GCS Series

AC-DC Power Supplies

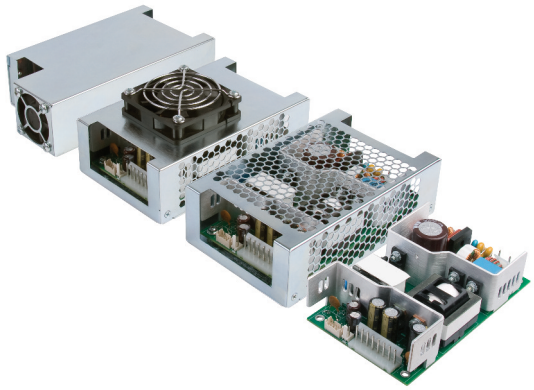
XP Power

150/180/250/350 Watts

- Convection/Forced-cooled Ratings
- Universal 85 - 264 VAC Input
- IT & Medical Safety Approvals (Class I & II)
- < 0.5 W Standby Power (150 & 180 Models)
- -40° C to +70° C Operation
- Remote On/Off
- Class B Emissions
- 3 Year Warranty

80 PLUS SILVER

GREEN XP POWER



The GCS Series has been designed to minimise the no load power consumption and maximise efficiency in order to facilitate equipment design to the latest environmental legislation. Approved for Class I and Class II applications, this range of single output AC-DC power supplies are packaged in an industry standard 3.0" x 5.0" x 1.42" package and achieves EN55011/32 Level B emissions compliance whilst maintaining very low earth leakage currents, making them suitable for a wide range of 1U and other industrial, IT and medical applications.

Dimensions:

GCS150/GCS180/GCS250/GCS350:
5.00 x 3.00 x 1.42" (127.0 x 76.2 x 36.3 mm)
(-C): 5.50 x 3.48 x 1.70" (139.7 x 88.5 x 43.2 mm)
(-TF): 5.50 x 3.48 x 2.20" (139.7 x 88.5 x 57.8 mm)
(-EF): 6.35 x 3.48 x 1.70" (161.3 x 88.5 x 43.2 mm)
(350-EF): 6.00 x 3.50 x 1.75" (152.4 x 88.9 x 44.4 mm)

The series has single output versions from 12 V to 56 VDC, dual-fusing for compliance with IEC60601-1 and feature minimal excess heat generation as efficiencies reach 94%. They will deliver up to 350 W of power over an operating range of -40 °C and up to +70 °C and are available with a number of cover options.

Models & Ratings

Output Voltage V1	Output Current V1		Output Voltage (Vfan) & Current	Max Output Power	Model Number [1,2,3,4,5]
	Convection-cooled[6,7]	Forced-cooled[8]			
12.0 VDC	9.2 A	12.5 A	12.0 VDC/0.6 A	157 W	GCS150PS12
15.0 VDC	7.3 A	10.0 A	12.0 VDC/0.6 A	157 W	GCS150PS15
24.0 VDC	4.6 A	6.3 A	12.0 VDC/0.6 A	157 W	GCS150PS24
28.0 VDC	3.9 A	5.4 A	12.0 VDC/0.6 A	157 W	GCS150PS28
48.0 VDC	2.3 A	3.2 A	12.0 VDC/0.6 A	157 W	GCS150PS48
12.0 VDC	12.5 A	15.0 A	12.0 VDC/0.6 A	187 W	GCS180PS12
15.0 VDC	10.0 A	12.0 A	12.0 VDC/0.6 A	187 W	GCS180PS15
24.0 VDC	6.3 A	7.5 A	12.0 VDC/0.6 A	187 W	GCS180PS24
28.0 VDC	5.4 A	6.4 A	12.0 VDC/0.6 A	187 W	GCS180PS28
48.0 VDC	3.1 A	3.7 A	12.0 VDC/0.6 A	187 W	GCS180PS48
12.0 VDC	15.0 A	18.8 A	12.0 VDC/0.6 A	232 W	GCS250PS12
15.0 VDC	12.0 A	15.0 A	12.0 VDC/0.6 A	232 W	GCS250PS15
24.0 VDC	7.5 A	10.4 A	12.0 VDC/0.6 A	257 W	GCS250PS24
28.0 VDC	6.4 A	8.9 A	12.0 VDC/0.6 A	257 W	GCS250PS28
48.0 VDC	3.7 A	5.2 A	12.0 VDC/0.6 A	257 W	GCS250PS48
56.0 VDC	3.2 A	4.5 A	12.0 VDC/0.6 A	257 W	GCS250PS56
12.0 VDC	16.7 A	29.2 A	12.0 VDC/0.6 A	350 W	GCS350PS12[9]
15.0 VDC	13.3 A	23.4 A	12.0 VDC/0.6 A	350 W	GCS350PS15[9]
24.0 VDC	8.3 A	14.6 A	12.0 VDC/0.6 A	350 W	GCS350PS24[10]
28.0 VDC	7.1 A	12.5 A	12.0 VDC/0.6 A	350 W	GCS350PS28[10]
48.0 VDC	4.2 A	7.3 A	12.0 VDC/0.6 A	350 W	GCS350PS48[10]
56.0 VDC	3.6 A	6.25 A	12.0 VDC/0.6 A	350 W	GCS350PS56[10]

