



# Switching Power Supplies Pro2 Series

## Overview

WAGO Pro2 compact switched-mode power supplies provide a wide range of uses. These power supplies can be mounted on a 35mm DIN rail and can be configured directly via buttons on the device's face, using the WAGO USB configuration cable to connect to the integrated communication interface, or using one of the WAGO Pro2 communication modules. In addition, the WAGO Interface Configuration software (free download) can be used to record and evaluate various output parameters.

The pluggable connection technology uses WAGO CAGE CLAMP® connectors, which allow pre-wiring for quicker installations as well as quicker and easier product replacement.

For configuration, data collection, and read-out of status information, the Pro2 Power Supply can be connected to a dedicated WAGO Pro2 communication module at any time, allowing selection of the desired protocol for coupling to the automation and control system.

The LED bar chart on the front reliably indicates the current output power, as well as overloads/load reserves. Furthermore, the LEDs indicate the selected operating mode and, when needed, warnings and errors.

## Features

- Power supply with TopBoost, PowerBoost and configurable overload behavior
- Configurable digital signal input and output, optical status indication, function keys
- Communication interface for configuration and monitoring
- Suitable for both parallel and series operation
- Snap on communication modules (sold separately)
- Free WAGO configuration software (download only)
- 2-year warranty



Switching Power Supplies Pro2 Series						
Part Number	Price	Output Voltage ( $V_{nom}$ )	Output Current ( $I_{max}$ )	Output Power ( $P_{max}$ )	Weight grams [lb]	Drawing Link
Single-Phase Input						
<a href="#">2787-2134</a>	\$191.00	12 VDC	10A	120W	650 [1.43]	<a href="#">PDF</a>
<a href="#">2787-2135</a>	\$312.00		15A	180W	1000 [2.20]	<a href="#">PDF</a>
<a href="#">2787-2144</a>	\$185.00	24 VDC	5A	120W	700 [1.54]	<a href="#">PDF</a>
<a href="#">2787-2146</a>	\$257.00		10A	240W	1000 [2.20]	<a href="#">PDF</a>
<a href="#">2787-2147</a>	\$375.00		20A	480W	1450 [3.19]	<a href="#">PDF</a>
<a href="#">2787-2448</a>	\$589.00		40A	960W	1950 [4.29]	<a href="#">PDF</a>
<a href="#">2787-2154</a>	\$298.00	48 VDC	2.5 A	120W	650 [1.43]	<a href="#">PDF</a>
<a href="#">2787-2157</a>	\$473.00		10A	480W	1450 [3.19]	<a href="#">PDF</a>
Three-Phase Input						
<a href="#">2787-2344</a>	\$254.00	24 VDC	5A	120W	650 [1.43]	<a href="#">PDF</a>
<a href="#">2787-2346</a>	\$355.00		10A	240W	1000 [2.20]	<a href="#">PDF</a>
<a href="#">2787-2347</a>	\$475.00		20A	480W	1450 [3.19]	<a href="#">PDF</a>
<a href="#">2787-2348</a>	\$688.00		40A	960W	1980 [4.29]	<a href="#">PDF</a>
<a href="#">2787-2357</a>	\$518.00	48 VDC	10A	480W	1400 [3.08]	<a href="#">PDF</a>
<a href="#">2787-2358</a>	\$809.00		20A	960W	1980 [4.29]	<a href="#">PDF</a>



[2787-2144](#)



[2787-2348](#)



[750-923](#)

Switching Power Supplies Accessory Pro2 Series		
Part Number	Price	Description
<a href="#">750-923</a>	\$41.50	WAGO cable, 8.2ft/2.5m cable length. For use with WAGO Pro2 power supplies.



