

POWER SUPPLIES - QUICK SELECTION TABLE



PHASE	INPUT RATED VOLTAGE(AC)	INPUT VOLTAGE AC	INPUT VOLTAGE DC	OUTPUT RATED VOLTAGE (DC)	OUTPUT ADJUSTABLE RANGE	CONTINUOUS CURRENT (A)	ALARM CONTACT	REDUNDANT VERSION	TYPE	CODE	PAGE
1	120-230	85...264	100...370	24	—	0.6	—	—	CSD1-015W/024V/AA	XCSD1015W024VAA	11
1	120-230	85...264	100...370	12	—	1.2	—	—	CSD1-015W/012V/AA	XCSD1015W012VAA	11
1	120-230	85...264	100...370	24	—	1.25	—	—	CSD1-030W/024/AA	XCSD1030W024AA	12
1	120-230	85...264	100...370	12	—	4...2.0	—	—	CSD1-030W/012/AA	XCSD1030W012AA	12
1	120-230	90...264	100...345	±12...±15	±12...±15	2X 0.6	—	—	CSD30F	XCSD30F	13
1	120-230	85...264	100...370	24	23.5...27.5	3	—	—	CSD1-072W/024/AA	XCSD1072W024AA	14
1	120-230	85...264	100...370	12	12...15	5...4	—	—	CSD1-072W/012/AA	XCSD1072W012AA	16
1	120-230	90...264	100...320	24	—	1.2	—	—	CSF30C	XCSF30C	16
1	120-230	90...264	100...345	24	23...27.5	3.5	•	—	CSF85C	XCSF85C	17
1	120-230	90...264	100...345	24	23...27.5	3.5	•	•	CSF85CP	XCSF85CP	17
1	120-230	90...264	100...345	12	12...15	6	•	—	CSF85B	XCSF85B	18
1	120-230	90...264	100...345	24	23...27.5	5	•	—	CSF120C	XCSF120C	19
1	120-230	90...264	100...345	24	23...27.5	5	•	•	CSF120CP	XCSF120CP	19
1	120-230	90...264	100...345	48	45...55	2.5	•	•	CSF120DP	XCSF120DP	20
1	120-230	90...132 / 185...264	100...345	24	23...27.5	10	•	—	CSF240C	XCSF240C	21
1	120-230	90...132 / 185...264	100...345	24	23...27.5	10	•	•	CSF240CP	XCSF240CP	21
1	120-230	90...132 / 185...264	100...345	48	45...55	5	•	•	CSF240DP	XCSF240DP	22
1	120-230	90...132 / 185...264	100...370	24	24...28	20	•	•	CSF500C	XCSF500C	23
1	120-230	90...132 / 185...264	100...370	48	45...55	10	•	•	CSF500D	XCSF500D	23
1	120-230	85...264	100...370	24	16 ... 28	3	•	—	CSL1-072W/024V/AA	XCSL1072W024VAA	25
1	120-230	85...264	100...370	24	16 ... 28	5	•	—	CSL1-120W/024V/AA	XCSL1120W024VAA	25
1	120-230	90...264	—	24	23...27.5	3.5	—	—	CSL85C	XCSL85C	26
1	120-230	90...264	—	24	23...27.5	5	—	—	CSL120C	XCSL120C	26
1	120-230	90...132 / 185...264	—	24	23...27.5	10	—	—	CSL240C	XCSL240C	27
1	120-230	85...264	100...370	24	20 ... 28	20	•	—	CSL1-480W/024V/AA	XCSL1480W024VAA	28
1	120-230	85...264	100...370	48	40.5 ... 55.5	10	•	—	CSL1-480W/048V/AA	XCSL1480W048VAA	28
1	120-230	85...264	100...370	72	62.5 ... 81	6.6	•	—	CSL1-480W/072V/AA	XCSL1480W072VAA	29
1	120-230	85...264	100...370	24	20 ... 28	20	•	—	CSL1-480W/024V/GA	XCSL1480W024VGA	32
1	120-230	85...264	100...370	48	40.5 ... 55.5	10	•	—	CSL1-480W/048V/GA	XCSL1480W048VGA	32
1	120-230	85...264	100...370	72	62.5 ... 81	6.6	•	—	CSL1-480W/072V/GA	XCSL1480W072VGA	33
1	120-230	85...264	100...370	24	20 ... 28	20	•	—	CSL1-480W/024V/AB	XCSL1480W024VAB	36
1	120-230	85...264	100...370	48	40.5 ... 55.5	10	•	—	CSL1-480W/048V/AB	XCSL1480W048VAB	36
1	120-230	85...264	100...370	72	62.5 ... 81	6.6	•	—	CSL1-480W/072V/AB	XCSL1480W072VAB	37
1	230	187...264	—	24	23...27.5	20	•	—	CSL481C	XCSL481C	40

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1-2	230-400-500	187...550	270...725	24	24...27.5	5	•	—	CSW121C	XCSW121C	42
1-2	230-400-500	187...550	270...725	12	12...15	8 - 7	•	—	CSW121B	XCSW121B	42
1-2	230 / 400-500	180...264 / 360...550	550...775	24	23...27.	40	•	—	CSW960CP	XCSW960CP	46
1-2-3	230-400-500	185...550	270...770	24	24...27.5	10	•	—	CSW241C	XCSW241C	43
1-2-3	230-400-500	185...550	270...770	12	12...15	16 - 17	•	—	CSW241B	XCSW241B	43
1-2-3	230-400-500	185...550	270...770	48	45...55	5	•	—	CSW241DP	XCSW241DP	44
1-2-3	230-400-500	187...550	250...725	24	23.3...27.5	20	•	—	CSW481C	XCSW481C	45
1-2-3	230-400-500	187...550	250...725	48	45...55	10	•	—	CSW481D	XCSW481D	45
1-2-3	230-400-500	187...550	250...725	72	72...85	6	•	—	CSW481G	XCSW481G	46
3	400-500	340...550	—	24	20 ... 28	20	•	—	CSL3-480W/024V/AA	XCSL3480W024VAA	30
3	400-500	340...550	—	48	40.5 ... 55.5	10	•	—	CSL3-480W/048V/AA	XCSL3480W048VAA	30
3	400-500	340...550	—	72	60 ... 81	6.6	•	—	CSL3-480W/072V/AA	XCSL3480W072VAA	31
3	400-500	340...550	—	24	20 ... 28	20	•	—	CSL3-480W/024V/GA	XCSL3480W024VGA	34
3	400-500	340...550	—	48	40.5 ... 55.5	10	•	—	CSL3-480W/048V/GA	XCSL3480W048VGA	34
3	400-500	340...550	—	72	60 ... 81	6.6	•	—	CSL3-480W/072V/GA	XCSL3480W072VGA	35
3	400-500	340...550	—	24	20 ... 28	20	•	—	CSL3-480W/024V/AB	XCSL3480W024VAB	38
3	400-500	340...550	—	48	40.5 ... 55.5	10	•	—	CSL3-480W/048V/AB	XCSL3480W048VAB	38
3	400-500	340...550	—	72	60 ... 81	6.6	•	—	CSL3-480W/072V/AB	XCSL3480W072VAB	39
3	400-500	340...550	—	24	23.3...27.5	20	•	—	CSG481C	XCSG481C	48
3	400-500	340...550	—	24	24...28	20	•	—	CSG500C	XCSG500C	48
3	400-500	340...550	—	24	24...28	30	•	—	CSG720C	XCSG720C	49
3	400-500	340...550	—	24	24...28	40	•	—	CSG960C	XCSG960C	49
3	400-500	340...550	—	48	45...55	20	•	•	CSG960D	XCSG960D	50
3	400-500	340...550	—	72	72...85	13.3	•	•	CSG960G	XCSG960G	50
3	400-500	340...550	—	12-24	11.5...29	100	•	•	CSG2401C	XCSG2401C	51
3	400-500	340...550	—	24-48	23...56	50	•	•	CSG2401D	XCSG2401D	51
3	400-500	340...550	—	72	50...87	33	•	•	CSG2401G	XCSG2401G	52
3	400-500	340...550	—	100-110-170	88...175	14	•	•	CSG2401R	XCSG2401R	52
—	—	—	10.5...18	24	22.5...27.5	5	—	—	CSA120BC	XCSA120BC	53
—	—	—	18...36	12...15	12...15	7	—	—	CSA120CB	XCSA120CB	53
—	—	—	18...36	24	22.5...27.5	5	—	—	CSA120CC	XCSA120CC	54
—	—	—	36...72	24	22.5...27.5	5	—	—	CSA120DC	XCSA120DC	54
—	—	—	100...130	24	23...27	10	—	•	CSA240FC	XCSA240FC	55
1	12-24	10...26	-	1.2...24	—	0.3...1.5	—	—	CL1R	XCL1R	56
1	12-24	10...26	-	1.2...24	—	0.8...5	—	—	CL5R	XCL5R	56
1	12-24	6...20	-	12...24	-	6	—	—	AR6	XAR6	57

Single-phase switching power supply with power up to 70W for use in civil and industrial automation applications. The technical and design characteristics of the housing, with standard modular DIN measurements for installation in control units were planned to optimise use in home automation. The performance level and compact size also make it an excellent solution for electrical panels and shallow containers.

High output and a contained working temperature support energy savings and longer component life.

Suggested uses

- Industrial automation applications
- Civil automation applications
- General applications in systems installed using small remote panels

Main features

- The 90...264 Vac and 110...370 Vdc inputs, make it suitable for use on all power supply networks.
- These are Isolation Class 2 power supplies that do not require a grounding connection, which reduces the times and costs of installation in remote panels and surveillance and monitoring systems.
- Their high efficiency reduces energy consumption and operating temperature and allows for use in small housings.
- The large power reserve allows continuous current to be supplied up to at least +50% higher than the rated value, ensuring safety and reliability.
- Short-circuit and overload protection designed to deliver peak currents more than 150% higher than the rated value required by heavy loads.
- Thermal protection prevents failure in cases of prolonged overload at high ambient temperatures.
- Thanks to the high performance and excellent ventilation of internal components, they are greatly reduced in size and have a degree of protection from accidental contacts of IP20 per IEC529.

DOMOTIC POWER



Compact size

Ideal for modular control units and shallow containers

Short-circuit and overload protection

Designed to deliver the typical peak currents required by medium loads

Power boost

The output power supplied reaches up to 130% of the rated value

High efficiency

Designed to save energy and reduce operating temperature

Input 90...264 Vac and 110...370 Vdc

Appropriate for use on all power supply networks

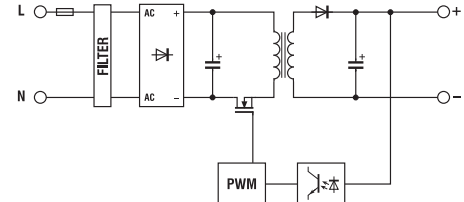
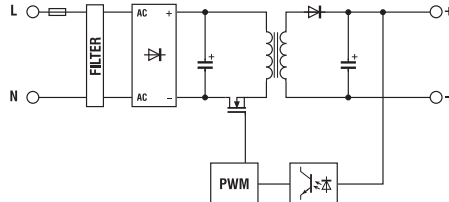


- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Isolation Class 2, no grounding needed



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



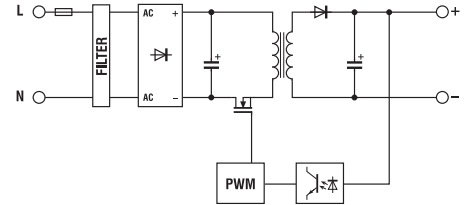
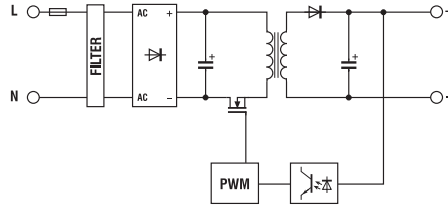
CODE TYPE	XCS1015W024VAA	XCS1015W012VAA
INPUT TECHNICAL DATA	CSD1-015W/024V/AA	CSD1-015W/012V/AA
Input rated voltage	120–230 Vac	120–230 Vac
Input voltage AC	85...264 Vac	85...264 Vac
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)	100...370 Vdc (derating Uin<130 Vdc)
Frequency	47...63 Hz	47...63 Hz
Current consumption	0.29 A (120 Vac) / 0.18 A (230 Vac)	0.29 A (120 Vac) / 0.18 A (230 Vac)
Inrush peak current	5 A	5 A
Power factor	> 0.6	> 0.6
Internal protection fuse	T 1 A	T 1 A
External protection on AC line	MCB: C-2 A / Fuse: T-2 A	MCB: C-2 A / Fuse: T-2 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	12 Vdc ±1%
Output adjustable range	—	—
Continuous current	0.6 A at 60°C	1.2 A at 60°C
Overload limiting	0.81 A	1.6 A
Short circuit peak current	—	—
Ripple @ nominal ratings	50 mVpp	50 mVpp
Hold up time	12 ms (120 Vac) / 20 ms (230 Vac)	12 ms (120 Vac) / 20 ms (230 Vac)
Status indication	LED "DC OK"	LED "DC OK"
Alarm contact	—	—
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency	86% (120 Vac) / 86% (230 Vac)	84% (120 Vac) / 85% (230 Vac)
Dissipated power	2.2 W (120 Vac) / 2.2 W (230 Vac)	2.7 W (120 Vac) / 2.6 W (230 Vac)
Operating temperature range	-20...+70°C (derating -0.9 W >60°C)	-20...+70°C (derating -0.9 W >60°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	class 2 without PE connection	class 2 without PE connection
Output / ground isolation	class 2 without PE connection	class 2 without PE connection
Standard / approvals	EN 60950-1, EN 62368-1	EN 60950-1, EN 62368-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	2.5 mm ² / 2.5 mm ²
Housing material	UL94V-0 plastic material	UL94V-0 plastic material
Dimension	35x62x90 mm	35x62x90 mm
Approximate weight	130 g	130 g
Mounting information	vertical on a rail, 10 mm from adjacent components	vertical on a rail, 10 mm from adjacent components
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB
Marking tag	—	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Isolation Class 2, no grounding needed



