COSEL

2020
2021

SHORT FORM CATALOG

POWER SUPPLIES / EMI FILTERS



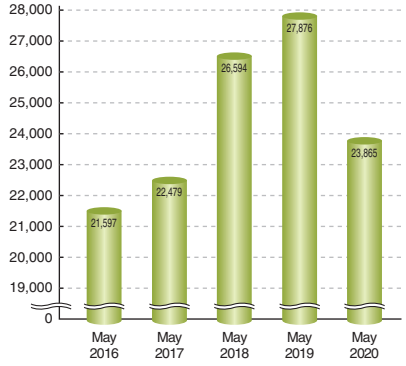
Company Guidance

- Established : July 26, 1969.
- Paid Capital : 2,055 Million Yen
- CEO : Masato Tanikawa
- Annual Sales (Consolidated) : 23,865 Million Yen (As of May 2020)
- Employees : 685 (As of May 2020)
- Subsidiaries : Cosel U.S.A., Inc.
  Cosel Europe GmbH
  Cosel Asia Ltd.
  Cosel (Shanghai) Electronics Co., Ltd.
  Wuxi Cosel Electronics Co., Ltd.
  Shanghai Cosel International Trading Co., Ltd.
  Cosel Vietnam Co., Ltd.
  Powerbox International AB
- History :

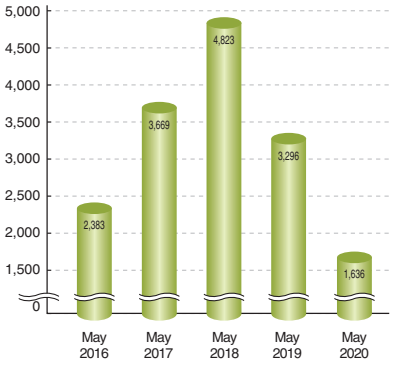
Jul. 1969	Established Elco Co., Ltd.
Apr. 1978	Introduced QC circle activities.
Jun. 1978	Became Pure-Power Supply Business-Play.
May. 1982	Introduced TQC activities (Now changed to TQM activities).
Jun. 1983	Introduced Hoshin Management (Business Goal Management) activities.
Mar. 1988	Introduced Toyota Production System activities.
Mar. 1989	Tateyama Factory completed.
Apr. 1990	Established Cosel U.S.A., Inc. (Former U. S. Elco Inc.) in San Jose, USA.
Apr. 1992	Changed company name to Cosel Co., Ltd. from Elco Co., Ltd.
Jun. 1993	Acquired ISO9001.
May 1995	Set a representative in Hong Kong, China.
May. 1996	Introduced TPM (Total Plant Maintenance) activities.
Jul. 1997	Established Cosel Europe GmbH in Frankfurt, Germany.
May. 1998	Established Cosel Asia Ltd. in Hong Kong, China.
Jan. 1999	Shares listed on the Second Sections of the Tokyo Stock Exchange and Nagoya Stock Exchange both.
Dec. 1999	Acquired ISO14001.
May. 2000	Shares listed on the First Section of the Tokyo Stock Exchange.
Nov. 2002	Established Cosel (Shanghai) Electronics Co., Ltd. in Shanghai, China.
May. 2005	Entering EMI filter Business.
Feb 2006	Successfully completed the RoHS Directive conformity.
Nov. 2011	Established Shanghai Cosel International Trading Co., Ltd. in Shanghai, China.
Dec 2011	Established Wuxi Cosel Electronics Co., Ltd. in Wuxi, China.
Aug. 2015	Established Cosel Vietnam Co., Ltd. in Ho Chi Minh City, Vietnam.
Jun. 2018	Acquired Powerbox International AB.
Oct. 2018	Began operations at R&D Center.

Data

Annual sales
(Consolidated)
(Unit: Million Yen)



Net profit/ loss before tax
(Consolidated)
(Unit: Million Yen)



COSEL

Table of contents

Selection Guide — 1

●Enclosed Type

PBA・PBW series — 5
PCA series — 6
PLA series — 7
PJA series — 8
ADA series — 9
FETA series — 10
SC series — 10

●Open Frame Type

LHA series — 11
LFA series — 12
LGA series — 13
LFP series — 14
LDC series — 14
LEB series — 15

●PCB Mount Type

TUHS series — 16
MH series — 16
MG series — 17
SUS・SUW/SUCS・SUCW/SUTS・SUTW series — 18
SFS/SFCS series — 19
SFLS series — 20
VAF series — 20
VAA series — 21

■Value-added Type

STMG series — 21

●POL Type

BRNS series — 22
BRFS/BRDS series — 22

●Bus Converter/Power Module Type

CHS series — 23
CQHS series — 24
CES/CQS series — 24
CDS series — 25
DHS series — 25
CBS series — 26
DBS series — 27
TUNS series — 28
TUXS series — 28
DPG series — 29
DPF series — 29

●Configurable Type

AME series — 30
RB series — 31
ACE series — 32

●DIN Rail Type

KH series — 33
KL series — 34
KR series — 34

●Medical Type

LMA series — 35
GMA series — 36
GHA series — 37
PMA series — 38
ACE-H series — 38

●EMI/EMC Filter

Selection Guide by Type — 39
Selection Guide by Funtion — 41
Line-up — 43

COSEL Selection Guide

Enclosed Type

Single

Input Voltage Range	Outputs	Series	Output Power [W]	Released Year	Main Feature	Safety Standard·RoHS
100VAC 200VAC 400VAC			10 20 40 60 80 100 150 200 250 300 400 500 600 700 800 900 1000 1500 2500 2500over			
100VAC 200VAC 400VAC NEW	1	PCA		'17 '19 '20	Enclosed type power supplies for general purpose.	cULus ⓓ CE RoHS
100VAC 200VAC 400VAC	1	PBA		'03 '04 '05	Enclosed type power supplies for general purpose.	cULus TÜV CE RoHS
				'07	Enclosed type power supplies for general purpose. Three-phase type.	
100VAC 200VAC 400VAC	1	PLA		'14	Low profile and enclosed type power supplies for general purpose. Basic function and economical type.	cULus TÜV CE RoHS
100VAC 200VAC 400VAC NEW	1	PJA		'16 '17	Enclosed type power supplies for general purpose.	cULus ⓓ CE RoHS
100VAC 200VAC 400VAC	1	ADA		'03	Convection cooling. High output wattage and peak current function.	cULus TÜV CE RoHS
200VAC 400VAC NEW	1	FETA		'13 '19	Low profile front-end power supplies. High power density.	cULus ⓓ CE RoHS
				'17	Low profile front-end power supplies. Three-phase type.	
				'18	Low profile front-end power supplies. Three-phase four-wire type.	
200VAC 400VAC	1	FCA		'00 '01	High input voltage (187-528VAC), Peak current function.	cULus TÜV CE RoHS
200VAC 400VAC	1	SC		'09	Three-phase input. 10KW high wattage. 48VDC output front-end power supplies.	cULus TÜV CE RoHS
200VAC 400VAC	1	STA		'00	Three-phase input. High wattage. Power factor corrected and 48VDC output front-end power supplies.	cULus TÜV CE RoHS

Multiple

Input Voltage Range	Outputs	Series	Output Power [W]	Released Year	Main Feature	Safety Standard·RoHS
100VAC 200VAC 400VAC	2	PBW		'05	2 outputs of PBA series.	cULus TÜV CE RoHS