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Switching Power Supplies Input Specifications Pro2 Series								
Part Number	Nominal Input Voltage [V <sub>nom</sub> ]	Voltage Range	Frequency Range	Input Current [Typ. @ full load]	Inrush Current Limitation @ +25°C	Max Power Dissipation	Efficiency [Typ.]	Circuit Breaker [Minimum]
Single-Phase								
<a href="#"><u>2787-2134</u></a>	100-240 VAC	90–264 VAC 130–373 VDC	50-60 Hz	≤ 1.3 A @ 110VAC 0.6 A @ 230VAC	≤ 9.6 A [after 1ms]	≤ 0.8 W [Standby] ≤ 1.6 W [No load] ≤ 10W [230 VAC; Nominal load]	93.8% @ 110VAC	16A
<a href="#"><u>2787-2135</u></a>		90–264 VAC 130–240 VDC		2.0 A @ 110VAC 0.88 A @ 230 VAC	≤ 11.4 A [after 1ms]	≤ 0.8 W [Standby] ≤ 2.3 W [No load] ≤ 14W [230 VAC; Nominal load]	95.3% @ 110VAC	
<a href="#"><u>2787-2144</u></a>		90–264 VAC 130–373 VDC		≤ 1A @ 240VAC ≤ 1.8 A @ 100VAC	≤ 9A [after 1ms]	≤ 1W [Standby] ≤ 2W [No load] ≤ 10W [230 VAC; Nominal load]	93% @ 110VAC 93.8% @ 230VAC	
<a href="#"><u>2787-2146</u></a>				≤ 1.2 A @ 240VAC ≤ 2.7 A @ 100VAC	≤ 11A [after 1ms]	≤ 1W [Standby] ≤ 2.2 W [No load] ≤ 12W [230 VAC; Nominal load]	93.5% @ 110VAC 95.2% @ 230VAC	
<a href="#"><u>2787-2147</u></a>				≤ 2.2 A @ 240VAC ≤ 5.9 A @ 100VAC	≤ 12A [after 1ms]	≤ 1.3 W [Standby] ≤ 2.6 W [No load] ≤ 24W [230 VAC; Nominal load]	93.9% @ 110VAC 95.4% @ 230VAC	
<a href="#"><u>2787-2448</u></a>	200-240 VAC	180–264 VAC 255–373 VDC		≤ 4.3 A @ 240VAC ≤ 5.1 A @ 200VAC	≤ 10A [after 1ms]	≤ 1.5 W [Standby]; ≤ 2.4 W [No load]; ≤ 40W [230 VAC; Nominal load]	96% @ 230VAC	
<a href="#"><u>2787-2154</u></a>	100-240 VAC	90–264 VAC 130–240 VDC		≤ 1.3 A @ 100VAC	11A [after 1ms]	≤ 0.8 W [Standby] ≤ 1.7 W [No load] ≤ 9W [230 VAC; Nominal load]	95.3% @ 110VAC	
<a href="#"><u>2787-2157</u></a>				5.9 A @ 100VAC 2.2 A @ 230VAC	≤ 12A [after 1ms]	≤ 1.3 W [Standby]; ≤ 2.6 W [No load]; ≤ 24W [230 VAC; Nominal load]	95.3% @ 110VAC	
Three-Phase								
<a href="#"><u>2787-2344</u></a>	400-500 VAC	340–550 VAC	50-60 Hz	0.4 A @ 400VAC	≤ 15A [after 1ms]	≤ 3W [Standby] ≤ 3W [No load] ≤ 18W [400 VAC; Nominal load]	92.5% @ 400VAC	16A
<a href="#"><u>2787-2346</u></a>				0.63 A @ 400VAC	1A [after 1ms]	≤ 3W [Standby] ≤ 3W [No load] ≤ 18W [400 VAC; Nominal load]	94.1% @ 400VAC	
<a href="#"><u>2787-2347</u></a>		340–550 VAC 480–780 VDC		≤ 0.8 A @ 400VAC	≤ 15A [after 1ms]	≤ 3.6 W [Standby] ≤ 4.4 W [No load]	95.9% @ 400VAC	
<a href="#"><u>2787-2348</u></a>				≤ 1.7 A @ 400VAC		≤ 21W [400 VAC; Nominal load]	96.3% @ 400VAC	
<a href="#"><u>2787-2357</u></a>		340–550 VAC		0.8 A @ 400VAC	1A [after 1ms]	≤ 3.6 W [Standby] ≤ 4.4 W [No load] ≤ 21W [400 VAC; Nominal load]	95% @ 400VAC	
<a href="#"><u>2787-2358</u></a>				1.6 A @ 400VAC	1A [after 1ms]	≤ 3.6 W [Standby] ≤ 4.4 W [No load] ≤ 21W [400 VAC; Nominal load]	96% @ 400VAC	



