

















PSH150 is an advanced DIN rail 1-phase input, 150W SMPS (Switched Mode Power Supply) with a distinctive feature: 10kV isolation between primary and secondary.

This allows it to be used in energy management, telecom, renewable energy and other demanding applications.

■ Main Features

- Class II wiring (PE connection not required)
- 10kVac primary to secondary isolation (suitable for energy management applications)
- Wide output voltage range 5...55Vdc, user settable
- Auxiliary 12V/100mA power supply
- High efficiency and compact size
- **Digital Power regulation**
- User settable current limitation threshold
- Remote ON/OFF or other remote control functions possible through INHIBIT input
- Modbus over USB and RS-485 interfaces for control and monitoring
- Multiple protections
- Can be paralleled for power or redundancy (integrated ORing circuitry)
- Up to 50°C operating temperature with no derating
- Wall mount fixing possible
- Suitable for **POWERMASTER** software (available for Windows and Android OS)



TECHNICAL DATA

Comment Comm	TECHNICAL DATA	NULL
Section of the procession	Model type	PSH150
Mill contains ordinaries (arresponded by the containing organization programmate)		5 55Vdc
12.04 @ 5.1374c, 5.04 @ 340c, 2.04 @ 340c, 2.04 @ 340c, 2.04 @ 340c, 2.05	ŭ	
1.5 to 1.0 to		
2,5 to 3,1,4 (ageneting on void) 1,2,5 to 3,1,4 (ageneting on void on voi		
	Short circuit peak current	
Teach Teac	Load regulation	
Setting of Procession	Ripple & Noise ¹	≤ 120mVpp
State Content Conten	Hold up time	≥ 30ms
Settory chemistries	Battery charger function	C.C. / C.V. (setup via front panel or POWERMASTER application)
States Sections		
Thermal protection	Battery chemistries	
Thermal protection		Overload and short circuit protection
Imput undervoltage protection 2 620 dc	Destautions	·
Dutput overvoltage protection	Protections	 Input undervoltage lockout (UVLO)
7 segment, 3 dipts display 3 Statu EBS 3 programming keys 1 Statu EBS 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys 3 programming keys		Input overvoltage protection (VDR)
3 Status LIDS 3 Status LIDS 3 Status LIDS 3 Status LIDS 1 Status LID	Output overvoltage protection	≥ 62Vdc
Sartus Signals		7 segment, 3 digits display
NHHBT - Lolated remote ON/OFF input, active for 5 - 30Vdc Local Part		3 Status LEDs
Description	Status Signals	
Parallel connection	-	
		, ,
Passible for power and redundancy (integrated Offing circuitry)		
Nominal: 120. 2400%c Range: 90. 2777/c Frequency	Parallal connection	
Nominal: 120_1240vac Rangers 9.0_277vac Range		Possible for power and redundancy (integrated Oking circuitry)
Range: 90277Vac Frequency 10468 110400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 10400 1	INPUT DATA	N==::=1:420, 240V==
March Marc	Input AC rated voltage	
Input DC rated vortage	Frequency	
Imput DC rated current	Input DC rated voltage	
10 10 10 10 10 10 10 10		110400V0C
Min = 240Vace	l '	2.24
Injust DC rated current Injust DC rated		
11 11 11 12 12 13 14 15 15 15 15 15 15 15		1.00
Standby power C4W	·	110
Standby power		
Power Factor Correction		
Sample S		
South (leakage) current South		
Fuse 8AT (not user replaceable) MCB 6A C curve NCB		
Recommended external protection It is strongly recommended to provide external surge arresters (SPD) according to local regulations. Befficiency Sefficiency Sefficiency Poperating temperature ³ Depending on Vout and Vin (Nover 50°C) See charts on Fig. 1 Storage temperature Depending on Vout and Vin over 50°C See charts on Fig. 1 Storage temperature MILHDBK-217F MILHDBK-217F NOVE (Noveroltage category) Pollution degree BeN60255-27 IV Follution degree Safety Standards Safety Sta		
Recommended external protection Bit is strongly recommended to provide external surge arresters (SPD) according to local regulations. Seetenal DATA Efficiency Seethand on William (Seetenate) Deparating temperature ³ Deparating on Vout and Vin) Deparating on Vout and Vin over 50°C Deparating on Vout and Vin over 50°C See charts on Fig. 1 Storage temperature Humidity Seetharts on Fig. 1 Seetha	Internal Protection fuse	Fuse 8AT (not user replaceable)
### Strongly recommended to provide external surge arresters (SPU) according to local regulations. ###################################	Recommended external protection	
Sefficiency S78% > 86% (depending Vout and Vin)		It is strongly recommended to provide external surge arresters (SPD) according to local regulations.
Comparing temperature Comp		
Coperating temperature	p: : I	
Depending on Vout and Vin over 50°C See charts on Fig. 1		
See charts on Fig. 1 See charts on Fig. 1	Operating temperature	
Set Carles on Fig. 1 Set Carles on Fig. 1 Set Carles on Fig. 1 Storage temperature	Derating	, 9
Humidity		
Safety Standards		
MIL-HDBK-217F	Humidity	595% r.H. non condensing
EN60255-27 IV	Life time expectation	351'777h (40.1 years) at 25°C ambient full load
IEC60664-1 2 10kVac 10	MTBF	■ MIL-HDBK-217F > 700'000h at 25°C ambient full load
IEC60664-1 2 10kVac 10	Overvoltage category	■ EN60255-27 IV
UL508	Pollution degree	
EN60255-27 (reference) IEC/EN61010-1	Input / output isolation	10kVac
EN60255-27 (reference) IEC/EN61010-1		■ UL508 (reference)
IEC/EN61010-2-201	Cafata Chandanda	· · · ·
EMC Emission EMC Emission EMC Emission EN55011 (CISPR11) Class A EN55022 (CISPR22) Class A EN61000-3-2 Class A EN61000-4-2 Level 3 EN61000-4-3 Level 4 EN61000-4-4 Level 4 EN61000-4-5 Level 4 EN61000-4-11 Level 2 Protection degree EN60529 IP20 Vibration sinuosoidal EMS5011 (CISPR11) Class A Loas A EN5501 (CISPR12) Class A Level 3 Evel 4 Tested up to 6kV EN61000-4-11 Level 2 Frotection degree EN60529 IP20	Sarety Standards	■ IEC/EN61010-1
EMC Emission		■ IEC/EN61010-2-201
EN61000-3-2 Class A EN61000-4-2 Level 3 EN61000-4-3 Level 4 EN61000-4-4 Level 4 EN61000-4-5 Level 4 EN61000-4-11 Level 2 Protection degree EN60529 IP20 Vibration sinuosoidal IEC60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z)		· · · ·
EN61000-4-2	EMC Emission	· · · ·
EN61000-4-3 Level 4 EN61000-4-4 Level 4 EN61000-4-5 Level 4 Tested up to 6kV EN61000-4-11 Level 2 Protection degree		
EMC Immunity		
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Vibration sinuosoidal ■ IEC60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z)	Protection degree	2100000 4 11 2000 2
Shock IEC60068-2-27 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)		(5 1) (5 1) (6 1) (6 1) (6 1) (6 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1) (7 1)
	Shock	• IEC60U68-2-2/ (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)



