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Power supply units 24 V

705090

Brief description

The particular features of these DIN rail power supply units are the high efficiency and the small size. These are achieved by a synchronous rectification and additional new design details.

High immunity to transients and power surges as well as low electromagnetic emission enable its use in almost every environment.

The integrated output power manager, a large input voltage range, and virtually no input inrush current guarantee easy installation and use. A diagnostic is easy due to the potential-free DC-OK contact, a green DC-OK LED, and red overload LED.

Spring-clamp terminals allow a safe and fast installation.



Type 705090/03-33



Type 705090/05-33



Type 705090/10-33

Order details

	(1)	Basic type
705090		Power supply unit
	(2)	**Output**
03		3.4 A
05		5 A
10		10 A
	(3)	**Input voltage**
33		AC 100 to 240 V +10/-15 %, 48 to 63 Hz

	(1)		(2)		(3)
Order code		/		-	
Order example	705090	/	05	-	33

Scope of delivery

1 power supply unit in the version ordered
1 instruction manual

Features

- AC 100 to 240 V wide-range input
- Quick-connect spring-clamp terminals
- Robust metal case
- Efficiency up to 93.5 %
- Active Power Factor Correction (PFC; for 705090/05-33 and 705090/10-33)
- 150 % peak load capability
- DNV GL approval (EMC A)
- UL approval

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Technical data (extract)

		Type 705090/03-33
Article number (www.pulspower.com)		QS3.241
Output voltage	nom.	DC 24 V SELV
Adjustment range	min.	DC 24 to 28 V
Output current continuous at DC 24 to 28 V	nom.	3.4 to 3.0 A
Output current for typical 4 s at DC 24 to 28 V	nom.	5 to 4.5 A
Output power continuous at DC 24 V	nom.	80 W
Output power for typical 4 s at DC 24 V	nom.	120 W
Output ripple (20 Hz to 20 MHz)	max.	50 mVpp
Input voltage	nom.	AC 100 to 240 V ±15 %
Mains frequency	nom.	50 to 60 Hz ±6 %
Input current at AC 120/230 V	typ.	1.42/0.82 A
Power factor at AC 120/230 V	typ.	0.53/0.47
Input inrush current at AC 120/230 V	typ.	5/10 A peak
Hold-up time at AC 120/230 V	typ.	41/174 ms
Efficiency at AC 120/230 V	typ.	88.7/90.0 %
Power losses at AC 120/230 V	typ.	10.4/9.1 W
Derating from 60 °C to 70 °C	min.	2 W/°C
Operational temperature range		-25 to +70 °C
Storage temperature range		-40 to +85 °C
Use		Indoor
Site altitude		Up to 2000 m above sea level
Dimensions W x H x D	nom.	32 mm x 130.5 mm x 106.5 mm
Weight	max.	440 g

		Type 705090/05-33	**Type 705090/10-33**
Article number (www.pulspower.com)		QS5.241	QS10.241
Output voltage	nom.	DC 24 V SELV	
Adjustment range	min.	DC 24 to 28 V	
Output current continuous at DC 24 to 28 V	nom.	5 to 4.5 A	10 to 9 A
Output current for typical 4 s at DC 24 to 28 V	nom.	7.5 to 6.7 A	15 to 13.5 A
Output power continuous at DC 24 V	nom.	120 W	240 W
Output power for typical 4 s at DC 24 V	nom.	180 W	360 W
Output ripple (20 Hz to 20 MHz)	max.	50 mVpp	
Input voltage	nom.	AC 100 to 240 V +10/-15 %	AC 100 to 240 V ±15 %
Mains frequency	nom.	50 to 60 Hz ±6 %	
Input current at AC 120/230 V	typ.	1.10/0.62 A	2.22/1.22 A
Power factor at AC 120/230 V	typ.	0.99/0.91	0.98/0.92
Input inrush current at AC 120/230 V	typ.	9/11 A peak	4/7 A peak
Hold-up time at AC 120/230 V	typ.	34/65 ms	27/28 ms
Efficiency at AC 120/230 V	typ.	91.6/92.7 %	92.6/93.5 %
Power losses at AC 120/230 V	typ.	11.0/9.4 W	20.0/18.1 W
Derating from 60 °C to 70 °C	min.	3 W/°C	6 W/°C
Operational temperature range		-25 to +70 °C	
Storage temperature range		-40 to +85 °C	
Use		Indoor	
Site altitude		Up to 2000 m above sea level	
Dimensions W x H x D	nom.	40 mm x 130.5 mm x 121.5 mm	60 mm x 130.5 mm x 121.5 mm
Weight	max.	620 g	900 g

For the detailed technical data and further technical information please refer to the original manufacturer's data sheet: www.pulspower.com

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Deviating from the information in the original data sheet, please note the following: To fulfil the PELV requirements according to EN 60204-1 (section 6.4.1), only the negative (-) pole of the output circuit may be connected to the protective earth system.

Current consumption of the individual modules of the system

Basic type	Description	Current consumption (at DC 19.2 V)
705001	Central processing unit JUMO mTRON T	Max. 350 mA
705002	Central processing unit JUMO variTRON 500	Max. 1,16 A
705003	Central processing unit JUMO variTRON 300	Max. 280 mA
705010	Multichannel controller module	Max. 300 mA
705015	Relay module 4-channel	120 mA
705020	Analog input module 4-channel	130 mA
705021	Analog input module 8-channel	80 mA
705025	Analog output module 4-channel	240 mA
705030	Digital input/output module 12-channel	90 mA (module electronics only, see data sheet 705030)
705031	Digital input/output module 32-channel	Max. 123 mA (module electronics only, see data sheet 705031)
705040	Router module	100 mA
705041	Router module 2-port	70 mA
705042	Router module 3-port	100 mA
705043	Router module 1-port	30 mA
705060	Multifunction panel 840	Max. 750 mA
705065	Operating panels	Max. 750 mA
705070	Web panels JUMO variTRON	See data sheet 705070