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Switching Power Supplies Output Specifications Pro2 Series									
Part Number	Output Voltage	Output Voltage Adj. Range	Output Current (Max.)	Power Boost (5s)	Top Boost (15ms)	Switch on Delay	Line Regulation	Load Regulation	MTBF (@ 25°C) [per IEC 61709]
Single-Phase									
<a href="#">2787-2134</a>	12 VDC	12–14 VDC	10A	15A	60A	< 2.2 sec	< 0.02 %	< 2.0 %	> 1,200,000 h
<a href="#">2787-2135</a>			15A	22.5 A	90A	< 1.8 sec	< 0.02 %	< 2.5 %	> 1,200,000 h
<a href="#">2787-2144</a>	24 VDC	24–28 VDC	5A	7.5 A	30A	< 2.2 sec	< 0.02 %	< 2.0 %	> 1,000,000 h
<a href="#">2787-2146</a>			10A	15A	60A	< 1.8 sec	< 0.02 %	< 2.0 %	> 1,200,000 h
<a href="#">2787-2147</a>			20A	30A	120A	< 1.5 sec	< 0.02 %	< 2.0 %	> 800,000 h
<a href="#">2787-2448</a>			40A	60A	200A	< 1.5 sec	< 0.1 %	< 2.6 %	> 900,000 h
<a href="#">2787-2154</a>	48 VDC	48–56 VDC	2.5 A	3.75 A	15A	< 2.2 sec	< 0.02 %	< 1.0 %	> 900,000 h
<a href="#">2787-2157</a>			10A	15A	60A	< 1.5 sec	< 0.02 %	< 1.0 %	> 800,000 h
Three-Phase									
<a href="#">2787-2344</a>	24 VDC	24–28 VDC	5A	7.5 A	30A	1.5 sec	< 0.05 %	< 2.0 %	1,400,000 h
<a href="#">2787-2346</a>			10A	15A	60A	1.5 sec	< 2.0 %	< 2.5 %	> 1,000,000 h
<a href="#">2787-2347</a>			20A	30A	120A	< 1.4 sec	< 0.02 %	< 2.0 %	> 800,000 h
<a href="#">2787-2348</a>			40A	60A	200A	< 1.5 sec	< 0.01 %	< 0.01 %	> 800,000 h
<a href="#">2787-2357</a>	48 VDC	48–56 VDC	10A	15A	60A	1.6 sec	< 0.02 %	< 1.0 %	900,000 h
<a href="#">2787-2358</a>			20A	30A	100A	1.6 sec	< 0.04 %	< 2.0 %	800,000 h

Switching Power Supplies General Specifications Pro2 Series	
Temperature	Operating [ambient] -25 to 70°C [-13 to 158°F] Storage [non-operating] -40 to 85°C [-40 to 185°F]
Humidity	5 to 96 % [no condensation permissible]
Overload Behavior <sup>1</sup>	Constant Current [Factory Default], Constant Current with Latching Mode, Hiccup, Electronic Circuit Breaker, Latching Shutdown on Thermal Overload, Power Boost, Top Boost
Status Indicators	Optical status indication [DC OK; load; warning and error states] Digital signal input and output [DI/DO]
Overvoltage Protection	Yes
Vibration	IEC 60068-2-6 [5 to 150Hz / 1g]
Shock	IEC 60068-2-27 [15g / 11ms]
Enclosure Rating	IP20
Mounting	35mm DIN rail
Connection	Cage Clamp®
Housing Material	Metal (enclosed)
Agency Approval	cULus File E255817, CE

<sup>1</sup>All functions are described in detail in the user manual.