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



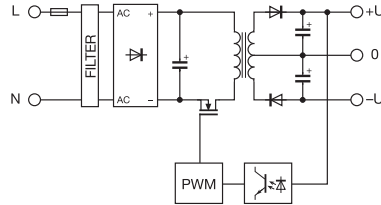
CODE TYPE	CSD1-030W/024/AA	XCSD1030W024AA	CSD1-030W/012/AA	XCSD1030W012AA
INPUT TECHNICAL DATA				
Input rated voltage	120-230 Vac		120-230 Vac	
Input voltage AC	85...264 Vac		85...264 Vac	
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)		100...370 Vdc (derating Uin<130 Vdc)	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	0.56 A (120 Vac) / 0.34 A (230 Vac)		0.56 A (120 Vac) / 0.34 A (230 Vac)	
Inrush peak current	5 A		5 A	
Power factor	> 0.6		> 0.6	
Internal protection fuse	T 3.15 A		T 3.15 A	
External protection on AC line	MCB: C-3 A / Fuse: T-3 A		MCB: C-3 A / Fuse: T-3 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		12 Vdc ±1%	
Output adjustable range	—		—	
Continuous current	1.25 A at 50°C		4A (5V), 2.9A (10V), 2.5A (12V), 2.0A (15V) at 55°C	
Overload limiting	2.0 A		6.9...3.0 A	
Short circuit peak current	—		—	
Ripple @ nominal ratings	50 mVpp		50 mVpp	
Hold up time	12 ms (120 Vac) / 20 ms (230 Vac)		12 ms (120 Vac) / 20 ms (230 Vac)	
Status indication	LED "DC OK"		LED "DC OK"	
Alarm contact	—		—	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	88% (120 Vac) / 87% (230 Vac)		87% (120 Vac) / 86% (230 Vac)	
Dissipated power	4 W (120 Vac) / 3.9 W (230 Vac)		4.1 W (120 Vac) / 4 W (230 Vac)	
Operating temperature range	-20...+70°C (derating -1.2 W >50°C)		-20...+70°C (derating -1.2 W >55°C)	
Input / output isolation	3 KVac / 60 s (SELV output)		3 KVac / 60 s (SELV output)	
Input / ground isolation	class 2 without PE connection		class 2 without PE connection	
Output / ground isolation	class 2 without PE connection		class 2 without PE connection	
Standard / approvals	EN 60950-1, EN 62368-1		EN 60950-1, EN 62368-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	UL94V-0 plastic material		UL94V-0 plastic material	
Dimension	53x62x90 mm		53x62x90 mm	
Approximate weight	130 g		130 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

- Single phase and DC input
- Short circuit, overload and input overvoltage protection
- Over temperature protection
- Suitable for standard applications
- Isolation Class 2, no grounding needed



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



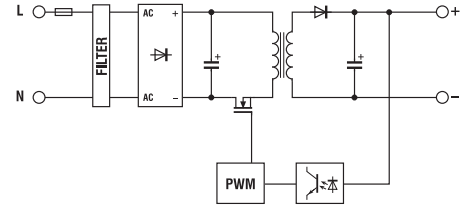
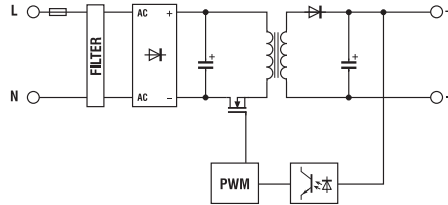
CODE TYPE	CSD30F	XCSD30F
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	
Input voltage AC	90...264 Vac	
Input voltage DC	100...345 Vdc [derating Uin<130 Vdc]	
Frequency	47...63 Hz	
Current consumption	0.4 A (120 Vac) / 0.2 A (230 Vac)	
Inrush peak current	13 A	
Power factor	> 0.6	
Internal protection fuse	T 2 A	
External protection on AC line	MCB: C-3 A / Fuse: T-3.15 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	±12...±15 Vdc ±1%	
Output adjustable range	±12...±15 Vdc	
Continuous current	2x 0.6 A at 50°C	
Overload limiting	>2x0.8 A	
Short circuit peak current	—	
Ripple @ nominal ratings	50 mVpp	
Hold up time	50 ms (120 Vac) / 100 ms (230 Vac)	
Status indication	LED "DC OK"	
Alarm contact	—	
Parallel connection	possible	
Redundant parallel connection	possible with external ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	87% (120 Vac) / 89% (230 Vac)	
Dissipated power	1.6 W (120 Vac) / 1.3 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -0.4 W >55°C)	
Input / output isolation	3 KVac / 60 s (SELV output)	
Input / ground isolation	class 2 without PE connection	
Output / ground isolation	class 2 without PE connection	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	UL94V-0 plastic material	
Dimension	71x62x90 mm	
Approximate weight	200 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Isolation Class 2, no grounding needed



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



CODE TYPE	CSD1-072W/024/AA	XCSD1072W024AA	CSD1-072W/012/AA	XCSD1072W012AA
INPUT TECHNICAL DATA				
Input rated voltage	120-230 Vac		120-230 Vac	
Input voltage AC	85...264 Vac		85...264 Vac	
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)		100...370 Vdc (derating Uin<130 Vdc)	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	1.17 A (120 Vac) / 0.71 A (230 Vac)		1.17 A (120 Vac) / 0.71 A (230 Vac)	
Inrush peak current	15 A		15 A	
Power factor	> 0.6		> 0.6	
Internal protection fuse	T 1 A		T 1 A	
External protection on AC line	MCB: C-3 A / Fuse: T-3 A		MCB: C-3 A / Fuse: T-3 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		12 Vdc ±1%	
Output adjustable range	23.5... 27.5 Vdc		12...15 Vdc	
Continuous current	3 A at 55°C		5...4 A at 55°C	
Overload limiting	4.5 A		8.0 A	
Short circuit peak current	—		—	
Ripple @ nominal ratings	50 mVpp		50 mVpp	
Hold up time	12 ms (120 Vac) / 20 ms (230 Vac)		12 ms (120 Vac) / 20 ms (230 Vac)	
Status indication	LED "DC OK"		LED "DC OK"	
Alarm contact	—		—	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	89% (230 Vac)		89% (230 Vac)	
Dissipated power	9.6 W (120 Vac) / 7.9 W (230 Vac)		10 W (120 Vac) / 8.5 W (230 Vac)	
Operating temperature range	-20...+70°C (derating -2.6 W >55°C)		-20...+70°C (derating -1.8 W >50°C)	
Input / output isolation	3 KVac / 60 s (SELV output)		3 KVac / 60 s (SELV output)	
Input / ground isolation	class 2 without PE connection		class 2 without PE connection	
Output / ground isolation	class 2 without PE connection		class 2 without PE connection	
Standard / approvals	EN 60950-1, EN 62368-1		EN 60950-1, EN 62368-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	UL94V-0 plastic material		UL94V-0 plastic material	
Dimension	71x62x90 mm		71x62x90 mm	
Approximate weight	130 g		130 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

Single-phase switching power supply with DIN-rail, designed specifically for applications in command and control panels for industrial automation and process control. Capable of delivering +60% to +80% nominal current for a prolonged period of time while maintaining a constant output voltage and equipped with a voltage threshold-controlled failure contact which is triggered when the voltage drops below 90% of the rated value. **With these features and numerous international certifications, this range of power supplies enables designers to meet the requirements of the Machinery Directive EN 60204-1**, allowing the protection devices connected to the output to trigger quickly, safely and selectively, thus ensuring continuity of service to the other parts of the system.

Suggested uses

- Applications in industrial automation with high performance and reliability requirements.
- Applications which require selectable overcurrent protections on DC lines
- Applications in machine automation with high command and control voltage reliability and safety requirements
- Applications in process control
- Uses with heavy loads
- Civil automation applications

Main features

- The 90...264 Vac and 110...370 Vdc inputs, make it suitable for use on all power supply networks.
- Threshold failure contact which is triggered when the voltage falls below 90% of the rated value.
- Versions with integrated ORing diode for redundant parallel connection, preventing the need for external devices and reducing bulk and installation costs.
- High efficiency reduces energy consumption and the operating temperature of components and allows use in small panels and severe environmental conditions.
- Large power reserve allows for delivery of at least +60-80% nominal current and voltage for several minutes, ensuring safety and reliability.
- Output voltage is adjustable and the output is protected against input surge from the DC line generated from inductive loads.
- The output is equipped with dual electronic protection which prevents dangerous voltages for powered components in the event of an internal fault.
- Thermal protection prevents faults in case of prolonged overload with high ambient temperatures.
- Construction ensures excellent ventilation capacity of internal components, with reduced sizes and a degree of protection from accidental contacts of IP20 per IEC529.
- Thanks to their high performance and excellent ventilation capacity, they are among the smallest on the market.

COOL POWER

48Vdc and 72-85Vdc models have been introduced, designed to reliably power engines in DC. They:

- supply peak power equal to even 4-5 times the nominal current, which is required by the engine during the peak phase
- have an output stage protected from overvoltage generated by the engines and drives during braking, which could otherwise cause malfunctions or cause the power supply to lose control over output voltage stability.

Extremely compact dimensions

Among the smallest on the market, optimising the use of space in the panel without compromising performance

Power boost

The output power reaches 120% of the nominal value for several minutes, up to 160% in the event of overload, and up to 300% during a short-circuit, to enable the protection devices connected to the output to trigger quickly, safely and selectively, without the use of additional modules.

Short-circuit and overload protection

Designed to deliver the strong peak currents required by heavy loads

High efficiency

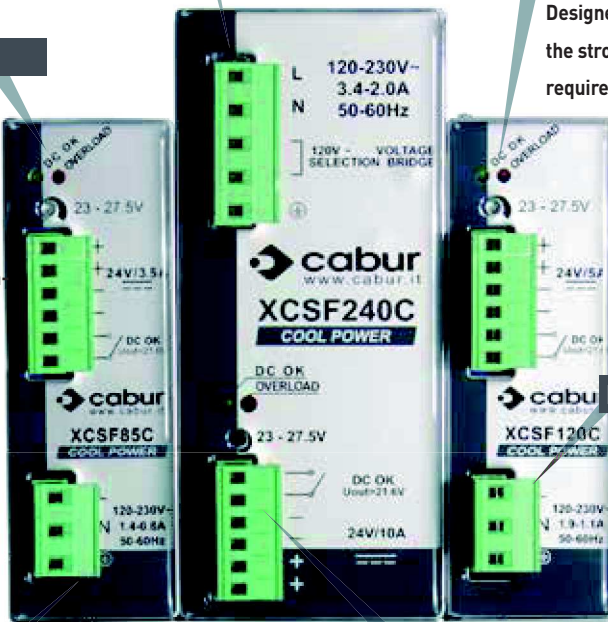
Designed to save energy and reduce operating temperature

Input 90...264 Vac and 110...370 Vdc

Appropriate for use on all single-phase power supply networks

Intelligent failure contact

Notifies when the output voltage falls below 90% of the rated value once a threshold is surpassed

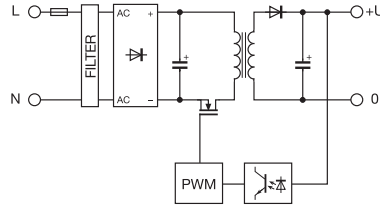


- Single phase and DC input
- Short circuit, overload and input overvoltage protection
- Compact dimension
- Suitable for standard applications
- Isolation Class 2, no grounding needed



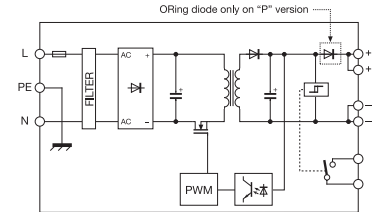
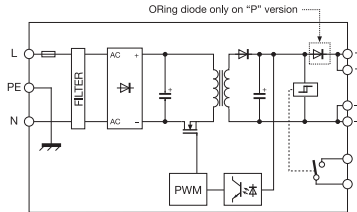
NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance
Produced on demand, contact our sales office for availability



CODE TYPE	CSF30C	XCSF30C
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	
Input voltage AC	90...264 Vac	
Input voltage DC	100...320 Vdc [derating Uin<130 Vdc]	
Frequency	47...63 Hz	
Current consumption	0.55 A (120 Vac) / 0.3 A (230 Vac)	
Inrush peak current	25 A	
Power factor	> 0.6	
Internal protection fuse	T 1.25 A	
External protection on AC line	MCB: C-2 A / Fuse: T-2 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	
Output adjustable range	—	
Continuous current	1.2 A at 50°C	
Overload limiting	1.4 A	
Short circuit peak current	—	
Ripple @ nominal ratings	50 mVpp	
Hold up time	10 ms (120 Vac) / 30 ms (230 Vac)	
Status indication	LED "DC OK"	
Alarm contact	—	
Parallel connection	possible	
Redundant parallel connection	possible with external ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	86% (120 Vac) / 87% (230 Vac)	
Dissipated power	4.7 W (120 Vac) / 4.3 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -0.75 W >50°C)	
Input / output isolation	3 kVac / 60 s (SELV output)	
Input / ground isolation	class 2 without PE connection	
Output / ground isolation	class 2 without PE connection	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	UL94V-0 plastic material	
Dimension	23x99x82 mm	
Approximate weight	140 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	—	
Marking tag	—	

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

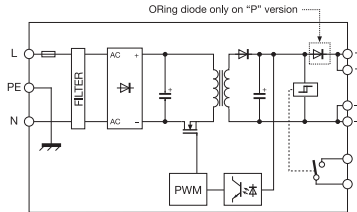
CODE TYPE	CSF85C	XCSF85C	CSF85CP	XCSF85CP
INPUT TECHNICAL DATA				
Input rated voltage	120–230 Vac		120–230 Vac	
Input voltage AC	90...264 Vac		90...264 Vac	
Input voltage DC	100...345 Vdc [derating Uin<130 Vdc]		100...345 Vdc [derating Uin<130 Vdc]	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	1.6 A (120 Vac) / 0.9 A (230 Vac)		1.6 A (120 Vac) / 0.9 A (230 Vac)	
Inrush peak current	20 A		20 A	
Power factor	> 0.65		> 0.65	
Internal protection fuse	T 2 A		T 2 A	
External protection on AC line	MCB: C-4 A / Fuse: T 4 A		MCB: C-4 A / Fuse: T 4 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		24 Vdc ±1%	
Output adjustable range	23...27.5 Vdc		23...27.5 Vdc	
Continuous current	3.5 A at 50°C		3.5 A at 50°C	
Overload limiting	6 A for >30 s		6 A for >30 s	
Short circuit peak current	10 A for 50 ms		10 A for 50 ms	
Ripple @ nominal ratings	70 mVpp		70 mVpp	
Hold up time	20 ms (120 Vac) / 70 ms (230 Vac)		20 ms (120 Vac) / 70 ms (230 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	86% (120 Vac) / 90% (230 Vac)		86% (120 Vac) / 90% (230 Vac)	
Dissipated power	14 W (120 Vac) / 10 W (230 Vac)		14 W (120 Vac) / 10 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -1.45 W >45°C)		-20...+60°C (derating -1.45 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	40x130x115 mm		40x130x115 mm	
Approximate weight	400 g		400 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



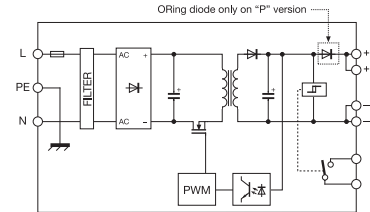
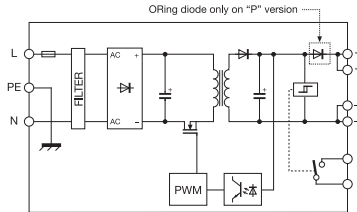
NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