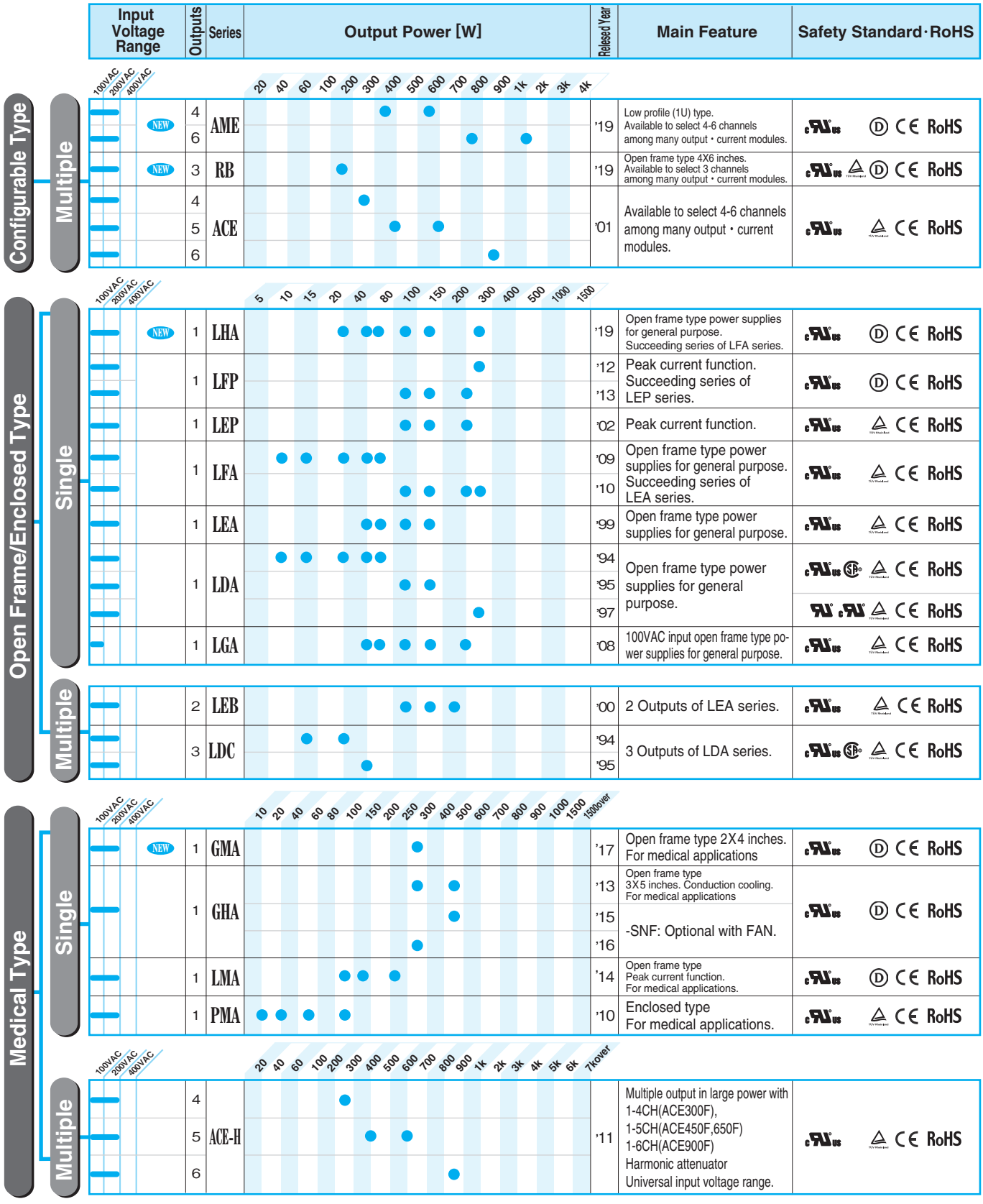
DIN Rail Type

Single

Input Voltage Range	Outputs	Series	Output Power [W]	Released Year	Main Feature	Safety Standard·RoHS
100VAC 200VAC 400VAC	1	KH		'12 '13	Din rail type. Full function model. 2 types of interface (Block type・Euro type)	cULus ⓓ CE RoHS
	1	KL		'15	Din rail type. Basic function model. Economical type.	cULus ⓓ CE RoHS

Redundancy Module

Input Voltage Range	Outputs	Series	Output Current [A]	Released Year	Main Feature	Safety Standard·RoHS
			20 40 60 80 100			
10-60VDC 10-30VDC	1	KR		'16	Din rail type. Redundancy Module.	cULus ⓓ CE RoHS


Input Voltage Range
Outputs
Series
Output Power [W]
Released Year
Main Feature
Safety Standard·RoHS
100VAC 200VAC 400VAC
20 40 60 100 200 300 400 500 600 700 800 900 1k 2k 3k 4k
5 10 15 20 40 80 100 150 200 300 400 500 1000 1500
10 20 40 60 80 100 150 200 250 300 400 500 600 700 800 900 1000 1500 1500over
20 40 60 100 200 300 400 500 600 700 800 900 1k 2k 3k 4k 5k 6k 7kover
NEW
Configurable Type
Multiple
AME
4
6
'19
Low profile (1U) type.
Available to select 4-6 channels among many output・current modules.
RB
3
'19
Open frame type 4X6 inches.
Available to select 3 channels among many output・current modules.
ACE
4
5
6
'01
Available to select 4-6 channels among many output・current modules.
Open Frame/Enclosed Type
Single
LHA
1
'19
Open frame type power supplies for general purpose.
Succeeding series of LFA series.
LFP
1
'12
'13
Peak current function.
Succeeding series of LEP series.
LEP
1
'02
Peak current function.
LFA
1
'09
'10
Open frame type power supplies for general purpose.
Succeeding series of LEA series.
LEA
1
'99
Open frame type power supplies for general purpose.
LDA
1
'94
'95
'97
Open frame type power supplies for general purpose.
LGA
1
'08
100VAC input open frame type power supplies for general purpose.
Multiple
LEB
2
'00
2 Outputs of LEA series.
LDC
3
'94
'95
3 Outputs of LDA series.
Medical Type
Single
GMA
1
'17
Open frame type 2X4 inches.
For medical applications
GHA
1
'13
'15
'16
Open frame type
3X5 inches. Conduction cooling.
For medical applications
-SNF: Optional with FAN.
LMA
1
'14
Open frame type
Peak current function.
For medical applications.
PMA
1
'10
Enclosed type
For medical applications.
Multiple
ACE-H
4
5
6
'11
Multiple output in large power with
1-4CH(ACE300F),
1-5CH(ACE450F,650F)
1-6CH(ACE900F)
Harmonic attenuator
Universal input voltage range.
:UL
:C-UL
:UL・C-UL
:CSA
:TÜV
:DEMKO
:PSE
:CE
:RoHS

POL Type

Single

Input Voltage Range	Outputs	Series	Output Current [A]	Released Year	Main Feature	Safety Standard·RoHS
3-14.4VDC	1	BRNS	6 12 20	'13	Compact size • Wide input	cULus TÜV CE RoHS
4.5-14.0VDC NEW	1	BRFS	30 40 60 100	'13 '14	Compact size • Fast transient response	cULus TÜV CE RoHS
			120 150	'18		
4.5-14.0VDC NEW	1	BRDS	40 60 100	'17	Compact size • Fast transient response, PMBus	cULus TÜV CE RoHS
			120 150	'18		

Bus Converter • Power Module Type

Single

Input Voltage Range	Outputs	Series	Output Power [W]	Released year	Main Feature	Safety Standard·RoHS
5VDC 12VDC 24VDC 48VDC 110VDC 280VDC	1	CHS	100	'17	24VDC input,1/16 brick size	cULus TÜV CE RoHS
			200	'15	24VDC input,1/8 brick size	
			300	'18	24VDC input,1/4 brick size	
			150	'14	48VDC input,1/32 brick size	
			200	'11	48VDC input, 1/16 brick size	
			400	'16		
NEW			200	'11	48VDC input, 1/8 brick size	
			300	'13		
			400	'17		
			500	'13	48VDC input, 1/4 brick size	
			1000	'14		
			1500	'18		cULus Ⓓ CE RoHS
	1	CES	150 200	'03	24 • 48VDC input, 1/8 brick size	cULus TÜV CE RoHS
	1	CQS	200	'03	24 • 48VDC input, 1/4 brick size	cULus TÜV CE RoHS
	1	CQHS	300	'14	48VDC input, 1/8 brick size	cULus TÜV CE RoHS
			400	'10	48VDC input, 1/4 brick size	
			500	'13		
	1	CBS	150 200	'01	24 • 48VDC input, half brick size	cULus TÜV CE RoHS
			200 300	'05		
	1	CDS	400	'00	24 • 48VDC input, full brick size	cULus TÜV CE RoHS
			500	'01		
	1	DHS	150 200	'10	110VDC input, small brick size	cULus TÜV CE RoHS
			150 200	'09	280VDC input, small brick size	
	1	DBS	200	'03	110VDC input, full function and full brick size	cULus TÜV CE RoHS
			300 400 500	'00	280VDC input, full function and full brick size	
100VAC 200VAC 277VAC						
NEW	1	TUXS	200 300	'15 '17	100/200VAC input. High efficiency. Complied with harmonic regulations. Isolated type.	cULus Ⓓ CE RoHS
NEW	1	TUNS	150 200	'12	100/200VAC input. Complied with harmonic regulations. Isolated type. Brick size	cULus TÜV CE RoHS
			300 400	'14		
			500	'15		
			1000	'20	100/200/277VAC input.full function Complied with harmonic regulations	cULus Ⓓ CE RoHS
	1	DPG	500	'10	100/200VAC input. Compact size. Complied with harmonic regulations.	cULus TÜV CE RoHS
	1	DPF	1000	'00	100/200VAC input. High wattage. Complied with harmonic regulations.	cULus TÜV CE RoHS