IN/OUT Connection terminals	2.5mm², screw type pluggable (2412AWG)
Auxiliary connection terminals	Up to 0.5mm², Fast pluggable type (20AWG)
Communication interface connector	RS-485 through RJ45 Female USB-B Type (virtual Com Port)
Case material	Plastic, Flame retardant UL94 V-0
Weight	0.75kg
Size (W x H x D)	179.5 x 100.3 x 64.5mm

- 1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
 2) Peak current measured after 0.2ms from main connection; 240Vac/50Hz; Ambient temperature at 25°C; Cold Start.
- 3) Start-up type tested: 40°C, possible at nominal voltage with load deration.

Notes:

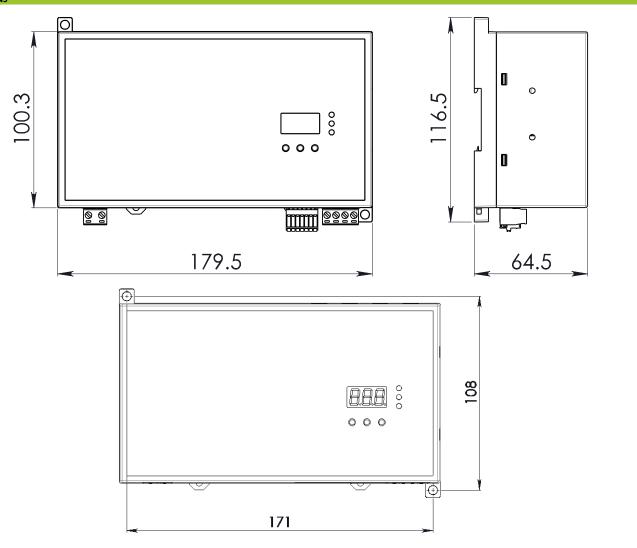
- For more details, performance and descriptions regarding all parameters not indicated in the above table, please refer to the user manual downloadable from www.nextys.com
- Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 50Hz, at nominal values, after minimum 5 minutes of operation. Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.
- Data may change without prior notice in order to improve the product.







DIMENSIONS





CONNECTION



Input Connection: **Output Connection: Auxiliary Connections:** RS-485 USB-B Type Single phase: ■ += Positive DC INHIBIT: (5...30Vdc) ■ L = Line ■ + = Positive DC ■ -= Negative DC ■ N = Neutral ■ -= Negative DC D1(B) D0(A) **12V AUX:** (12Vdc / 100mA) ■ L = + Positive DC ■ 12V+ = Positive DC Common ■ N = - Negative DC ■ 12V- = Negative DC DC OK: ■ PIN4 = TX/RX D1 ■ 1 = VBUS (+5V) ■ NO ■ PIN5 = TX/RX D0 ■ 2 = Data (D-) ■ NC ■ 3 = Data (D+) ■ PIN8 = GND ■ COM ■ 4 = GND