CODE TYPE	CSF85B	XCSF85B
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	
Input voltage AC	90...264 Vac	
Input voltage DC	100...345 Vdc [derating Uin<130 Vdc]	
Frequency	47...63 Hz	
Current consumption	1.6 A (120 Vac) / 0.9 A (230 Vac)	
Inrush peak current	20 A	
Power factor	> 0.65	
Internal protection fuse	T 2 A	
External protection on AC line	MCB: C-4 A / Fuse: T 4 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	12 Vdc ±1%	
Output adjustable range	12...15 Vdc	
Continuous current	6 A at 50°C	
Overload limiting	9A for >30 s	
Short circuit peak current	10 A for 50 ms	
Ripple @ nominal ratings	30 mVpp	
Hold up time	15 ms (120 Vac) / 60 ms (230 Vac)	
Status indication	LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout > 10.8 Vdc)	
Parallel connection	possible	
Redundant parallel connection	possible with external ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	83% (120 Vac) / 87% (230 Vac)	
Dissipated power	17 W (120 Vac) / 13 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -1.45 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	aluminium	
Dimension	40x130x115 mm	
Approximate weight	400 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

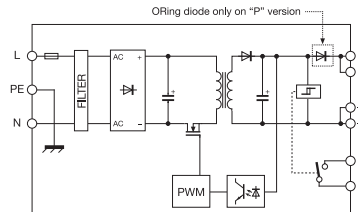
CODE TYPE	CSF120C	XCSF120CP
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	120–230 Vac
Input voltage AC	90...264 Vac	90...264 Vac
Input voltage DC	100...345 Vdc [derating Uin<130 Vdc]	100...345 Vdc [derating Uin<130 Vdc]
Frequency	47...63 Hz	47...63 Hz
Current consumption	1.9 A (120 Vac) / 1.1 A (230 Vac)	1.9 A (120 Vac) / 1.1 A (230 Vac)
Inrush peak current	20 A	20 A
Power factor	> 0.65	> 0.65
Internal protection fuse	T 3.15 A	T 3.15 A
External protection on AC line	MCB: C-4 A / Fuse: T 4 A	MCB: C-4 A / Fuse: T 4 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	24 Vdc ±1%
Output adjustable range	23...27.5 Vdc	23...27.5 Vdc
Continuous current	5 A at 45°C	5 A at 45°C
Overload limiting	8 A for >30 s	8 A for >30 s
Short circuit peak current	15 A for 50 ms	15 A for 50 ms
Ripple @ nominal ratings	30 mVpp	30 mVpp
Hold up time	17 ms (120 Vac) / 72 ms (230 Vac)	17 ms (120 Vac) / 72 ms (230 Vac)
Status indication	LED "DC OK" / LED "Alarm"	LED "DC OK" / LED "Alarm"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	already fitted with internal ORing diode
GENERAL TECHNICAL DATA		
Efficiency	86% (120 Vac) / 90% (230 Vac)	86% (120 Vac) / 90% (230 Vac)
Dissipated power	19 W (120 Vac) / 13 W (230 Vac)	19 W (120 Vac) / 13 W (230 Vac)
Operating temperature range	-20...+60°C [derating -1.9 W >45°C]	-20...+60°C [derating -1.9 W >45°C]
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	2.5 mm ² / 2.5 mm ²
Housing material	aluminium	aluminium
Dimension	40x130x115 mm	40x130x115 mm
Approximate weight	400 g	400 g
Mounting information	vertical on a rail, 10 mm from adjacent components	vertical on a rail, 10 mm from adjacent components
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB
Marking tag	—	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



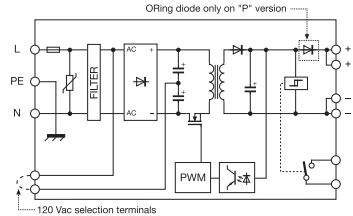
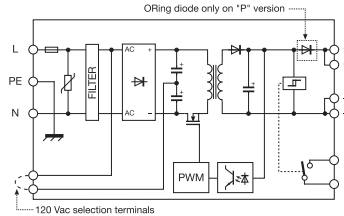
NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



CODE TYPE	CSF120DP	XCSF120DP
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	
Input voltage AC	90...264 Vac	
Input voltage DC	100...345 Vdc [derating Uin<130 Vdc]	
Frequency	47...63 Hz	
Current consumption	1.9 A (120 Vac) / 1.1 A (230 Vac)	
Inrush peak current	20 A	
Power factor	> 0.65	
Internal protection fuse	T 3.15 A	
External protection on AC line	MCB: C-4 A / Fuse: T 4 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	48 Vdc ±1%	
Output adjustable range	45...55 Vdc	
Continuous current	2.5 A at 45°C	
Overload limiting	8 A for >30 s	
Short circuit peak current	7.5 A for 50 ms	
Ripple @ nominal ratings	30 mVpp	
Hold up time	16 ms (120 Vac) / 81 ms (230 Vac)	
Status indication	LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)	
Parallel connection	possible	
Redundant parallel connection	already fitted with internal ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	86% (120 Vac) / 90% (230 Vac)	
Dissipated power	20 W (120 Vac) / 13 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -2.4 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	aluminium	
Dimension	40x130x115 mm	
Approximate weight	400 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

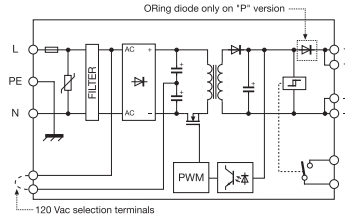
- Single phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance
(1) Dual voltage with selection through external jumper

CODE TYPE	CSF240C	XCSF240C	CSF240CP	XCSF240CP
INPUT TECHNICAL DATA				
Input rated voltage	120–230 Vac		120–230 Vac	
Input voltage AC	90...132 Vac / 185...264 Vac (1)		90...132 Vac / 185...264 Vac (1)	
Input voltage DC	300...345 Vdc		300...345 Vdc	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	3.5 A (120 Vac) / 1.8 A (230 Vac)		3.5 A (120 Vac) / 1.8 A (230 Vac)	
Inrush peak current	35 A		35 A	
Power factor	> 0.6		> 0.6	
Internal protection fuse	T 6.3 A		T 6.3 A	
External protection on AC line	MCB: C-10 A / Fuse: T 10 A		MCB: C-10 A / Fuse: T 10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		24 Vdc ±1%	
Output adjustable range	23...27.5 Vdc		23...27.5 Vdc	
Continuous current	10 A at 45°C		10 A at 45°C	
Overload limiting	15 A for >30 s		15 A for >30 s	
Short circuit peak current	25 A for 400 ms		25 A for 400 ms	
Ripple @ nominal ratings	50 mVpp		50 mVpp	
Hold up time	30 ms (120 Vac) / 60 ms (230 Vac)		30 ms (120 Vac) / 60 ms (230 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	88% (120 Vac) / 90% (230 Vac)		88% (120 Vac) / 90% (230 Vac)	
Dissipated power	32 W (120 Vac) / 27 W (230 Vac)		32 W (120 Vac) / 27 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -4 W >45°C)		-20...+60°C (derating -4 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	63.5x135x140 mm		63.5x135x140 mm	
Approximate weight	920 g		920 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

- Single phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



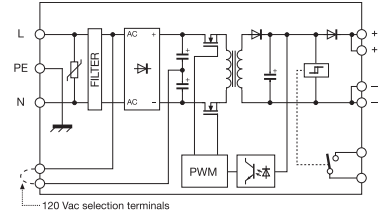
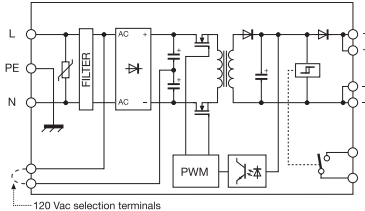
NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance
(1) Dual voltage with selection through external jumper

CODE TYPE	CSF240DP	XCSF240DP
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	
Input voltage AC	90...132 Vac / 185...264 Vac (1)	
Input voltage DC	300...345 Vdc	
Frequency	47...63 Hz	
Current consumption	3.5 A (120 Vac) / 1.8 A (230 Vac)	
Inrush peak current	35 A	
Power factor	> 0.6	
Internal protection fuse	T 6.3 A	
External protection on AC line	MCB: C-10 A / Fuse: T 10 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	48 Vdc ±1%	
Output adjustable range	45...55 Vdc	
Continuous current	5 A at 45°C	
Overload limiting	7.5 A for >30 s	
Short circuit peak current	25 A for 400 ms	
Ripple @ nominal ratings	50 mVpp	
Hold up time	30 ms (120 Vac) / 60 ms (230 Vac)	
Status indication	LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)	
Parallel connection	possible	
Redundant parallel connection	already fitted with internal ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	89% (120 Vac) / 89% (230 Vac)	
Dissipated power	28 W (120 Vac) / 28 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -4 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	aluminium	
Dimension	63.5x135x140 mm	
Approximate weight	920 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

- Single phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads

NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance
(1) Dual voltage with selection through external jumper



CODE TYPE	CSF500C	XCSF500C	CSF500D	XCSF500D
INPUT TECHNICAL DATA				
Input rated voltage	120-230 Vac		120-230 Vac	
Input voltage AC	90...132 Vac / 185...264 Vac (1)		90...132 Vac / 185...264 Vac (1)	
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)		100...370 Vdc (derating Uin<130 Vdc)	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	4.1 A (120 Vac) / 2 A (230 Vac)		4.1 A (120 Vac) / 2 A (230 Vac)	
Inrush peak current	25 A with electronic limiter		25 A with electronic limiter	
Power factor	> 0.75		> 0.75	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-16 A / Fuse: T 15 A		MCB: C-16 A / Fuse: T 15 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		48 Vdc ±1%	
Output adjustable range	24...28 Vdc		45...55 Vdc	
Continuous current	20 A at 45°C		10 A at 45°C	
Overload limiting	22 A for >5 s		12 A for >5 s	
Short circuit peak current	35 A for 5 s		20 A for 5 s	
Ripple @ nominal ratings	50 mVpp		50 mVpp	
Hold up time	12 ms (120 Vac) / 20 ms (230 Vac)		12 ms (120 Vac) / 20 ms (230 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	already fitted with internal ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	92% (120 Vac) / 92% (230 Vac)		92% (120 Vac) / 92% (230 Vac)	
Dissipated power	44 W (120 Vac) / 44 W (230 Vac)		44 W (120 Vac) / 44 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -8.2 W >45°C)		-20...+60°C (derating -8.2 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	4 mm ² / 4 mm ²		4 mm ² / 4 mm ²	
Housing material	aluminium		aluminium	
Dimension	80x139x127 mm		80x139x127 mm	
Approximate weight	1.3 kg		1.3 kg	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	TAP207A, TAP128A, TAP178A, TAP209A		TAP207A, TAP128A, TAP178A, TAP209A	

Single-phase switching power supply for DIN-rail, for general applications in automation and installation. Offering excellent value for money, these offer a perfect and convenient solution for uses in which the powered loads do not require strong peak currents.

They can deliver over +30% of nominal current for a sustained period, keeping the output voltage stable and ensuring continuity of supply to the system. **With these features, this range of power supplies enables designers to meet the requirements of the Machinery Directive EN 60204-1**, allowing the protection devices connected to the output to trigger quickly, safely and selectively, thus ensuring continuity of service to the other parts of the system.

Suggested uses

- Civil automation applications
- General applications in plant installations

Main features

- Equipped with a 120-230 Vac input, these are suitable for use in all single-phase networks
- High efficiency reduces energy consumption and the operating temperature of components and allows use in small panels and severe environmental conditions.
- Power reserve +30% of nominal current, ensuring safety and reliability.
- Output voltage is adjustable and protected against incoming surge generated by inductive loads on the DC line, and is equipped with a double electronic protection that prevents the powered device from failing in case of an internal malfunction.
- Short-circuit, overload and thermal protection prevents faults in case of prolonged overload with high ambient temperatures.
- Construction ensures optimal capacity of ventilation of internal components, extremely reduced overall dimensions and degree of protection IP20 by accidental contact according to IEC529.
- Offer superior performance, features and reliability compared to other products of a similar power and cost.

Short-circuit, overload and thermal protection

Prevents faults in case of prolonged overload with high ambient temperatures

Adjustable output voltage Protected

against incoming surge generated by inductive loads on the DC line

Power boost

The output power reaches 130% in the event of overload, and up to 150% during a short-circuit

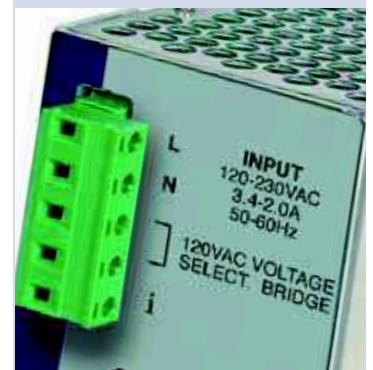
Extremely compact dimensions

Among the smallest on the market, optimising the use of space in the panel without compromising performance

High performance

Reduces the energy consumption and operating temperature of components and allows for use in small panels and in severe ambient conditions

DOMOTIC POWER

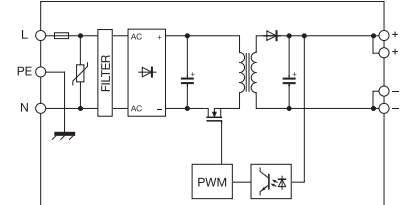
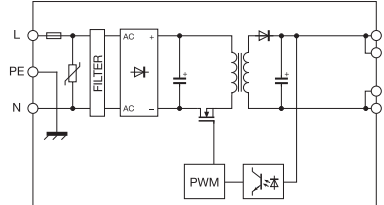


- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Alarm contact



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



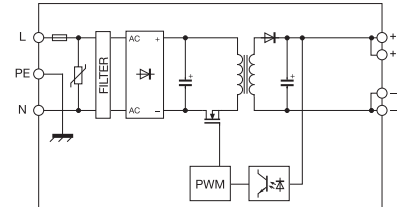
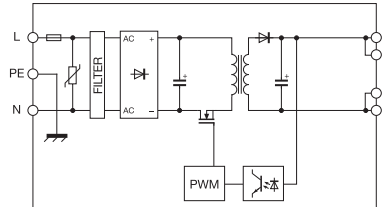
CODE TYPE	XCSL1072W024VAA	XCSL1120W024VAA
INPUT TECHNICAL DATA	CSL1-072W/024V/AA	CSL1-120W/024V/AA
Input rated voltage	120–230 Vac	120–230 Vac
Input voltage AC	85...264 Vac	85...264 Vac
Input voltage DC	100...370 Vdc [derating Uin<130 Vdc]	100...370 Vdc (derating Uin<130 Vdc)
Frequency	47...63 Hz	47...63 Hz
Current consumption	0.8 A (120 Vac) / 0.4 A (230 Vac)	1.5 A (120 Vac) / 0.8 A (230 Vac)
Inrush peak current	20 A	20 A
Power factor	> 0.65	> 0.65
Internal protection fuse	T 2 A	T 3.15 A
External protection on AC line	MCB: C-4 A / Fuse: T-4 A	MCB: C-4 A / Fuse: T-4 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	24 Vdc ±1%
Output adjustable range	16 ... 28 Vdc	16 ... 28 Vdc
Continuous current	3 A at 50°C	5 A
Overload limiting	> 6 A per > 30 s	>6.2 A for >30 s
Short circuit peak current	15 A for 50 ms	15 A for 50 ms
Ripple @ nominal ratings	40 mVpp	50 mVpp
Hold up time	20 ms (120 Vac) / 70 ms (230 Vac)	20 ms (120 Vac) / 20 ms (230 Vac)
Status indication	LED "DC OK"	LED "DC OK"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >22.0 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >22.0 Vdc)
Parallel connection	possible	possibile
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency	87% (120 Vac) / 87% (230 Vac)	85% (120 Vac) / 85% (230 Vac)
Dissipated power	10.8 W (120 Vac) / 10.8 W (230 Vac)	21.2 W (120 Vac) / 21.2 W (230 Vac)
Operating temperature range	-20...+70°C (derating -3 W/°C >50°C)	-20...+70°C (derating -3 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1, EN 62368-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	2.5 mm ² / 2.5 mm ²
Housing material	aluminium	aluminium
Dimension	40x115x115 mm	40x115x115 mm
Approximate weight	400 g	400 g
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—