PCB Mount Type

Single

Input Voltage Range	Outputs	Series	Output Power [W]	Released Year	Main Feature	Safety Standard·RoHS
5VDC 12VDC 24VDC 48VDC 110VDC 280VDC	1	MGS	1.5 3 5 6 10 15 20 25 30 40 80	'10	Global standard DC/DC converter for general purpose.	cULus TÜV CE RoHS
				'16		cULus D CE RoHS
NEW	1	MGFS		'10	Wide-input global standard DC/DC converter for general purpose.	cULus TÜV CE RoHS
				'17		cULus D CE RoHS
				'19		
NEW	1	MGXS		'18	Wide-input (6-60VDC) global standard DC/DC converter.	cULus D CE RoHS
	1	STMG		'13	Value-added type of MGFS series	CE RoHS
NEW	1	MHFS		'20	DC/DC Converters with 4.2kVDC Isolation	cULus D CE RoHS
	1	SUS/ SUCS		'04	Compact and thin DC/DC Converter for general purpose	cULus TÜV CE RoHS
	1	SUTS		'09	Vertical type of SUCS series	cULus TÜV CE RoHS
	1	SFS		'05	Thin SMD/DIP type DC/DC converter	cULus TÜV CE RoHS
				'03		
				'05		
	1	SFCS		'07	SFS series with metal cover	cULus TÜV CE RoHS
	1	SFLS		'07	Thin SMD type DC/DC converter	cULus TÜV CE RoHS
	1	ZUS		'96	DC/DC converter for general purpose	cULus CSA TÜV RoHS
	1	ZTS		'98	Vertical type of ZUS series	cULus TÜV RoHS
100VAC 200VAC 277VAC	1	TUHS	1.5 3 5 6 10 15 20 25 30 40 80	'14	100/200VAC input, compact size	cULus D CE RoHS
				'15		
	1	VAF		'99	100/200VAC input	cULus TÜV CE RoHS
	1	VAA		'98	100VAC input	cULus RoHS

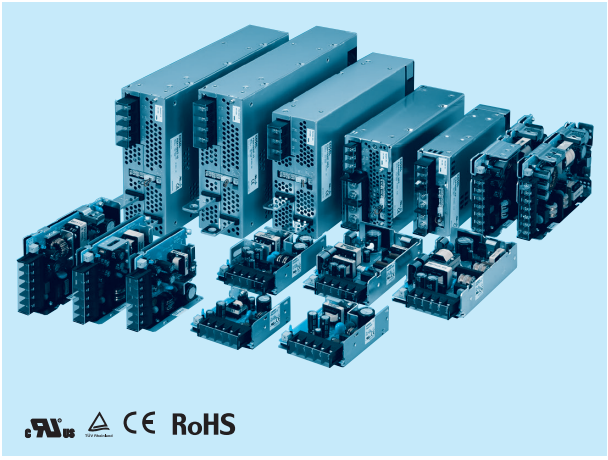
Multiple

Input Voltage Range	Outputs	Series	Output Power [W]	Released Year	Main Feature	Safety Standard·RoHS
5VDC 12VDC 24VDC 48VDC 110VDC 280VDC	2	MGW	1.5 3 5 6 10 15 20 25 30 40 80	'10	Global standard DC/DC converter for general purpose.	cULus TÜV CE RoHS
				'16		cULus D CE RoHS
NEW	2	MGFW		'10	Wide-input global standard DC/DC converter for general purpose.	cULus TÜV CE RoHS
				'17		cULus D CE RoHS
				'19		
NEW	2	MGXW		'18	Wide-input (6-60VDC) global standard DC/DC converter.	cULus D CE RoHS
	2	STMG		'13	Value-added type of MGFW series	CE RoHS
NEW	2	MHFW		'20	DC/DC Converters with DC4.2kVDC Isolation	cULus D CE RoHS
	2	SUW/ SUCW		'04	Compact and thin DC/DC Converter for general purpose.	cULus TÜV CE RoHS
	2	SUTW		'09	Vertical type of SUCW series	cULus TÜV CE RoHS
	2	ZUW		'96	DC/DC Converter for general purpose.	cULus CSA TÜV RoHS
	2	ZTW		'98	Vertical type of ZUW series	cULus TÜV RoHS

:UL :C-UL :UL・C-UL :CSA :TÜV :DEMKO :PSE :CE RoHS:RoHS

COSEL AC-DC Power Supplies Enclosed Type

PBA, PBW-Series



PBA

PBW

Feature

Universal input (85 - 264VAC) : PBA1500T(170 - 264VAC 3φ)
Parallel and parallel redundancy operations
(PBA300F - 1500F, PBA1500T)
Fan alarm, Remote ON/OFF and other functions
(PBA300F - 1500F, PBA1500T)

Safety agency approvals

UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178
UL508 (PBA10F-30F: 5, 12, 24V, PBA50F-150F: 24V With Cover) (PBA1500F, PBA1500T: External EMI filter is required.)
Complies with DEN-AN
EN62368-1 pending

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

CE marking

Low Voltage Directive
RoHS Directive

EMS Compliance : EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
PBA10F	85-264VAC 1φ or 110-370VDC	5	2	31·78·68 (1.22·3.07·2.68)	150
		12	0.9		
		24	0.5		
PBA15F	85-264VAC 1φ or 110-370VDC	3.3	3	31·78·85 (1.22·3.07·3.35)	200
		5	3		
		9	1.7		
		12	1.3		
		15	1		
		24	0.7		
		48	0.35		
PBA30F	85-264VAC 1φ or 110-370VDC	3.3	6	31·78·103 (1.22·3.07·4.06)	270
		5	6		
		9	3.4		
		12	2.5		
		15	2		
		24	1.3		
		48	0.65		
PBA50F	85-264VAC 1φ or 120-370VDC	3.3	10	31·82·120 (1.22·3.23·4.72)	280
		5	10		
		9	5.6		
		12	4.3		
		15	3.5		
		24	2.2		
		36	1.4		
		48	1.1		
PBA75F	85-264VAC 1φ or 120-370VDC	3.3	15	32·82·135 (1.26·3.23·5.31)	350
		5	15		
		9	8.4		
		12	6.3		
		15	5		
		24	3.2		
		36	2.1		
		48	1.6		
PBA100F	85-264VAC 1φ or 120-370VDC	3.3	20	32·93·147 (1.26·3.66·5.79)	440
		5	20		
		9	10.5		
		12	8.5		
		15	7		
		24	4.5		
		36	2.8		
		48	2.1		
PBA150F	85-264VAC 1φ or 120-370VDC	3.3	30	34·93·168 (1.34·3.66·6.61)	560
		5	30		
		9	16.7		
		12	13		
		15	10		
		24	6.5		
		36	4.3		
		48	3.3		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
			ACIN100V	ACIN200V		
PBA300F	85-264VAC 1φ or 120-350VDC	3.3	60	60	102·42·170 (4.02·1.65·6.69)	1.0
		5	60	60		
		7.5	40	40		
		12	27	27		
		15	22	22		
		24	14	14(16.5)*		
		36	9	9		
		48	7	7		
PBA600F	85-264VAC 1φ or 120-350VDC	3.3	120	120	120·61·190 (4.72·2.4·7.48)	1.6
		5	120	120		
		7.5	80	80		
		12	53	53		
		15	43	43		
		24	27	27(31)*		
		36	18	18		
		48	13	13		
PBA1000F	85-264VAC 1φ or 120-350VDC	3.3	200	200	150·61·240 (5.91·2.4·9.45)	2.2
		5	200	200		
		7.5	134	134		
		12	88	88		
		15	70	70		
		24	44	44(51)*		
		36	29	29		
		48	22	22		
PBA1500F	85-264VAC 1φ or 120-370VDC	3.3	300	300	178·61·268 (7.01·2.4·10.55)	3.4
		5	300	300		
		7.5	200	200		
		12	125	125		
		15	100	100		
		24	65	70(105)*		
		36	42	47(70)*		
		48	32	35		
PBA1500T	170-264VAC 3φ	5	-	300	178·61·268 (7.01·2.4·10.55)	3.4
		12	-	125		
		24	-	70(105)*		
		48	-	35		

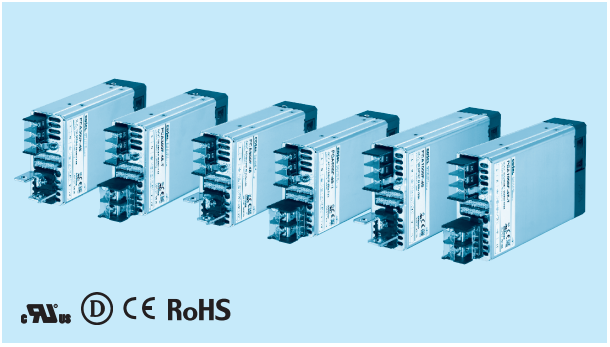
*Peak current.

