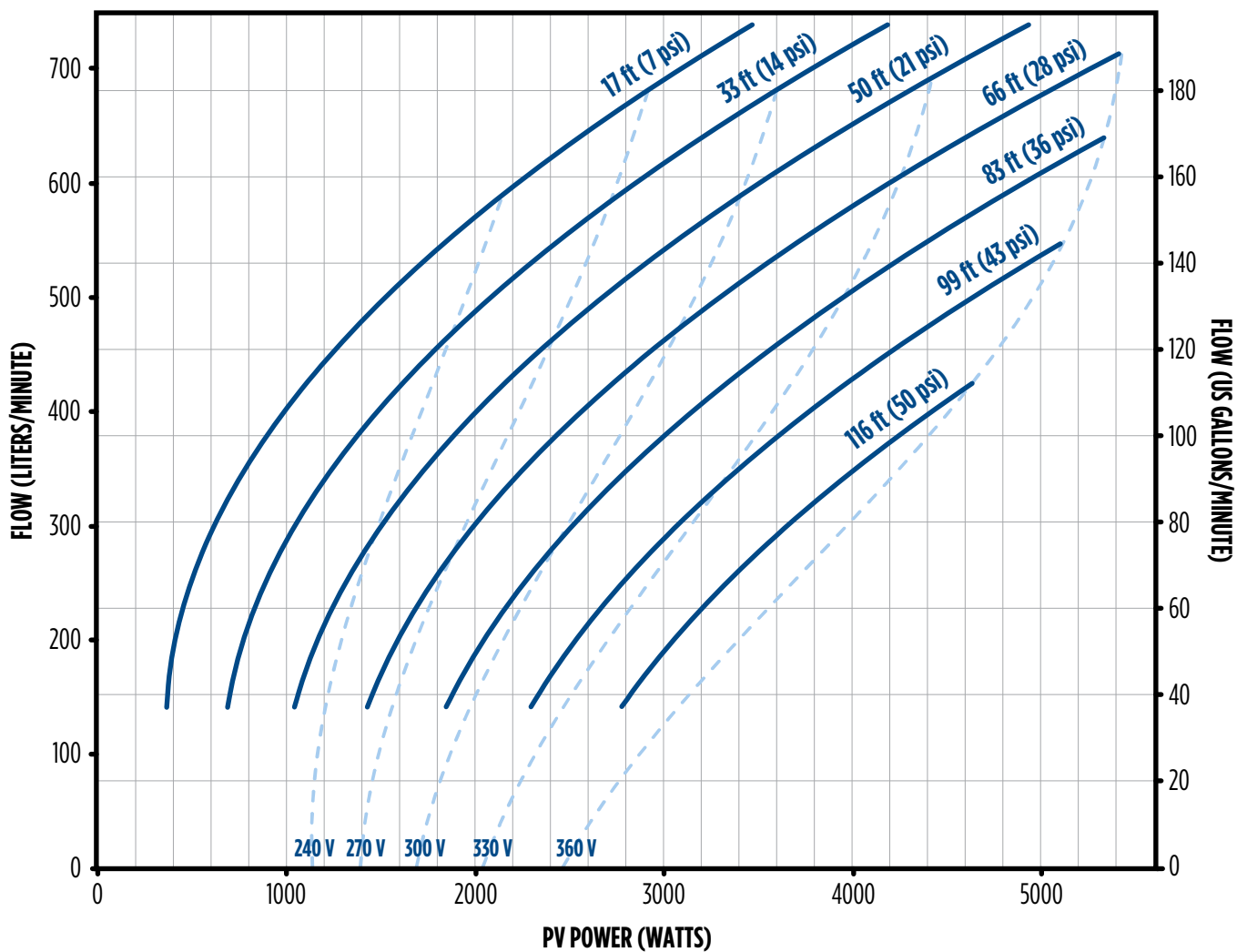
Photon™ Solar 5.0 hp Controller, 125 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

150FDSP-5.0HP

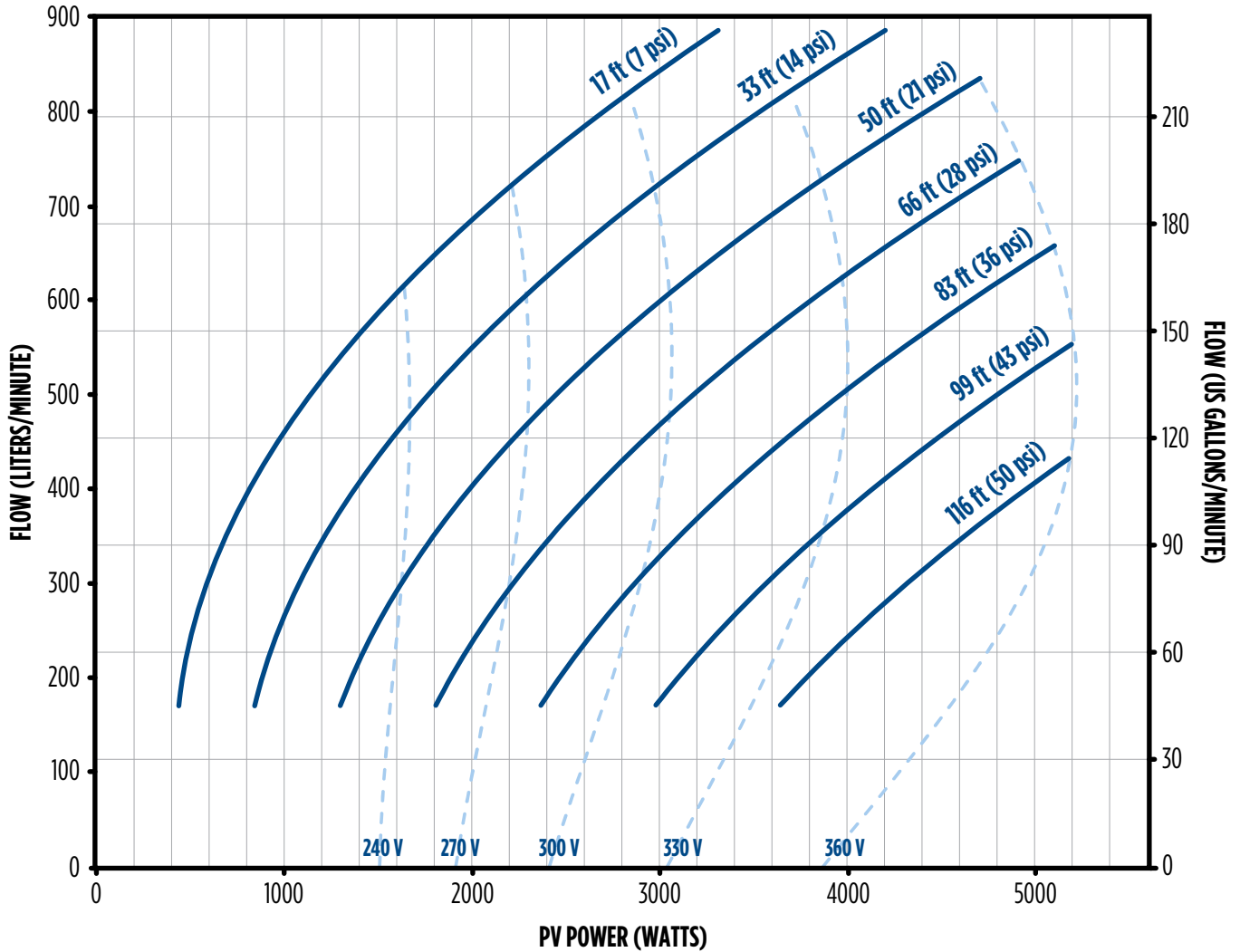
Photon™ Solar 5.0 hp Controller, 150 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

180FDSP-5.0HP

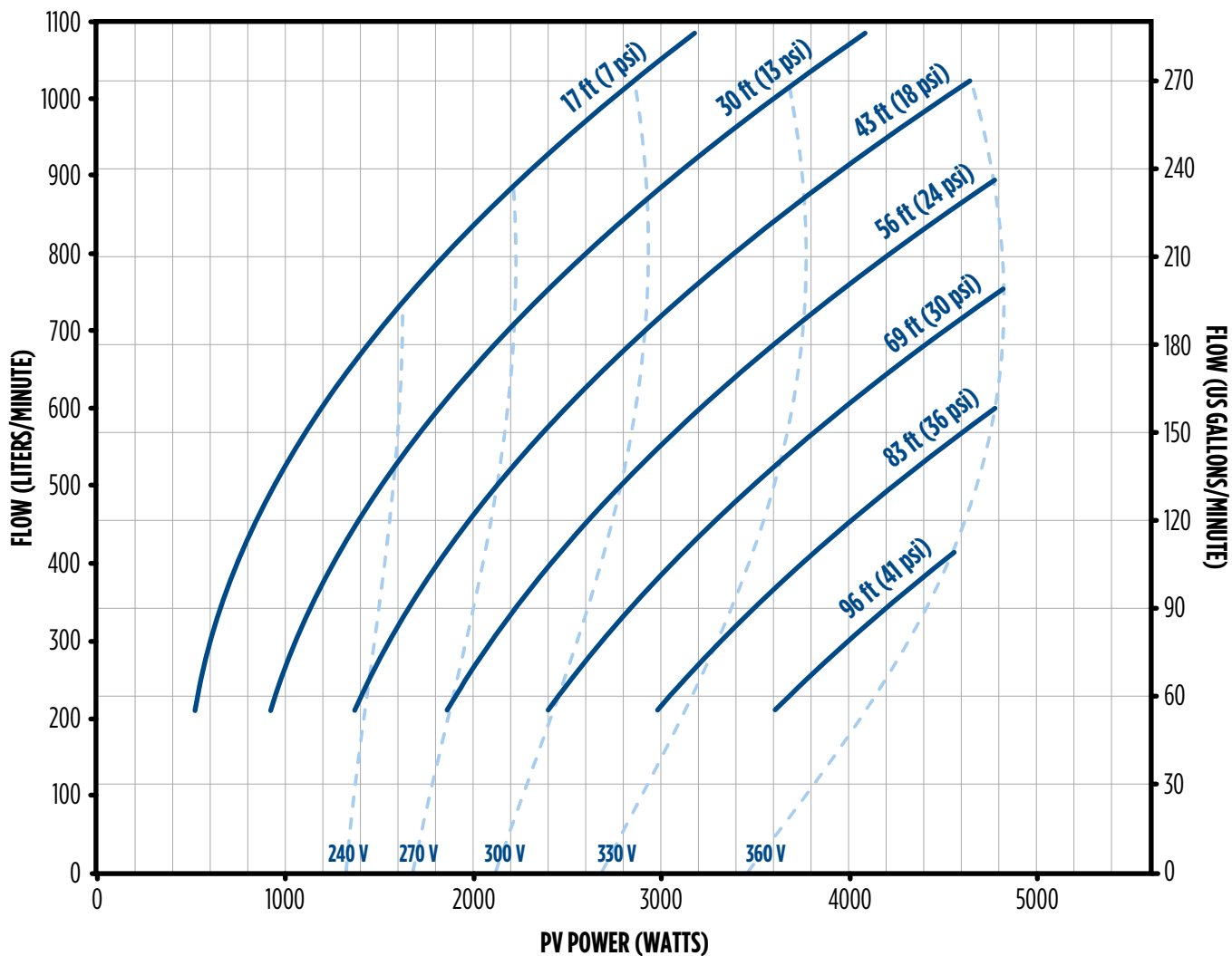
Photon™ Solar 5.0 hp Controller, 180 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

220FDSP-5.0HP

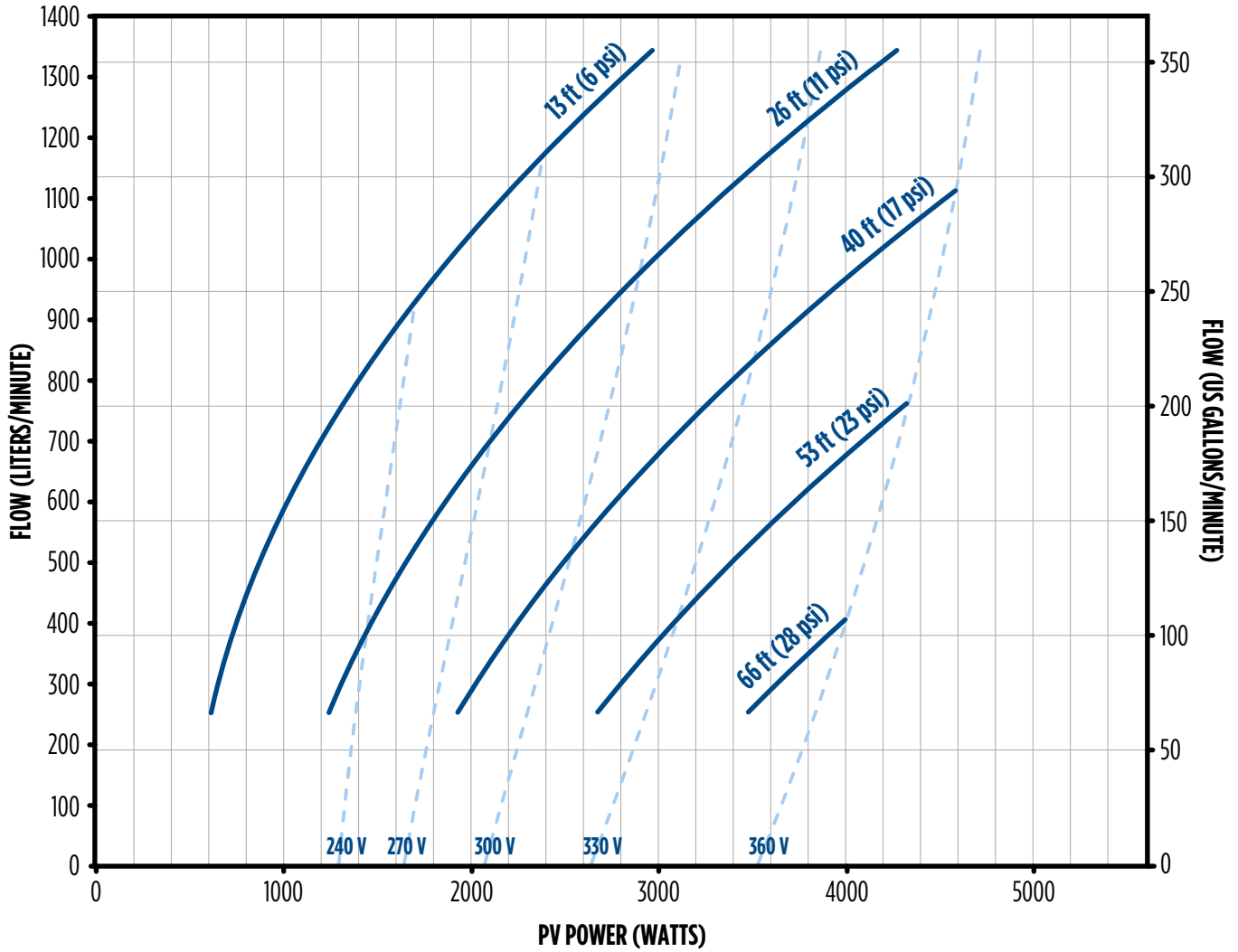
Photon™ Solar 5.0 hp Controller, 220 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

275FDSP-5.0HP

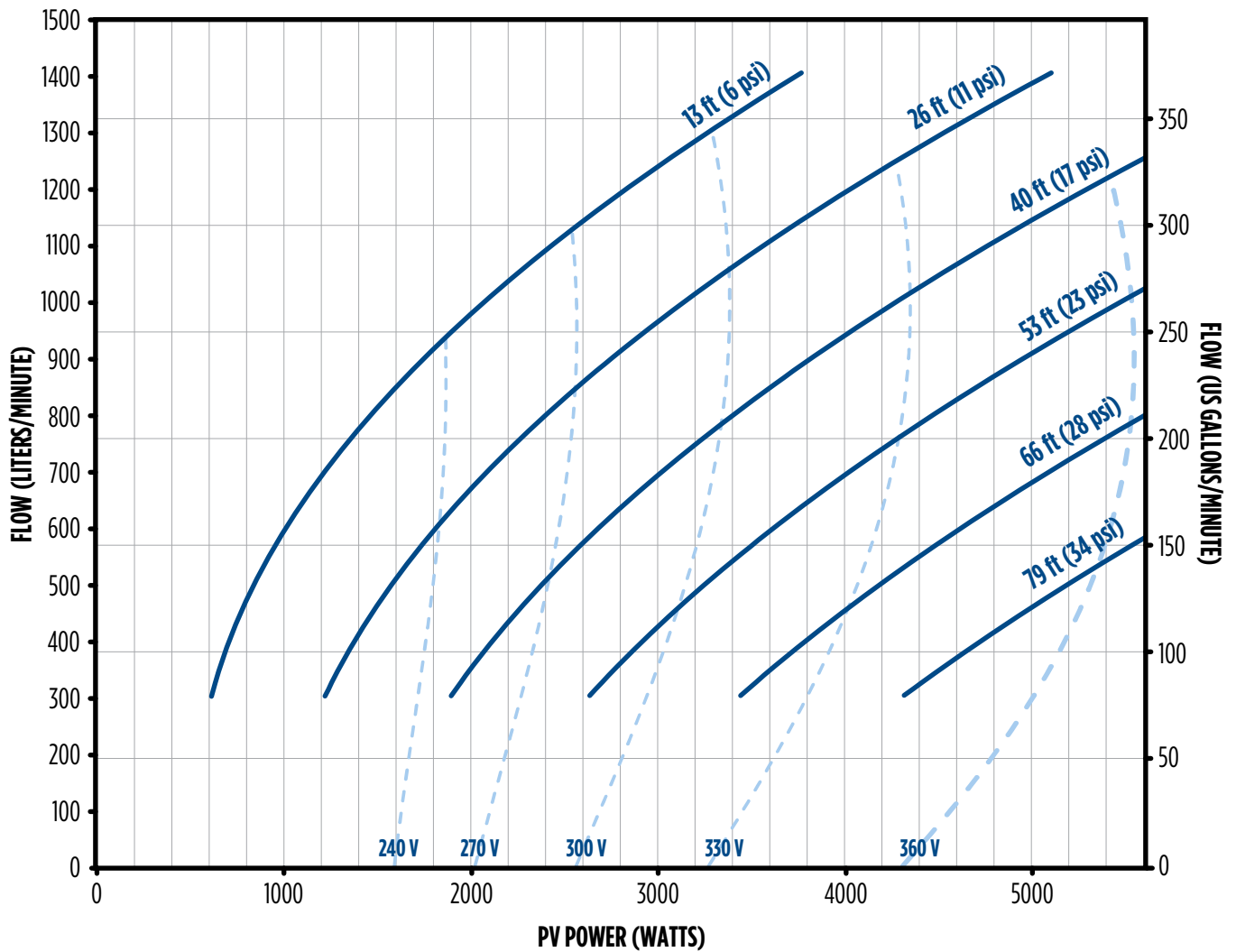
Photon™ Solar 5.0 hp Controller, 275 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