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Switching Power Supplies Additional Data Pro2 Series			
Part Number	Solid Wire Size		
	Input	Output	Strip Length
<a href="#"><u>2787-2134</u></a>	0.08 - 2.5 mm <sup>2</sup> [28 -12 AWG]	0.08 - 2.5 mm <sup>2</sup> [28 -12 AWG]	Input/Output 8-9mm [0.31 - 0.35 in]
<a href="#"><u>2787-2135</u></a>			
<a href="#"><u>2787-2144</u></a>			
<a href="#"><u>2787-2146</u></a>			
<a href="#"><u>2787-2147</u></a>		0.50 - 10 mm <sup>2</sup> [20 -12 AWG]	Input 8-9mm [0.31 - 0.35 in] Output 13-15mm [0.51 - 0.59 in]
<a href="#"><u>2787-2448</u></a>			
<a href="#"><u>2787-2154</u></a>		0.08 - 2.5 mm <sup>2</sup> [28 -12 AWG]	Input/Output 8-9mm [0.31 - 0.35 in]
<a href="#"><u>2787-2157</u></a>		0.50 - 10 mm <sup>2</sup> [20 -12 AWG]	Input 8-9mm [0.31 - 0.35 in] Output 13-15mm [0.51 - 0.59 in]
<a href="#"><u>2787-2344</u></a>		0.08 - 2.5 mm <sup>2</sup> [28 -12 AWG]	Input/Output 8-9mm [0.31 - 0.35 in]
<a href="#"><u>2787-2346</u></a>			
<a href="#"><u>2787-2347</u></a>		0.50 - 10 mm <sup>2</sup> [20 -12 AWG]	Input 8-9mm [0.31 - 0.35 in] Output 13-15mm [0.51 - 0.59 in]
<a href="#"><u>2787-2348</u></a>			
<a href="#"><u>2787-2357</u></a>			
<a href="#"><u>2787-2358</u></a>			



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## Digital I/O Functions

Switching Power Supplies Digital I/O Functions Pro2 Series		
Section	Operation	Description
<b>Digital Input</b>	Power supply standby on/off	If this checkbox is selected, the product can be switched on and off via the digital input.
	Inversion DI	If this checkbox is selected, the digital input is inverted.
	Function triggered by low/high transition	If this checkbox is selected, the digital input is activated in the event of an edge change from 0 to 1.
	Function triggered by high/low transition	If this checkbox is selected, the digital input is activated in the event of an edge change from 1 to 0.
<b>Digital Output</b>	DC OK	If this checkbox is selected, the digital output is set if the DC output voltage is OK.
	Load current warning level exceeded	If this checkbox is selected, the digital output is set if the overload warning threshold is exceeded.
	Electronic circuit breaker tripped	If this checkbox is selected, the digital output is set if the electronic circuit breaker has tripped.
	Power supply switched off (Latched)	If this checkbox is selected, the digital output is set if latching shutdown occurs.
	Digital output via process data/communication	If this checkbox is selected, the digital output can be controlled via the process data.
	Digital output on	If this checkbox is selected, the digital output is switched on.
	Inversion DO	If this checkbox is selected, the digital output is inverted.
<b>Warning Thresholds (Software Config.)</b>	Overload limit active	If this checkbox is selected, warning is triggered if the overload warning threshold is exceeded.
	Warning threshold	Here you can enter the value for current (unit: mA) at or above which a warning message is generated.
	Operating hour counter warning limit	You can enter after how many operating hours (unit: h) after which a warning message is generated.