MODEL	INPUT VOLTAGE	MAX OUTPUT WATTAGE [W]	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
				CURRENT1	CURRENT2		
PBW15F	85-264VAC 1φ or 110-370VDC	16.8	±12 (+24)	0.7	1.4	31•78•85 (1.22•3.07•3.35)	200
		15.0	±15 (+30)	0.5	1.0		
PBW30F	85-264VAC 1φ or 110-370VDC	15.0	±5 (+10)	1.5	2.0	31•78•103 (1.22•3.07•4.06)	270
		31.2	±12 (+24)	1.3	1.7		
		30.0	±15 (+30)	1.0	1.4		
PBW50F	85-264VAC 1φ or 120-370VDC	30.0	±5 (+10)	3.0	4.0	31•82•120 (1.22•3.23•4.72)	280
		50.4	±12 (+24)	2.1	2.7		
		51.0	±15 (+30)	1.7	2.4		

∗The sum of +power and -power must be less than output power. For details, please see Cosel website. (https://en.cosel.co.jp).

COSEL AC-DC Power Supplies Enclosed Type

PCA-Series



PCA

Feature

Low profile (41mm, 1.61 inches = Meets 1U height)
Universal input (85 - 264VAC)
Operating input voltage: 88-370VAC (Excl. PCA1000F and PCA1500F.)
For medical applications (ANSI/AAMI ES60601-1,EN60601-1 3rd, IEC60601-1-2 4th Ed.)
2MOPP
AUX output 12V 0.1A (Voltage adjustable range 5 - 12V)
Constant current function
Output voltage can be adjusted to approximately 0V
Many alarm functions
Parallel and N+1 parallel redundancy operations
Monitoring function by communication.

Safety agency approvals

UL62368-1, C-UL (CSA62368-1), EN62368-1, ANSI/AAMI EN60601-1, EN60601-1 3rd, IEC60601-1-2 4th
Complies with DEN-AN

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
PCA300F	85-264VAC 1φ or 88-370VDC	5	60	89•41•152 (3.50·1.61·5.98)	0.84
		12	27		
		15	22		
		24	14		
		32	10		
		48	7		
PCA600F	85-264VAC 1φ or 88-370VDC	5	120	89•41•152 (3.50·1.61·5.98)	0.84
		12	53		
		15	43		
		24	27		
		32	20		
		48	13		
PCA1000F	85-264VAC 1φ	5	200	102 · 41 · 178 (4.02·1.61·7.01)	1.2
		12	88		
		15	70		
		24	44		
		32	33		
		48	22		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
			100VACin	230VACin		
PCA1500F	85-264VAC 1φ	5	300	300	140•41•203 (5.51·1.61·7.99)	1.7
		12	125	125		
		15	100	100		
		24	65	70		
		32	47	52		
		48	32	35		

∗Input derating is required except PCA300F

CE marking

Low Voltage Directive
RoHS Directive

EMI

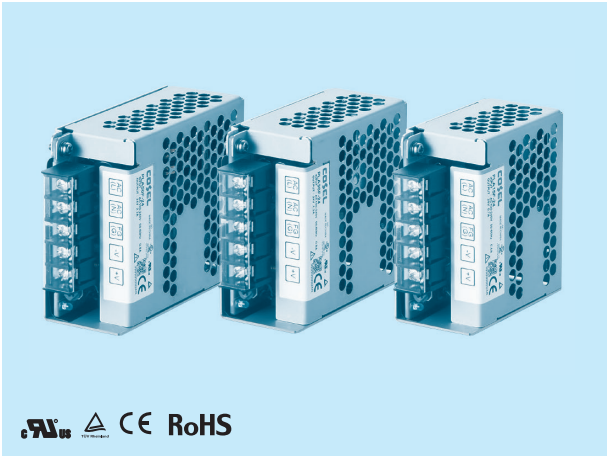
Complies with FCC-B, CISPR32-B, EN55011-B, EN55032-B, VCCI-B
(PCA1000F and PCA1500F : External EMI filter is required to meet Class B.
Only PCA1000F and PCA1500F : Class A)

EMS Compliance : EN61204-3, EN61000-6-2, IEC60601-1-2 (2014), EN60601-1-2 (2015)

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

COSEL AC-DC Power Supplies Enclosed Type

PLA-Series



MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
			85-115VACin	115-264VACin		
PLA15F	85-264VAC 1φ	5	Derating is required	3	38•80•73 (1.50•3.15•2.87)	0.25
		12		1.3		
		15		1		
		24		0.7		
PLA30F	85-264VAC 1φ	5	Derating is required	6	38•80•88 (1.50•3.15•3.46)	0.33
		12		2.5		
		15		2		
		24		1.3		
PLA50F	85-264VAC 1φ	5	Derating is required	8	38•80•99 (1.50•3.15•3.90)	0.4
		12		4.3		
		15		3.5		
		24		2.2		

*For furhter information, please see Cosel website. (https://en.cosel.co.jp)

PLA

Feature

Low profile
Wide operating ambient temperature (-20℃ to +70℃, Derating is required)
Harmonic attenuator (Complies with IEC61000-3-2 class A)
Universal input (85 - 264VAC, Derating is required)
Low power consumption at no load

Safety agency approvals

UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178
UL508 (Except option -J) approved
Complies with DEN-AN
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

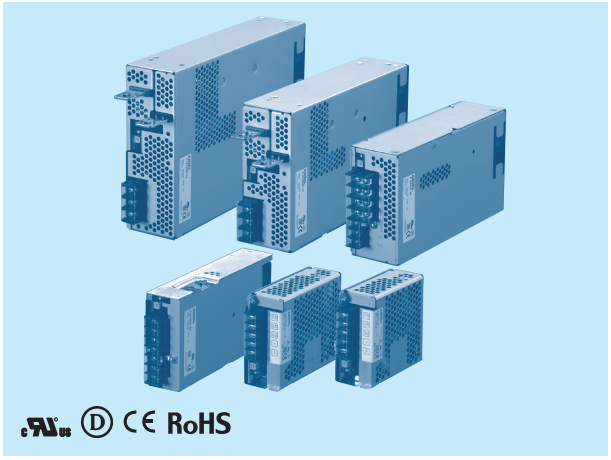
EMS Compliance : EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Enclosed Type

PJA-Series



PJA

Feature

Low profile
Wide operating ambient temperature (-20℃ to +70℃, Derating is required)
Harmonic attenuator (Complies with IEC61000-3-2 class A)
Universal input (85 - 264VAC, Derating is required)
Low power consumption at no load
Complies with SEMI F-47

Safety agency approvals

UL62368-1, C-UL (CSA62368-1), EN62368-1,
UL508 (PJA100F and PJA150F, Except option -J) approved
Complies with DEN-AN

CE marking

Low Voltage Directive
RoHS Directive

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A] 85-115VACin	OUTPUT CURRENT [A] 115-264VACin	CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
PJA100F	85-264VAC 1φ	12	Derating is required	8.4	41•97•109 (1.61•3.82•4.29)	0.5
		15		6.7		
		24		4.3		
		36		2.8		
		48		2.1		
PJA150F	85-264VAC 1φ	12	Derating is required	12.5	41•97•129 (1.61•3.82•5.08)	0.6
		15		10		
		24		6.4		
		36		4.2		
		48		3.2		
PJA300F	85-264VAC 1φ	5	Derating is required	50	102•41•190 (4.02•1.61•7.48)	1.0
		12		25		
		15		20		
		24		12.5		
		36		8.4		
		48		6.3		
PJA600F	85-264VAC 1φ	5	Derating is required	100	120•61•215 (4.72•2.40•8.46)	2.0
		12		50		
		15		40		
		24		25		
		36		16.7		
		48		12.5		
PJA1000F	85-264VAC 1φ	12	Derating is required	84	150•61•240 (5.91•2.40•9.45)	2.8
		15		67		
		24		42		
		36		28		
		48		21		
PJA1500F	85-264VAC 1φ	12	Derating is required	125	178•61•268 (7.01•2.40•10.55)	3.5
		15		100		
		24		64		
		36		42		
		48		32		

*For furhter information, please see Cosel website. (https://en.cosel.co.jp).