325FDSP-5.0HP

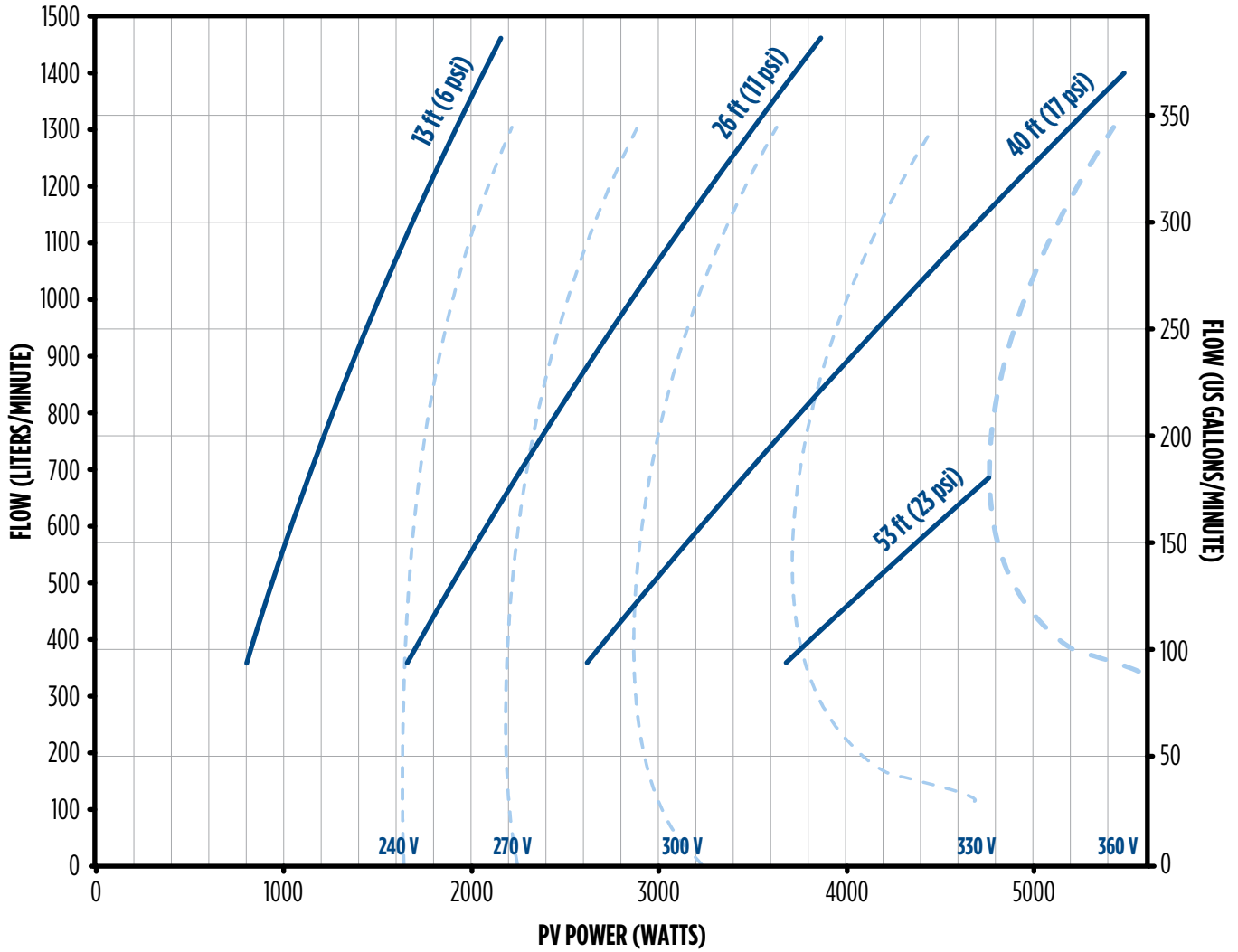
Photon™ Solar 5.0 hp Controller, 325 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 5.0 HP (3.7 KW) PERFORMANCE

375FDSP-5.0HP

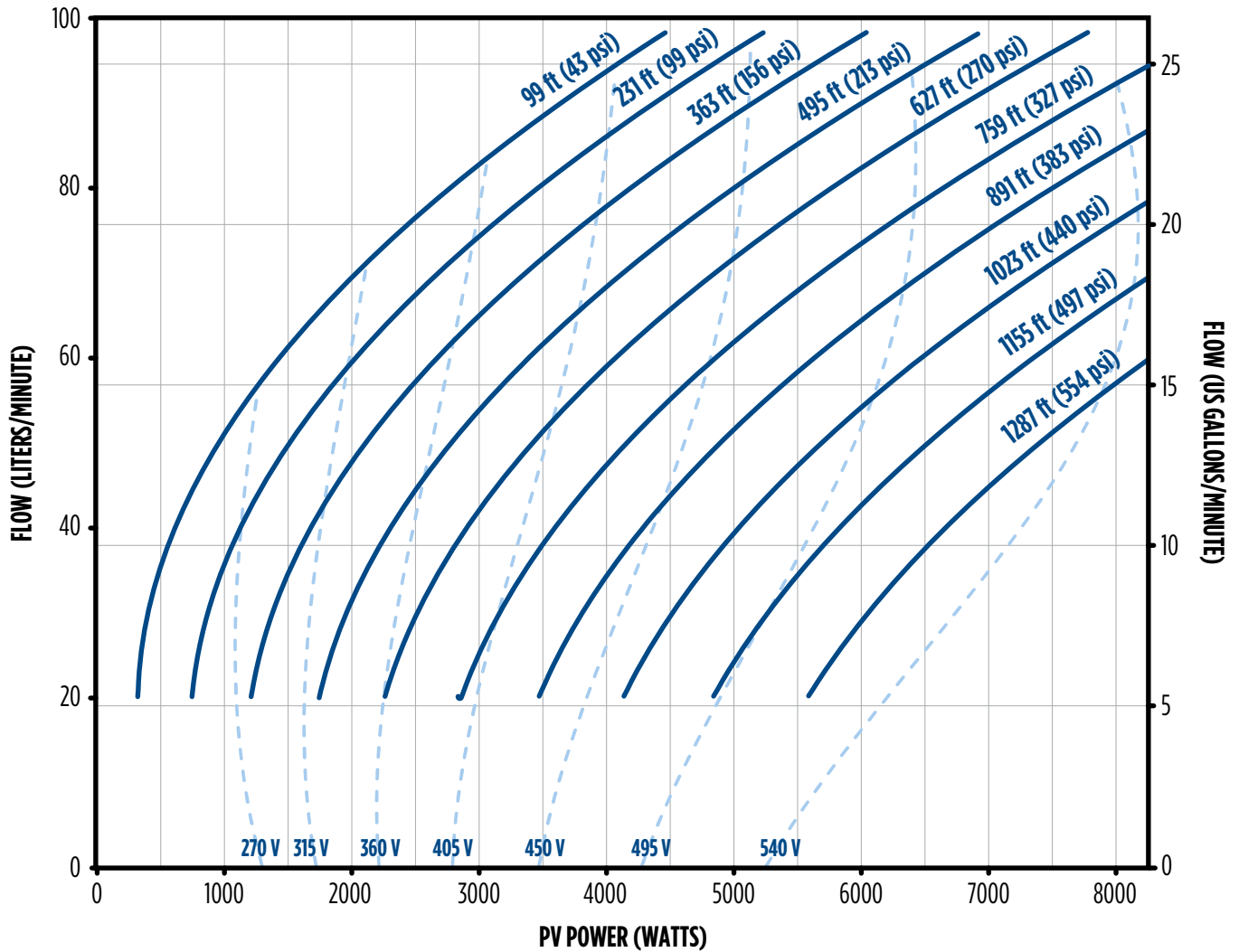
Photon™ Solar 5.0 hp Controller, 375 US gpm 5.0 hp Pump End, 5.0 hp 230 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

20FDSP-7.5HP

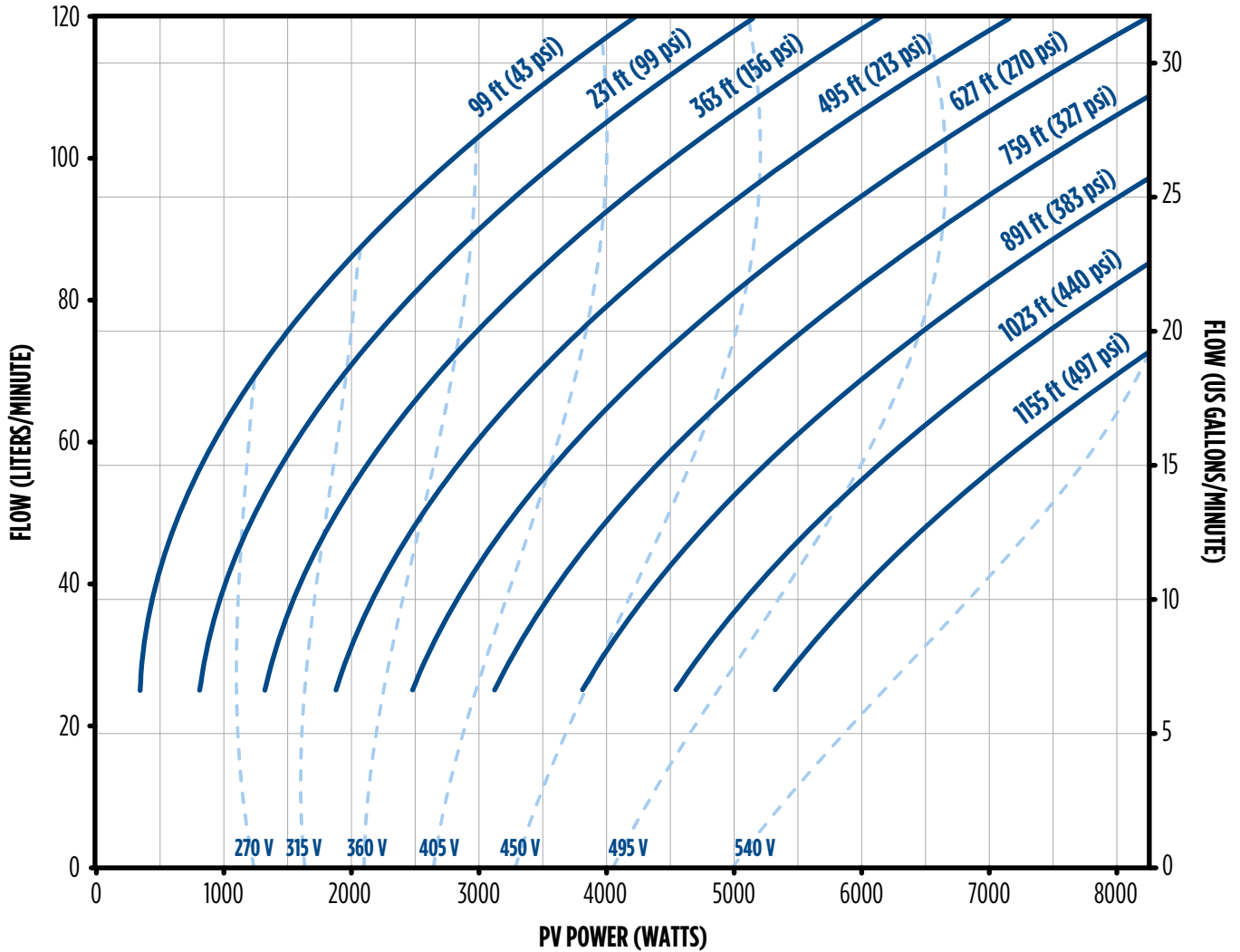
Photon™ Solar 7.5 hp Controller, 20 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

25FDSP-7.5HP

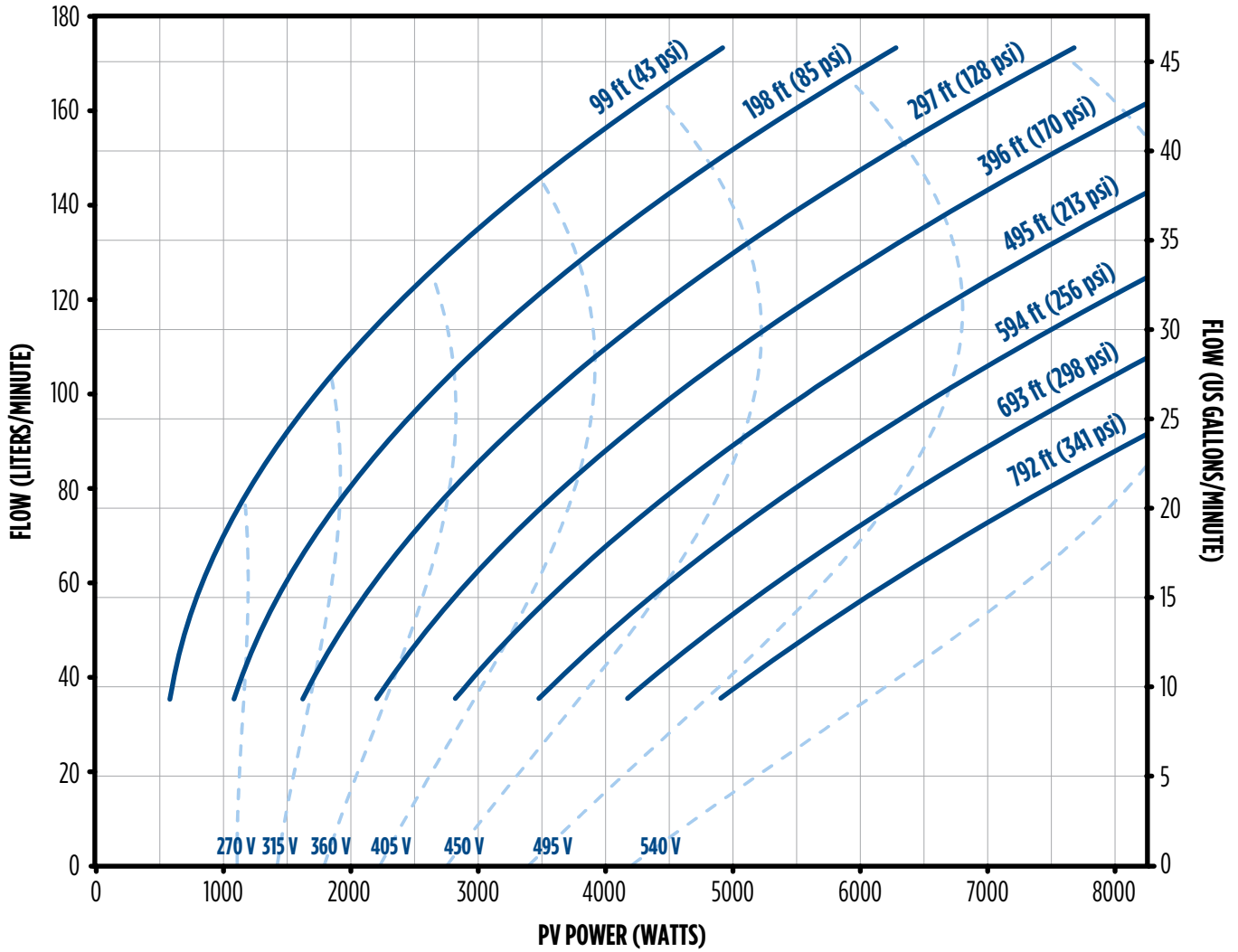
Photon™ Solar 7.5 hp Controller, 25 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

35FDSP-7.5HP

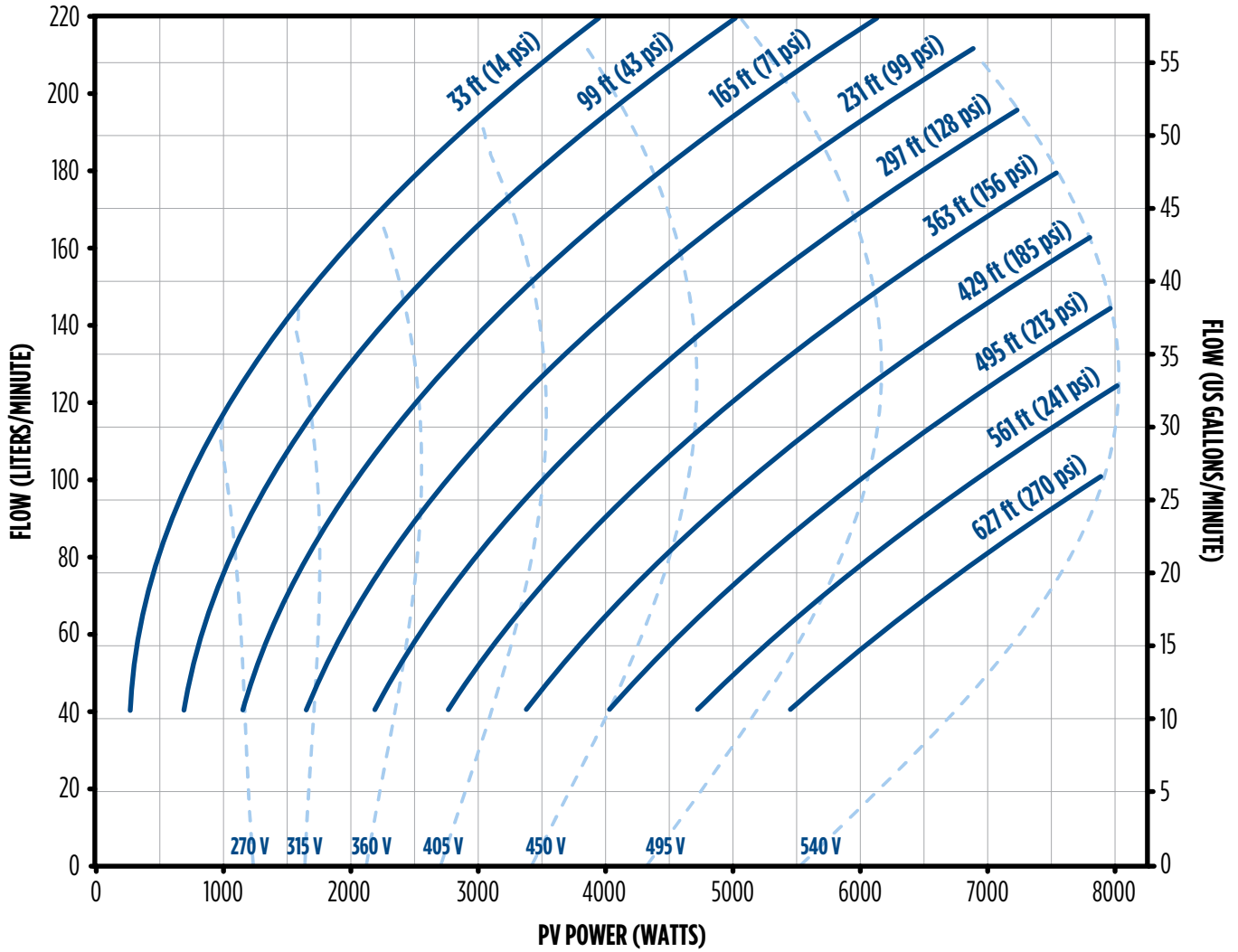
Photon™ Solar 7.5 hp Controller, 35 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

45FDSP-7.5HP

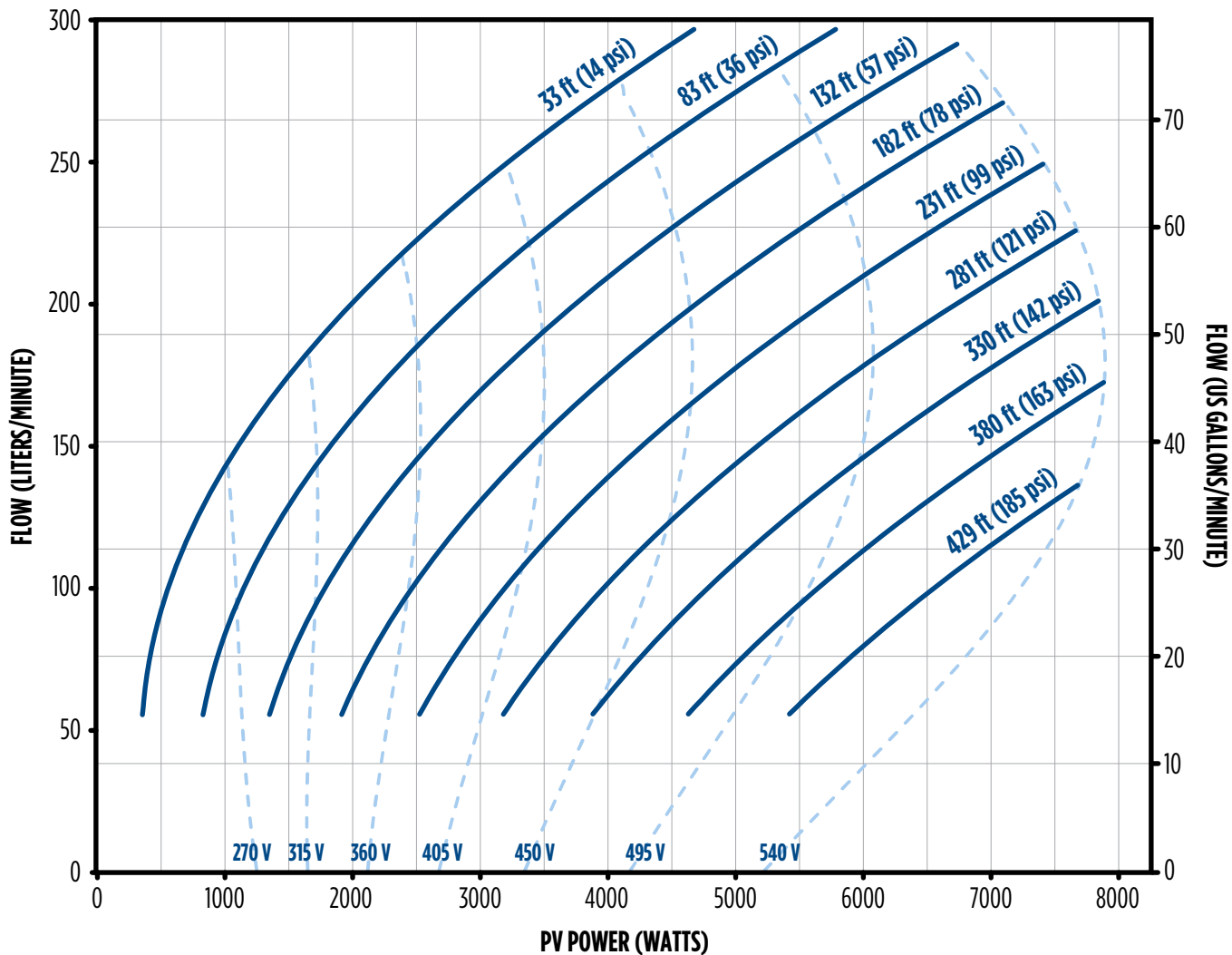
Photon™ Solar 7.5 hp Controller, 45 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