Note: Digital I/O function checkboxes are available in the WAGO configuration software.

## Operation via Buttons

Using the + and - buttons on the front of the product, you can make the following settings:

Switching Power Supplies Operation via Buttons Pro2 Series		
Button [+]	Button [-]	Function
<b>Switch product on or off</b>		
Hold down simultaneously for 3 seconds		The product is switched on or off.
<b>Set output voltage</b>		
Press once	–	The output voltage increases in steps.
Press and hold	–	The output voltage increases continuously.
–	Press once	The output voltage is reduced in steps.
–	Press and hold	The output voltage is reduced continuously.
<b>Reset product for factory settings</b>		
Hold down simultaneously for 10 seconds		The product is reset to the factory settings.

During ongoing operation, you can set the output voltage and reset the product to factory settings. These settings can be saved and then remain available when the product is switched off and back on.



# Switching Power Supplies

## Pro2 Series

Switching Power Supplies Safety and Agency Approvals Pro2 Series			
Specification	Standard	Document Number	
Harmonic Limits	Harmonic Current Limits	EN 61000-3-2, Class A for limited output power	
Safety Standards	Hazardous Locations	UL Standard 121201 [File No. E198726]	
	Industrial control equipment	UL 61010-2-201 [File No. E255817]	
	Electrical equipment of machines	IEC60204-1 [over voltage category III]	
	Electronic equipment for power installation	IEC/EN 62477-1 / IEC62103	
	Safety, Transient surge voltage protection	VARISTOR	
Safety Approvals	CB-Report per IEC 60950	IEC 60950-1, IEC 61010-1, IEC 61010-2-201	
Safety Class	Degree of electrical protection Class1	Class I with GND connection	
CE	In conformance with EMC directive 2014/30/EU and low voltage directive 2014/35/EU		
RoHS Compliant	RoHS Directive [EU] 2015/863 Compliant [EN 50581]		
Electromagnetic Compatibility (EMC), Emissions	EMC, Emissions	EN55032, EN55011, EN61000-3-2 Class A, EN61000-3-3, EN61000-6-3	
Electromagnetic Compatibility (EMC), Immunity	EMC, Immunity	EN 55024, EN 61000-6-2 [EN61000-4-2, 3, 4, 5, 6, 8, 11, 12]	
	Electrostatic Discharge [ESD]	IEC 61000-4-2 Level 4 Criteria A Air Discharge: 15kV; Contact Discharge: 8kV	
	Radiated RF field immunity [80-1000 MHz]	IEC / EN 61000-4-3: 120W&240W: 80MHz-1GHz, 10V/M, 80% modulation [1kHz] 1.4GHz-2GHz, 3V/M, 80% modulation [1KHz] 2GHz-2.7GHz, 1V/M, 80% modulation [1KHz]	IEC / EN 61000-4-3: 480W: 80MHz-1GHz, 10V/ M, 80% modulation [1kHz] 1.4GHz-2GHz, 10V/M, 80% modulation [1KHz] 2GHz-2.7GHz, 10V/M, 80% modulation [1KHz]
	Electrical fast transient / burst immunity	IEC / EN 61000-4-4 Level 4 Criteria A 4kV	
	Surge immunity	IEC / EN 61000-4-5 Level 4 Criteria A Common Mode: 4kV Differential Mode: 2kV	
	Immunity to conducted RF disturbances [0.15 to 80 MHz]	IEC / EN 61000-4-6 Level 3 Criteria A 150kHz-80MHz, 10Vrms	
	Power frequency field immunity	IEC / EN 61000-4-8 30 A / m	
	Voltage dips	IEC / EN 61000-4-11[70% UN Crit. B/40%/100% UN Crit. C]	
Pollution Degree	2		

To obtain the most current agency approval information, see the Agency Approval Compliance & Certifications Checklist section on the specific part number's web page.