- Single phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

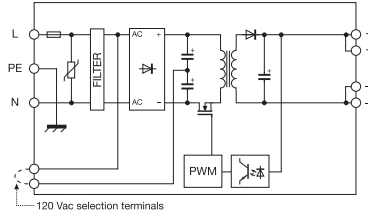


CODE TYPE	CSL85C	XCSL85C	CSL120C	XCSL120C
INPUT TECHNICAL DATA				
Input rated voltage	120–230 Vac		120–230 Vac	
Input voltage AC	90...264 Vac		90...264 Vac	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	1.6A (120 Vac) / 0.9 A (230 Vac)		1.9 A (120 Vac) / 1.1 A (230 Vac)	
Inrush peak current	20 A		20 A	
Power factor	> 0.65		> 0.65	
Internal protection fuse	T 2 A		T 3.15 A	
External protection on AC line	MCB: C-4 A / Fuse: T-4 A		MCB: C-4 A / Fuse: T-4 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		24 Vdc ±1%	
Output adjustable range	23...27.5 Vdc		23...27.5 Vdc	
Continuous current	3.5 A at 45°C		5 A	
Overload limiting	>5.5 A per >30 s		8 A for > 30 s	
Short circuit peak current	9 A for 50 ms		13 A for 50 ms	
Ripple @ nominal ratings	40 mVpp		30 mVpp	
Hold up time	20 ms (120 Vac) / 70 ms (230 Vac)		17 ms (120 Vac) / 72 ms (230 Vac)	
Status indication	LED "DC OK"		LED "DC OK"	
Alarm contact	—		—	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	86% (120 Vac) / 90% (230 Vac)		86% (120 Vac) / 90% (230 Vac)	
Dissipated power	14 W (120 Vac) / 10 W (230 Vac)		19 W (120 Vac) / 13 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -1.45 W >45°C)		-20...+60°C (derating -1.9 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	40x130x115 mm		40x130x115 mm	
Approximate weight	400 g		400 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	 		 	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

- Single phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications

NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance
(1) Dual voltage with selection through external jumper



CODE TYPE	CSL240C	XCSSL240C
INPUT TECHNICAL DATA		
Input rated voltage	120–230 Vac	
Input voltage AC	90...132 Vac / 185...264 Vac (1)	
Input voltage DC	—	
Frequency	47...63 Hz	
Current consumption	3.5A (120 Vac) / 1.8 A (230 Vac)	
Inrush peak current	35 A	
Power factor	> 0.6 / >0.85	
Internal protection fuse	T 6.3 A	
External protection on AC line	MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	
Output adjustable range	23...27.5 Vdc	
Continuous current	10 A at 45°C	
Overload limiting	15 A for >30 s	
Short circuit peak current	25 A for 400 ms	
Ripple @ nominal ratings	50 mVpp	
Hold up time	30 ms (120 Vac) / 60 ms (230 Vac)	
Status indication	LED "DC OK"	
Alarm contact	—	
Parallel connection	possible	
Redundant parallel connection	possible with external ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	88% (120 Vac) / 90% (230 Vac)	
Dissipated power	32 W (120 Vac) / 27 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -4 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	aluminium	
Dimension	63.5x135x140 mm	
Approximate weight	920 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
(1) Available after July 2019

CODE TYPE	XCSL1480W024VAA	XCSL1480W048VAA
INPUT TECHNICAL DATA	CSL1-480W/024V/AA (1)	CSL1-480W/048V/AA (1)
Input rated voltage	120-230 Vac	120-230 Vac
Input voltage AC	85...264 Vac	85...264 Vac
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)	100...370 Vdc (derating Uin<130 Vdc)
Frequency	47...63 Hz	47...63 Hz
Current consumption	4.9 A (120 Vac) / 2.4 A (230 Vac)	4.9 A (120 Vac) / 2.4 A (230 Vac)
Inrush peak current	36 A	36 A
Power factor	> 0.99	> 0.99
Internal protection fuse	—	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	20 ... 28 Vdc	40.5 ... 55.5 Vdc
Continuous current	20 A at 50°C	10 A at 50°C
Overload limiting	22.5 A (max. 40 A constant current)	11.5 A (max. 20 A constant current)
Short circuit peak current	—	—
Ripple @ nominal ratings	40 mVpp	15 mVpp
Hold up time	18 ms (120 Vac) / 18 ms (230 Vac)	18 ms (120 Vac) / 18 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency		
Dissipated power		
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²	4 mm ² / 4 mm ²
Housing material	aluminium	aluminium
Dimension	80x170x127 mm	80x170x127 mm
Approximate weight	1.5 kg	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
(1) Available after July 2019



CODE TYPE	XCSL1480W072VAA
INPUT TECHNICAL DATA	CSL1-480W/072V/AA (1)
Input rated voltage	120–230 Vac
Input voltage AC	85...264 Vac
Input voltage DC	100...370 Vdc (derating U _{in} <130 Vdc)
Frequency	47...63 Hz
Current consumption	4.9 A (120 Vac) / 2.4 A (230 Vac)
Inrush peak current	36 A
Power factor	> 0.99
Internal protection fuse	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA	
Output rated voltage	72 Vdc ±1%
Output adjustable range	62.5 ... 81 Vdc
Continuous current	6.6 A at 50°C
Overload limiting	7.5 A (max. 24 A constant current)
Short circuit peak current	—
Ripple @ nominal ratings	15 mVpp
Hold up time	18 ms (120 Vac) / 18 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (U _{out} > 68.4 Vdc)
Parallel connection	possible
Redundant parallel connection	possible with external ORing diode
GENERAL TECHNICAL DATA	
Efficiency	
Dissipated power	
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (no SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²
Housing material	aluminium
Dimension	80x170x127 mm
Approximate weight	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components
APPROVALS	CE UL PENDING
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—
Marking tag	—

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
(1) Available after May 2019

CODE TYPE	XCSL3480W024VAA CSL3-480W/024V/AA (1)	XCSL3480W048VAA CSL3-480W/048V/AA (1)
INPUT TECHNICAL DATA		
Input rated voltage	3x 400-500 Vac	3x 400-500 Vac
Input voltage AC	340...550 Vac	340...550 Vac
Input voltage DC	—	—
Frequency	47...63 Hz	47...63 Hz
Current consumption	1.2 A (120 Vac) / 1 A (230 Vac)	1.2 A (120 Vac) / 1 A (230 Vac)
Inrush peak current	22 A	22 A
Power factor	—	—
Internal protection fuse	—	—
External protection on AC line	MCB: C-4 A / Fuse: T-3.15 A	MCB: C-4 A / Fuse: T-3.15 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	20 ... 28 Vdc	40.5 ... 55.5 Vdc
Continuous current	20 A at 50°C	10 A at 50°C
Overload limiting	22.5 A (max. 40 A constant current)	15 A (max. 20 A constant current)
Short circuit peak current	—	—
Ripple @ nominal ratings	50 mVpp	50 mVpp
Hold up time	10 ms (120 Vac) / 10 ms (230 Vac)	10 ms (120 Vac) / 10 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout > 21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout > 43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency	90.5% (400 Vac) / 90.5% (500 Vac)	91% (400 Vac) / 91% (500 Vac)
Dissipated power	48 W (400 Vac) / 48 W (500 Vac)	47.5 W (400 Vac) / 47.5 W (500 Vac)
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²	4 mm ² / 4 mm ²
Housing material	aluminium	aluminium
Dimension	80x170x127 mm	80x170x127 mm
Approximate weight	1.5 kg	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
(1) Available after May 2019



CODE TYPE	XCSL3480W072VAA
INPUT TECHNICAL DATA	CSL3-480W/072V/AA (1)
Input rated voltage	3x 400-500 Vac
Input voltage AC	340...550 Vac
Input voltage DC	—
Frequency	47...63 Hz
Current consumption	1.2 A (120 Vac) / 1 A (230 Vac)
Inrush peak current	22 A
Power factor	—
Internal protection fuse	—
External protection on AC line	MCB: C-4 A / Fuse: T-3.15 A
OUTPUT TECHNICAL DATA	
Output rated voltage	72 Vdc ±1%
Output adjustable range	60 ... 81 Vdc
Continuous current	6.6 A at 50°C
Overload limiting	9 A (max. 24 A constant current)
Short circuit peak current	—
Ripple @ nominal ratings	40 mVpp
Hold up time	10 ms (120 Vac) / 10 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)
Parallel connection	possible
Redundant parallel connection	possible with external ORing diode
GENERAL TECHNICAL DATA	
Efficiency	91.5% (400 Vac) / 91.5% (500 Vac)
Dissipated power	44.6 W (400 Vac) / 44.6 W (500 Vac)
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (no SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²
Housing material	aluminium
Dimension	80x170x127 mm
Approximate weight	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components
APPROVALS	CE UL PENDING
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—
Marking tag	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Protective coating for extreme conditions
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 Protective coating allow installation in environment with extreme conditions
 [1] Produced on demand, contact our sales office for availability

CODE TYPE	XCSL1480W024VGA	XCSL1480W048VGA
INPUT TECHNICAL DATA	CSL1-480W/024V/GA (1)	CSL1-480W/048V/GA (1)
Input rated voltage	120-230 Vac	120-230 Vac
Input voltage AC	85...264 Vac	85...264 Vac
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)	100...370 Vdc (derating Uin<130 Vdc)
Frequency	47...63 Hz	47...63 Hz
Current consumption	4.9 A (120 Vac) / 2.4 A (230 Vac)	4.9 A (120 Vac) / 2.4 A (230 Vac)
Inrush peak current	36 A	36 A
Power factor	> 0.99	> 0.99
Internal protection fuse	—	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	20 ... 28 Vdc	40.5 ... 55.5 Vdc
Continuous current	20 A at 50°C	10 A at 50°C
Overload limiting	22.5 A (max. 40 A constant current)	11.5 A (max. 20 A constant current)
Short circuit peak current	—	—
Ripple @ nominal ratings	40 mVpp	15 mVpp
Hold up time	18 ms (120 Vac) / 18 ms (230 Vac)	18 ms (120 Vac) / 18 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency		
Dissipated power		
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²	4 mm ² / 4 mm ²
Housing material	aluminium	aluminium
Dimension	80x170x127 mm	80x170x127 mm
Approximate weight	1.5 kg	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Protective coating for extreme conditions
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 Protective coating allow installation in environment with extreme conditions
 [1] Produced on demand, contact our sales office for availability

CODE TYPE	XCSL1480W072VGA
INPUT TECHNICAL DATA	CSL1-480W/072V/GA (1)
Input rated voltage	120–230 Vac
Input voltage AC	85...264 Vac
Input voltage DC	100...370 Vdc [derating Uin<130 Vdc]
Frequency	47...63 Hz
Current consumption	4.9 A (120 Vac) / 2.4 A (230 Vac)
Inrush peak current	36 A
Power factor	> 0.99
Internal protection fuse	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA	
Output rated voltage	72 Vdc ±1%
Output adjustable range	62.5 ... 81 Vdc
Continuous current	6.6 A at 50°C
Overload limiting	7.5 A (max. 24 A constant current)
Short circuit peak current	—
Ripple @ nominal ratings	15 mVpp
Hold up time	18 ms (120 Vac) / 18 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)
Parallel connection	possible
Redundant parallel connection	possible with external ORing diode
GENERAL TECHNICAL DATA	
Efficiency	
Dissipated power	
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (no SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²
Housing material	aluminium
Dimension	80x170x127 mm
Approximate weight	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components
APPROVALS	CE UL PENDING
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—
Marking tag	—

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Protective coating for extreme conditions
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
Protective coating allow installation in environment with extreme conditions

[1] Produced on demand, contact our sales office for availability

CODE TYPE	XCSL3480W024VGA	XCSL3480W048VGA
INPUT TECHNICAL DATA	CSL3-480W/024V/GA (1)	CSL3-480W/048V/GA (1)
Input rated voltage	3x 400–500 Vac	3x 400–500 Vac
Input voltage AC	340...550 Vac	340...550 Vac
Input voltage DC	—	—
Frequency	47...63 Hz	47...63 Hz
Current consumption	1.2 A (120 Vac) / 1 A (230 Vac)	1.2 A (120 Vac) / 1 A (230 Vac)
Inrush peak current	22 A	22 A
Power factor	—	—
Internal protection fuse	—	—
External protection on AC line	MCB: C-4 A / Fuse: T-3.15 A	MCB: C-4 A / Fuse: T-3.15 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	20 ... 28 Vdc	40.5 ... 55.5 Vdc
Continuous current	20 A at 50°C	10 A at 50°C
Overload limiting	22.5 A (max. 40 A constant current)	15 A (max. 20 A constant current)
Short circuit peak current	—	—
Ripple @ nominal ratings	50 mVpp	50 mVpp
Hold up time	10 ms (120 Vac) / 10 ms (230 Vac)	10 ms (120 Vac) / 10 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency	90.5% (400 Vac) / 90.5% (500 Vac)	91% (400 Vac) / 91% (500 Vac)
Dissipated power	48 W (400 Vac) / 48 W (500 Vac)	47.5 W (400 Vac) / 47.5 W (500 Vac)
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²	4 mm ² / 4 mm ²
Housing material	aluminium	aluminium
Dimension	80x170x127 mm	80x170x127 mm
Approximate weight	1.5 kg	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Protective coating for extreme conditions
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 Protective coating allow installation in environment with extreme conditions
 [1] Produced on demand, contact our sales office for availability