60FDSP-7.5HP

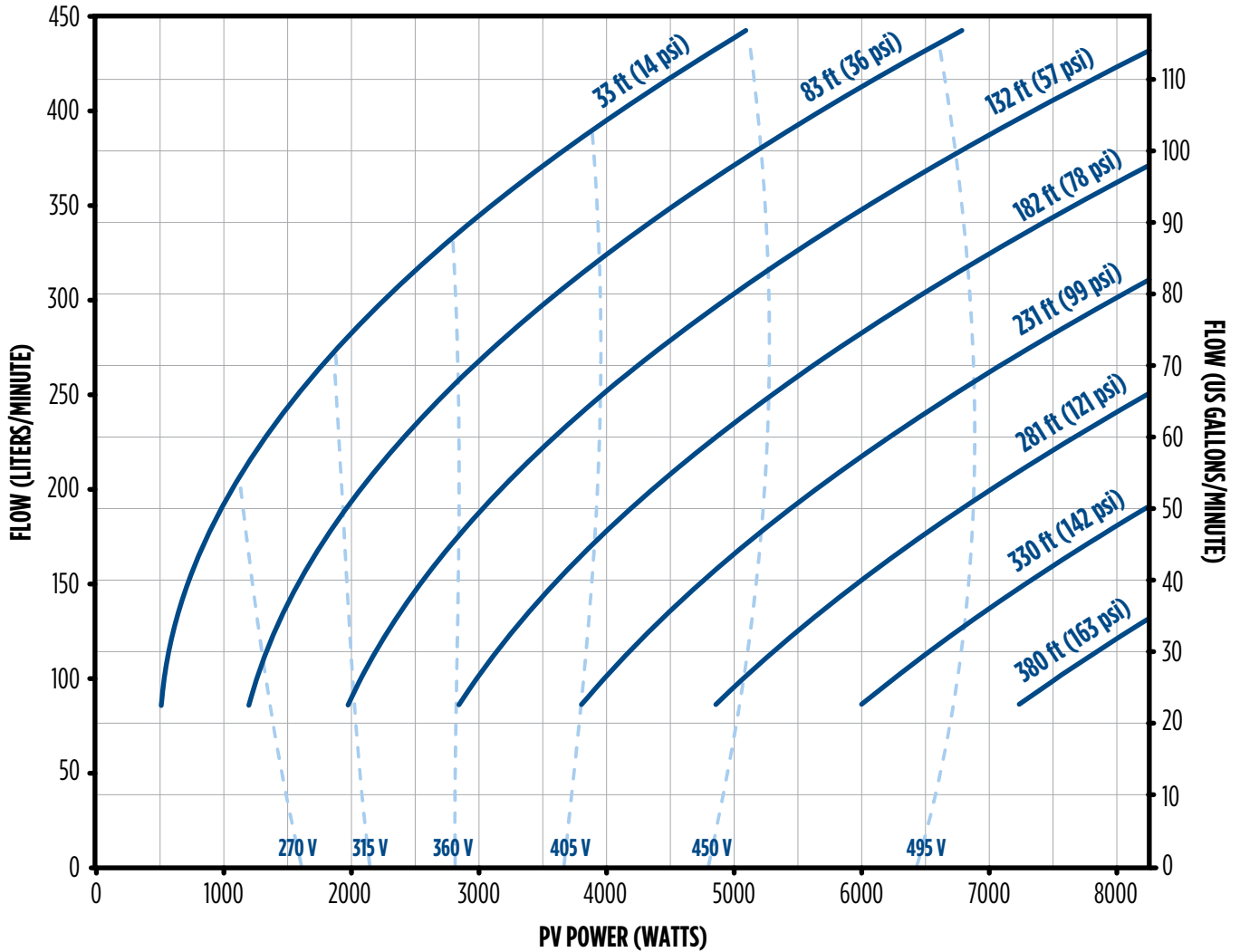
Photon™ Solar 7.5 hp Controller, 60 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

90FDSP-7.5HP

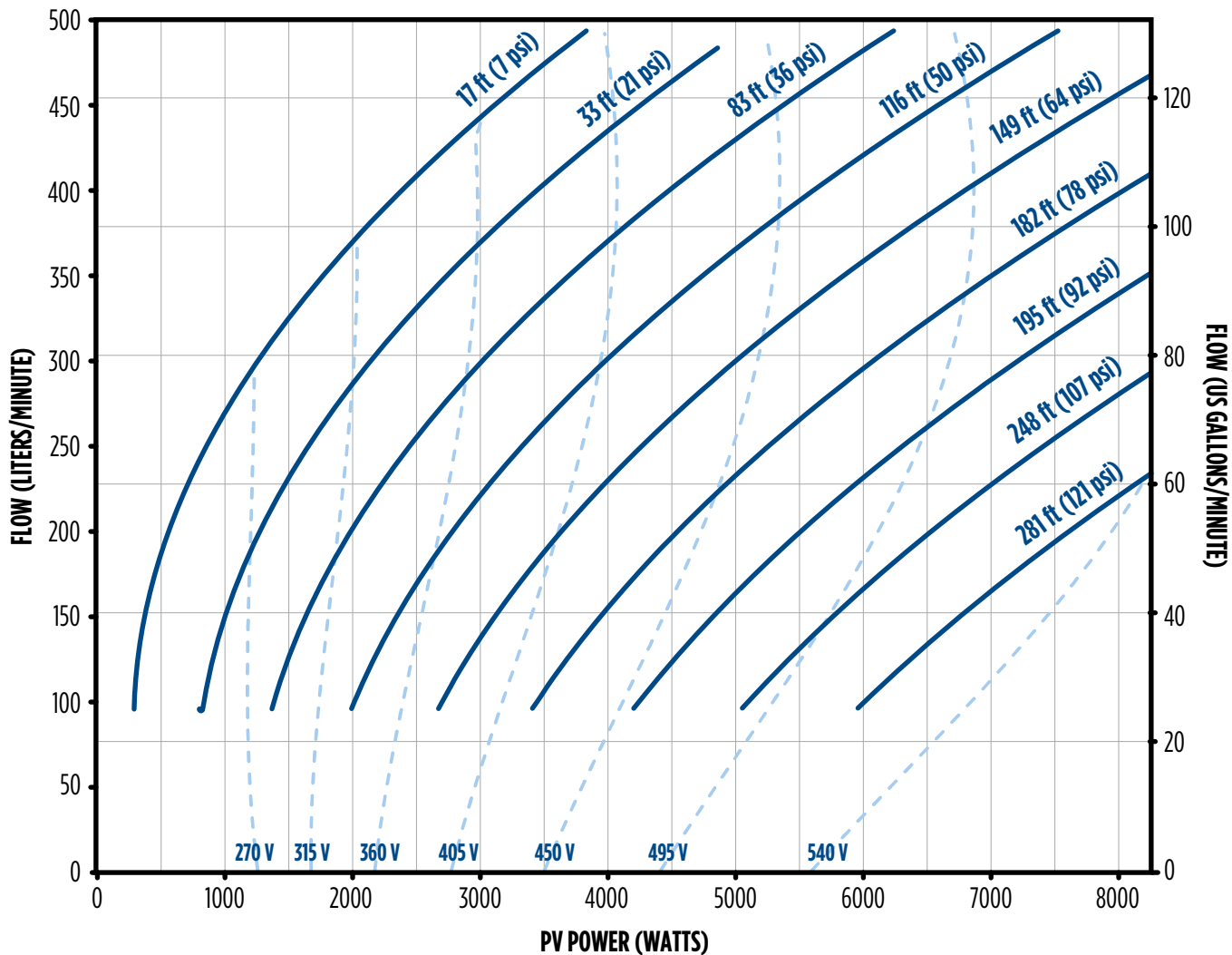
Photon™ Solar 7.5 hp controller, 90 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

100FDSP-7.5HP

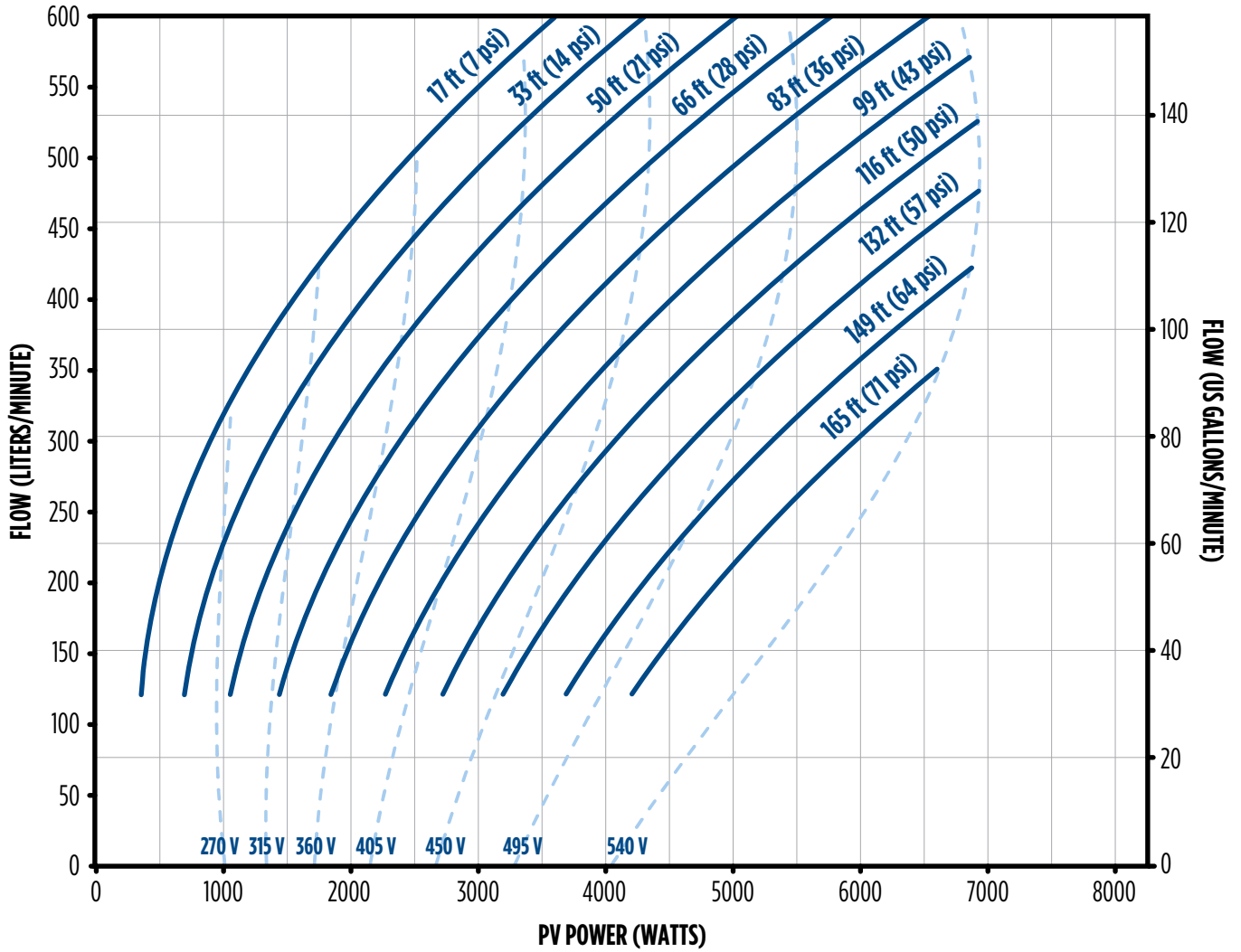
Photon™ Solar 7.5 hp Controller, 100 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

125FDSP-7.5HP

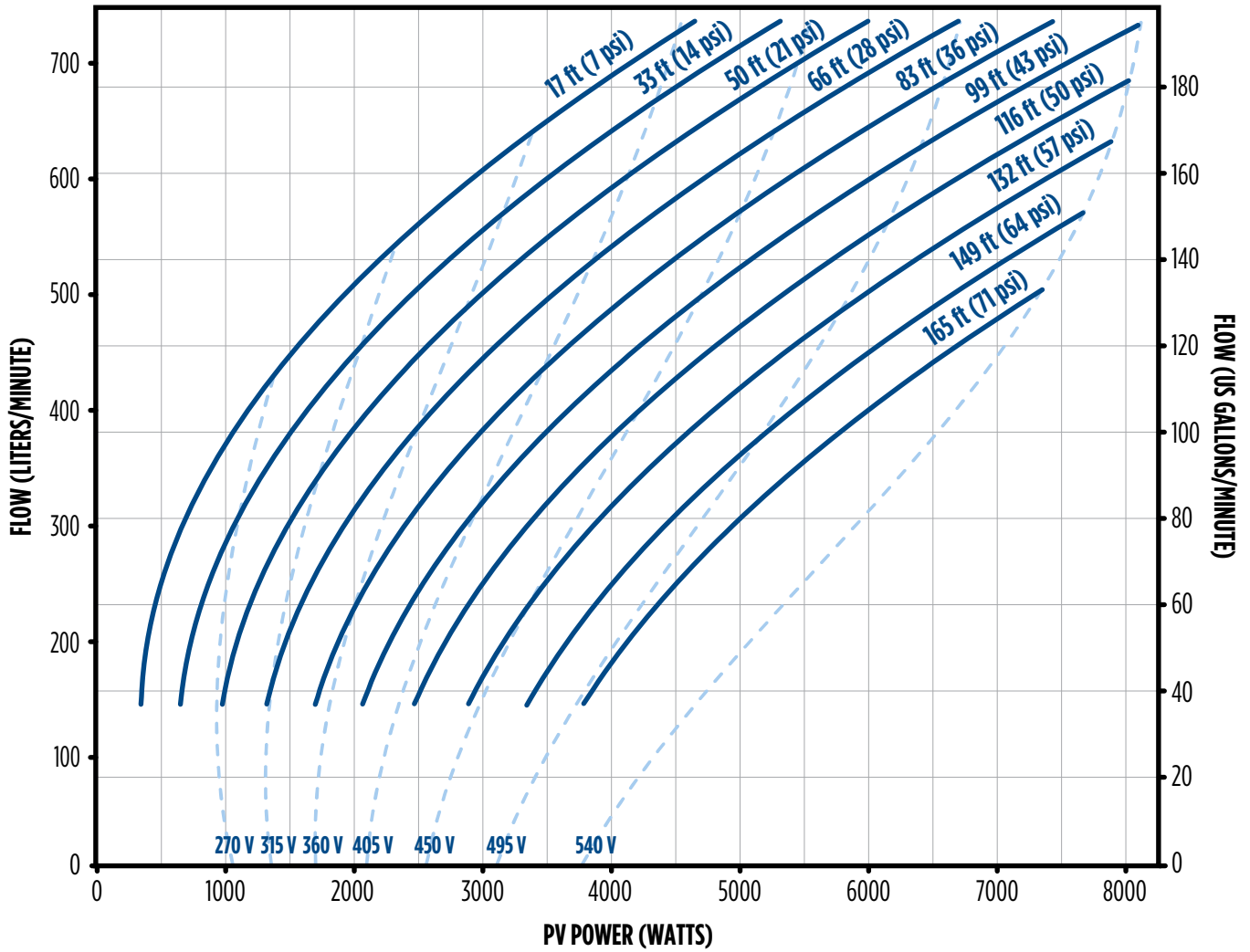
Photon™ Solar 7.5 hp Controller, 125 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

150FDSP-7.5HP

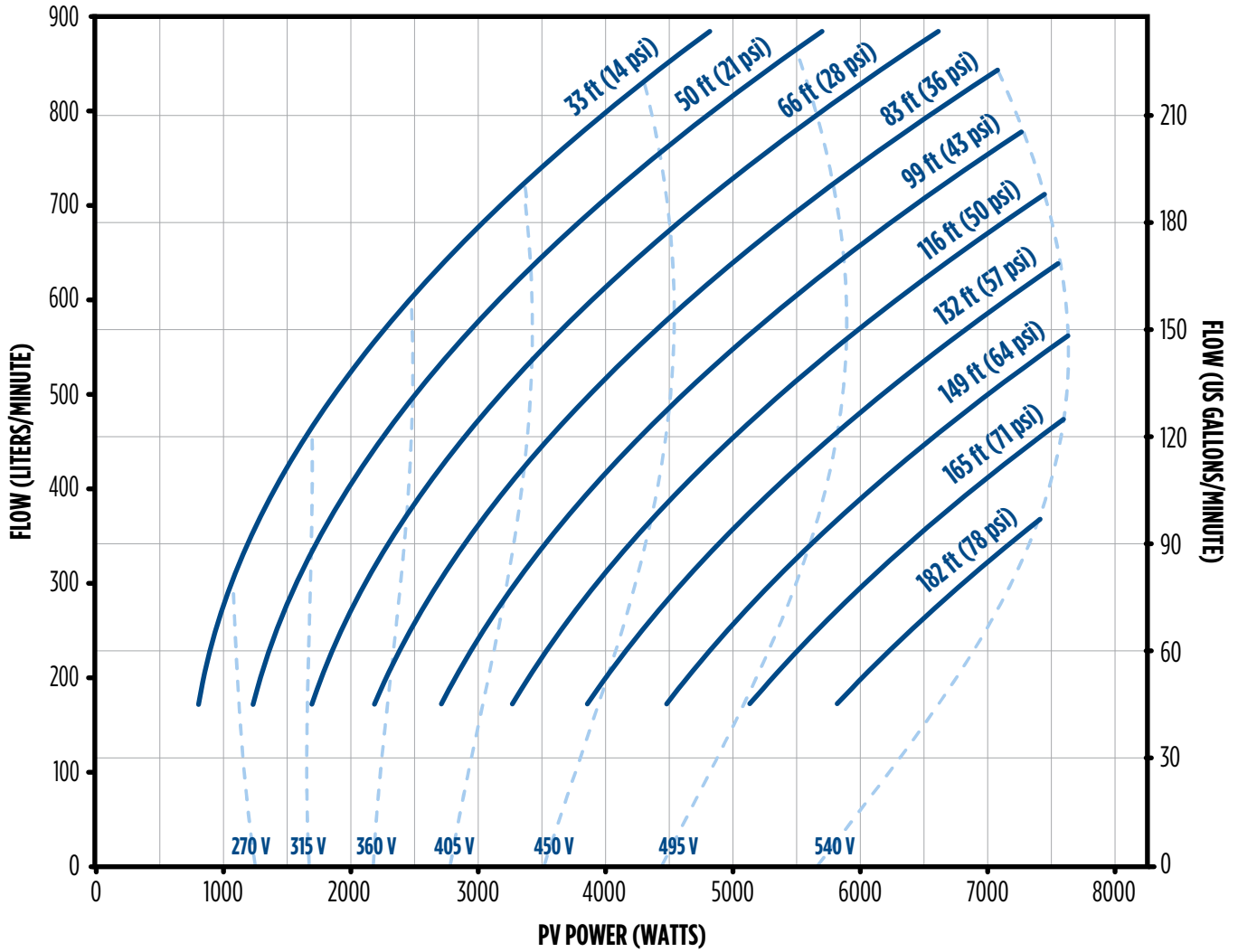
Photon™ Solar 7.5 hp Controller, 150 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