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B
(PJA1500F: External EMI filter is required to meet Class B.
Only PJA1500F: Class A)

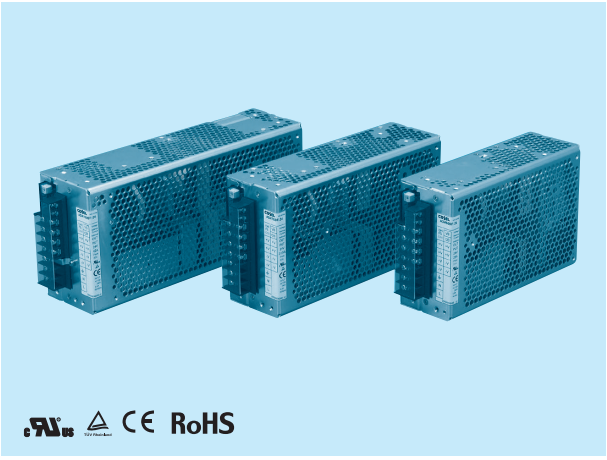
EMS Compliance : EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Enclosed Type

ADA-Series



ADA

Feature

Peak power
Fan optional
Parallel operation/master-slave operation/N+1 redundant (Option)
Optional : remote ON/OFF, alarm functions
Current monitor
DIN rail (35mm) optional

Safety agency approvals

UL60950-1, EN62368-1, C-UL(CSA60950-1) recognized, TÜV approved
Complies with DEN-AN

EMI

Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B

Optional parts

Harness
Fan unit
Attachment

CE marking

Low Voltage Directive
RoHS Directive

EMS Compliance : EN61204-3, EN61000-6-2

EN55022-B
EN61000-3-2
EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

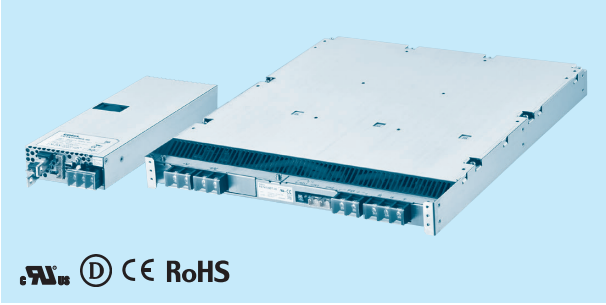
5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]			CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
				100VACin	200VVACin		
ADA600F	85 -264VAC 1φ or 120 -350VDC	24	Convection	14 (25)*	15 (31)*	65•127•195 (2.56•5•7.68)	1.5
			Forced air	21 (25)*	25 (31)*		
		30	Convection	11 (20)*	12 (24.5)*		
			Forced air	16.5 (20)*	20 (24.5)*		
		36	Convection	9 (16.5)*	10 (20.5)*		
			Forced air	14 (16.5)*	16.5 (20.5)*		
		48	Convection	6.5 (12.5)*	7 (15.5)*		
			Forced air	10.5 (12.5)*	12.5 (15.5)*		
ADA750F	85 -264VAC 1φ or 120 -350VDC	24	Convection	17 (42)*	19 (63)*	70•127•230 (2.76•5•9.06)	1.9
			Forced air	25 (42)*	31.5 (63)*		
		30	Convection	13.5 (33.5)*	15 (50)*		
			Forced air	20 (33.5)*	24.5 (50)*		
		36	Convection	11 (28)*	12.5 (42)*		
			Forced air	16.5 (28)*	20.5 (42)*		
		48	Convection	8 (21)*	9 (31.5)*		
			Forced air	12.5 (21)*	15.5 (31.5)*		
ADA1000F	85 -264VAC 1φ or 120 -350VDC	24	Convection	21 (63)*	25 (83)*	75•127•280 (2.95•5•11.02)	2.5
			Forced air	33 (63)*	42 (83)*		
		30	Convection	16.5 (50)*	20 (66)*		
			Forced air	26 (50)*	33.5 (66)*		
		36	Convection	14 (42)*	16.5 (55)*		
			Forced air	22 (42)*	28 (55)*		
		48	Convection	10.5 (31.5)*	11.5 (41.5)*		
			Forced air	16.5 (31.5)*	21 (41.5)*		

∗:Peak current.

COSEL AC-DC Power Supplies Enclosed Type

FETA-Series



cULus Ⓓ CE RoHS

FETA

Feature

- High power density (2.09W/cm³ FETA3000BA-48)
- Low profile (Meets 1U height)
- High efficiency (93.0%typ FETA3000BA-48, 230VACin, 50% load)
- Harmonic attenuator (Complies with IEC61000-3-2 class A: FETA2500BA, FETA3000BA, FETA7000ST, Complies with IEC61000-3-12: FETA7000T)
- Complies with SEMI F47
- Parallel and parallel redundancy operations
- Alarm signals, Remote ON / OFF and other functions

Safety agency approvals

UL60950-1, C-UL (CSA60950-1), EN60950-1, UL62368-1,C-UL (CSA62368-1), EN62368-1

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
			170-180VACin	180-264VACin		
FETA2500BA	170-264VAC 1φ	36	Derating is required	55	102•41•340 (4.02•1.61•13.39)	2.3
		48		52		
FETA3000BA		48		62		
FETA7000T	170-264VAC 3φ	48	Derating is required	148.2	388•43•475 (15.28•1.69•18.70)	11
		144		52		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
			300-320VACin	320-480VACin		
FETA7000ST	300-480VAC 3φ 4-Wire	48	Derating is required	148.2	388•43•475 (15.28•1.69•18.70)	11
		144		52		

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC Part15-A, CISPR32-A, EN55011-A, EN55032-A, VCCI-A (FETA7000ST External EMI filter is required.)

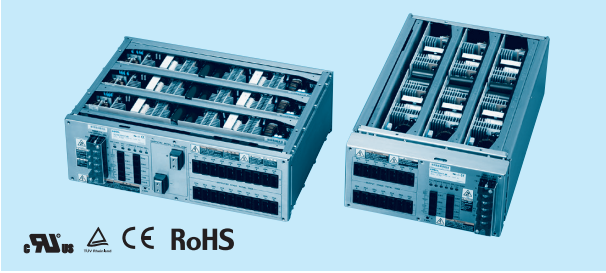
EMS Compliant : EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

3-year warranty

COSEL AC-DC Power Supplies Enclosed Type

SC-Series



cULus CE RoHS

SC

Feature

- High power, AC-DC front end power supply
- Three-phase input (160 - 264VAC 3φ)
- High efficiency (90%), high power factor (0.99)
- Complies with SEMI F47
- Wide adjustable output voltage range (approximately 0 to 52.8V) (Option)
- Constant current function (Needs additional external coponents) (Option)
- Parallel and parallel redundancy operations (SCHA10000T)
- System ON / OFF (Remote ON / OFF)
- Alarm functions
- Output voltage monitor
- Parallel control (Start in / out)
- Remote signal ON / OFF

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	OUTPUT WATTAGE [W]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
SCHA10000T	160-264VAC 3φ	48	208	9,984	495•150•320 (18.07•5.91•12.6)	23
SCDA10000T	160-264VAC 3φ	48	208	9,984	310.5•150•510 (12.22•5.91•20.08)	20

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with EN55011 Group1-A, EN55022-A, CISPR22-A, FCC Part15 classA

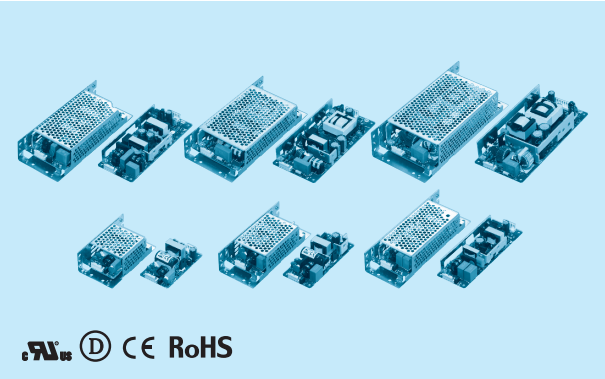
EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

3-year warranty

COSEL AC-DC Power Supplies Open Frame Type

LHA-Series



LHA

Feature

EN62477-1 (OVC III) : LHA150F, 300F
Low profile
Compact open frame type
High efficiency
Low noise
Harmonic attenuator (Complies with IEC61000-3-2)
Power factor correction (LHA75F-300F)
Universal input (85-264VAC)
Inrush current, overcurrent and overvoltage protection

Safety agency approvals

UL62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), EN62368-1
EN62477-1 (OVC III) : LHA150F, 300F
Complies with DEN-AN

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR11-B, CISPR32-B, EN55011-B, EN55032-B, VCCI-B

EMS Compliance: EN61204-3, EN61000-6-2

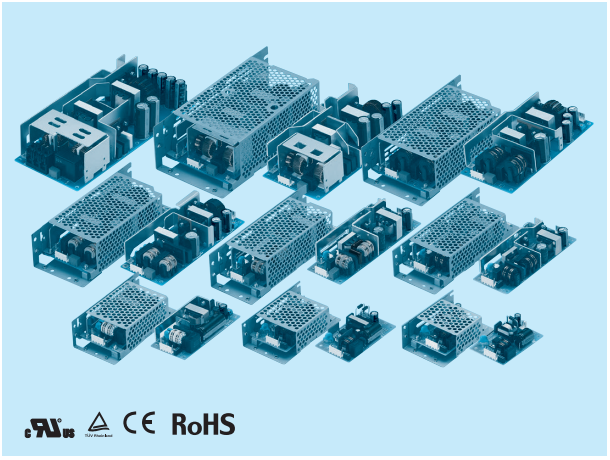
EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
LHA30F	85-264VAC 1φ	3.3	6	50•27•87.5 (1.97•1.07•3.44)	100
		5	6		
		12	2.5		
		15	2		
		24	1.3		
LHA50F	85-264VAC 1φ	3.3	8	50•27•112 (1.97•1.07•4.41)	140
		5	8		
		12	4.3		
		15	3.5		
		24	2.1		
		36	1.4		
		48	1.1		
LHA75F	85-264VAC 1φ	3.3	12	50•27•150 (1.97•1.07•5.91)	190
		5	12		
		12	6.3		
		15	5		
		24	3.2		
		36	2.1		
		48	1.6		
LHA100F	85-264VAC 1φ	5	15	62•27•155 (2.44•1.07•6.10)	250
		12	8.5		
		15	6.7		
		24	4.3		
		36	2.8		
		48	2.1		
LHA150F	85-264VAC 1φ	12	12.5	75•27•160 (2.95•1.07•6.30)	320
		24	6.3		
		36	4.2		
		48	3.2		
LHA300F	85-264VAC 1φ	12	25	84•37•180 (3.31•1.46•7.09)	580
		24	12.5		
		48	6.3		