CODE TYPE	XCSL3480W072VGA
INPUT TECHNICAL DATA	CSL3-480W/072V/GA (1)
Input rated voltage	3x 400-500 Vac
Input voltage AC	340...550 Vac
Input voltage DC	—
Frequency	47...63 Hz
Current consumption	1.2 A (120 Vac) / 1 A (230 Vac)
Inrush peak current	22 A
Power factor	—
Internal protection fuse	—
External protection on AC line	MCB: C-4 A / Fuse: T-3.15 A
OUTPUT TECHNICAL DATA	
Output rated voltage	72 Vdc ±1%
Output adjustable range	60 ... 81 Vdc
Continuous current	6.6 A at 50°C
Overload limiting	9 A (max. 24 A constant current)
Short circuit peak current	—
Ripple @ nominal ratings	40 mVpp
Hold up time	10 ms (120 Vac) / 10 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)
Parallel connection	possible
Redundant parallel connection	possible with external ORing diode
GENERAL TECHNICAL DATA	
Efficiency	91.5% (400 Vac) / 91.5% (500 Vac)
Dissipated power	44.6 W (400 Vac) / 44.6 W (500 Vac)
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (no SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²
Housing material	aluminium
Dimension	80x170x127 mm
Approximate weight	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components
APPROVALS	CE UL PENDING
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—
Marking tag	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Integrated communication port for net connection
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 The communication port allow the connection to the net through the external interface XCCI001MB
 (1) Produced on demand, contact our sales office for availability

CODE TYPE	XCSL1480W024VAB	XCSL1480W048VAB
INPUT TECHNICAL DATA	CSL1-480W/024V/AB (1)	CSL1-480W/048V/AB (1)
Input rated voltage	120-230 Vac	120-230 Vac
Input voltage AC	85...264 Vac	85...264 Vac
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)	100...370 Vdc (derating Uin<130 Vdc)
Frequency	47...63 Hz	47...63 Hz
Current consumption	4.9 A (120 Vac) / 2.4 A (230 Vac)	4.9 A (120 Vac) / 2.4 A (230 Vac)
Inrush peak current	36 A	36 A
Power factor	> 0.99	> 0.99
Internal protection fuse	—	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	20 ... 28 Vdc	40.5 ... 55.5 Vdc
Continuous current	20 A at 50°C	10 A at 50°C
Overload limiting	22.5 A (max. 40 A constant current)	11.5 A (max. 20 A constant current)
Short circuit peak current	—	—
Ripple @ nominal ratings	40 mVpp	15 mVpp
Hold up time	18 ms (120 Vac) / 18 ms (230 Vac)	18 ms (120 Vac) / 18 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency		
Dissipated power		
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²	4 mm ² / 4 mm ²
Housing material	aluminium	aluminium
Dimension	80x170x127 mm	80x170x127 mm
Approximate weight	1.5 kg	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—

- Single phase and DC input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Integrated communication port for net connection
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 The communication port allow the connection to the net through the external interface XCCI001MB
 [1] Produced on demand, contact our sales office for availability

CODE	XCSL1480W072VAB
TYPE	CSL1-480W/072V/AB (1)
INPUT TECHNICAL DATA	
Input rated voltage	120–230 Vac
Input voltage AC	85...264 Vac
Input voltage DC	100...370 Vdc (derating Uin<130 Vdc)
Frequency	47...63 Hz
Current consumption	4.9 A (120 Vac) / 2.4 A (230 Vac)
Inrush peak current	36 A
Power factor	> 0.99
Internal protection fuse	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA	
Output rated voltage	72 Vdc ±1%
Output adjustable range	62.5 ... 81 Vdc
Continuous current	6.6 A at 50°C
Overload limiting	7.5 A (max. 24 A constant current)
Short circuit peak current	—
Ripple @ nominal ratings	15 mVpp
Hold up time	18 ms (120 Vac) / 18 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)
Parallel connection	possible
Redundant parallel connection	possible with external ORing diode
GENERAL TECHNICAL DATA	
Efficiency	
Dissipated power	
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (no SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²
Housing material	aluminium
Dimension	80x170x127 mm
Approximate weight	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components
APPROVALS	CE UL PENDING
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—
Marking tag	—

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Integrated communication port for net connection
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 The communication port allow the connection to the net through the external interface XCCI001MB
 (1) Produced on demand, contact our sales office for availability

CODE TYPE	XCSL3480W024VAB CSL3-480W/024V/AB (1)	XCSL3480W048VAB CSL3-480W/048V/AB (1)
INPUT TECHNICAL DATA		
Input rated voltage	3x 400-500 Vac	3x 400-500 Vac
Input voltage AC	340...550 Vac	340...550 Vac
Input voltage DC	—	—
Frequency	47...63 Hz	47...63 Hz
Current consumption	1.2 A (120 Vac) / 1 A (230 Vac)	1.2 A (120 Vac) / 1 A (230 Vac)
Inrush peak current	22 A	22 A
Power factor	—	—
Internal protection fuse	—	—
External protection on AC line	MCB: C-4 A / Fuse: T-3.15 A	MCB: C-4 A / Fuse: T-3.15 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	20 ... 28 Vdc	40.5 ... 55.5 Vdc
Continuous current	20 A at 50°C	10 A at 50°C
Overload limiting	22.5 A (max. 40 A constant current)	15 A (max. 20 A constant current)
Short circuit peak current	—	—
Ripple @ nominal ratings	50 mVpp	50 mVpp
Hold up time	10 ms (120 Vac) / 10 ms (230 Vac)	10 ms (120 Vac) / 10 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout > 21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout > 43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency	90.5% (400 Vac) / 90.5% (500 Vac)	91% (400 Vac) / 91% (500 Vac)
Dissipated power	48 W (400 Vac) / 48 W (500 Vac)	47.5 W (400 Vac) / 47.5 W (500 Vac)
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	1.5 kVac / 60 s	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²	4 mm ² / 4 mm ²
Housing material	aluminium	aluminium
Dimension	80x170x127 mm	80x170x127 mm
Approximate weight	1.5 kg	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components	vertical on a rail, 20 mm from adjacent components
APPROVALS	UL PENDING	UL PENDING
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—	—
Marking tag	—	—

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Integrated communication port for net connection
- Alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE

Please refer to the datasheet for more details
 Above overcurrent limit, the protection decreases the output voltage (constant current mode), the maximum current supplied depends by the line resistance
 The communication port allow the connection to the net through the external interface XCCI001MB
 (1) Produced on demand, contact our sales office for availability

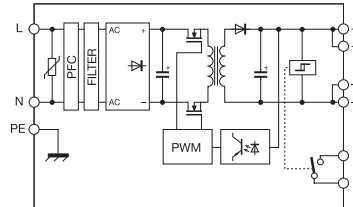
CODE TYPE	XCSL3480W072VAB
INPUT TECHNICAL DATA	CSL3-480W/072V/AB (1)
Input rated voltage	3x 400-500 Vac
Input voltage AC	340...550 Vac
Input voltage DC	—
Frequency	47...63 Hz
Current consumption	1.2 A (120 Vac) / 1 A (230 Vac)
Inrush peak current	22 A
Power factor	—
Internal protection fuse	—
External protection on AC line	MCB: C-4 A / Fuse: T-3.15 A
OUTPUT TECHNICAL DATA	
Output rated voltage	72 Vdc ±1%
Output adjustable range	60 ... 81 Vdc
Continuous current	6.6 A at 50°C
Overload limiting	9 A (max. 24 A constant current)
Short circuit peak current	—
Ripple @ nominal ratings	40 mVpp
Hold up time	10 ms (120 Vac) / 10 ms (230 Vac)
Status indication	LED "DC OK", LED "Stand-by"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)
Parallel connection	possible
Redundant parallel connection	possible with external ORing diode
GENERAL TECHNICAL DATA	
Efficiency	91.5% (400 Vac) / 91.5% (500 Vac)
Dissipated power	44.6 W (400 Vac) / 44.6 W (500 Vac)
Operating temperature range	-20...+70°C (derating -14 W/°C >50°C)
Input / output isolation	3 kVac / 60 s (no SELV output)
Input / ground isolation	1.5 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	4 mm ² / 4 mm ²
Housing material	aluminium
Dimension	80x170x127 mm
Approximate weight	1.5 kg
Mounting information	vertical on a rail, 20 mm from adjacent components
APPROVALS	CE UL PENDING
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	—
Marking tag	—

- Single phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for standard applications



NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance



CODE TYPE	CSL481C	XCSL481C
INPUT TECHNICAL DATA		
Input rated voltage	230 Vac	
Input voltage AC	187...264 Vac	
Input voltage DC	—	
Frequency	47...63 Hz	
Current consumption	2 A (230 Vac)	
Inrush peak current	20 A	
Power factor	> 0.95	
Internal protection fuse	—	
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	
Output adjustable range	23...27.5 Vdc	
Continuous current	20 A at 45°C	
Overload limiting	28 A	
Short circuit peak current	50 A for 0.3 s	
Ripple @ nominal ratings	100 mVpp	
Hold up time	20 ms (230 Vac)	
Status indication	LED "DC OK"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout > 21.6 Vdc)	
Parallel connection	possible	
Redundant parallel connection	possible with external ORing diode	
GENERAL TECHNICAL DATA		
Efficiency	92% (230 Vac)	
Dissipated power	42 W (230 Vac)	
Operating temperature range	-20...+60°C (derating -16 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	aluminium	
Dimension	73x137x140 mm	
Approximate weight	1 kg	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

DIN-rail based switching power supply with universal input 185...550 Vac single/2 /3-phase for industrial automation and process control applications. Input circuit technology makes these immune to overvoltage caused by faults in 3-phase networks with neutral, increasing the reliability of application. This series offers **greater reliability in industrial environments** compared to single-phase power supplies. The input stage uses components with an operating voltage of 900 V, offering greater resistance to the voltage peaks present in industrial networks than single-phase components. The ability to operate from 185 to 550 Vac allows these power supplies to be used in both 230 V single-phase networks and 400 V 3-phase networks.

Suggested uses

- Wherever maximum flexibility of use is required in single- or 3-phase networks
- Applications in industrial automation and process control
- Uses with heavy loads
- Civil automation applications

Main features

- The 185...550 Vac extended range input is compatible with 230...240 Vac single-phase power, 208 Vac 2-phase and 400...500 Vac 2-phase and 3-phase for maximum adaptability to AC networks, eliminating the need for an isolation transformer.
- The 2-phase input offers reduced bulk, wiring, installation costs and panel space.
- Eliminates the need for a network voltage adaptation transformer.
- Versions with DC OK failure contact
- High efficiency reduces energy consumption and the operating temperature of components and allows use in small panels and severe environmental conditions.
- Large power reserve allows 5 seconds of current to be supplied at least +50% higher than the rated value, ensuring safety and reliability.
- The output is adjustable and protected against incoming surge from the DC line, and is equipped with electronic protection that turns off the output in case of an internal malfunction.
- Short-circuit and overload protection designed to supply peak currents of more than 150% of the rated value required by heavy loads, while the thermal protection prevents faults in case of prolonged overload with high ambient temperatures.
- Construction ensures excellent ventilation capacity of internal components, with reduced sizes and a degree of protection from accidental contacts of IP20 per IEC529.
- Thanks to their high performance and excellent ventilation, they are among the smallest on the market.

UNIVERSAL POWER

Greater reliability

This series offers greater reliability in industrial environments compared to single-phase power supplies. The input stage uses components with an operating voltage of 900 V, offering greater resistance to the voltage peaks present in industrial networks than single-phase components. The ability to operate from 185 to 550 Vac makes these power supplies immune to network faults: With the output powered at 230 Vac (1L-N), in case of a short in another device connected to L2-N, the neutral is increased to around 400 Vac and the input is powered phase-phase until the protection is opened, which in most cases occurs within 300 ms; this is one of the most frequent causes of malfunction in 230 Vac single-phase power supplies in industrial environments (figures 1 and 2) Another type of fault in 230 Vac single-phase devices with phase-neutral power is due to the accidental disconnection or interruption of the panel neutral by the plant neutral: with no return to the star point, the neutral increases to phase voltage and applies to single-phase loads of around 400 Vac, and malfunction is inevitable.

185...550 Vac wide range input

Compatible with 230...240 Vac single-phase power, 208 Vac 2-phase and 400...500 Vac 2-phase and 3-phase for maximum adaptability to AC networks, eliminating the need for an isolation transformer.

Power boost

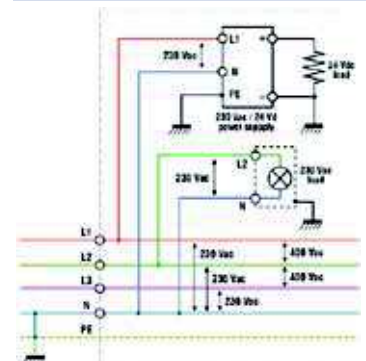
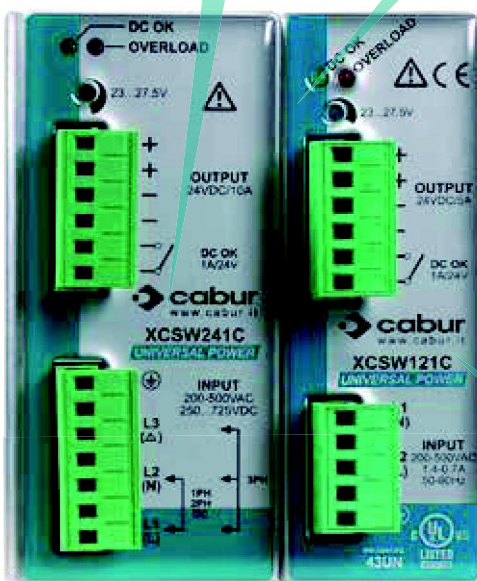
The output power reaches 120% of the nominal value for several minutes, up to 150% in the event of overload, and up to 250% during a short-circuit, to enable the protection devices connected to the output to trigger quickly, safely and selectively, without the use of additional modules.

High performance

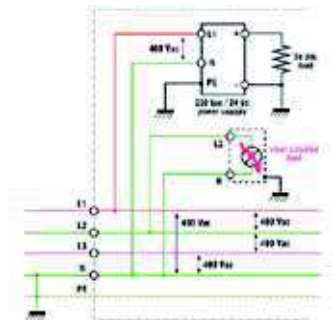
Reduces the energy consumption and operating temperature of components and allows for use in small panels

Increased reliability in industrial environments

The input stage uses components with an operating voltage of 900 V, more resistant to the voltage peaks found in industrial networks

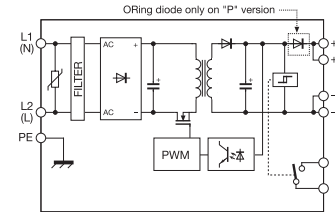
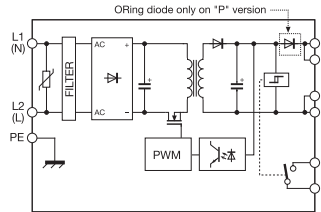


Typical application with 3-phase network with neutral. This is used to obtain a voltage of 230 Vac to power loads (a single lamp in the example) and power supplies.







A single short-circuit on the load will raise the neutral potential and all devices connected to it will be powered between two phases, i.e. at around 340...400 Vac rather than 230 Vac.