180FDSP-7.5HP

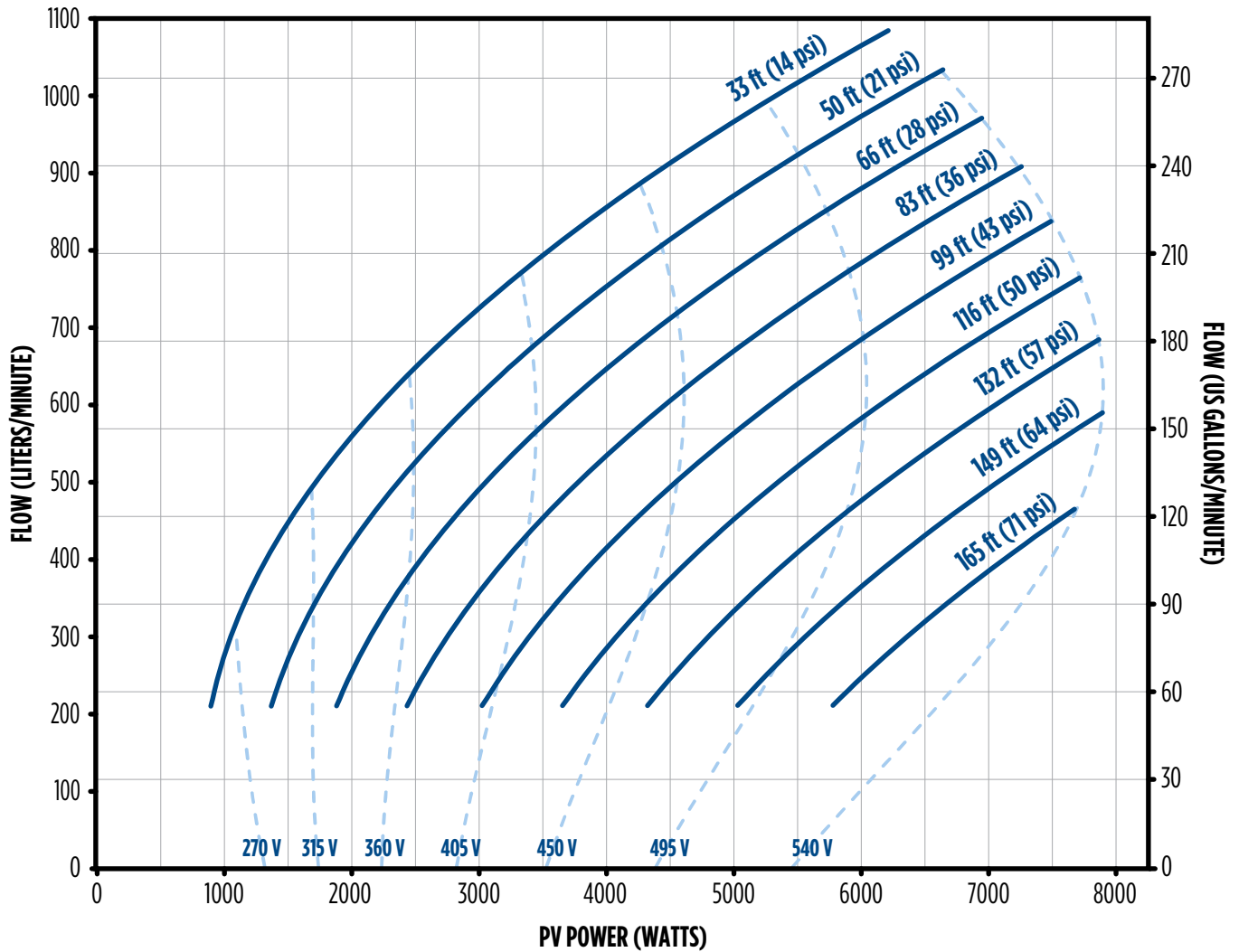
Photon™ Solar 7.5 hp Controller, 180 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

220FDSP-7.5HP

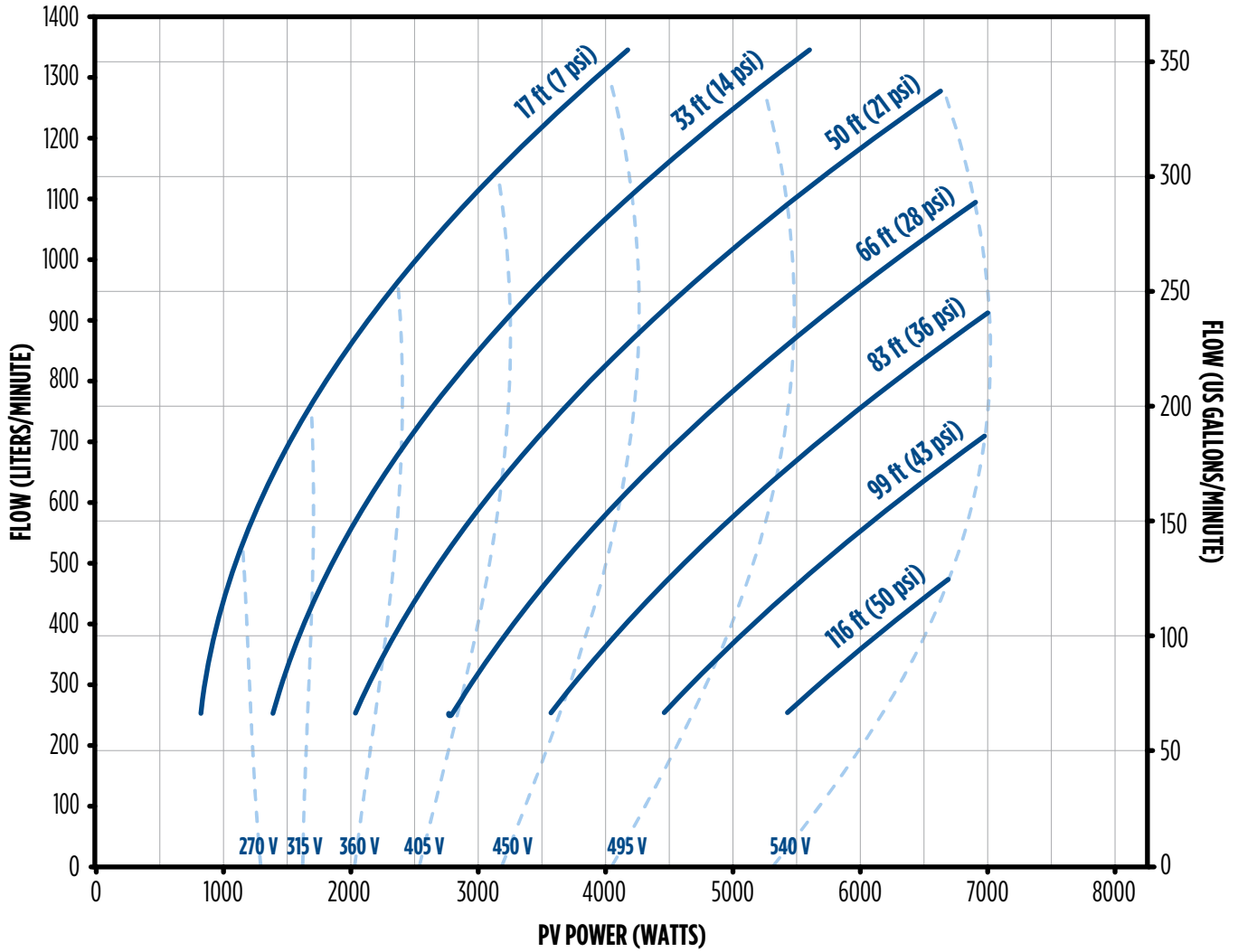
Photon™ Solar 7.5 hp Controller, 220 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

275FDSP-7.5HP

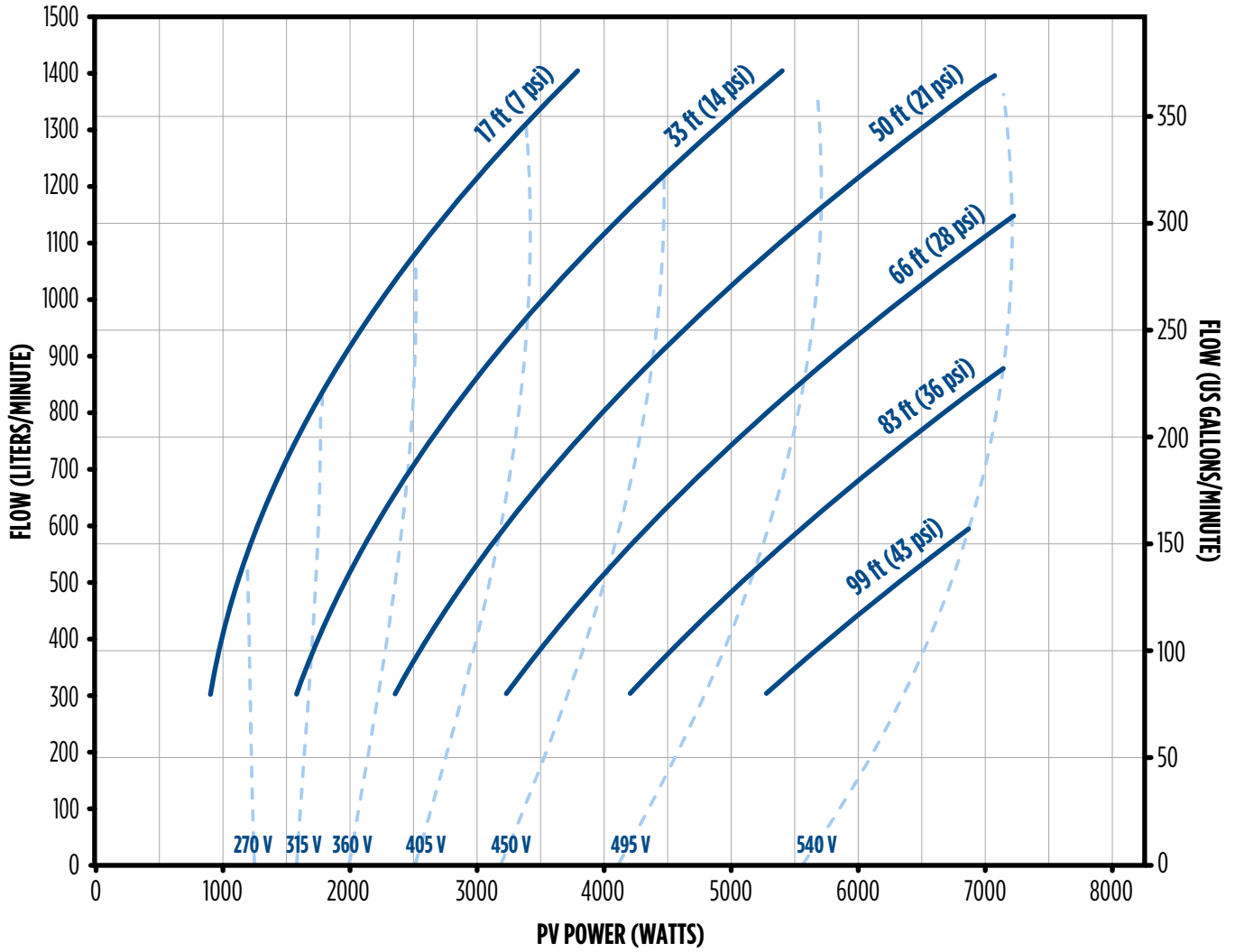
Photon™ Solar 7.5 hp Controller, 275 US gpm 5.0 hp Pump End, 7.5 HP 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

325FDSP-7.5HP

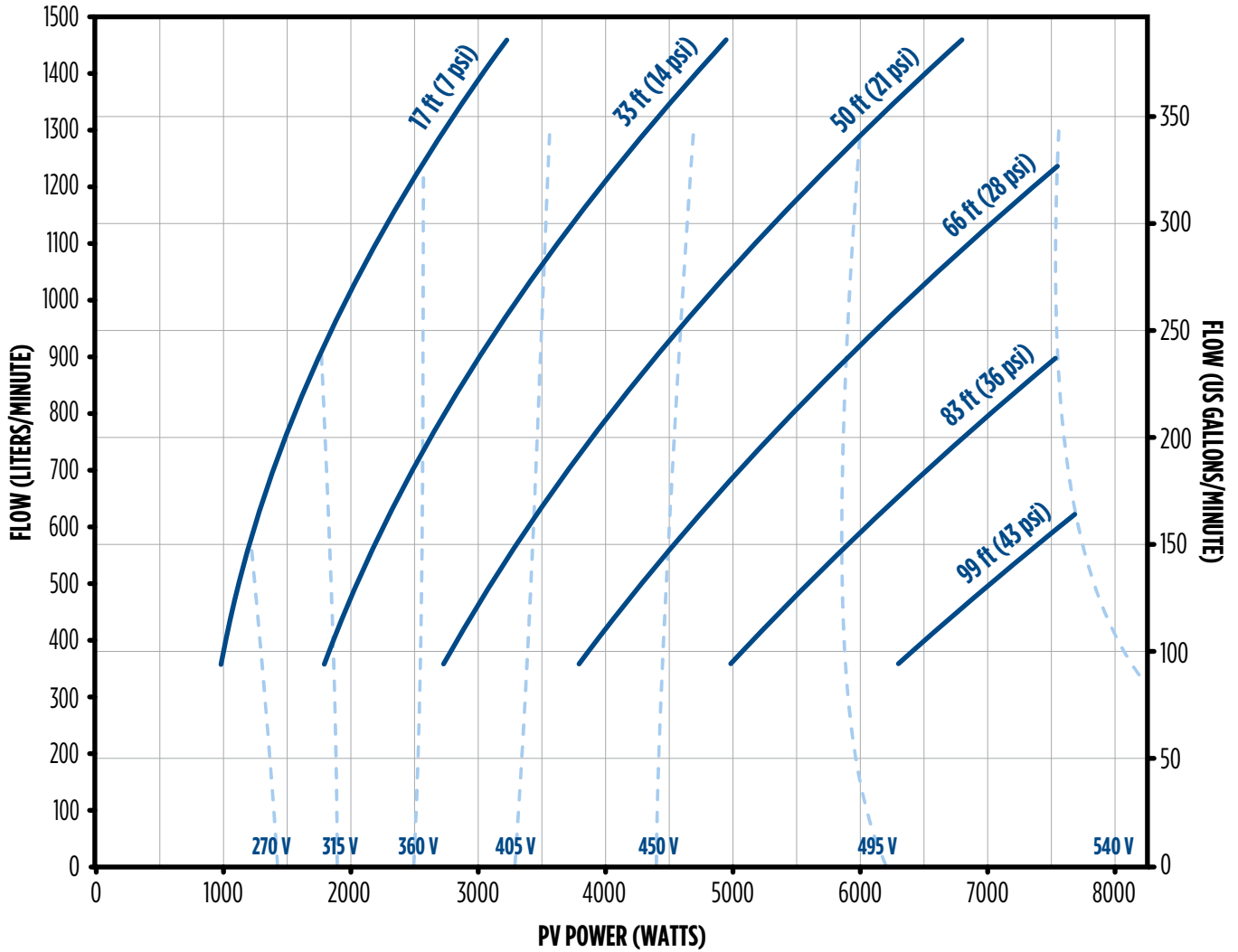
Photon™ Solar 7.5 hp Controller, 325 US gpm 5.0 hp Pump End, 7.5 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 7.5 HP (5.5 KW) PERFORMANCE

375FDSP-7.5HP

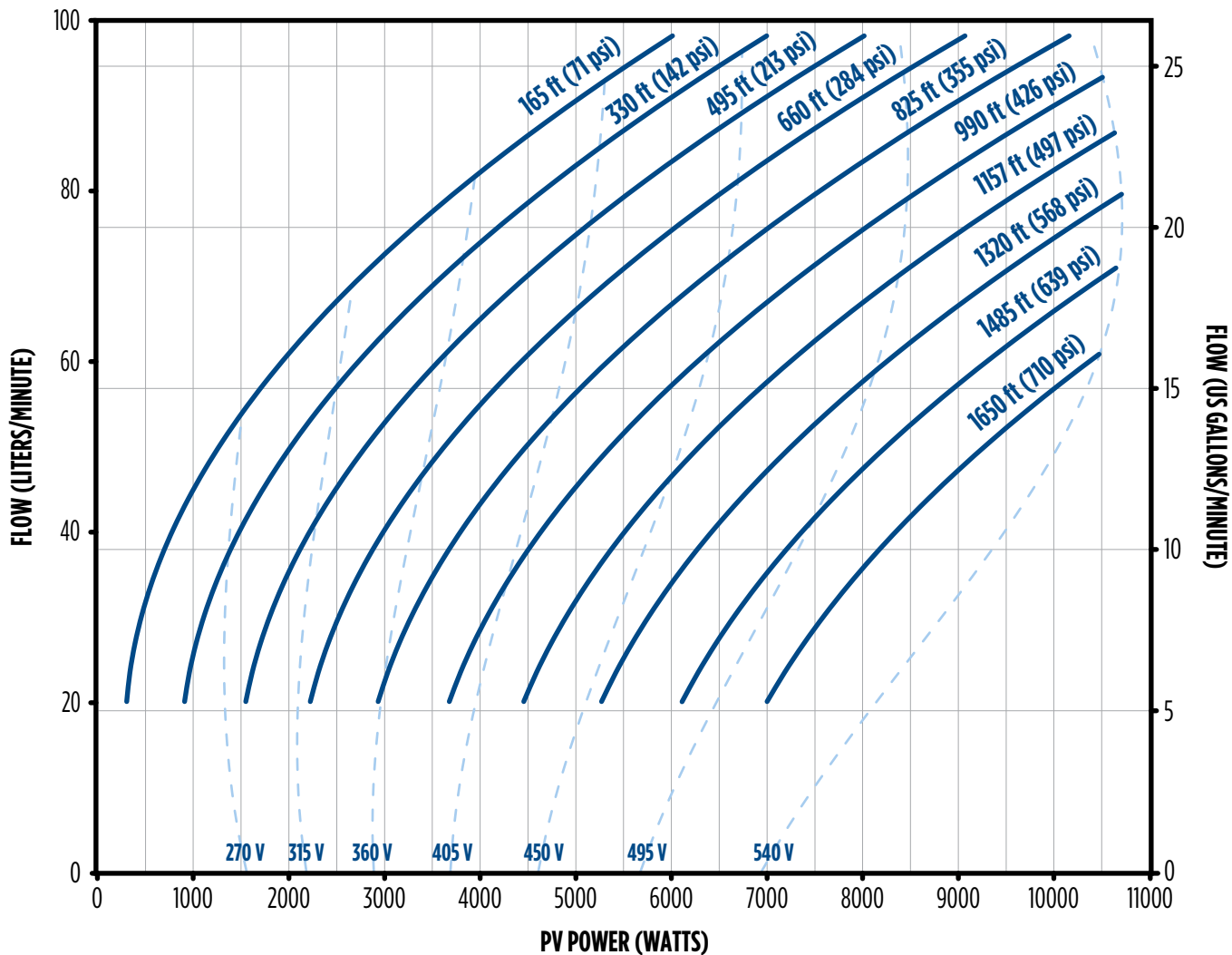
Photon™ Solar 7.5 hp Controller, 375 US gpm 5.0 hp Pump End, 7.5 hp 380cV 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