COSEL AC-DC Power Supplies Open Frame Type

LFA-Series



LFA

Feature

Universal input (85-264VAC)
Power factor correction (LFA50F-300F)
Low standby power consumption
(Normal: 10, 15W Optional: 100, 150, 240, 300W)

Safety agency approvals

UL60950-1, C-UL (CSA60950-1), EN60950-1, EN62368-1, EN50178, EN60065
Complies with DEN-AN

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

CE marking

Low Voltage Directive
RoHS Directive

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

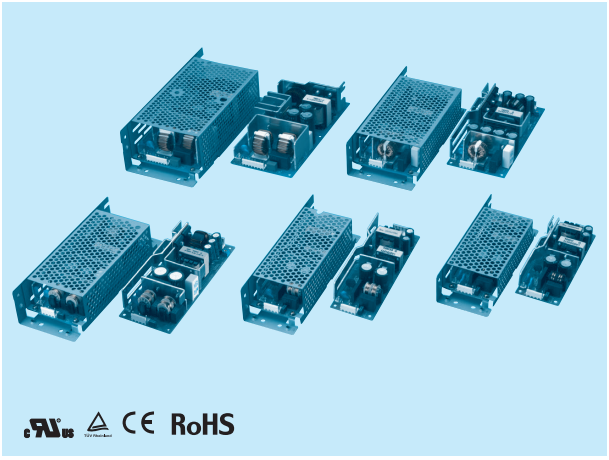
5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
LFA10F	85-264VAC 1φ	3.3	2	50•22•73.5 (1.97•0.87•2.89)	55
		5	2		
		12	0.9		
		15	0.7		
		24	0.5		
LFA15F	85-264VAC 1φ	3.3	3	50•22•87.5 (1.97•0.87•3.44)	80
		5	3		
		12	1.3		
		15	1		
		24	0.7		
LFA30F	85-264VAC 1φ	3.3	6	50•26.5•105 (1.97•1.04•4.13)	130
		5	6		
		12	2.5		
		15	2		
		24	1.3		
LFA50F	85-264VAC 1φ	3.3	10	50•26.5•132 (1.97•1.04•5.20)	165
		5	10		
		12	4.3		
		15	3.5		
		24	2.1		
		36	1.4		
		48	1.1		
LFA75F	85-264VAC 1φ	3.3	15	50•33.5•150 (1.97•1.32•5.91)	230
		5	15		
		12	6.3		
		15	5		
		24	3.2		
		36	2.1		
		48	1.6		
LFA100F	85-264VAC 1φ	3.3	20	62•33.5•155 (2.44•1.32•6.10)	280
		5	20		
		12	8.5		
		15	6.7		
		24	4.3		
		24	4.3 (5.4)*		
		36	2.8		
		48	2.1		
LFA150F	85-264VAC 1φ	3.3	30	75•37•160 (2.95•1.46•6.30)	390
		5	30		
		12	12.5		
		15	10		
		24	6.3		
		24	6.3 (7.9)*		
		36	4.2		
		48	3.2		
LFA240F	85-264VAC 1φ	24	10	84•46.5•180 (3.31•1.83•7.09)	550
		24	10 (12.5)*		
		36	6.7		
		48	5		
LFA300F (Convection)	85-264VAC 1φ	3.3	40	95•52.5•222 (3.74•2.07•8.74)	810
		5	40		
		12	17		
		15	14		
		24	12.5		
		24	12.5 (19)*		
		30	10		
		36	8.4		
		48	6.3		
LFA300F (Forced air)	85-264VAC 1φ	3.3	60	95•52.5•222 (3.74•2.07•8.74)	810
		5	60		
		12	27		
		15	22		
		24	14		
		24	14 (19)*		
		30	11		
		36	9.4		
		48	7		

*Peak current (Optional: -H).

COSEL AC-DC Power Supplies Open Frame Type

LGA-Series



LGA

Feature

Inrush current, overcurrent and overvoltage protection

Safety agency approvals

UL60950-1, C-UL(CSA60950-1) recognized, EN60950-1 approved
Complies with DEN-AN
EN62368-1 pending

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

CE marking

Low Voltage Directive
RoHS Directive

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

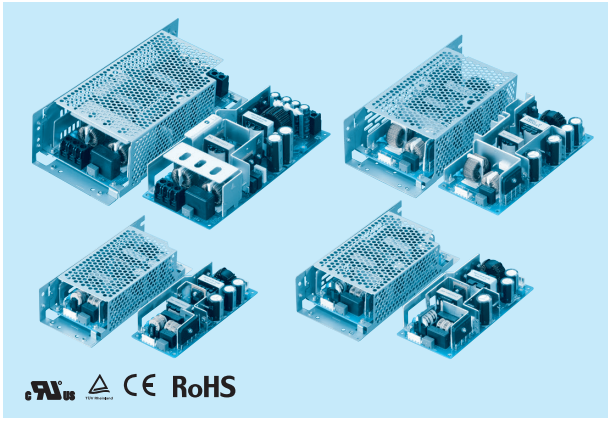
5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
LGA50A	85-132VAC 1φ	3.3	10	50•28.5•132 (1.97•1.12•5.2)	160
		5	10		
		12	4.3		
		15	3.5		
		24	2.5		
		24	2.5(3.2)*		
		48	1.3		
LGA75A	85-132VAC 1φ	3.3	15	50•34.5•150 (1.97•1.36•5.91)	200
		5	15		
		12	6.3		
		15	5		
		24	3.2		
		24	3.2(4.2)*		
		48	1.6		
LGA100A	85-132VAC 1φ	3.3	20	62•35.5•155 (2.44•1.4•6.1)	300
		5	20		
		12	8.5		
		15	7		
		24	4.3		
		24	4.3(5.4)*		
		48	2.1		
LGA150A	85-132VAC 1φ	3.3	30	75•39•160 (2.95•1.54•6.3)	420
		5	30		
		12	12.5		
		15	10		
		24	6.3		
		24	6.3(7.9)*		
		48	3.2		
LGA240A	85-132VAC 1φ	24	10	84•48.5•180 (3.31•1.91•7.09)	590
		24	10(12.5)*		

* Peak current (Optional:-H).

COSEL AC-DC Power Supplies Open Frame Type

LFP-Series



LFP

Feature

Peak power
Low power consumption at no load (Option)

Safety agency approvals

UL60950-1, C-UL(CSA60950-1), EN60950-1, EN50178
Complies with DEN-AN
EN62368-1 pending

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	100VACin	200VACin	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
LFP100F	85 -264VAC 1φ	24		4.3(8.6)*	4.3(8.6)*	62·33·155 (2.44·1.30·6.10)	290
		36		2.8(5.6)*	2.8(5.6)*		
		48		2.1(4.2)*	2.1(4.2)*		
LFP150F	85 -264VAC 1φ	24		6.3(12.6)*	6.3(12.6)*	75·36.5·160 (2.95·1.44·6.30)	380
		36		4.2(8.4)*	4.2(8.4)*		
		48		3.2(6.4)*	3.2(6.4)*		
LFP240F	85 -264VAC 1φ	24	Convection	10 (20)*	10 (20)*	84·46·180 (3.31·1.81·7.09)	540
			Forced air	12.5(20)*	12.5(20)*		
		30	Convection	8 (16)*	8 (16)*		
			Forced air	10 (16)*	10 (16)*		
		36	Convection	6.7(13.4)*	6.7(13.4)*		
			Forced air	8.4(13.4)*	8.4(13.4)*		
		48	Convection	5 (10)*	5 (10)*		
			Forced air	6.3(10)*	6.3(10)*		
LFP300F	85 -264VAC 1φ	24	Convection	12.5(22)*	12.5(25)*	95·52.5·222 (3.74·2.07·8.74)	810
			Forced air	15 (22)*	15 (25)*		
		30	Convection	10 (18)*	10 (20)*		
			Forced air	12 (18)*	12 (20)*		
		36	Convection	8.4(14.6)*	8.4(16.8)*		
			Forced air	10 (14.6)*	10 (16.8)*		
		48	Convection	6.3(11)*	6.3(12.6)*		
			Forced air	7.5(11)*	7.5(12.6)*		

∗:Peak current.