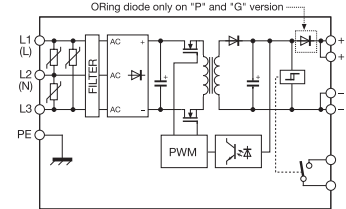
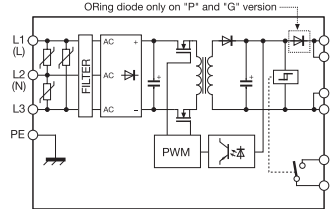
- Single phase and 2-phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

CODE TYPE	CSW121C	XCSW121C	CSW121B	XCSW121B
INPUT TECHNICAL DATA				
Input rated voltage	1-2x 230-400-500 Vac		1-2x 230-400-500 Vac	
Input voltage AC	187...550 Vac		187...550 Vac	
Input voltage DC	270...725 Vdc		270...725 Vdc	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	1.1 A (230 Vac) / 0.55 A (400 Vac)		1.1 A (230 Vac) / 0.55 A (400 Vac)	
Inrush peak current	20 A		20 A	
Power factor	> 0.65		> 0.65	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-6 A / Fuse: T-4 A		MCB: C-6 A / Fuse: T-4 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		12 Vdc ±1%	
Output adjustable range	24...27.5 Vdc		12...15 Vdc	
Continuous current	5 A		8 A (12 Vdc) - 7 A (15 Vdc)	
Overload limiting	7.5 A for >30 s		10 A for >30 s	
Short circuit peak current	14 A for 0.4 s		20 A for 0.4 s	
Ripple @ nominal ratings	100 mVpp		100 mVpp	
Hold up time	20 ms (230 Vac) / 80 ms (400 Vac)		20 ms (230 Vac) / 80 ms (400 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >10.8 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	87% (230 Vac) / 87% (400 Vac)		84% (230 Vac) / 86% (400 Vac)	
Dissipated power	18 W (230 Vac) / 18 W (400 Vac)		20 W (230 Vac) / 17 W (400 Vac)	
Operating temperature range	-20...+60°C (derating -3 W >45°C)		-20...+60°C (derating -3 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	40x130x115 mm		40x130x115 mm	
Approximate weight	600 g		600 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	 		 	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

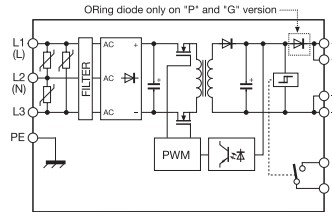
- Single phase, 2-phase and 3-phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads





NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

CODE TYPE	CSW241C	XCSW241C	CSW241B	XCSW241B
INPUT TECHNICAL DATA				
Input rated voltage	1-2-3x 230-400-500 Vac		1-2-3x 230-400-500 Vac	
Input voltage AC	185...550 Vac		185...550 Vac	
Input voltage DC	270...770 Vdc		270...770 Vdc	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	2 A (230 Vac) / 1 A (400 Vac)		2 A (230 Vac) / 1 A (400 Vac)	
Inrush peak current	20 A		20 A	
Power factor	> 0.65		> 0.65	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A		MCB: C-6 A / Fuse: T-6.3 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		12 Vdc ±1%	
Output adjustable range	24...27.5 Vdc		12...15 Vdc	
Continuous current	10 A at 50°C		16 A (12 Vdc) - 157 A (15 Vdc)	
Overload limiting	15 A for >6 s		20...18 A for >6 s	
Short circuit peak current	38 A for 0.5 s		34 A for 0.5 s	
Ripple @ nominal ratings	100 mVpp		100 mVpp	
Hold up time	15 ms (230 Vac) / 100 ms (400 Vac)		15 ms (230 Vac) / 100 ms (400 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout > 21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout > 10.8 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	91% (230 Vac) / 92% (400 Vac)		89% (230 Vac) / 90% (400 Vac)	
Dissipated power	24 W (230 Vac) / 21 W (400 Vac)		22 W (230 Vac) / 20 W (400 Vac)	
Operating temperature range	-20...+60°C (derating -3 W >50°C)		-20...+60°C (derating -3 W >50°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	2 kVac / 60 s		2 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	55x130x115 mm		55x130x115 mm	
Approximate weight	1 kg		1 kg	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

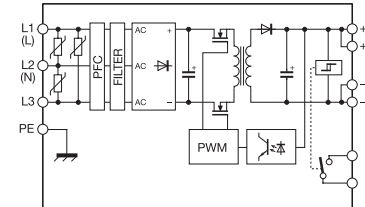
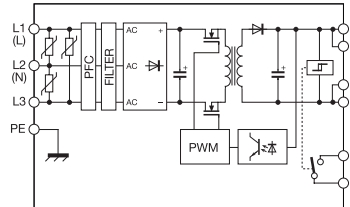
- Single phase, 2-phase and 3-phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

CODE TYPE	XCSW241DP
INPUT TECHNICAL DATA	
Input rated voltage	1-2-3x 230-400-500 Vac
Input voltage AC	185...550 Vac
Input voltage DC	270...770 Vdc
Frequency	47...63 Hz
Current consumption	2 A (230 Vac) / 1 A (400 Vac)
Inrush peak current	20 A
Power factor	> 0.65
Internal protection fuse	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA	
Output rated voltage	48 Vdc ±1%
Output adjustable range	45...55 Vdc
Continuous current	5 A at 50°C
Overload limiting	6 A for >6 s
Short circuit peak current	18 A for 0.5 s
Ripple @ nominal ratings	100 mVpp
Hold up time	15 ms (230 Vac) / 100 ms (400 Vac)
Status indication	LED "DC OK" / LED "Alarm"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)
Parallel connection	possible
Redundant parallel connection	already fitted with internal ORing diode
GENERAL TECHNICAL DATA	
Efficiency	91% (230 Vac) / 92% (400 Vac)
Dissipated power	24 W (230 Vac) / 21 W (400 Vac)
Operating temperature range	-20...+60°C (derating -3 W >50°C)
Input / output isolation	3 kVac / 60 s (SELV output)
Input / ground isolation	2 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s
Standard / approvals	EN 60950-1
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2
Protection degree	IP 20
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²
Housing material	aluminium
Dimension	55x130x115 mm
Approximate weight	1 kg
Mounting information	vertical on a rail, 10 mm from adjacent components
APPROVALS	 
ACCESSORIES	
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB
Marking tag	—

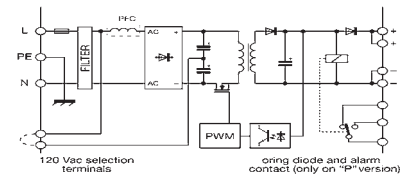
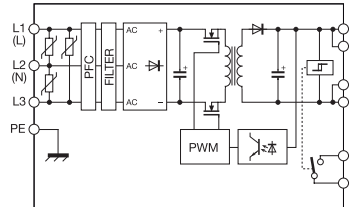
- Single phase, 2-phase and 3-phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads






NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

CODE TYPE	XCSW481C	XCSW481D
INPUT TECHNICAL DATA	CSW481C	CSW481D
Input rated voltage	1-2-3x 230-400-500 Vac	1-2-3x 230-400-500 Vac
Input voltage AC	187...550 Vac	187...550 Vac
Input voltage DC	250...725 Vdc	250...725 Vdc
Frequency	47...63 Hz	47...63 Hz
Current consumption	2.2 A (230 Vac) / 1 A (400 Vac)	2.2 A (230 Vac) / 1 A (400 Vac)
Inrush peak current	20 A (230 Vac) / 40 A (500 Vac)	20 A (230 Vac) / 40 A (500 Vac)
Power factor	> 0.95	> 0.95
Internal protection fuse	—	—
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A	MCB: C-6 A / Fuse: T-6.3 A
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc ±1%	48 Vdc ±1%
Output adjustable range	23.3...27.5 Vdc	45...55 Vdc
Continuous current	20 A at 45°C	10 A at 45°C
Overload limiting	28 A for >5 s	14 A for >5 s
Short circuit peak current	50 A for 0.3 s	25 A for 0.3 s
Ripple @ nominal ratings	100 mVpp	100 mVpp
Hold up time	20 ms (230 Vac) / 20 ms (400 Vac)	20 ms (230 Vac) / 20 ms (400 Vac)
Status indication	LED "DC OK" / LED "Alarm"	LED "DC OK" / LED "Alarm"
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)
Parallel connection	possible	possible
Redundant parallel connection	possible with external ORing diode	possible with external ORing diode
GENERAL TECHNICAL DATA		
Efficiency	92% (230 Vac) / 92% (400 Vac)	92% (230 Vac) / 92% (400 Vac)
Dissipated power	42 W (230 Vac) / 42 W (400 Vac)	42 W (230 Vac) / 42 W (400 Vac)
Operating temperature range	-20...+60°C (derating -16 W >45°C)	-20...+60°C (derating -16 W >45°C)
Input / output isolation	3 kVac / 60 s (SELV output)	3 kVac / 60 s (SELV output)
Input / ground isolation	2 kVac / 60 s	2 kVac / 60 s
Output / ground isolation	0.5 kVac / 60 s	0.5 kVac / 60 s
Standard / approvals	EN 60950-1	EN 60950-1
EMC Standards	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4
Overvoltage category / Pollution degree	II / 2	II / 2
Protection degree	IP 20	IP 20
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	2.5 mm ² / 2.5 mm ²
Housing material	aluminium	aluminium
Dimension	73x137x140 mm	73x137x140 mm
Approximate weight	1 kg	1 kg
Mounting information	vertical on a rail, 10 mm from adjacent components	vertical on a rail, 10 mm from adjacent components
APPROVALS		
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB
Marking tag	—	—

- Single phase, 2-phase and 3-phase input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance
(1) Dual voltage with selection through external jumper

CODE TYPE	CSW481G	XCSW481G	CSW960CP	XCSW960CP
INPUT TECHNICAL DATA				
Input rated voltage	1-2-3x 230-400-500 Vac		1x 230 Vac / 2x 400-500 Vac	
Input voltage AC	187...550 Vac		180...264 Vac / 360...550 Vac (1)	
Input voltage DC	250...725 Vdc		550...775 Vdc	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	2.2 A (230 Vac) / 1 A (400 Vac)		4.7A (230 Vac) / 4A (400 Vac)	
Inrush peak current	20 A (230 Vac) / 40 A (500 Vac)		16 A	
Power factor	> 0.95		> 0.6	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A		MCB: C-10 A / Fuse: 1-2x T 10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	72 Vdc ±1%		24 Vdc ±1%	
Output adjustable range	72...85 Vdc		23...27.5 Vdc	
Continuous current	6 A at 45°C		40 A at 45°C	
Overload limiting	9 A for >5 s		50 A for >5 s	
Short circuit peak current	12 A for 0.3 s		65 A for 5 s	
Ripple @ nominal ratings	100 mVpp		200 mVpp	
Hold up time	20 ms (230 Vac) / 20 ms (400 Vac)		20 ms (230 Vac) / 20 ms (400 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	91% (230 Vac) / 91% (400 Vac)		90% (400 Vac) at 230 Vac	
Dissipated power	42 W (230 Vac) / 42 W (400 Vac)		<100 W (400 Vac) at 230 Vac	
Operating temperature range	-20...+60°C (derating -16 W >45°C)		-20...+60°C (derating -32 W >45°C)	
Input / output isolation	3 kVac / 60 s (no SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	2 kVac / 60 s		2 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4		EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		4 mm ² / 10 mm ²	
Housing material	aluminium		aluminium	
Dimension	73x137x140 mm		80x139x127 mm	
Approximate weight	1 kg		1.2 Kg	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	 			
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		TAP207A, TAP128A, TAP178A, TAP209A	

400...500 Vac 3-phase switching power supply for industrial automation applications. They can deliver over +50% of nominal current for a sustained period, keeping the output voltage stable and ensuring continuity of supply to the system. Equipped with voltage threshold controlled failure contact which is triggered when the voltage falls below 90% of the rated value.

With these features and numerous international certifications, this range of power supplies enables designers to meet the requirements of the Machinery Directive EN 60204-1, allowing the protection devices connected to the output to trigger quickly, safely and selectively, thus ensuring continuity of service to the other parts of the system.

Suggested uses

- Applications in machine automation with high command and control voltage reliability and safety requirements
- In applications which require selectable overcurrent protections on DC lines
- Industrial automation applications
- Uses with heavy loads

Main features

- With 340...550 Vac/507...770 Vdc input, making them suitable for use on all power supply networks.
- High efficiency reduces energy consumption and the operating temperature of components and allows use in small panels and severe environmental conditions.
- Large power reserve allows for delivery of at least +50% of nominal current for 5 seconds maintaining the output voltage stable, ensuring safety and reliability.
- Output voltage is adjustable and protected against incoming surge from the DC line, and is equipped with a double electronic protection that prevents damage to the powered device in case of an internal malfunction.
- Short-circuit and overload protection designed to deliver peak currents more than 150% higher than the rated value required by heavy loads.
- Thermal protection prevents faults in case of prolonged overload with high ambient temperatures.
- Construction ensures optimal capacity of ventilation of internal components, extremely reduced overall dimensions and degree of protection IP20 by accidental contact according to IEC529.

TRIPLE POWER

Special power supplies for engines DC, Brushless, and relative drives

New 48Vdc, 72-85Vdc, and 110-180Vdc models have been introduced, designed to reliably power engines in DC. They:

- supply peak power equal to even 4-5 times the nominal current, which is required by the engine during the peak phase
- have an output stage protected from overvoltage generated by the engines and drives during braking, which could otherwise cause malfunctions or cause the power supply to lose control over output voltage stability
- Provide output voltage at 48Vdc, and 72...85Vdc. By increasing the voltage of the engine power supply, the same power can be obtained at lower current, with notable advantages for performance, engine construction, connection wires, and drives.

Integrated smart alarm contact

Notifies when the output voltage falls below 90% of the rated value once a threshold is surpassed

Super compact size

Power boost

The output power reaches 120% of the nominal value for several minutes, up to 150% in the event of overload, and up to 250% during a short-circuit, to enable the protection devices connected to the output to trigger quickly, safely and selectively, without the use of additional modules.