20FDSP-10HP

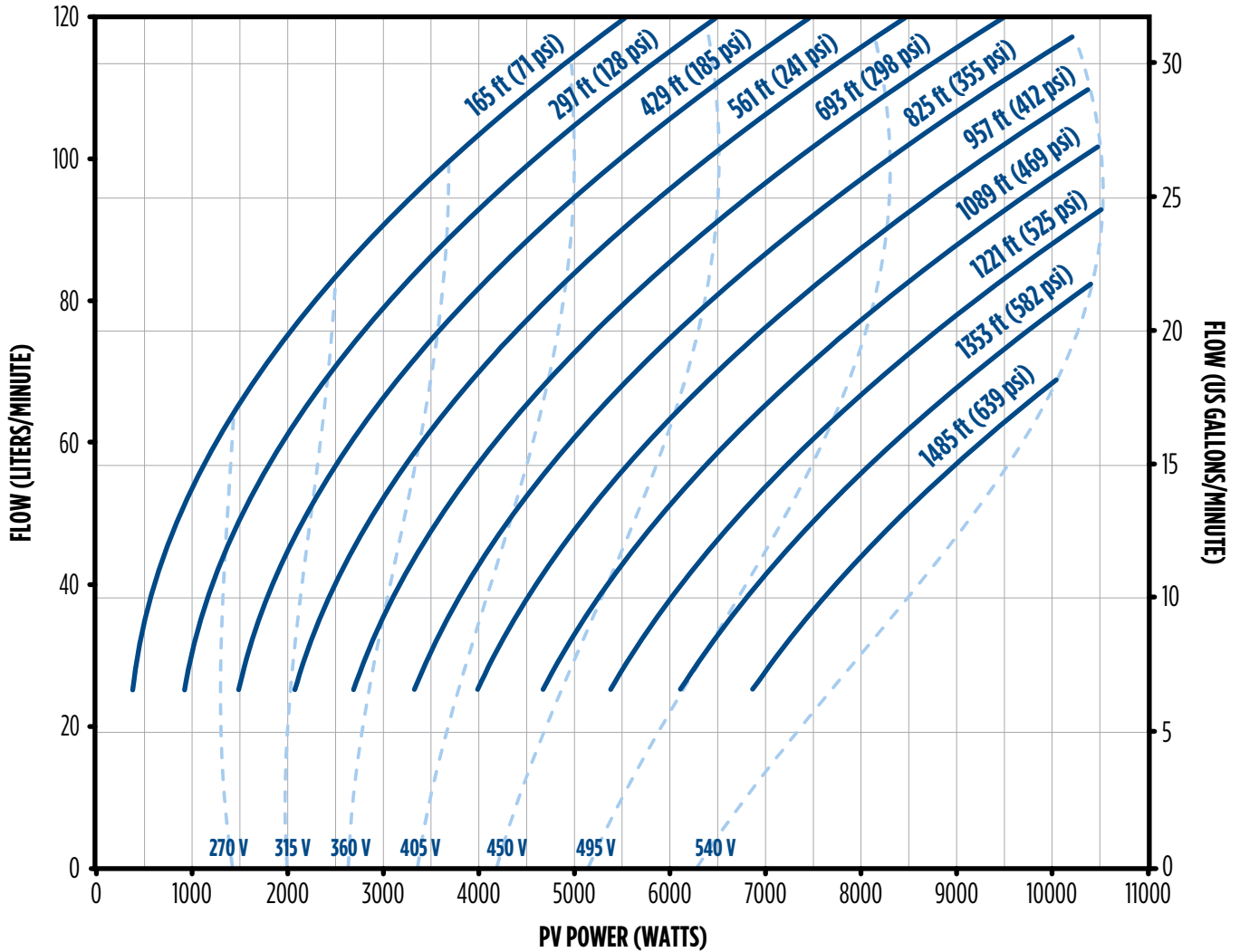
Photon™ Solar 10.0 hp Controller, 20 US gpm 10.0 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

25FDSP-10HP

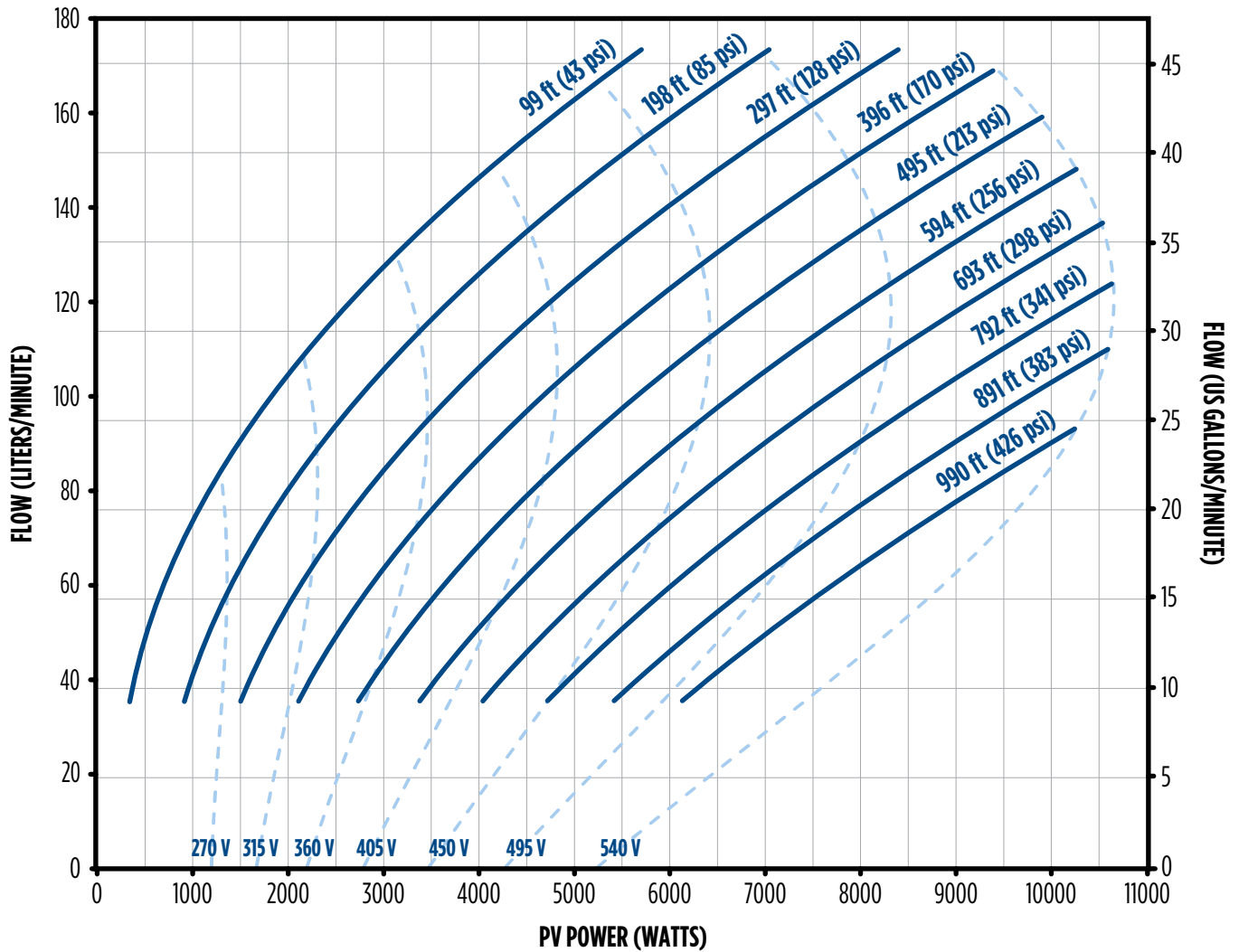
Photon™ Solar 10.0 hp Controller, 25 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

35FDSP-10HP

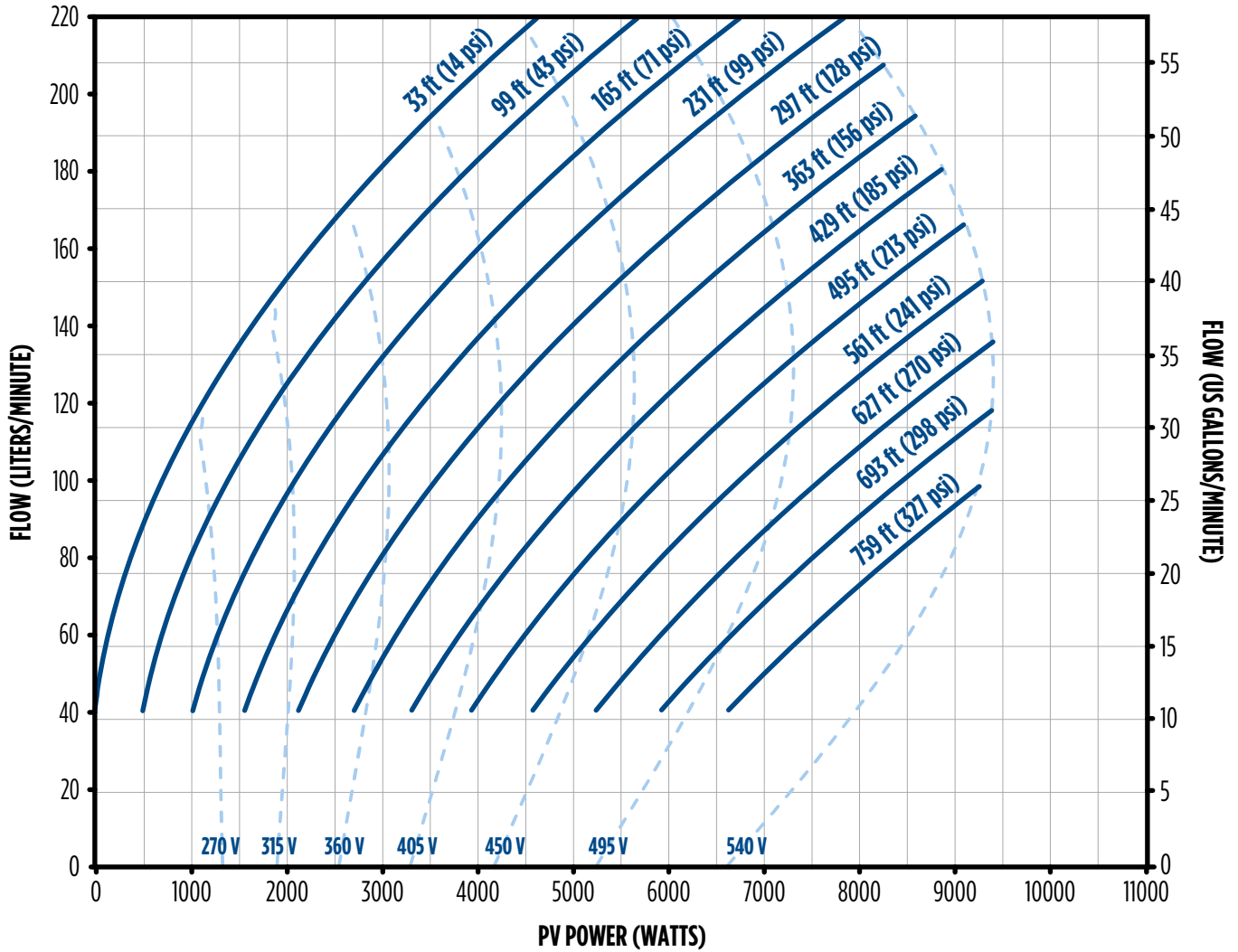
Photon™ Solar 10.0 hp Controller, 35 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

45FDSP-10HP

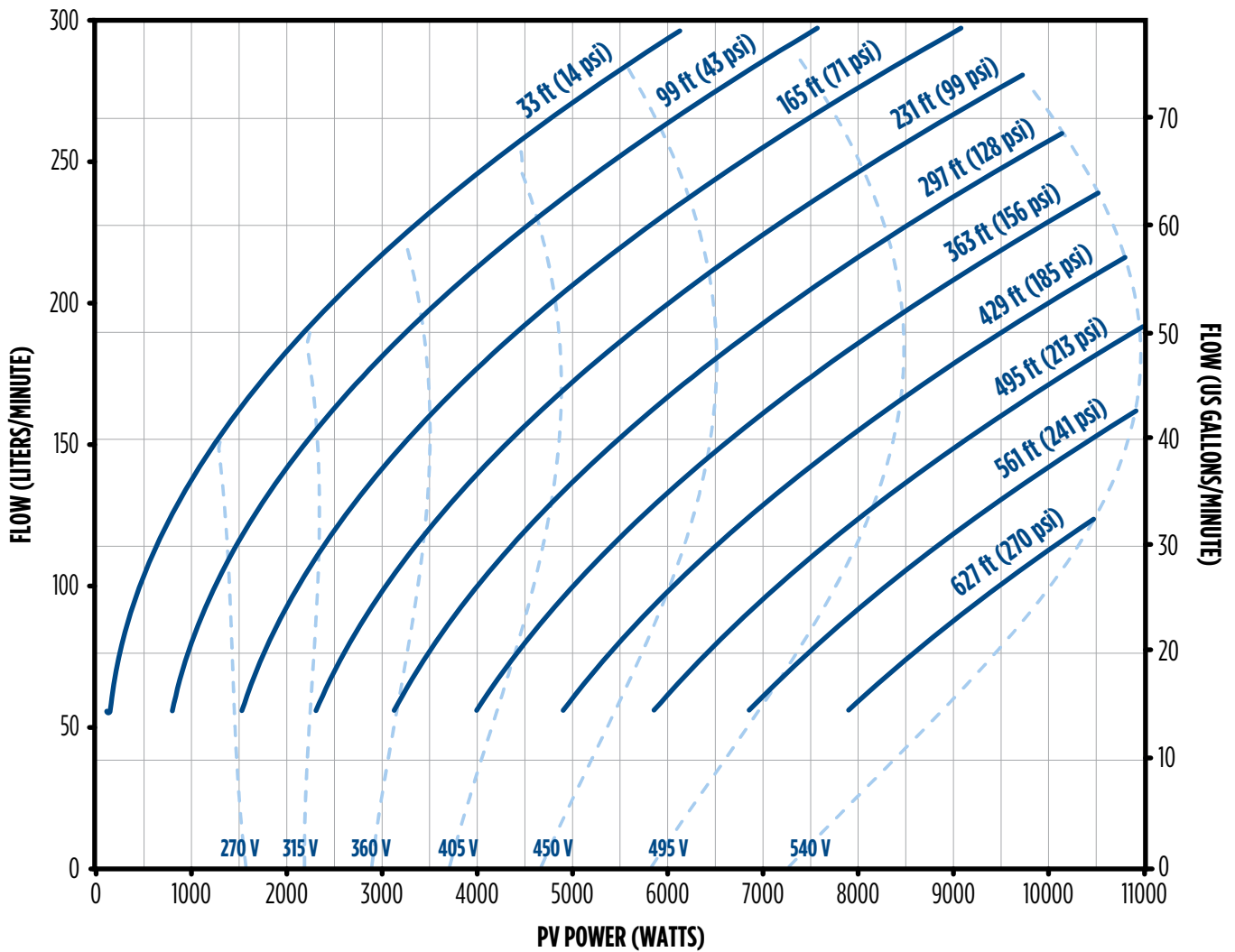
Photon™ Solar 10.0 hp Controller, 45 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

60FDSP-10HP

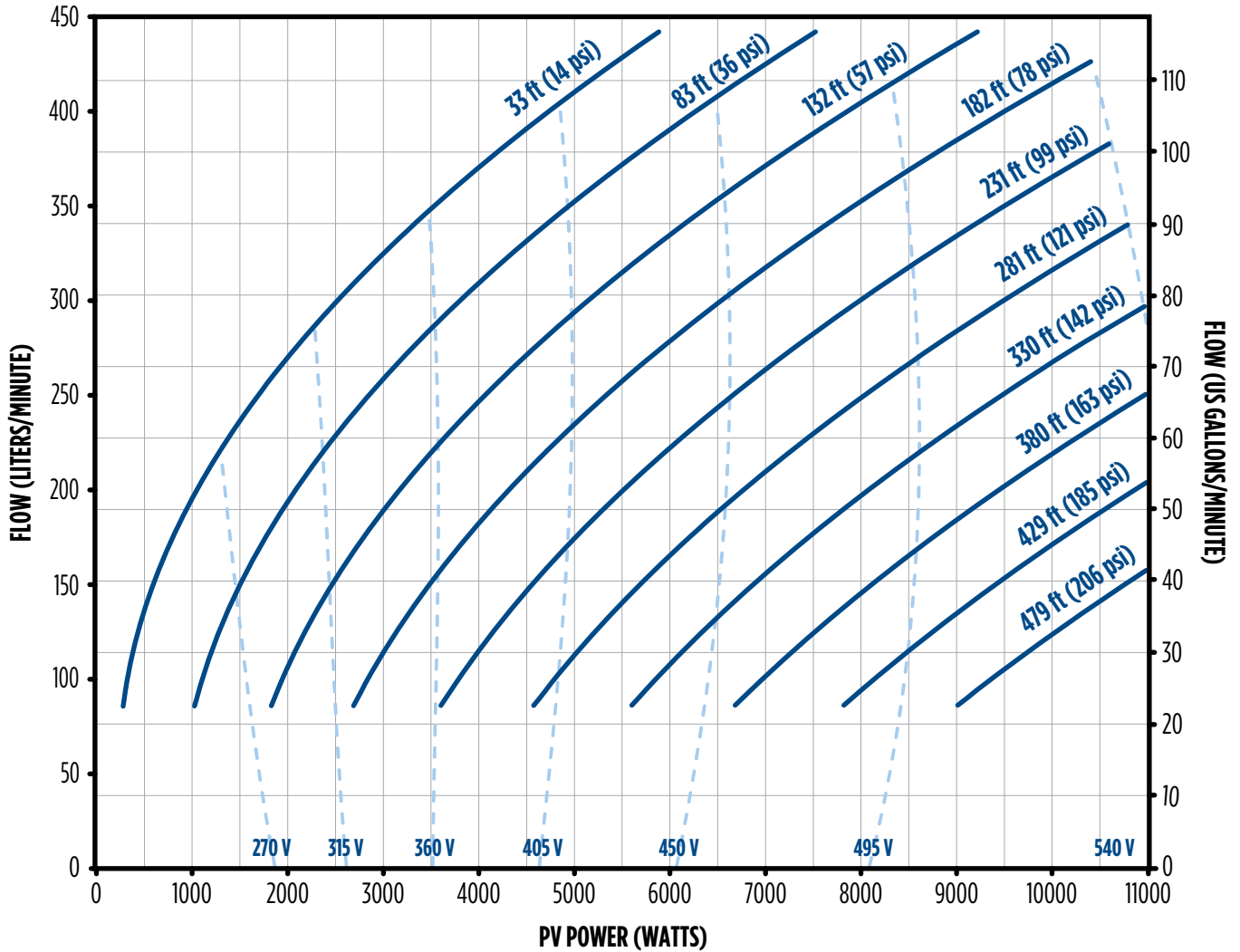
Photon™ Solar 10.0 hp Controller, 60 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

90FDSP-10HP

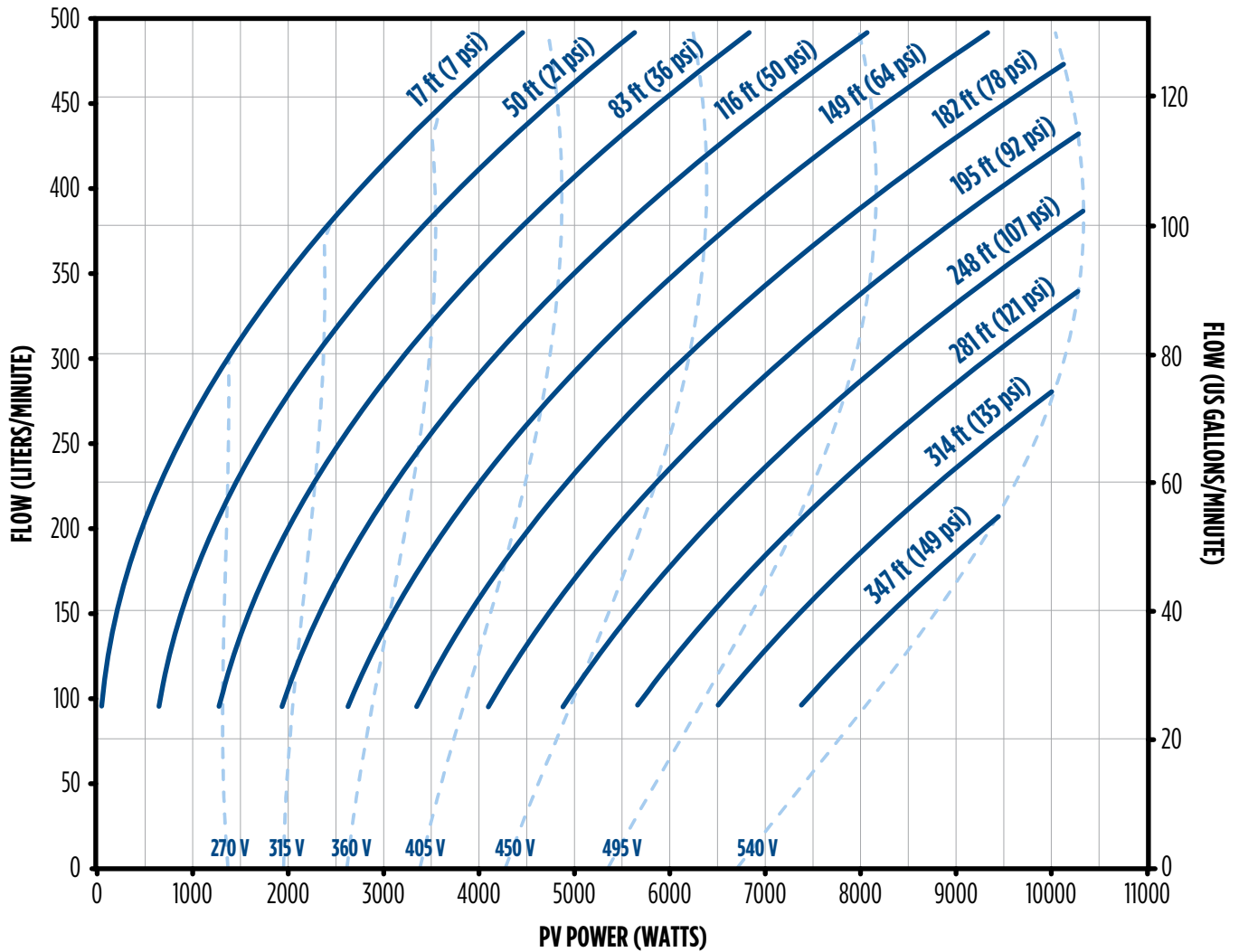
Photon™ Solar 10.0 hp Controller, 90 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