Notes

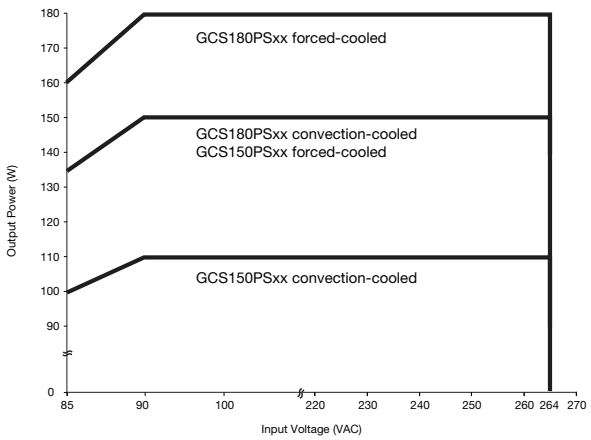
1. Add suffix -C for convection-cooled cover, e.g. GCS150PS12-C.
2. Cover kits available. Order part no.: GCS150/180 CVR KIT
3. Add suffix -EF for fan-cooled cover with end fan e.g. GCS150PS12-EF, add suffix -TF for fan-cooled cover with top fan, e.g. GCS150PS12-TF. Note: Vfan output no longer available.
4. Add suffix -R for remote on/off, e.g. GCS150PS12-R, GCS150PS12-RC with convection cover or GCS150PS12-REF/GCS150PS12-RTF with fan covers, (remote on/off is standard on GCS350 models).
5. GCS250PS12-C & GCS250PS15-C models derate 20% when convection cooled.
6. GCS350 convection rating quoted at 40 °C, others at 50 °C, see thermal derating curve.
7. GCS350-C models derate 15% when convection-cooled at 40 °C.
8. 7 CFM required to meet stated current for GCS150/180/250 and 15 CFM for GCS350.
9. Add suffix '-J' for optional dual row molex connector. See GCS350 model mechanics for details.
10. Add suffix '-S' for optional screw terminals. See GCS350 mechanics for details.

Input

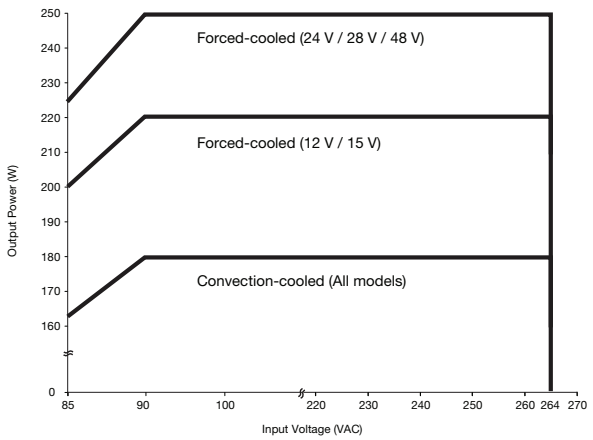
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85	115/230	264	VAC	Derate output power <90 VAC. See fig 1.
Input Frequency	47	50/60	63	Hz	
Power Factor		>0.9			230 VAC, 100% load
Input Current - Full Load		1.5/0.7		A	GCS150: 115/230 VAC
		1.8/0.8			GCS180: 115/230 VAC
		2.2/1.1			GCS250 12-15 V models: 115/230 VAC
		2.4/1.2			GCS250 ≥24 V models: 115/230 VAC
		3.6/1.8			GCS350: 115/230 VAC
Inrush Current		80		A	230 VAC cold start 25 °C
No Load Input Power			0.5	W	All GCS150 & GCS180 (including -R Models)
		2.3			GCS150 & GCS180 -R Models with inhibit activated
		5			All GCS250 (including -R Models) 115V AC
		3			All GCS250 (including -R Models) 230V AC
		1			GCS250 -R Models with inhibit activated 115V AC
		3			GCS250 -R Models with inhibit activated 230V AC
		4			GCS350: 115/230 VAC
Earth Leakage Current		60/120	200	µA	GCS150: 115/230 VAC/50 Hz Typ., 264 VAC/60 Hz Max.
		95/185	250		GCS180: 115/230 VAC/50 Hz Typ., 264 VAC/60 Hz Max.
		95/185	250		GCS250: 115/230 VAC/50 Hz Typ., 264 VAC/60 Hz Max.
		95/185	250		GCS350: 115/230 VAC/50 Hz Typ., 264 VAC/60 Hz Max.
Input Protection	GCS150/180: F3.15 A/250 V internal fuse in both lines. GCS250/350: F5.0 A/250 V internal fuse in both lines.				

Input Voltage Derating Curve

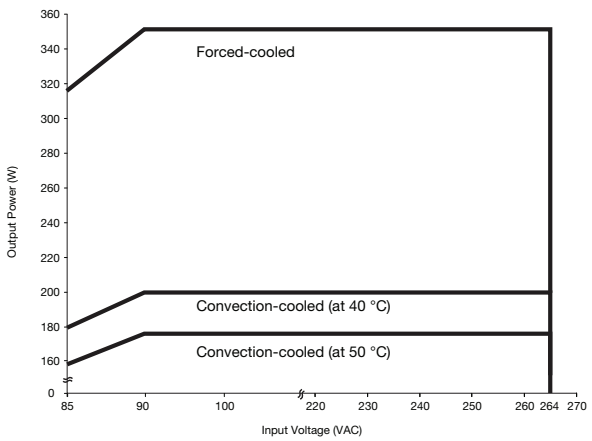
Figure 1



GCS150 & GCS180



GCS250



GCS350