Wide range

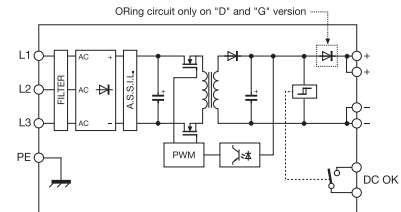
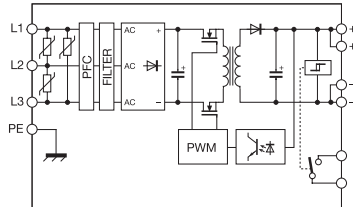
Designed to save energy and reduce operating temperature

Wide range





The widest range on the market, with power ratings from 120 to 2400W and output voltages of 24, 48 and 72 V, for uses including powering special motors



- 3-phase 400-500 Vac input or 2-phase with derating
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



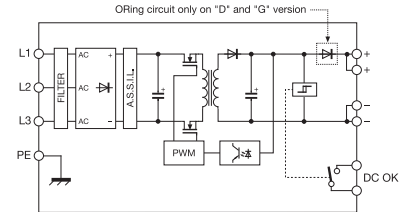
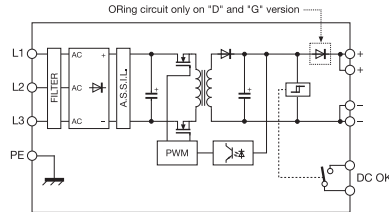
NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode (hiccup autoreset), the maximum current supplied depends by the line resistance





CODE TYPE	CSG481C	XCSG481C	CSG500C	XCSG500C
INPUT TECHNICAL DATA				
Input rated voltage	3x 400-500 Vac		3x 400-500 Vac	
Input voltage AC	340...550 Vac		340...550 Vac	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	1.2 A (400 Vac) / 0.8 A (500 Vac)		1 A (400 Vac) / 0.6 A (500 Vac)	
Inrush peak current	40 A		35 A	
Power factor	> 0.95		> 0.75	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-6 A / Fuse: T-6.3 A		MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		24 Vdc ±1%	
Output adjustable range	23.3...27.5 Vdc		24...28 Vdc	
Continuous current	20 A at 45°C		20 A at 50°C	
Overload limiting	28 A for >5 s		>22 A for >5 s	
Short circuit peak current	50 A for 0.3 s		35 A for 5 s	
Ripple @ nominal ratings	100 mVpp		100 mVpp	
Hold up time	50 ms (400 Vac) / 50 ms (500 Vac)		15 ms (400 Vac) / 30 ms (500 Vac)	
Status indication	LED "DC OK"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	93% (400 Vac) / 92% (500 Vac)		93% (400 Vac) / 93% (500 Vac)	
Dissipated power	36 W (400 Vac) / 42 W (500 Vac)		36 W (400 Vac) / 36 W (500 Vac)	
Operating temperature range	-20...+60°C (derating -16 W >45°C)		-20...+60°C (derating -6 W >50°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	2 kVac / 60 s		2 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		4 mm ² / 4 mm ²	
Housing material	aluminium		aluminium	
Dimension	73x137x140 mm		80x139x127 mm	
Approximate weight	1 kg		1.3 Kg	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	 		 	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		TAP207A, TAP128A, TAP178A, TAP209A	

- 3-phase 400-500 Vac input or 2-phase with derating
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads

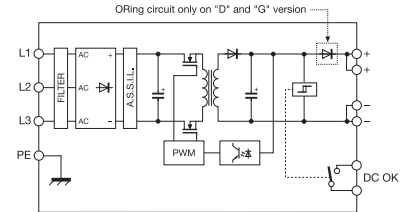
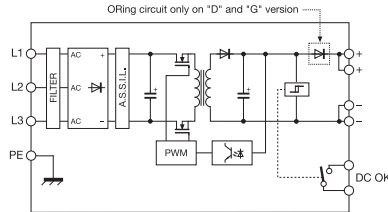
NOTE

Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode (hiccup autoreset), the maximum current supplied depends by the line resistance







CODE TYPE	CSG720C	XCSG720C	CSG960C	XCSG960C
INPUT TECHNICAL DATA				
Input rated voltage	3x 400-500 Vac		3x 400-500 Vac	
Input voltage AC	340...550 Vac		340...550 Vac	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	1.4 A (400 Vac) / 1.1 A (500 Vac)		2.2 A (400 Vac) / 1.1 A (500 Vac)	
Inrush peak current	30 A		20 A	
Power factor	> 0.75		> 0.65	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-10 A / Fuse: T-10 A		MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc ±1%		24 Vdc ±1%	
Output adjustable range	24...28 Vdc		24...28 Vdc	
Continuous current	30 A at 50°C		40 A at 50°C	
Overload limiting	45 A for > 5 s		44 A for >5 s	
Short circuit peak current	60 A for 1.5 s		63 A for 5 s	
Ripple @ nominal ratings	100 mVpp		100 mVpp	
Hold up time	10 ms (400 Vac) / 15 ms (500 Vac)		10 ms (400 Vac) / 15 ms (500 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >21.6 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	92% (400 Vac) / 92% (500 Vac)		92% (400 Vac) / 92% (500 Vac)	
Dissipated power	60 W (400 Vac) / 60 W (500 Vac)		80 W (400 Vac) / 80 W (500 Vac)	
Operating temperature range	-20...+60°C		-20...+60°C (derating -18 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	2 kVac / 60 s		2 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	4 mm ² / 4 mm ²		4 mm ² / 10 mm ²	
Housing material	aluminium		aluminium	
Dimension	80x139x127 mm		80x139x127 mm	
Approximate weight	1.3 Kg		1.2 kg	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	 		 	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	TAP207A, TAP128A, TAP178A, TAP209A		TAP207A, TAP128A, TAP178A, TAP209A	

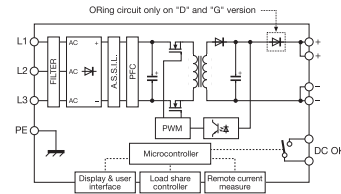
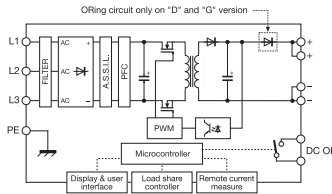
- 3-phase 400-500 Vac input or 2-phase with derating
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart alarm contact, signals when output voltage drops more than 10%
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Above overcurrent limit, the protection starts cycling in ON/OFF mode (hiccup autoreset), the maximum current supplied depends by the line resistance

CODE TYPE	CSG960D	XCSG960D	CSG960G	XCSG960G
INPUT TECHNICAL DATA				
Input rated voltage	3x 400-500 Vac		3x 400-500 Vac	
Input voltage AC	340...550 Vac		340...550 Vac	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	2.2 A (400 Vac) / 1.1 A (500 Vac)		2.2 A (400 Vac) / 1.1 A (500 Vac)	
Inrush peak current	20 A		20 A	
Power factor	> 0.65		> 0.65	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-10 A / Fuse: T-10 A		MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	48 Vdc ±1%		72 Vdc ±1%	
Output adjustable range	45...55 Vdc		72...85 Vdc	
Continuous current	20 A at 50°C		13.3 A at 50°C	
Overload limiting	23 A for >5 s		17 A for >5 s	
Short circuit peak current	40 A for 5 s		27 A for 5 s	
Ripple @ nominal ratings	100 mVpp		100 mVpp	
Hold up time	10 ms (400 Vac) / 15 ms (500 Vac)		15 ms (400 Vac) / 18 ms (500 Vac)	
Status indication	LED "DC OK" / LED "Alarm"		LED "DC OK" / LED "Alarm"	
Alarm contact	dry contact, max. 1A @ 24 Vdc (Uout >43.2 Vdc)		dry contact, max. 1A @ 24 Vdc (Uout >68.4 Vdc)	
Parallel connection	possible		possible	
Redundant parallel connection	already fitted with internal ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	92% (400 Vac) / 92% (500 Vac)		94% (400 Vac) / 94% (500 Vac)	
Dissipated power	80 W (400 Vac) / 80 W (500 Vac)		60 W (400 Vac) / 60 W (500 Vac)	
Operating temperature range	-20...+60°C (derating -18 W >45°C)		-20...+60°C (derating -18 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (no SELV output)	
Input / ground isolation	2 kVac / 60 s		2 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	4 mm ² / 10 mm ²		4 mm ² / 10 mm ²	
Housing material	aluminium		aluminium	
Dimension	80x139x127 mm		80x139x127 mm	
Approximate weight	1.2 kg		1.2 kg	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	 		 	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	TAP207A, TAP128A, TAP178A, TAP209A		TAP207A, TAP128A, TAP178A, TAP209A	

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart and programmable alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads



NOTE
Please refer to the datasheet for more details
Overcurrent protection can be set to Hiccup or constant current mode, the maximum current supplied depends by the line resistance

APPLICATIONS

Series CSG2401 has an internal micro-processor that controls the many functions of the power supply, which can be programmed thanks to a user-friendly menu activated by 4 buttons on the front and shown on the front display.

Front display: during normal operation, this shows the output voltage value and current used by the load; during programming, it allows for the choice of the various functions available.

Input protection: the input circuit has been designed to avoid the most common problems seen in 3-phase networks. It therefore has:

- 1) a PFC circuit failure (latched shut-down) circuit
- 2) a system for controlling lack of phase that automatically reduces output power
- 3) an auto-restart switch-off system in the event of overvoltage and under-voltage

Output protection: limit current can be selected as between 10% and 100% of rated current; protection type against overload and short circuit can be chosen from:

- 1) Hiccup auto reset with limit current, equal to 150% of rated current and ON/OFF time can be altered;
- 2) constant power

Output signals: in addition to the "DC OK" and "FAULT" LEDs, the device also has:

- 1) an analogue signal 0...10V or 4...20mA that provides an indication of current used by the load
- 2) a programmable alarm contact able to signal and record the exceeding of the various limits to a memory: output voltage, input current, output overvoltage, over temperature and other parameters that can be defined by programming.

Additional functions:

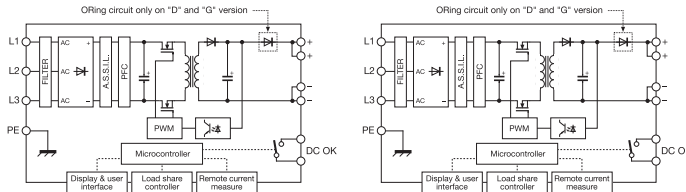
- 1) Battery charger: the acid lead battery charging function can be selected;
- 2) Remote sensing (sense): this allows for the monitoring and compensation of voltage drops on long power supply lines
- 3) The power supply can be switched off and disabled from a remote position
- 4) Auxiliary voltage: auxiliary 12 Vdc is also available, regardless of the main output voltage status
- 5) Temperature control: by connecting an external sensor (NTC), the battery charge temperature can be controlled.
- 6) Communication port: by means of an RS232 communication device the power supply can be piloted and monitored from a remote position.

CODE TYPE	CSG2401C	XCSG2401C	CSG2401D	XCSG2401D
INPUT TECHNICAL DATA				
Input rated voltage	3x 400-500 Vac		3x 400-500 Vac	
Input voltage AC	340...550 Vac		340...550 Vac	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	4.2 A (400 Vac) / 3.5 A (500 Vac)		4.2 A (400 Vac) / 3.5 A (500 Vac)	
Inrush peak current	10 A (with active limitation circuit)		10 A (with active limitation circuit)	
Power factor	> 0.92		> 0.92	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-10 A / Fuse: T-10 A		MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	12-24 Vdc ±1%		24-48 Vdc ±1%	
Output adjustable range	11.5...29 Vdc		23...56 Vdc	
Continuous current	100 A at 45°C		50 A at 45°C	
Overload limiting	150 A for >5 s		75 A for >5 s	
Short circuit peak current	150 A for 5 s		75 A for 5 s	
Ripple @ nominal ratings	200 mVpp		200 mVpp	
Hold up time	10 ms (400 Vac) / 10 ms (500 Vac)		10 ms (400 Vac) / 10 ms (500 Vac)	
Status indication	LED "DC OK" / LED "Alarm" / Display		LED "DC OK" / LED "Alarm" / Display	
Alarm contact	dry contact, max. 1A @ 24 Vdc (programmable)		dry contact, max. 1A @ 24 Vdc (programmable)	
Parallel connection	possible		possible	
Redundant parallel connection	already fitted with internal ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	92% (400 Vac) / 92% (500 Vac)		93% (400 Vac) / 93% (500 Vac)	
Dissipated power	200 W (400 Vac) / 200 W (500 Vac)		180 W (400 Vac) / 180 W (500 Vac)	
Operating temperature range	-20...+60°C (derating -40 W >45°C)		-20...+60°C (derating -40 W >45°C)	
Input / output isolation	3 kVac / 60 s (SELV output)		3 kVac / 60 s (SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4		EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	4 mm ² / 35 mm ²		4 mm ² / 35 mm ²	
Housing material	aluminium		aluminium	
Dimension	234x105x130 mm		234x105x130 mm	
Approximate weight	2.8 Kg		2.8 Kg	
Mounting information	vertical on a rail, 60 mm from adjacent components		vertical on a rail, 60 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	TAP207A, TAP128A, TAP178A, TAP209A		TAP207A, TAP128A, TAP178A, TAP209A	

- 3-phase 400-500 Vac input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Suitable for applications that require high reliability and performance
- Smart and programmable alarm contact
- High overload capability to ensure the protections selectivity and start-up of heavy loads

NOTE

Please refer to the datasheet for more details
Overcurrent protection can be set to Hiccup or constant current mode, the maximum current supplied depends by the line resistance
Produced on demand, contact our sales office for availability



APPLICATIONS

Series CSG2401 has an internal micro-processor that controls the many functions of the power supply, which can be programmed thanks to a user-friendly menu activated by 4 buttons on the front and shown on the front display.

Front display: during normal operation, this shows the output voltage value and current used by the load; during programming, it allows for the choice of the various functions available.

Input protection: the input circuit has been designed to avoid the most common problems seen in 3-phase networks. It therefore has:

- 1) a PFC circuit failure (latched shut-down) circuit
- 2) a system for controlling lack of phase that automatically reduces output power
- 3) an auto-restart switch-off system in the event of overvoltage and under-voltage

Output protection: limit current can be selected as between 10% and 100% of rated current; protection type against overload and short circuit can be chosen from:

- 1) hiccup auto reset with limit current, equal to 150% of rated current and ON/OFF time can be altered;
- 2) Constant power

Output signals: in addition to the "DC OK" and "FAULT" LEDs, the device also has:

- 1) an analogue signal 0...10V or 4...20mA that provides an indication of current used by the load
- 2) a programmable alarm contact able to signal and record the exceeding of the various limits to a memory: output voltage, input current, output overload, over temperature and other parameters that can be defined by programming.

Additional functions:

- 1) Battery charger: the acid lead battery charging function can be selected;
- 2) Remote sensing (sense): this allows for the monitoring and compensation of voltage drops on long power supply lines
- 3) The power supply can be switched off and disabled from a remote position
- 4) Auxiliary voltage: auxiliary 12 Vdc is also available, regardless of the main output voltage status
- 5) Temperature control: by connecting an external sensor (NTC), the battery charge temperature can be controlled.
- 6) Communication port: by means of an RS232 communication device the power supply can be piloted and monitored from a remote position.