CE marking

Low Voltage Directive
RoHS Directive

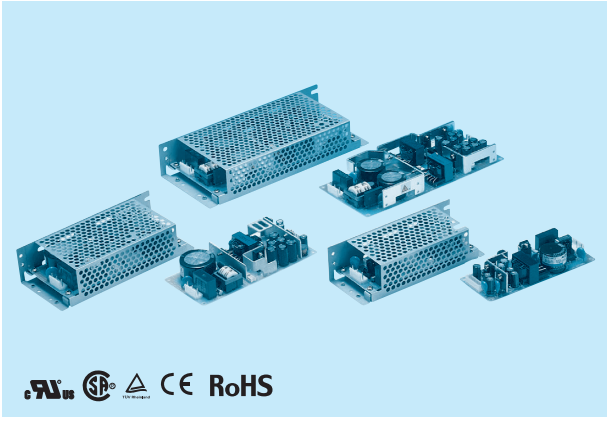
EMS Compliance : EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Open Frame Type

LDC-Series



LDC

Feature

Universal input (85 - 264VAC)
Inrush current, overcurrent and overvoltage protection

MODEL		INPUT VOLTAGE	OUTPUT VOLTAGE/ OUTPUT CURRENT V1[V]/[A]	V2[V]/[A]	V3[V]/[A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
LDC15F	-1	85-264VAC 1φ or 110-370VDC	+5(V) 2.0(A) (3.0A)*	+12(V) 0.3(A) (0.6A)*	-12(V) 0.2(A) (0.3A)*	50·26·127 (1.97·1.02·5.00)	150
	-2		+5(V) 2.0(A) (3.0A)*	+15(V) 0.3(A) (0.6A)*	-15(V) 0.2(A) (0.3A)*		
LDC30F	-1	85-264VAC 1φ or 110-370VDC	+5(V) 3.0(A) (4.5A)*	+12(V) 1.2(A) (2.0A)*	-12(V) 0.3(A) (0.45A)*	65·26·140 (2.56·1.02·5.11)	220
	-2		+5(V) 3.0(A) (4.5A)*	+15(V) 1.0(A) (2.0A)*	-15(V) 0.3(A) (0.45A)*		
LDC60F	-1	85-264VAC 1φ or 110-370VDC	+5(V) 5.0(A) (7.0A)*	+12(V) 2.5(A) (3.5A)*	-12(V) 0.5(A) (0.7A)*	83·26·185 (3.27·1.02·7.28)	300
	-2		+5(V) 5.0(A) (7.0A)*	+15(V) 2.0(A) (3.5A)*	-15(V) 0.5(A) (0.7A)*		

∗Peak current.

Safety agency approvals

UL60950-1, EN62368-1, CSA C22.2 No.60950-1, EN60950-1, EN50178
Complies with DEN-AN

EMI

FCC-B, VCCI-B, CISPR22-B, EN55022-B

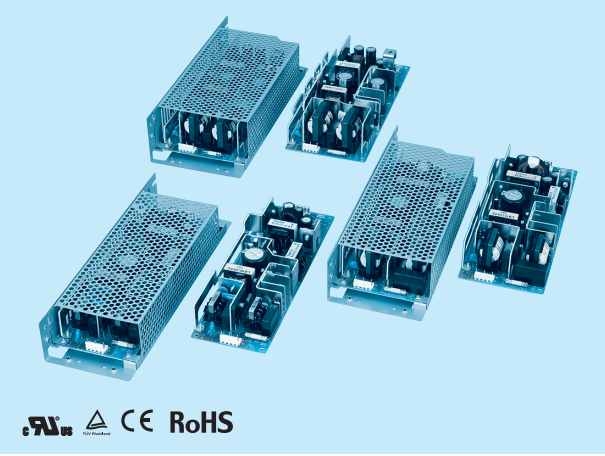
CE marking

Low Voltage Directive
RoHS Directive

2-year warranty

COSEL AC-DC Power Supplies Open Frame Type

LEB-Series



LEB

Feature

Universal input (85 - 264VAC)
Remote ON/OFF (Option)

Safety agency approvals

UL60950-1, C-UL recognized, TÜV approved
Complies with DEN-AN
EN62368-1 pending

EMI

Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B

CE marking

Low Voltage Directive
RoHS Directive

EMS Compliance: EN61204-3, EN61000-6-2

EN55022-B
EN61000-3-2
EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

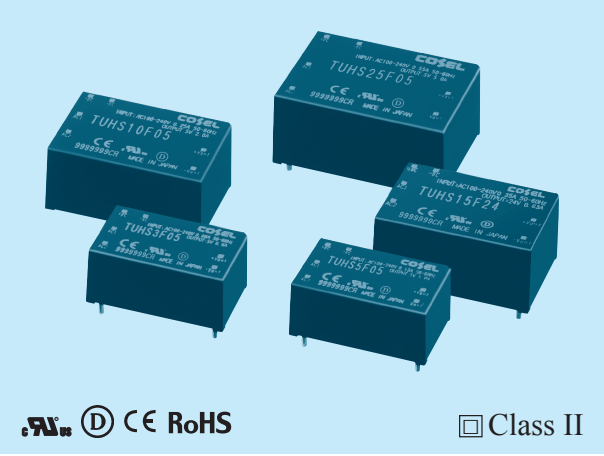
2-year warranty

MODEL		INPUT VOLTAGE	OUTPUT VOLTAGE / OUTPUT CURRENT		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
			V1[V]/[A]	V2[V]/[A]		
LEB100F	-0512	85-264VAC 1φ or 120-370VDC	5(V) 5(A)	12(V) 5.0(A) (10.0A)*	75・35・222 (2.95・1.38・8.74)	420
	-0324		3.3(V) 5(A)	24(V) 4.0(A) (7.0A)*		
	-0524		5(V) 5(A)	24(V) 4.0(A) (7.0A)*		
	-0530		5(V) 5(A)	30(V) 3.2(A) (5.6A)*		
	-0536		5(V) 5(A)	36(V) 2.7(A) (4.7A)*		
LEB150F	-0512	85-264VAC 1φ or 120-370VDC	5(V) 5(A)	12(V) 7.5(A) (14.0A)*	85・40・222 (3.35・1.57・8.74)	530
	-0324		3.3(V) 5(A)	24(V) 6.0(A) (10.0A)*		
	-0524		5(V) 5(A)	24(V) 6.0(A) (10.0A)*		
	-0530		5(V) 5(A)	30(V) 4.8(A) (8.0A)*		
	-0536		5(V) 5(A)	36(V) 4.0(A) (6.7A)*		
LEB225F	-0512	85-264VAC 1φ or 120-370VDC	5(V) 5(A)	12(V) 10.0(A) (20.0A)*	95・45・222 (3.74・1.77・8.74)	700
	-0324		3.3(V) 5(A)	24(V) 9.0(A) (14.0A)*		
	-0524		5(V) 5(A)	24(V) 9.0(A) (14.0A)*		
	-0530		5(V) 5(A)	30(V) 7.2(A) (11.0A)*		
	-0536		5(V) 5(A)	36(V) 6.0(A) (9.3A)*		

*Peak current.

COSEL AC-DC Power Supplies PCB Mount Type

TUHS-Series



Class II

TUHS

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
TUHS3	85-264VAC 1φ or 120 - 370VDC	5	0.6	28.7•12.7•17.5 (1.13•0.50•0.69)	15
		12	0.25		
		15	0.20		
		24	0.13		
TUHS5	85-264VAC 1φ or 120 - 370VDC	5	1	28.7•12.7•17.5 (1.13•0.50•0.69)	15
		12	0.45		
		15	0.34		
		24	0.22		
TUHS10	85-264VAC 1φ or 120 - 370VDC	5	2	33.0•15.0•22.0 (1.3•0.59•0.86)	25
		12	0.9		
		15	0.67		
		24	0.45		
TUHS15	85-264VAC 1φ or 120 - 370VDC	12	1.25	33.0•15.0•22.0 (1.3•0.59•0.86)	25
		15	1		
		24	0.63		
TUHS25	85-264VAC 1φ or 120 - 370VDC	5	5	36.0•16.5•25.4 (1.42•0.65•1.0)	40
		12	2.1		
		15	1.7		
		24	1.1		

Feature

PCB mount type AC-DC converter
A lot of design flexibility about hold-up time and expected life
Small size
Overcurrent and overvoltage protection
High efficiency by synchronous rectification technology (TUHS25)
No built-in aluminum and tantalum electrolytic capacitor