100FDSP-10HP

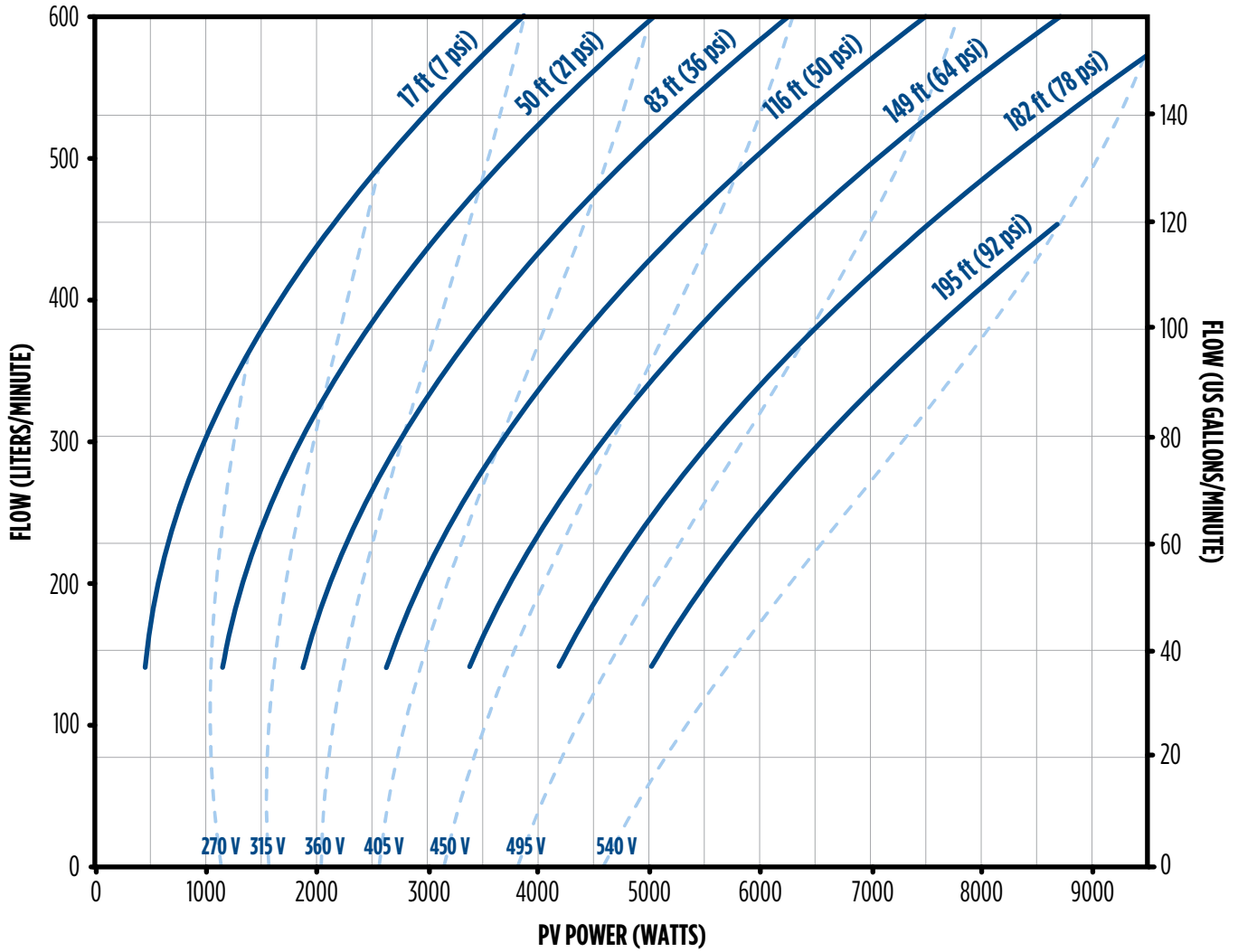
Photon™ Solar 10.0 hp Controller, 100 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

125FDSP-10HP

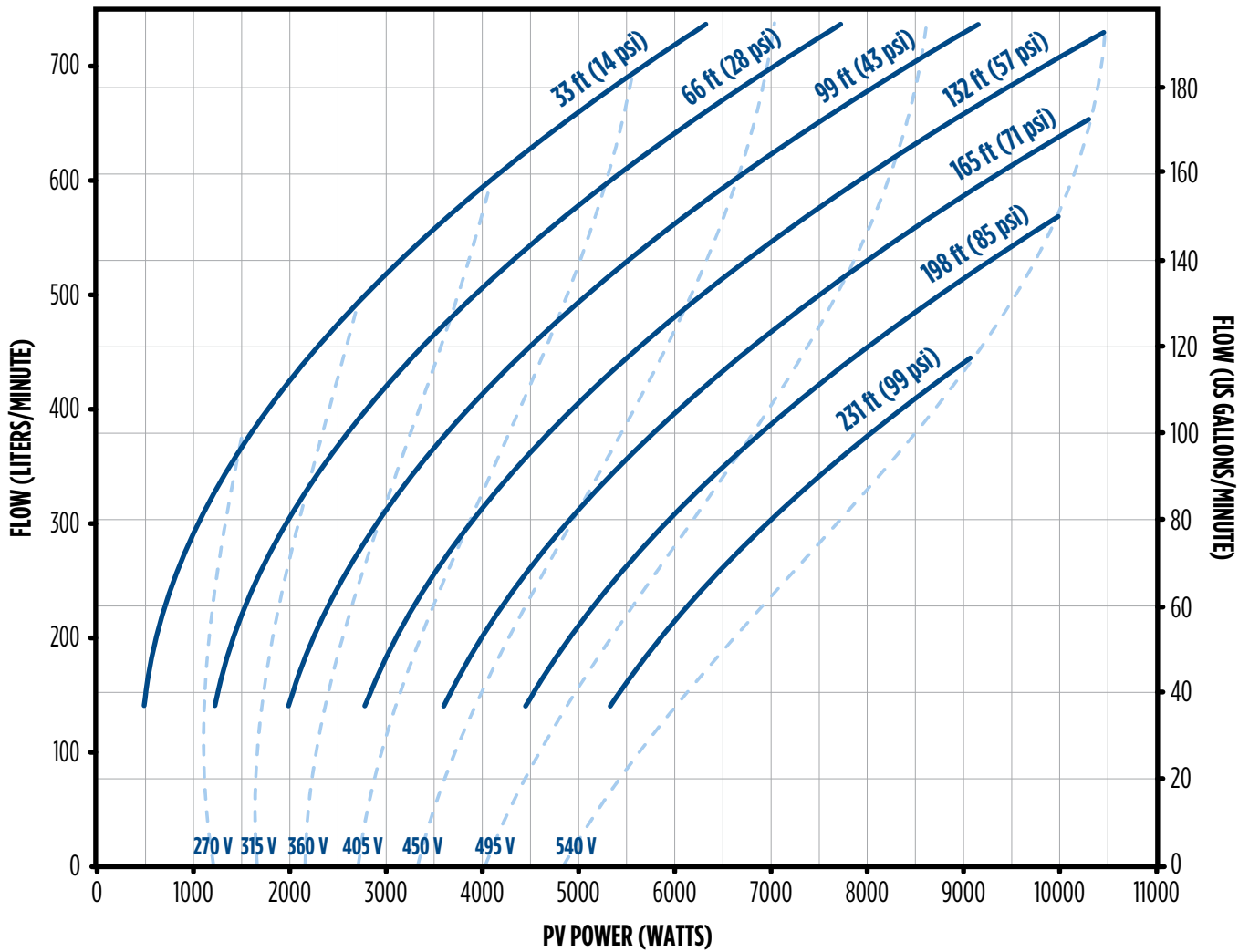
Photon™ Solar 10.0 hp Controller, 125 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

150FDSP-10HP

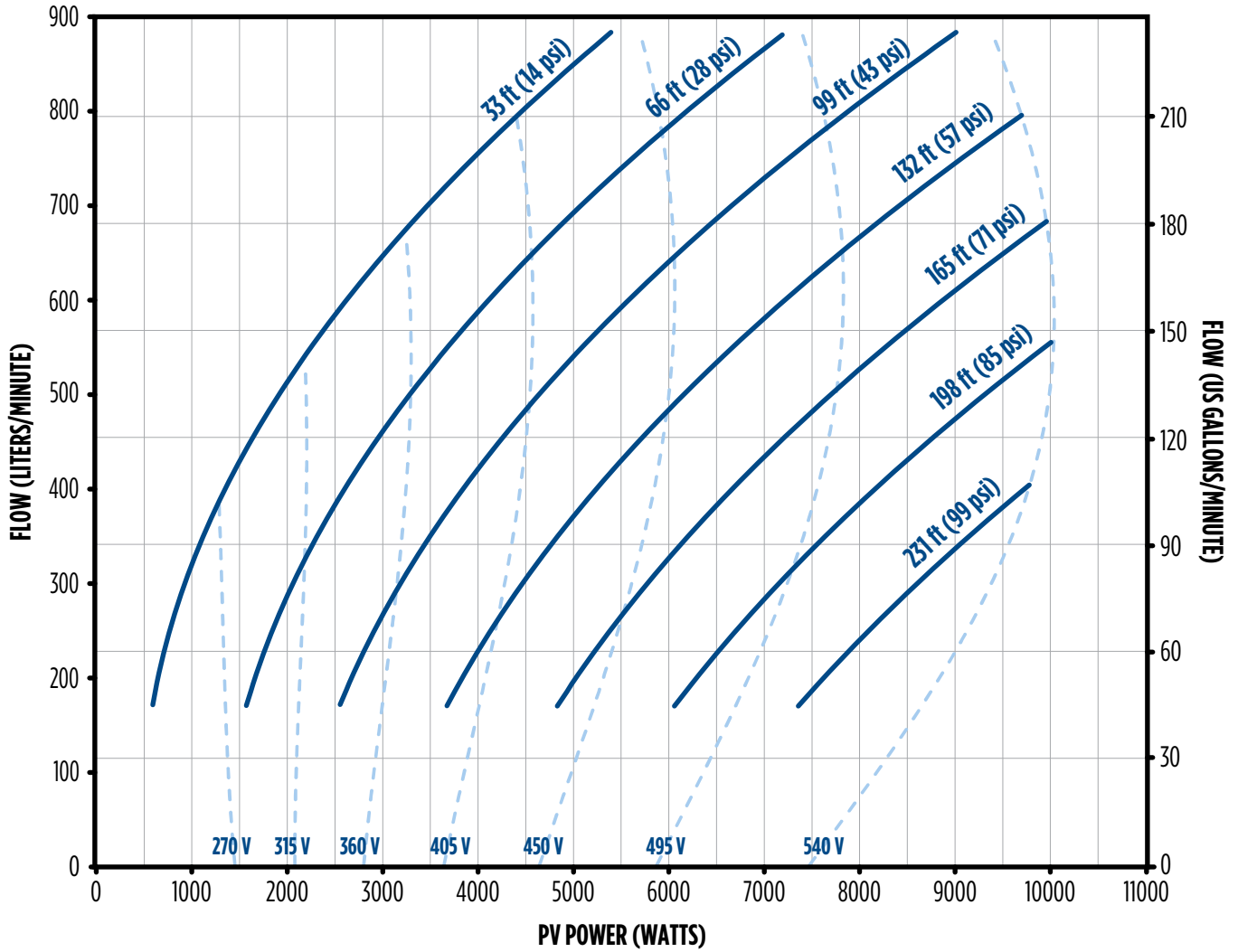
Photon™ Solar 10.0 hp Controller, 150 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

180FDSP-10HP

Photon™ Solar 10.0 hp Controller, 180 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor

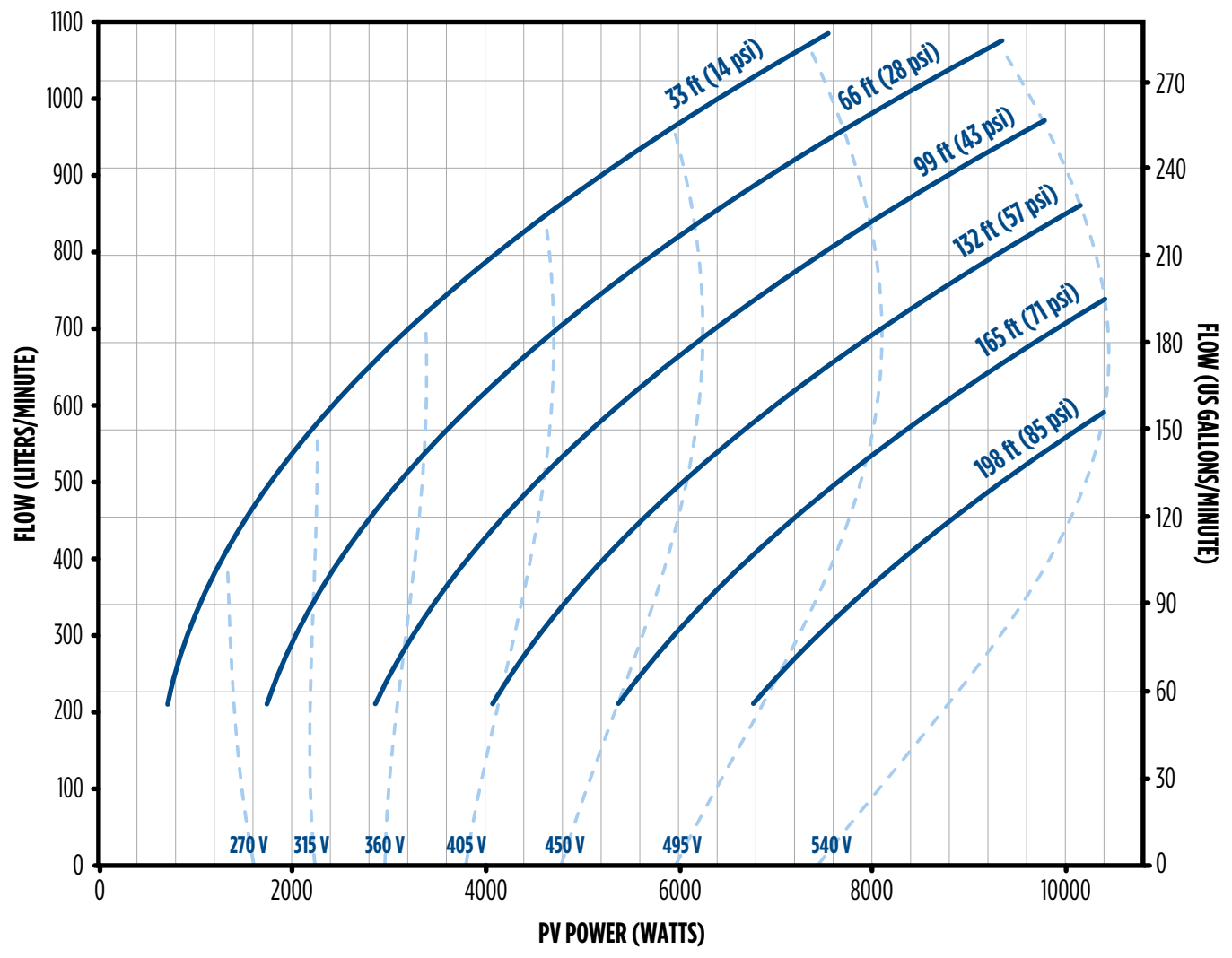




PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

220FDSP-10HP

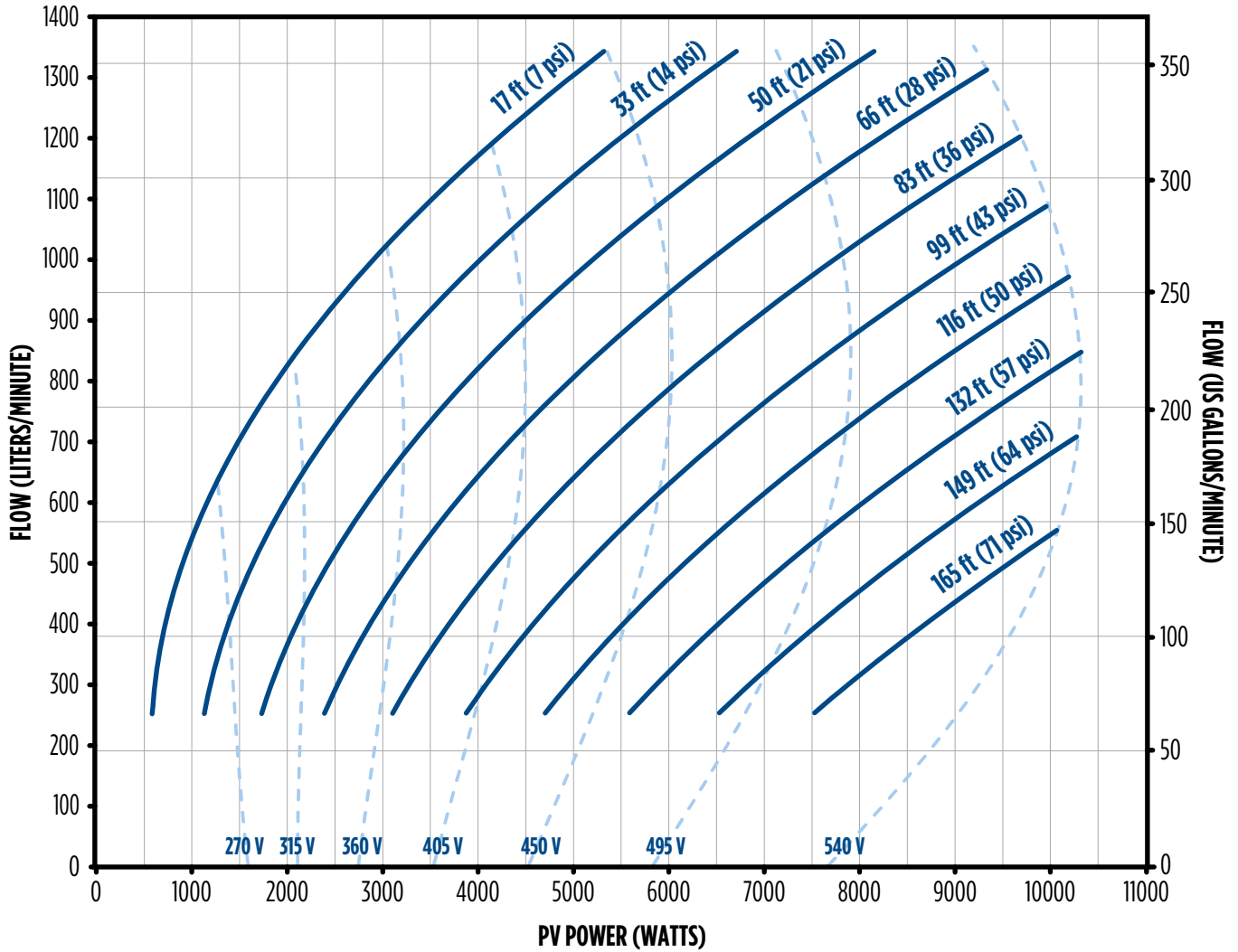
Photon™ Solar 10.0 hp Controller, 220 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