CODE TYPE	CSG2401G	XCSG2401G	CSG2401R	XCSG2401R
INPUT TECHNICAL DATA				
Input rated voltage	3x 400-500 Vac		3x 400-500 Vac	
Input voltage AC	340...550 Vac		340...550 Vac	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	4.2 A (400 Vac) / 3.5 A (500 Vac)		4.2 A (400 Vac) / 3.5 A (500 Vac)	
Inrush peak current	10 A (with active limitation circuit)		10 A (with active limitation circuit)	
Power factor	> 0.92		> 0.92	
Internal protection fuse	—		—	
External protection on AC line	MCB: C-10 A / Fuse: T-10 A		MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	72 Vdc ±1%		100-110-170 Vdc ±1%	
Output adjustable range	50...87 Vdc		88...175 Vdc	
Continuous current	33 A at 45°C		14 A at 45°C	
Overload limiting	50 A for >5 s		21 A for >5 s	
Short circuit peak current	50 A for 5 s		21 A for 5 s	
Ripple @ nominal ratings	200 mVpp		200 mVpp	
Hold up time	10 ms (400 Vac) / 10 ms (500 Vac)		10 ms (400 Vac) / 10 ms (500 Vac)	
Status indication	LED "DC OK" / LED "Alarm" / Display		LED "DC OK" / LED "Alarm" / Display	
Alarm contact	dry contact, max. 1A @ 24 Vdc (programmable)		dry contact, max. 1A @ 24 Vdc (programmable)	
Parallel connection	possible		possible	
Redundant parallel connection	already fitted with internal ORing diode		already fitted with internal ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	92% (400 Vac) / 92% (500 Vac)		92% (400 Vac) / 92% (500 Vac)	
Dissipated power	200 W (400 Vac) / 200 W (500 Vac)		200 W (400 Vac) / 200 W (500 Vac)	
Operating temperature range	-20...+60°C (derating -40 W >45°C)		-20...+60°C (derating -40 W >45°C)	
Input / output isolation	3 kVac / 60 s (no SELV output)		3 kVac / 60 s (no SELV output)	
Input / ground isolation	1.5 kVac / 60 s		1.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4		EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	4 mm ² / 35 mm ²		4 mm ² / 35 mm ²	
Housing material	aluminium		aluminium	
Dimension	234x105x130 mm		234x105x130 mm	
Approximate weight	2.8 Kg		2.8 Kg	
Mounting information	vertical on a rail, 60 mm from adjacent components		vertical on a rail, 60 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	TAP207A, TAP128A, TAP178A, TAP209A		TAP207A, TAP128A, TAP178A, TAP209A	

- DC wide range input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Compact dimension

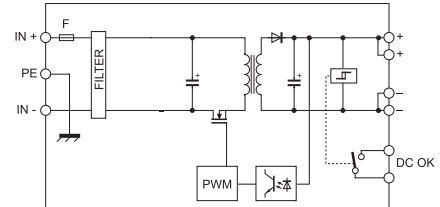
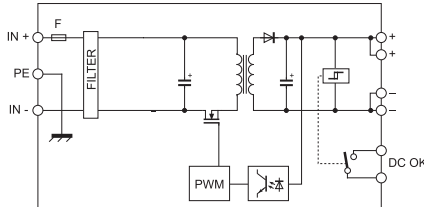
NOTE

Please refer to the datasheet for more details

Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

Inrush current measured at U_n with battery power supply; peak current varies according to the internal impedance of the current source and the resistance of the connections.

The capacitors between phase and neutral, requires that the isolation tests are carried out in DC



CODE TYPE	CSA120BC	XCSA120BC	CSA120CB	XCSA120CB
INPUT TECHNICAL DATA				
Input rated voltage	12 Vdc		24 Vdc	
Input voltage AC	—		—	
Input voltage DC	10.5...18 Vdc		18...36 Vdc	
Frequency	—		—	
Current consumption	10 A (12 Vdc) ±10%		5.1 A (24 Vdc) ±10%	
Inrush peak current	60 A		110 A	
Power factor	—		—	
Internal protection fuse	T 20 A		T 10 A	
External protection on AC line	MCB: C-25 A / Fuse: T-25 A		MCB: C-13 A / Fuse: T-13 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc		12...15 Vdc	
Output adjustable range	22.5...27.5 Vdc		12...15 Vdc	
Continuous current	5 A (24 Vdc)		7 A (12 Vdc)	
Overload limiting	6.5 A		9.1 A	
Short circuit peak current	12 A for 300 ms		15 A for 300 ms	
Ripple @ nominal ratings	100 mVpp		100 mVpp	
Hold up time	1 ms		2 ms	
Status indication	LED "DC OK"		LED "DC OK"	
Alarm contact	—		—	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	83% (12 Vdc)		85% (24 Vdc)	
Dissipated power	25 W (12 Vdc)		17 W (24 Vdc)	
Operating temperature range	-20...+50°C		-20...+50°C	
Input / output isolation	2.1 kVdc / 60s		2.1 kVdc / 60s	
Input / ground isolation	1.41 kVdc / 60s		1.41 kVdc / 60s	
Output / ground isolation	0.75 kVdc / 60s		0.75 kVdc / 60s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	40x130x115 mm		40x130x115 mm	
Approximate weight	550 g		550 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	CE		CE	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

- DC wide range input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Compact dimension



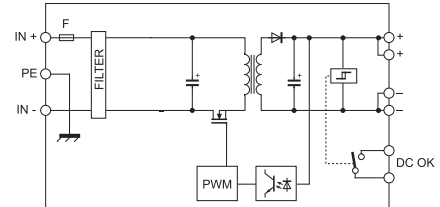
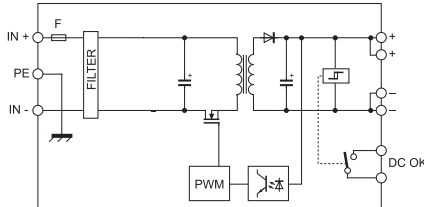
NOTE

Please refer to the datasheet for more details

Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

Inrush current measured at U_n with battery power supply; peak current varies according to the internal impedance of the current source and the resistance of the connections.

The capacitors between phase and neutral, requires that the isolation tests are carried out in DC



CODE TYPE	CSA120CC	XCSA120CC	CSA120DC	XCSA120DC
INPUT TECHNICAL DATA				
Input rated voltage	24 Vdc		48 Vdc	
Input voltage AC	—		—	
Input voltage DC	18...36 Vdc		36...72 Vdc	
Frequency	—		—	
Current consumption	5.8 A (24 Vdc) ±10%		2.8 A (48 Vdc) ±10%	
Inrush peak current	90 A		120 A	
Power factor	—		—	
Internal protection fuse	T 10 A		T 5 A	
External protection on AC line	MCB: C-13 A / Fuse: T-13 A		MCB: C-6 A / Fuse: T-6 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	24 Vdc		24 Vdc	
Output adjustable range	22.5...27.5 Vdc		22.5...27.5 Vdc	
Continuous current	5 A (24 Vdc)		5A (24 Vdc)	
Overload limiting	6.5 A		6.5 A	
Short circuit peak current	12 A for 300 ms		13 A for 300 ms	
Ripple @ nominal ratings	150 mVpp		200 mVpp	
Hold up time	2 ms		4.5 ms	
Status indication	LED "DC OK"		LED "DC OK"	
Alarm contact	—		—	
Parallel connection	possible		possible	
Redundant parallel connection	possible with external ORing diode		possible with external ORing diode	
GENERAL TECHNICAL DATA				
Efficiency	87% (24 Vdc)		90% (48 Vdc)	
Dissipated power	18 W (24 Vdc)		13 W (48 Vdc)	
Operating temperature range	-20...+50°C		-20...+50°C	
Input / output isolation	2.1 kVdc / 60s		2.1 kVdc / 60s	
Input / ground isolation	1.41 kVdc / 60s		1.41 kVdc / 60s	
Output / ground isolation	0.75 kVdc / 60s		0.75 kVdc / 60s	
Standard / approvals	EN 60950-1		EN 60950-1	
EMC Standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 20		IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	aluminium		aluminium	
Dimension	40x130x115 mm		40x130x115 mm	
Approximate weight	550 g		550 g	
Mounting information	vertical on a rail, 10 mm from adjacent components		vertical on a rail, 10 mm from adjacent components	
APPROVALS	CE		CE	
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB		PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—		—	

- DC wide range input
- Short circuit, overload, input and output overvoltage protections
- Over temperature protection
- Compact dimension
- Internal diode for the redundant parallel connection



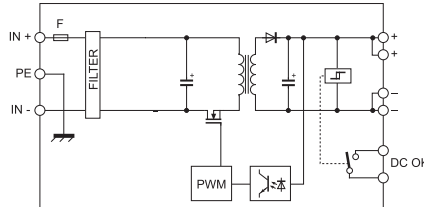
NOTE

Please refer to the datasheet for more details

Above overcurrent limit, the protection starts cycling in ON/OFF mode(hiccup autoreset), the maximum current supplied depends by the line resistance

Inrush current measured at U_n with battery power supply; peak current varies according to the internal impedance of the current source and the resistance of the connections.

The capacitors between phase and neutral, requires that the isolation tests are carried out in DC

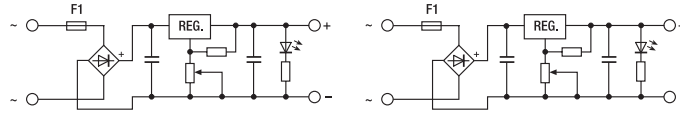


CODE TYPE	CSA240FC	XCSA240FC
INPUT TECHNICAL DATA		
Input rated voltage	110 Vdc	
Input voltage AC	—	
Input voltage DC	100...130 Vdc	
Frequency	—	
Current consumption	2.4 A (110 Vdc) ±10%	
Inrush peak current	150 A	
Power factor	—	
Internal protection fuse	T 5 A	
External protection on AC line	MCB: C-6 A / Fuse: T-6 A	
OUTPUT TECHNICAL DATA		
Output rated voltage	24 Vdc	
Output adjustable range	23...27 Vdc	
Continuous current	10 A at 50°C	
Overload limiting	15 A	
Short circuit peak current	21 A for 300 ms	
Ripple @ nominal ratings	100 mVpp	
Hold up time	4 ms	
Status indication	LED "DC OK"	
Alarm contact	—	
Parallel connection	possible	
Redundant parallel connection	already fitted with internal Oring diode	
GENERAL TECHNICAL DATA		
Efficiency	89% (110 Vdc)	
Dissipated power	28W (110 Vdc)	
Operating temperature range	-20...+60°C (derating -6 W >50°C)	
Input / output isolation	2.1 kVdc / 60s	
Input / ground isolation	1.41 kVdc / 60s	
Output / ground isolation	0.75 kVdc / 60s	
Standard / approvals	EN 60950-1	
EMC Standards	EN 61000-6-2, EN 61000-6-4	
Overvoltage category / Pollution degree	II / 2	
Protection degree	IP 20	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²	
Housing material	aluminium	
Dimension	40x130x115 mm	
Approximate weight	800 g	
Mounting information	vertical on a rail, 10 mm from adjacent components	
APPROVALS	CE	
ACCESSORIES		
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	PR/3/PP, PR/3/PP/ZB, PR/3/PA, PR/3/PA/ZB	
Marking tag	—	

- Powered by a 12-24 Vac secondary transformer
- Short circuit, overload and input overvoltage protection
- Over temperature protection
- Adjustable output voltage



NOTE
Please refer to the datasheet for more details



APPLICATIONS

Cabur CL-R series power supplies are linear stabilised with adjustable output, capable of satisfying all small load power needs with non-standard voltages at an extremely affordable cost.

They can be rail mounted in any position as long as sufficient space is left for the free circulation of air for cooling, while model CL1R has a degree of protection IP00, meaning it is to be used inside a protected container.

Even where the power supply is protected against overcurrents, it is advised to follow the nominal data indicated in the tables below.

(1) **CL1R** and **CL5R** provide the nominal performances if combined with the secondary voltages indicated in **Tab. 1**; with a secondary voltage of 24...27 Vac, the maximum obtainable current at output voltages adjusted to values below 24 Vdc is indicated in **Tab. 2**; to stabilise the output voltage and reduce ripple at full load, linear power supplies must be powered with an input voltage that exceeds the output voltage, whereas if they are powered at 24 Vac, with an output adjusted to 24 Vdc and maximum current absorption, the ripple increases and the stability of the output voltage to load variations and ±10% network variations drops; voltages above 27 Vac cause significant heating, triggering the thermal protection and reducing the current supplied. Products are supplied with a default voltage of 24 Vdc at the output and 26 Vac at the input.

CODE TYPE	CL1R	XCL1R	CL5R	XCL5R
INPUT TECHNICAL DATA				
Input rated voltage	12-24 Vac		12-24 Vac	
Input voltage AC	10...26 Vac (see Table 1)		10...26 Vac (see Table 1)	
Input voltage DC	—		—	
Frequency	47...63 Hz		47...63 Hz	
Current consumption	2.5 A (24 Vac)		6 A (24 Vac)	
Inrush peak current	—		—	
Power factor	—		—	
Internal protection fuse	T 3 A		T 10 A	
External protection on AC line	MCB: C-4 A / Fuse: T-4 A		MCB: C-10 A / Fuse: T-10 A	
OUTPUT TECHNICAL DATA				
Output rated voltage	1.2...24 Vdc		1.2...24 Vdc	
Output adjustable range	(see Table 1 and Table 2)		(see Table 1 and Table 2)	
Continuous current	0.3...1.5 A (see Table 2)		0.8...5 A (see Table 2)	
Overload limiting	—		—	
Short circuit peak current	—		—	
Ripple Δ nominal ratings	< 50 mVpp at 24 Vac		< 50 mVpp at 24 Vac	
Hold up time	>20 ms		>20 ms	
Status indication	Green LED "DC OK"		Green LED "DC OK"	
Alarm contact	—		—	
Parallel connection	—		—	
Redundant parallel connection	—		—	
GENERAL TECHNICAL DATA				
Efficiency	—		—	
Dissipated power	—		—	
Operating temperature range	-20...+45°C		-20...+45°C	
Input / output isolation	not insulated		not insulated	
Input / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Output / ground isolation	0.5 kVac / 60 s		0.5 kVac / 60 s	
Standard / approvals	—		—	
EMC Standards	—		—	
Overvoltage category / Pollution degree	II / 2		II / 2	
Protection degree	IP 00		IP 00	
Connection terminal IN/OUT	2.5 mm ² / 2.5 mm ²		2.5 mm ² / 2.5 mm ²	
Housing material	UL94V-0 plastic material		aluminium	
Dimension	43x74x130		37x115x118	
Approximate weight	120 g		350 g	
Mounting information	vertical on a rail, 20 mm from adjacent components		vertical on a rail, 20 mm from adjacent components	
APPROVALS				
ACCESSORIES				
Mounting rail (IEC60715/TH35-7.5)	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB	
Mounting rail (IEC60715/TH35-15)	—		—	
Marking tag	—		—	

INPUT (Vac)	Uout max (Vdc)	Iout max (A) XCL1R	Iout max (A) XCL5R
24...27	24	1.5	5
16...18	15	1.5	5
14...16	12	1.5	5
12...14	10	1.5	5
12	9	1.5	5
9	5	1.5	5

Table 1 (see explanation to the side)

INPUT (Vac)	Uout max (Vdc)	Iout max (A) XCL1R	Iout max (A) XCL5R
24	24	1.5	5
24	15	0.8	2.5
24	12	0.7	2
24	10	0.5	1.5
24	9	0.45	1.3
24	5	0.3	0.8

Table 2 (see side explanation)