

PDS33

SOLAR PUMP CONTROLLER



PDS33-2S2R2B-EH | PDS33-4T2R2B-EH | PDS33-4T004B-EH
PDS33-4T5R5B-EH | PDS33-4T7R5B-EH | PDS33-4T011B-EH
PDS33-4T015B-EH | PDS33-4T018R5B-EH



Up to 99.8% MPPT efficiency



AM PMSM single phase,
Multi types of pumps



Automatic start and stop



Multi pump protection



Automatic hybrid compensation



Zero programming

Model	PDS33-2S2R2B-EH	PDS33-4T2R2B-EH	PDS33-4T004B-EH	PDS33-4T5R5B-EH	PDS33-4T7R5B-EH	PDS33-4T011B-EH	PDS33-4T015B-EH	PDS33-4T018R5B-EH
DC Input								
Max. Input Voltage [V]	450	900						
Start Voltage [V]	180	350						
Min. Input Voltage [V]	150	220						
MPPT Voltage Range [V]	275~380	500~750						
Recommended Input Working Voltage [V]	330	560						
Recommended PV Array Power [kW]	2.7~3.5	2.7~3.5	4.8~6.4	6.6~8.8	9~12	13.2~17.6	18~24	22.2~29.6
AC Input								
Input Voltage [V]	1SP 220-240	3PH 380-480						
Input Frequency [Hz]	50/60							
AC Output								
Output Power [kW]	2.2	2.2	4	5.5	7.5	11	15	18.5
Rated Current [A]	9.6	5.1	9	13	17	25	32	37
Output Voltage [V]	3PH 0-220/240	3PH 0-380/480						
Output Frequency [Hz]	0-50/60							
Control Performance								
Control Mode	V/F, SVC							
Overload Capability	150% of rated current:60 seconds;180% of rated current:1 seconds							
Protection								
Undervoltage Protection	Integrated							
Overvoltage Protection	Integrated							
Overload Protection	Integrated							
Short-circuit Protection	Integrated							
Overheat Protection	Integrated							
Lack of Water Protection	Integrated							
Surge Protection	Integrated							
General Data								
MPPT Efficiency	99.8%							
Ingress Protection Degree	IP20							
Cooling Mode	Air cooling							
Communication Interface	RS485 communication interface							
Ambient Operating Temperature	-20℃ ~ 60℃ (>45℃, rated power will be derated for 1% by every additional 1℃)							
Operation Altitude	Below 2000 meters, there is no need to derate, 2000-3000 meters, each increase of 100 meters, derate 1%							
Physical Dimension [H*W*D] [mm]	187*88*138	207*100*147	247*130*167			360*182*197		385*219*197
Weight [kg]	1.4	1.7	2.6	2.7	7.05	7.15	10.35	
Standard Warranty [Month]	18							
Certification Standards	IEC/EN 61800-5-1 IEC/EN 61800-2:2004,IEC/EN61800-3:2004,CE							

Notes: 1. Total power of PV arrays can be 1.2~1.6 times of power of water pump as per irradiation conditions in different countries and areas.

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PDS33-4T022B-EH | PDS33-4T030B-EH | PDS33-4T037B-EH
 PDS33-4T045B-EH | PDS33-4T055B-EH | PDS33-4T075B-EH
 PDS33-4T093B-EH | PDS33-4T110B-EH