275FDSP-10HP

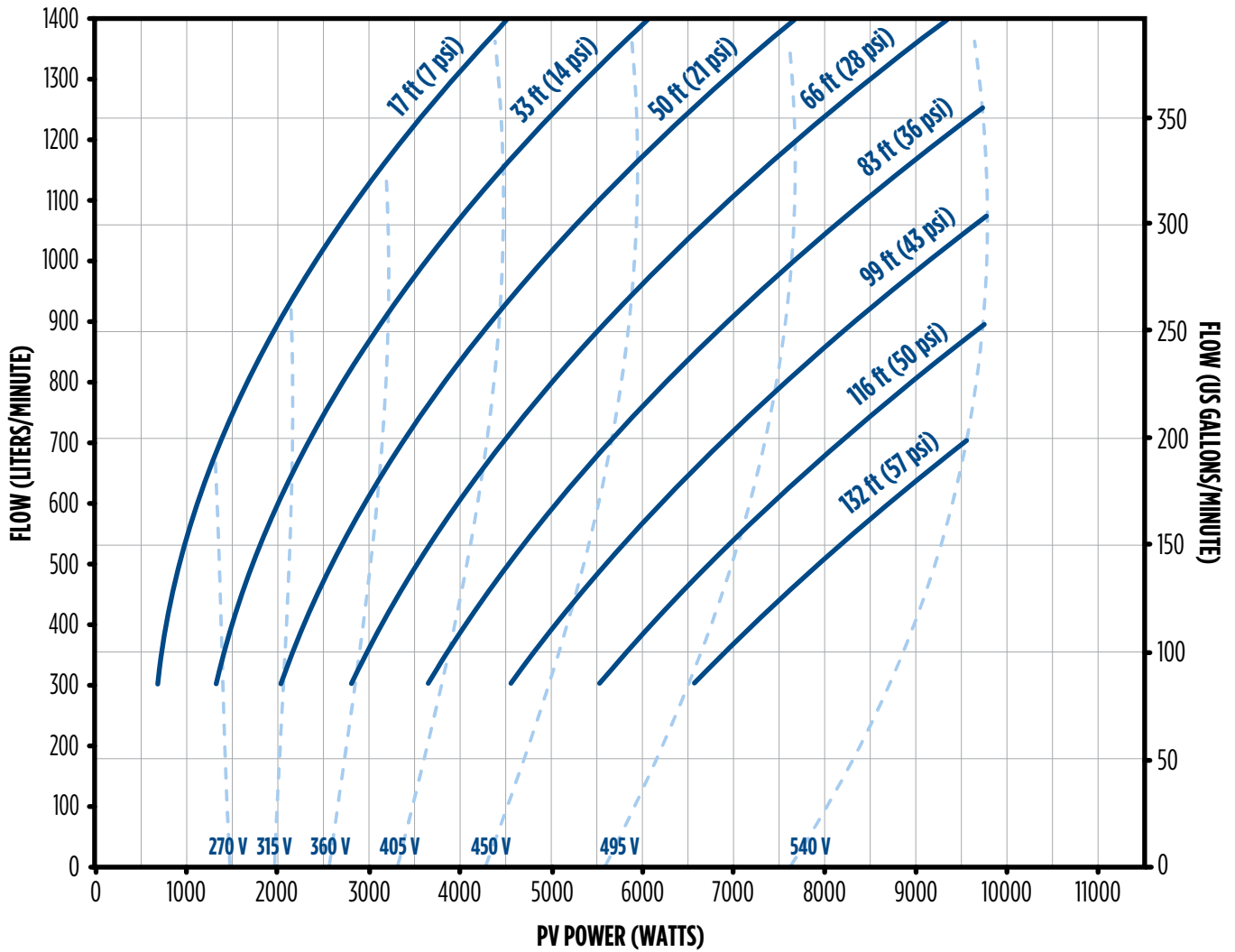
Photon™ Solar 10.0 hp Controller, 275 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

325FDSP-10HP

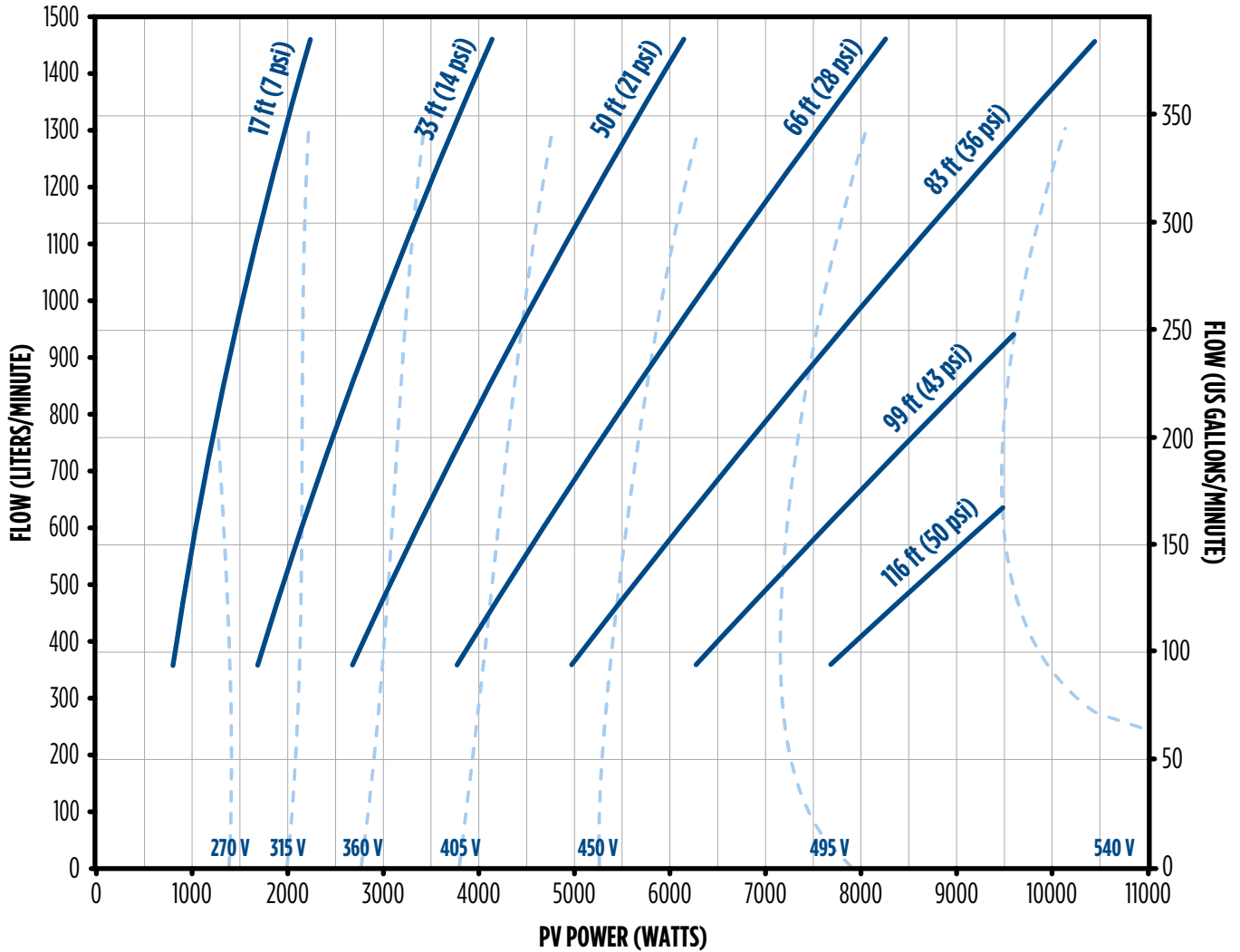
Photon™ Solar 10.0 hp Controller, 325 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - 10 HP (7.5 KW) PERFORMANCE

375FDSP-10HP

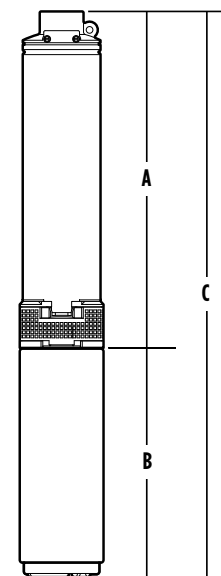
Photon™ Solar 10.0 hp Controller, 375 US gpm 10 hp Pump End, 10.0 hp 380 V 3-phase Motor



PHOTON™ SOLARPAK - DIMENSIONS

SOLAR PMA DIMENSIONS

USGPM	HP	Stages	A		B		C		Discharge	PE Weight		PMA Weight		
			in	mm	in	mm	in	mm		Lbs	Kg	Lbs	Kg	
10	5	39	37	939.8	29.18	741.172	66.18	1680.97	1-1/4" NPT	23	10.4			
15	5	31	37	939.8	29.18	741.172	66.18	1680.97	1-1/4" NPT	23	10.4			
25	5	23	37.19	944.63	29.18	741.172	66.37	1685.80	1-1/4" NPT	18	8.2			
35	5	22	35	889.00	29.18	741.172	64.18	1630.17	2" NPT	17	7.7			
45	5	18	47.75	1212.85	29.18	741.172	76.93	1954.02	2" NPT	25	11.3			
60	5	13	36.75	933.45	29.18	741.172	65.93	1674.62	2" NPT	21	9.5			
90	"	4"/4"	12	43.56	1106.42	29.18	741.172	72.74	1847.60	2" NPT	21	9.5		
100	5	3	14.62	371.35	29.18	741.172	43.8	1112.52	3" NPT	30	13.6			
125	5	2	12.94	328.68	29.18	741.172	42.12	1069.85	3" NPT	29	13.2			
150	5	2	22.1	561.34	29.18	741.172	51.28	1302.51	3" NPT	62	28.1	135.1	61.3	
180	5	3	28.5	723.90	29.18	741.172	57.68	1465.07	4" NPT	71	32.2	144.3	65.5	
220	5	2	23.7	601.98	29.18	741.172	52.88	1343.15	4" NPT	62	28.1	135.5	61.5	
275	5	1	20.7	525.78	22.9	581.66	43.6	1107.44	4" NPT	61	27.7	150	68	
325	5	2	25.46	646.68	22.9	581.66	48.36	1228.34	4" NPT	73	33.1	162	73.5	
375	5	1	20.71	526.03	22.9	581.66	43.61	1107.69	4" NPT	61	27.7	150	68	
20	7.5	39	60.77	1543.56	29.6	751.84	90.37	2295.40	1-1/4" NPT	27	12.2			
25	7.5	35	55.88	1419.35	29.6	751.84	85.48	2171.19	1-1/4" NPT	25	11.3			
35	7.5	34	52.17	1325.12	29.6	751.84	81.77	2076.96	2" NPT	25	11.3			
45	7.5	26	65.25	1657.35	29.6	751.84	94.85	2409.19	2" NPT	33	15			
60	7.5	17	45.25	1149.35	29.6	751.84	74.85	1901.19	2" NPT	25	11.3			
90	7.5	19	64.5	1638.30	29.6	751.84	94.1	2390.14	2" NPT	27	12.2			
100	7.5	5	18.51	470.15	29.6	751.84	48.11	1221.99	3" NPT	32	14.5			
125	7.5	3	15.05	382.27	29.6	751.84	44.65	1134.11	3" NPT	30	13.6			
150	7.5	3	26.1	662.94	29.6	751.84	55.7	1414.78	3" NPT	70	31.8	156.7	71.1	
180	7.5	4	33.3	845.82	29.6	751.84	62.9	1597.66	4" NPT	82	37.2	166.1	75.3	
220	7.5	4	33.3	845.82	29.6	751.84	62.9	1597.66	4" NPT	82	37.2	166.1	75.3	
275	7.5	2	25.46	646.68	24.2	614.68	49.66	1261.36	4" NPT	73	33.1	169	76.7	
325	7.5	2	25.46	646.68	24.2	614.68	49.66	1261.36	4" NPT	73	33.1	169	76.7	
375	7.5	2	25.46	646.68	24.2	614.68	49.66	1261.36	4" NPT	72	32.7	168	76.2	
20	10	52	76.66	1947.16	32.2	817.88	108.86	2765.04	1-1/4" NPT	35	15.9			
25	10	44	66.88	1698.75	32.2	817.88	99.08	2516.63	1-1/4" NPT	30	13.6			
35	10	42	62.23	1580.64	32.2	817.88	94.43	2398.52	2" NPT	31	14.1			
45	10	31	78.3	1988.82	32.2	817.88	110.5	2806.70	2" NPT	38	17.2			
60	10	24	61	1549.40	32.2	817.88	93.2	2367.28	2" NPT	31	14.1			
90	10	24	79.25	2012.95	32.2	817.88	111.45	2830.83	2" NPT	31	14.1			
100	10	6	20.49	520.45	32.2	817.88	52.69	1338.33	3" NPT	34	15.4			
125	10	4	17.13	435.10	32.2	817.88	49.33	1252.98	3" NPT	31	14.1			
150	10	4	30.1	764.54	32.2	817.88	62.3	1582.42	3" NPT	79	35.8	169.7	77	
180	10	5	38.1	967.74	32.2	817.88	70.3	1785.62	4" NPT	90	40.8	179.3	81.3	
220	10	5	38.1	967.74	32.2	817.88	70.3	1785.62	4" NPT	90	40.8	179.3	81.3	
275	10	3	30.21	767.33	25.4	645.16	55.61	1412.49	4" NPT	86	39	188	85.3	
325	10	3	30.21	767.33	25.4	645.16	55.61	1412.49	4" NPT	87	39.5	189	85.7	
375	10	2	25.46	646.68	25.4	645.16	50.86	1291.84	4" NPT	72	32.7	176	79.8	



FHOTON™ SOLARPAK - DRIVE SPECIFICATIONS

SOLAR CONTROLLER

Controller Model No.	581038501994-XXXXX
Input	
DC (PV)	850V DC, open circuit
Output	
Max. Output Voltage	up to 460 V AC, 3-phase
Max. Amps (RMS)	up to 19.9 A, each phase
Output Frequency	30-60 Hz
Efficiency at Max Power	98 % (approx.)
PV Source	
Max. Input Voltage	*200 - 850 V DC
Max. Amps Input	19.3 A DC, continuous
Max. Input Power	Up to 11.7 kW
Controller Size - L x W x D	
Inches (mm)	15.75" x 12.76" x 9.17" (400 x 324 x 233 mm)
Operating Conditions	
Temperature Range	-25 °C to 50 °C (-13 °F to 122 °F)
Relative Humidity Range	0 to 100% Condensing
Enclosure Rating	Type 4 / IP56

* See the PV Solar Array Specifications and System Sizing program for indication of adequate array voltage to provide useful pumping capability

PHOTON™ SURFACE SOLARPAK (1/2–1.5 HP, 0.37–1.1 KW)

Photon™ Surface SolarPAK systems are designed to meet pressure boosting and water transfer needs while running on the power of the sun. Utilizing industry-proven cast iron and stainless steel pumps, systems are available in a range of horsepower sizes that offer high performance solar pumping for a wide variety of applications. Whether boosting water pressure from a cistern tank, solar fountain, or other surface source, Franklin's quality solar products will fit your renewable energy needs.

APPLICATIONS

- Turf Irrigation
- Water Transfer
- Pressure Boosting
- Water Circulation
- Fountains
- Wash Down Applications
- Animal Hydration
- Commercial Water Features
- Rain Water Harvesting
- General Purpose Pumping

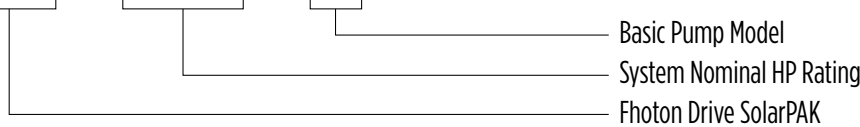


SURFACE SOLARPAK CONTENTS

- Photon™ solar controller
- Franklin Electric pump and motor
- Low flow cut-off switch

SURFACE SOLARPAK NOMENCLATURE

FDSP - X.XHP - XX



SURFACE SOLARPAK - ORDERING INFORMATION

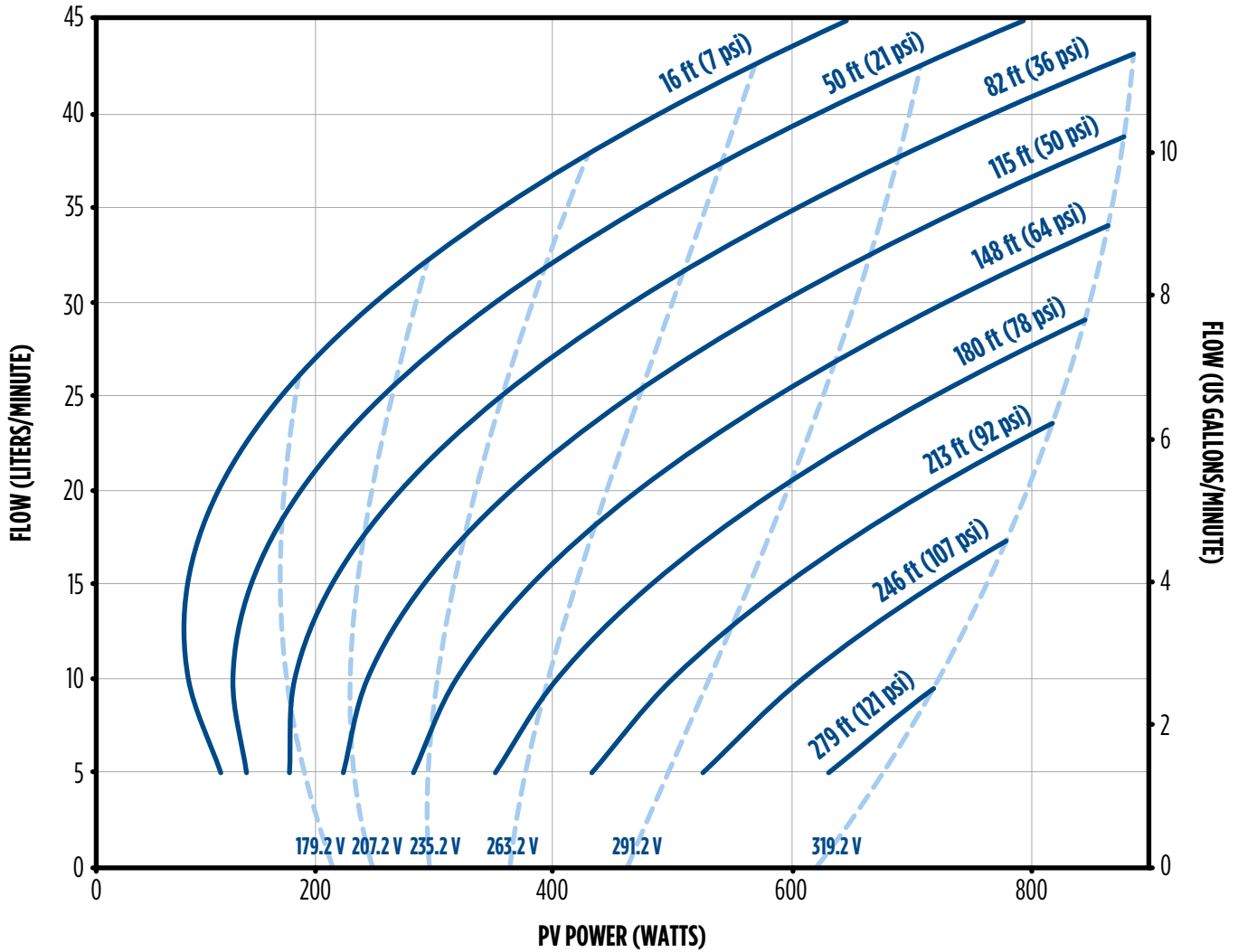
SURFACE SOLARPAK MODEL NUMBERS (NPT)

SolarPak		Photon™ Solar Controller		Surface Pump/Motor (NPT)			Flow Switch (NPT)	
SolarPak Model	Order No.	Drive Model	Part No.	Type	Model	Part No.	Model	Flow switch
FDSP-0.5HP-7BT4	91040725	FD Solar 1.1kW N4	581014200864-14IB000	Booster	7FBT05S4-T	95830755	C25	226014102
FDSP-1.5HP-30MH	91143025	FD Solar 1.1kW N4	581014200864-14IB001	Booster	30FMH2S5-T	96063013	F21	226019102
FDSP-1HP-FCE	91240025	FD Solar 1.1kW N4	581014200864-14IC000	End Suction	FCE1CI-T	90203010	F21	226019102
FDSP-1.5HP-TB	91340025	FD Solar 1.1kW N4	581014200864-14IA000	Self Priming	FTB15CI-SSI-T	92983015	F21	226019102

PHOTON™ SURFACE SOLARPAK - 0.5–1.5 HP PERFORMANCE

FDSP-0.5HP-7BT4

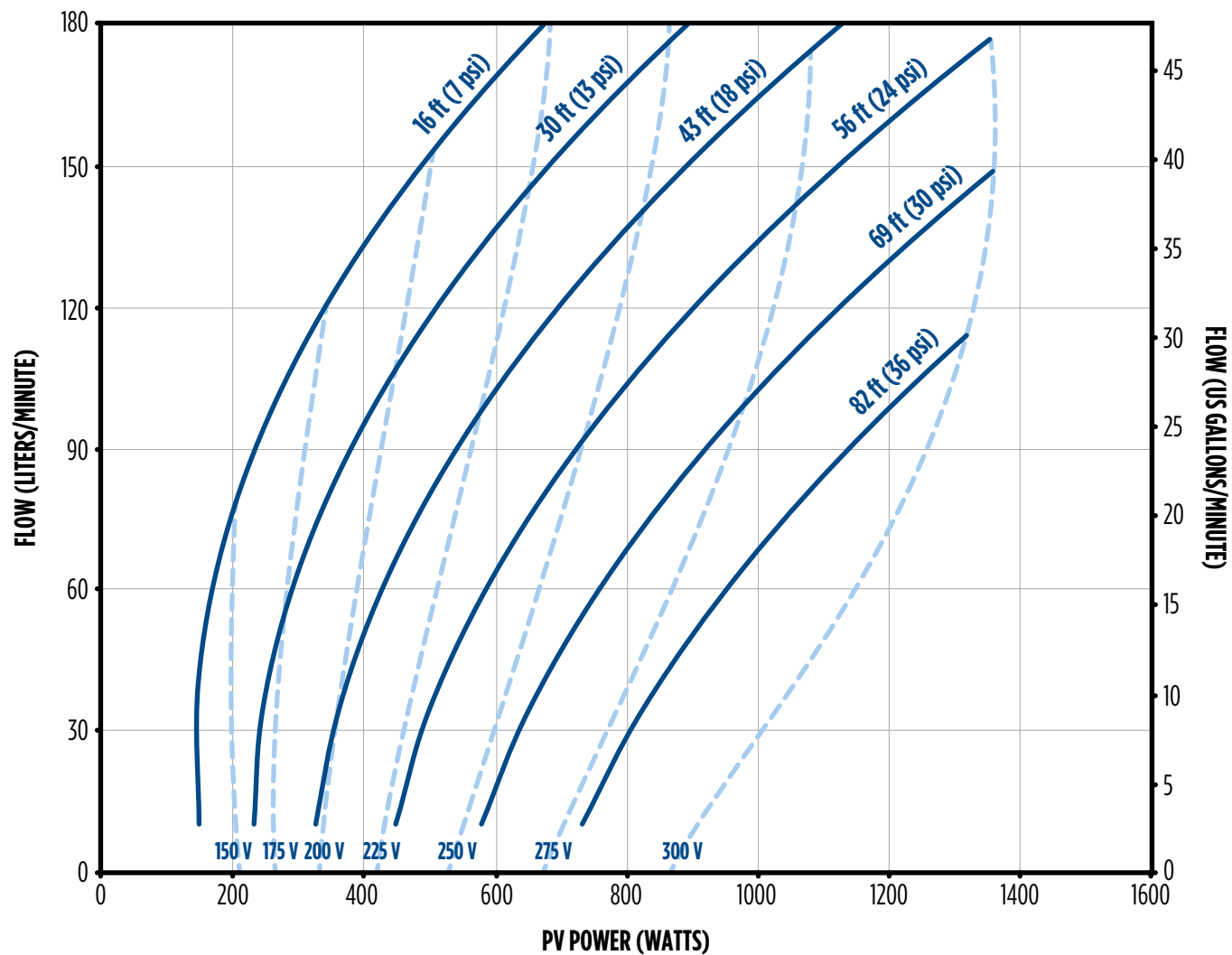
Photon™ Solar 1.5 hp Controller, 0.5 hp 7 US gpm BT4 Pump and Motor (208-230 V, 3-PH, 60 Hz)



PHOTON™ SURFACE SOLARPAK - 0.5-1.5 HP PERFORMANCE

FDSP-1HP-FCE

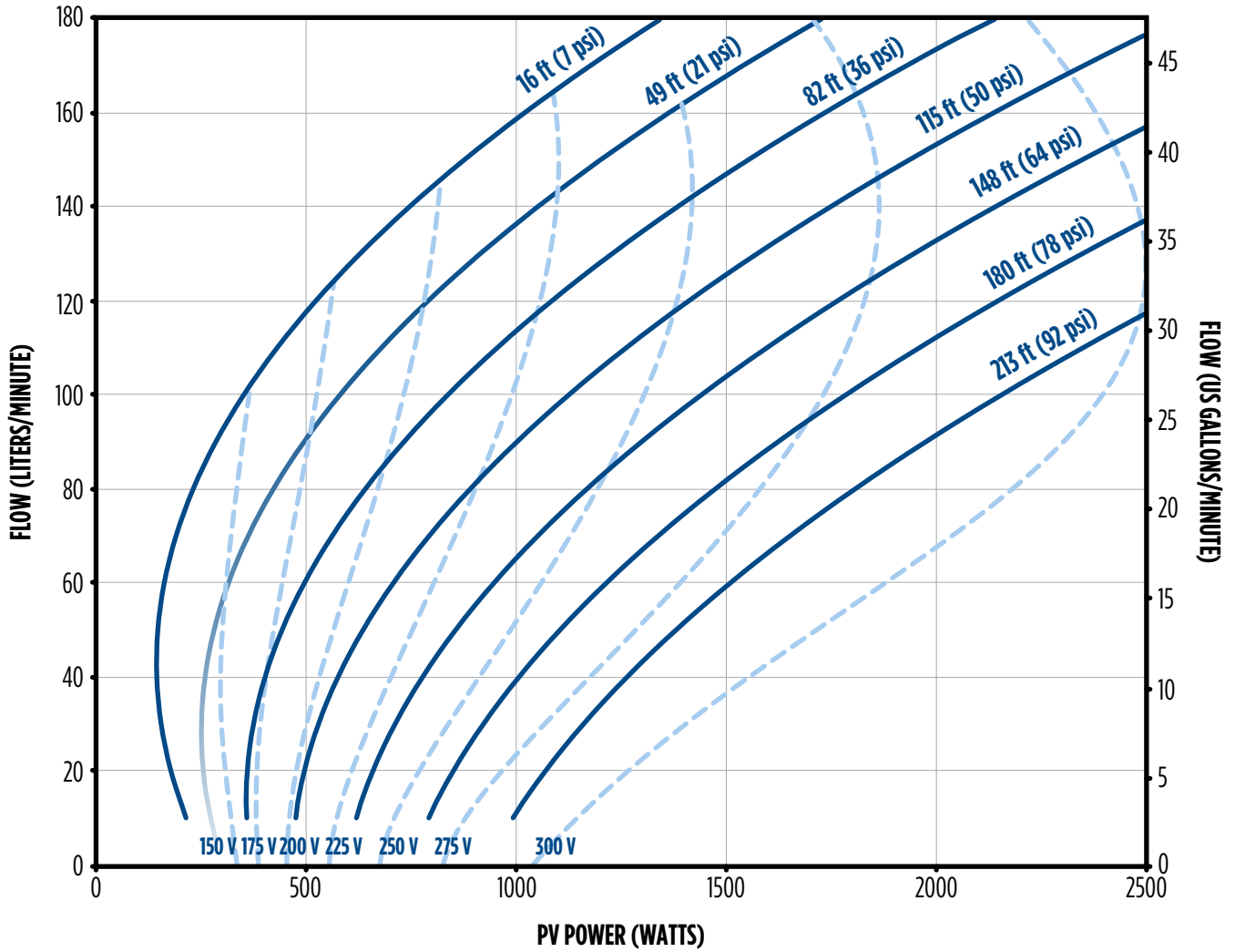
Photon™ Solar 1.5 hp Controller, 1 hp FCE Pump and Motor (208-230 V, 3-PH, 60 Hz)



PHOTON™ SURFACE SOLARPAK - 0.5–1.5 HP PERFORMANCE

FDSP-1.5HP-30MH

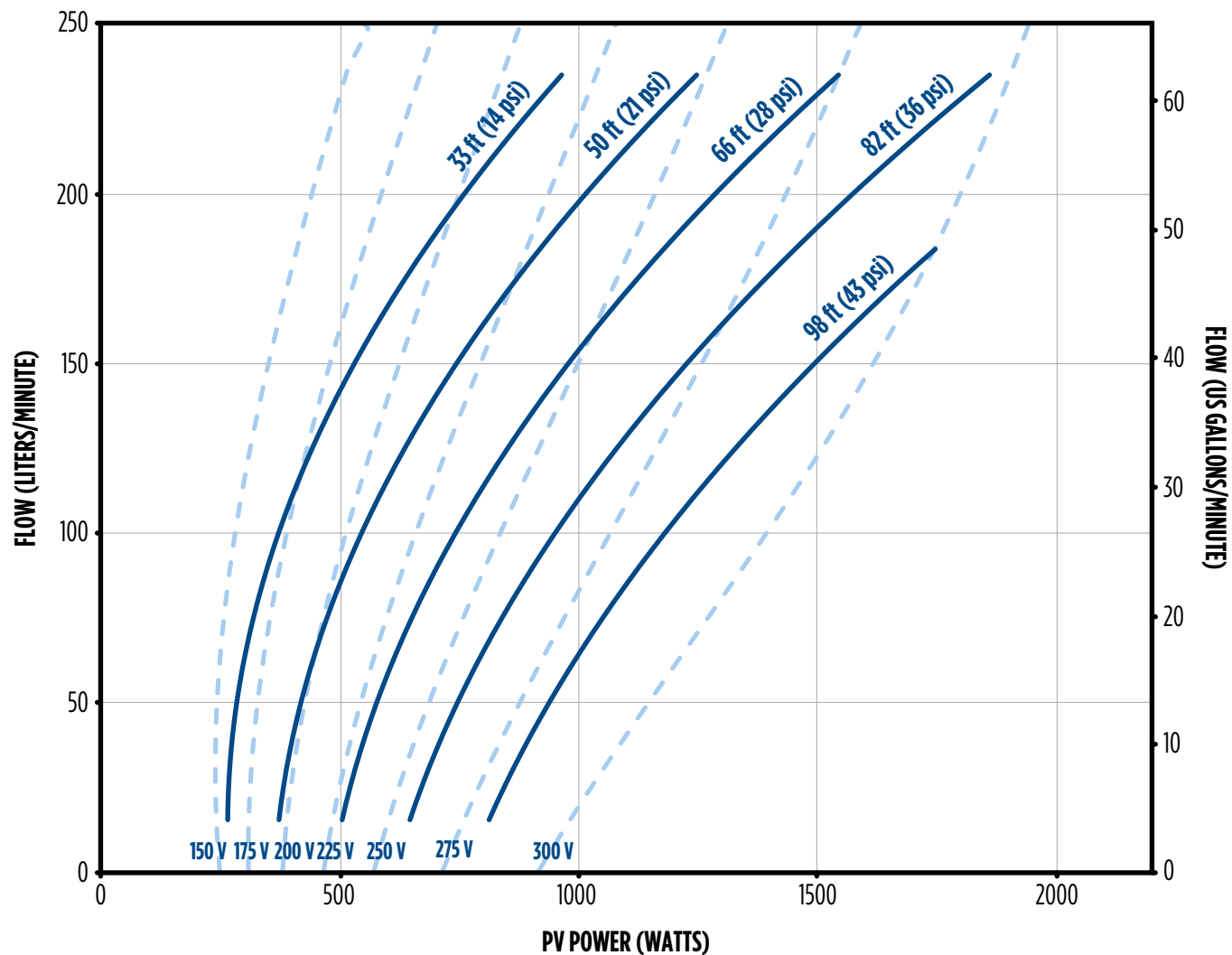
Photon™ Solar 1.5 hp Controller, 2 hp 30 US gpm MH Pump and Motor (208-230 V, 3-PH, 60 Hz)



PHOTON™ SURFACE SOLARPAK - 0.5-1.5 HP PERFORMANCE

FDSP-1.5HP-TB

Photon™ Solar 1.5 hp Controller, 1.5 hp Turf Boss Pump and Motor (208-230 V, 3-PH, 60 Hz)

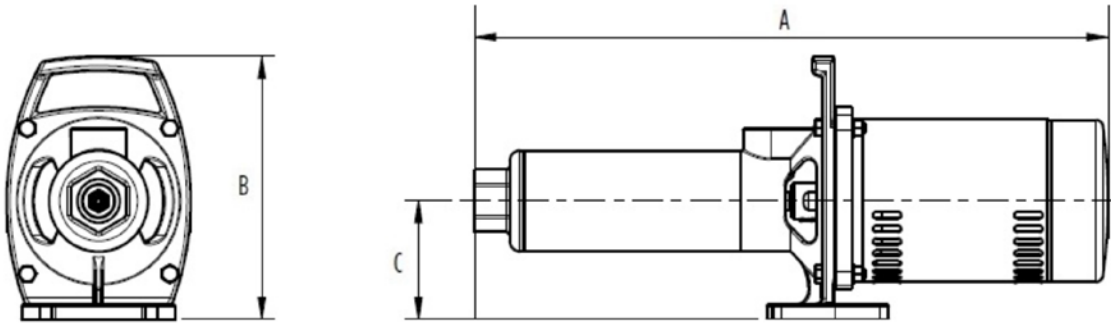


PHOTON™ SURFACE SOLARPAK - DIMENSIONS

SURFACE SOLAR DIMENSIONS

Model	HP	kW	PH	Dimensions										PMA Weight	
				A*		B*		C*		Discharge		Suction		lbs	kg
				in	mm	in	mm	in	mm	in	mm	in	mm		
7FBT05S4-T	0.5	0.37	3	24.69	627	9.09	231	4.09	104	1	25	1	25	37	16.8
30FMH2S5-T	2	1.5	3	21.61	549	8.00	203	4.00	102	1	25	1 1/4	32	43	19.5
FCE1CI-T	1	0.75	3	15.57	395	8.90	226	4.00	102	1	25	1 1/4	32	34	15.5
FTB15CI-SSI-T	1.5	1.1	3	25.00	635	8.87	225	7.27	185	1 1/2	38	1 1/2	38	55	25.0

* Pump image is not representative of all products and is for general reference only; A = Length, B = Height, C = Vertical distance to center of suction line



SURFACE SOLAR CONTROLLER DIMENSIONS

Photon™ Solar Controller	Applicable Pump	Motor Rating	Drive Input Voltage	Controller Size (in/mm)		
				L	W	D
581013000864-141B000	BT4 7GPM 1/2HP	1/2HP, 208-230V 3Ph 60Hz, 1.9 SF	115-420VDC	6.28/159.5	6.28/159.5	7.32/185.93
581013000864-141B001	MH 30GPM 2HP	2HP, 208-230V 3Ph 60Hz, 1.3 SF	115-420VDC	6.28/159.5	6.28/159.5	7.32/185.93
581013000864-141C000	FCE 1HP	1HP, 208-230V 3Ph 60Hz, 1.65 SF	115-420VDC	6.28/159.5	6.28/159.5	7.32/185.93
581013000864-141A000	MH 30GPM 2HP	1.5HP, 208-230V 3Ph 60Hz, 1.3 SF	115-420VDC	6.28/159.5	6.28/159.5	7.32/185.93

ACCESSORIES

AC/DC POWER CONVERTER

- Option for use with all Photon drive models up to 1.5 hp
- Accepts either AC (single-phase) or DC power source*
 - 115 V AC for use with 3-phase, 100 V Franklin Electric submersible motor
 - 230 V AC for use with 3-phase, 200 V Franklin Electric submersible motor
- Converter box output power becomes the input source supplying the Photon solar drive
- Output short circuit protection
- Type 4 indoor/outdoor rated enclosure for durability
- UL & CE rated
- Optional communication module

*Source power from a single-phase generator, grid-tie AC source, or DC source; can pair with manual- or auto-crossover switch

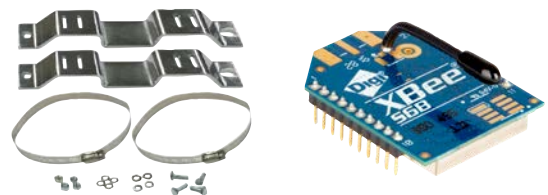


Model	Description
581114204	AC/DC Power Converter, Solar Drive

MISCELLANEOUS

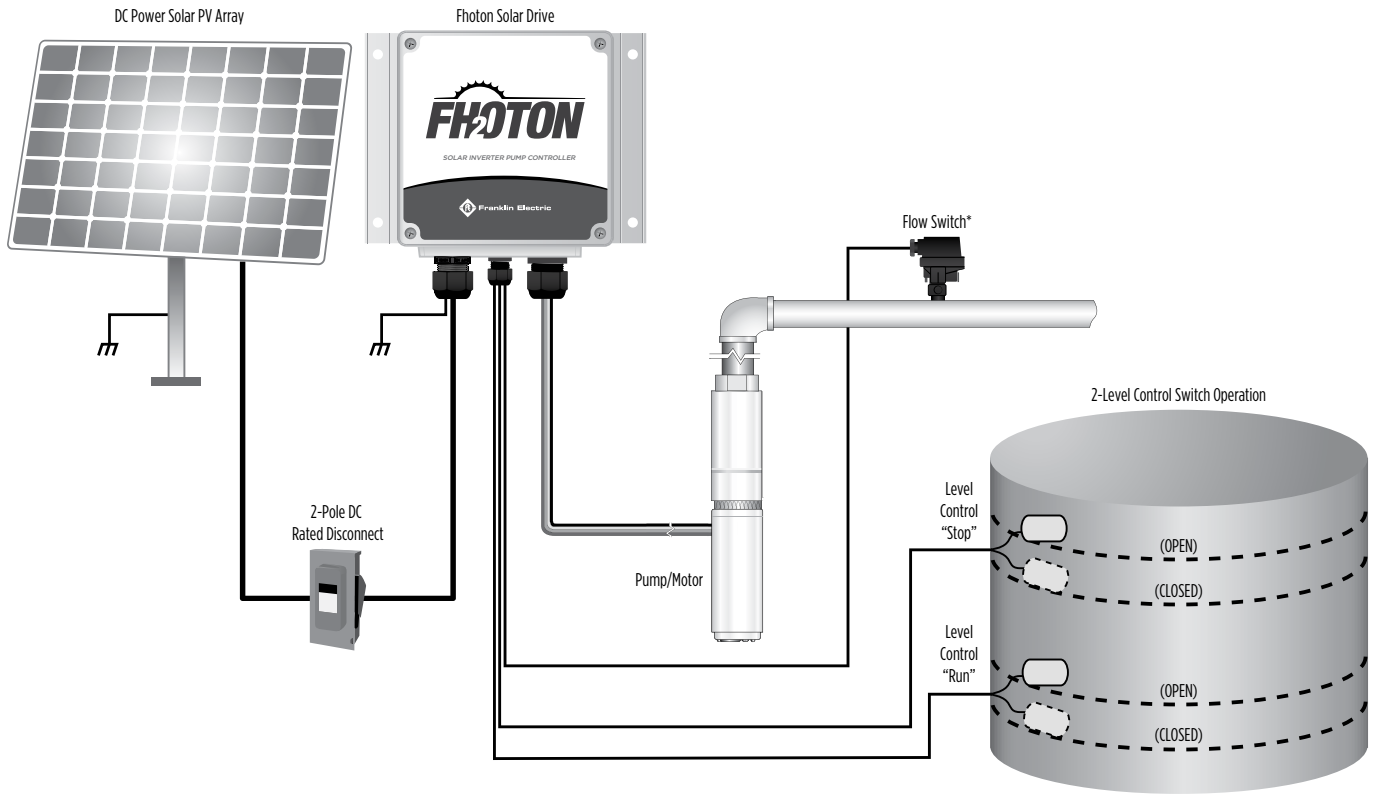
Model	Description
226944901	Photon Mounting Bracket, Pole Sizes 2-8" (round), Pole Size 4" (square)
581COMM-APP	Wi-Fi Module

NOTE: See Franklin literature document M1711 for information on Solar Array Kits and Array Accessories



NOTE: For solar panel and racking information, please refer to the Solar Panel and Racking Spec Sheet (Document: M1711)

SOLARPAK INSTALLATION



* When required or included