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Model	PDS33-4T022B-EH	PDS33-4T030B-EH	PDS33-4T037B-EH	PDS33-4T045B-EH	PDS33-4T055B-EH	PDS33-4T075B-EH	PDS33-4T093B-EH	PDS33-4T110B-EH
DC Input								
Max. Input Voltage [V]	900							
Start Voltage [V]	350							
Min. Input Voltage [V]	220							
MPPT Voltage Range [V]	500~750							
Recommended Input Working Voltage [V]	560							
Recommended PV Array Power [kW]	26.4~35.2	36~48	44~59.2	54~72	66~88	90~120	112~149	132~176
AC Input								
Input Voltage [V]	3PH 380~480							
Input Frequency [Hz]	50/60							
AC Output								
Output Power [kW]	22	30	37	45	55	75	93	110
Rated Current [A]	45	60	75	91	112	150	176	210
Output Voltage [V]	3PH 0~380/480							
Output Frequency [Hz]	0~50/60							
Control Performance								
Control Mode	V/F, SVC							
Overload Capability	150% of rated current:60 seconds;180% of rated current:1 seconds							
Protection								
Undervoltage Protection	Integrated							
Overvoltage Protection	Integrated							
Overload Protection	Integrated							
Short-circuit Protection	Integrated							
Overheat Protection	Integrated							
Lack of Water Protection	Integrated							
Surge Protection	Integrated							
General Data								
MPPT Efficiency	99.8%							
Ingress Protection Degree	IP20							
Cooling Mode	Air cooling							
Communication Interface	RS485 communication interface							
Ambient Operating Temperature	-20℃ ~ 60℃ (>45℃, rated power will be derated for 1% by every additional 1℃)							
Operation Altitude	Below 2000 meters, there is no need to derate, 2000~3000 meters, each increase of 100 meters, derate 1%							
Physical Dimension [H*W*D] [mm]	360*219*197	442*256*228		543*310*280		580*358*328		
Weight [kg]	10.45	13.5	13.8	22.3	22.7	38.93	39.45	40.07
Standard Warranty [Month]	18							
Certification Standards	IEC/EN 61800-5-1,IEC/EN 61800-2:2004,IEC/EN61800-3:2004,CE							

Notes: 1. Inductor is suggested to be added to the solar pumping system if the distance between solar pump controller and water pump is over 50m.

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PDS33-4T132B-EH | PDS33-4T160B-EH | PDS33-4T185B-EH
PDS33-4T200B-EH | PDS33-4T220B-EH | PDS33-4T250B-EH
PDS33-4T280B-EH | PDS33-4T315B-EH | PDS33-4T355B-EH | PDS33-4T400B-EH



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Model	PDS33-4T132B-EH	PDS33-4T160B-EH	PDS33-4T185B-EH	PDS33-4T200B-EH	PDS33-4T220B-EH	PDS33-4T250B-EH	PDS33-4T280B-EH	PDS33-4T315B-EH	PDS33-4T355B-EH	PDS33-4T400B-EH
DC Input										
Max. Input Voltage [V]	900									
Start Voltage [V]	350									
Min. Input Voltage [V]	220									
MPPT Voltage Range [V]	500~750									
Recommended Input Working Voltage [V]	560									
Recommended PV Array Power [kW]	158~211	192~256	222~296	240~320	264~352	300~400	336~448	378~504	426~568	480~640
AC Input										
Input Voltage [V]	3PH 380~480									
Input Frequency [Hz]	50/60									
AC Output										
Output Power [kW]	132	160	185	200	220	250	280	315	355	400
Rated Current [A]	253	304	340	377	426	465	520	585	650	725
Output Voltage [V]	3PH 0~380/480									
Output Frequency [Hz]	0~50/60									
Control Performance										
Control Mode	V/F, SVC									
Overload Capability	150% of rated current:60 seconds;180% of rated current:1 seconds									
Protection										
Undervoltage Protection	Integrated									
Overvoltage Protection	Integrated									
Overload Protection	Integrated									
Short-circuit Protection	Integrated									
Overheat Protection	Integrated									
Lack of Water Protection	Integrated									
Surge Protection	Integrated									
General Data										
MPPT Efficiency	99.8%									
Ingress Protection Degree	IP20									
Cooling Mode	Air cooling									
Communication Interface	RS485 communication interface									
Ambient Operating Temperature	-20℃ ~ 60℃(>45℃, rated power will be derated for 1% by every additional 1℃)									
Operation Altitude	Below 2000 meters, there is no need to derate, 2000~3000 meters, each increase of 100 meters, derate 1%									
Physical Dimension [H*W*D] [mm]	1199*502*355			1570*600*408				1696*800*246.3		
Weight [kg]	87.68	88.42	89.9	179.8	179.75	180.25	180.25	245.3	245.3	246.3
Standard Warranty [Month]	18									
Certification Standards	IEC/EN 61800-5-1,IEC/EN 61800-2:2004,IEC/EN61800-3:2004,CE									

Notes: 1. Inductor is suggested to be added to the solar pumping system if the distance between solar pump controller and water pump is over 50m.