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

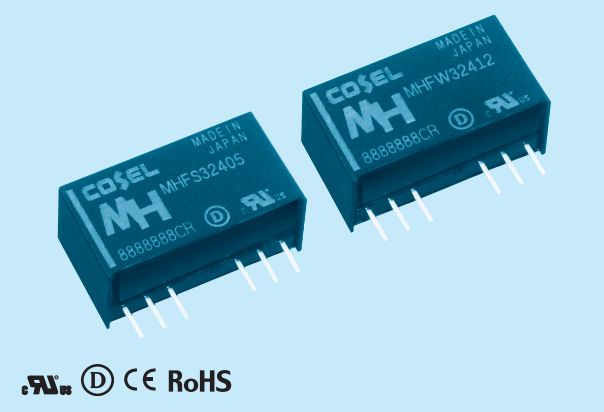
CE marking

Low voltage directive
RoHS Directive

5-year warranty

COSEL DC-DC Converters PCB Mount Type

MH-Series



MHFS MHFW

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]					CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		3.3[V]	5[V]	9[V]	12[V]	15[V]		
MHFS3	4.5-18VDC	0.8	0.6	0.33	0.25	0.2	22•12•9.5 (0.87•0.47•0.37)	7
	9-36VDC	0.8	0.6	0.33	0.25	0.2		
	18-76VDC	0.8	0.6	0.33	0.25	0.2		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		±12 (+24) [V]	±15 (+30) [V]		
MHFW3	4.5-18VDC	0.13	0.1	22•12•9.5 (0.87•0.47•0.37)	7
	9-36VDC	0.13	0.1		
	18-76VDC	0.13	0.1		

Feature

Industry Standard SIP8
Wide input 4.5-18VDC/9-36VDC/18-76VDC
I/O isolation voltage 3,000VAC (1 minute), 4,200VDC (1 minute)
Overcurrent protection (Auto recovery type)

CE marking

Low Voltage Directive
RoHS Directive

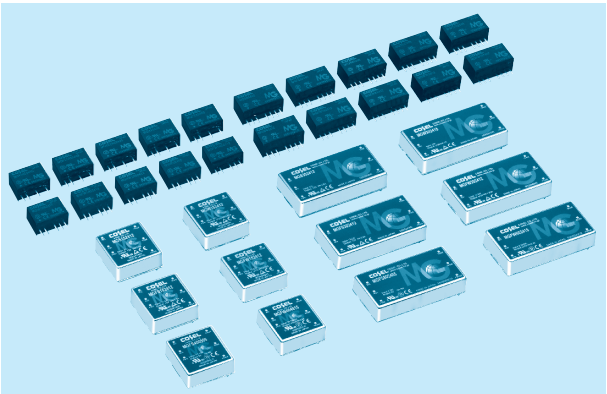
Safety agency approvals

UL62368-1, EN62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd, C-UL (equivalent to CAN/CSA-C22.2 No.60601-1)

5-year warranty

COSEL DC-DC Converters PCB Mount Type

MG-Series



cULus CE RoHS (MG15/30)
cULus D CE RoHS (MG1R5/3/6/10/40/80)

MGS MGFS MGW MGFW MGXS MGXW

Feature

Industrial standard SIP6 (MG1R5/3), SIP8 (MG6/10), 1"X1" (MG15/MG40), 1"X2" (MG30/MG80)
Wide input 9-36VDC/18-76VDC (MGFS/MGFW)
Ultra wide input 6-60VDC (MGXS/MGXW)
6 sided shield (MG15/30/40/80)
I/O Isolation voltage 1,500VDC (1minute)
Overcurrent protection (Auto recovery type)
Overvoltage protection (MG30/40/80)
Remote ON/OFF (MG6/10/15/30/40/80)
Output voltage adjustable by external variable resister (MG15/30/40/80 Single output)
High reliability: No built-in aluminum and tantalum electrolytic capacitor

Safety agency approvals

UL60950-1, C-UL, EN60950-1(MG1R5/3/6/10/15/30)
UL62368-1, C-UL, EN62368-1 (MG40/80)
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

10-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A] 3.3[V]	5[V]	12[V]	15[V]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
MGXS1R5	6-60VDC	0.4	0.3	0.13	0.1	17·12·8.5 (0.67·0.47·0.34)	4
MGXS6	6-60VDC	1.6	1.2	0.5	0.4	22·12·9.5 (0.87·0.47·0.37)	7

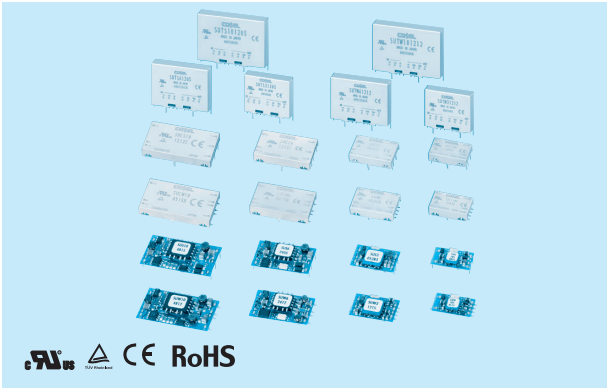
MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A] ±5 (+10) [V]	±12 (+24) [V]	±15 (+30) [V]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
MGXW1R5	6-60VDC	-	0.065	0.05	17·12·8.5 (0.67·0.47·0.34)	4
MGXW6	6-60VDC	-	0.25	0.2	22·12·9.5 (0.87·0.47·0.37)	7

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A] 3.3[V]	5[V]	12[V]	15[V]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
MGS1R5	4.5-9VDC	0.4	0.3	0.13	0.1	17·12·8.5 (0.67·0.47·0.34)	4
	9-18VDC	0.4	0.3	0.13	0.1		
	18-36VDC	0.4	0.3	0.13	0.1		
	36-76VDC	0.4	0.3	0.13	0.1		
MGS3	4.5-9VDC	0.8	0.6	0.25	0.2	17·12·8.5 (0.67·0.47·0.34)	4
	9-18VDC	0.8	0.6	0.25	0.2		
	18-36VDC	0.8	0.6	0.25	0.2		
	36-76VDC	0.8	0.6	0.25	0.2		
MGS6	4.5-9VDC	1.6	1.2	0.5	0.4	22·12·9.5 (0.87·0.47·0.37)	7
	9-18VDC	1.6	1.2	0.5	0.4		
	18-36VDC	1.6	1.2	0.5	0.4		
	36-76VDC	1.6	1.2	0.5	0.4		
MGS10	4.5-9VDC	2.6	2	0.9	0.7	22·12·9.5 (0.87·0.47·0.37)	7
	9-18VDC	2.6	2	0.9	0.7		
	18-36VDC	2.6	2	0.9	0.7		
	36-76VDC	2.6	2	0.9	0.7		
MGS15	9-18VDC	4	3	1.3	1	25.4·9.9·25.4 (1·0.39·1)	20
	18-36VDC	4	3	1.3	1		
	36-76VDC	4	3	1.3	1		
MGS30	9-18VDC	8	6	2.5	2	25.4·9.9·50.8 (1·0.39·2)	40
	18-36VDC	8	6	2.5	2		
	36-76VDC	8	6	2.5	2		
MGFS1R5	9-36VDC	0.4	0.3	0.13	0.1	17·12·8.5 (0.67·0.47·0.34)	4
	18-76VDC	0.4	0.3	0.13	0.1		
MGFS3	9-36VDC	0.8	0.6	0.25	0.2	17·12·8.5 (0.67·0.47·0.34)	4
	18-76VDC	0.8	0.6	0.25	0.2		
MGFS6	9-36VDC	1.6	1.2	0.5	0.4	22·12·9.5 (0.87·0.47·0.37)	7
	18-76VDC	1.6	1.2	0.5	0.4		
MGFS10	9-36VDC	2.6	2	0.9	0.7	22·12·9.5 (0.87·0.47·0.37)	7
	18-76VDC	2.6	2	0.9	0.7		
MGFS15	9-36VDC	4	3	1.3	1	25.4·9.9·25.4 (1·0.39·1)	20
	18-76VDC	4	3	1.3	1		
MGFS30	9-36VDC	7.5	6	2.5	2	25.4·9.9·50.8 (1·0.39·2)	40
	18-76VDC	7.5	6	2.5	2		
MGFS40	4.5-13VDC	8	6	2.5	2	25.4·9.9·25.4 (1·0.39·1)	30
	9-36VDC	10	8	3.4	2.7		
	18-76VDC	10	8	3.4	2.7		
MGFS80	9-36VDC	10	8	3.4	2.7	25.4·9.9·50.8 (1·0.39·2)	50
	18-76VDC	10	8	3.4	2.7		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A] ±5 (+10) [V]	±12 (+24) [V]	±15 (+30) [V]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
MGW1R5	4.5-9VDC	-	0.065	0.05	17·12·8.5 (0.67·0.47·0.34)	4
	9-18VDC	-	0.065	0.05		
	18-36VDC	-	0.065	0.05		
	36-76VDC	-	0.065	0.05		
MGW3	4.5-9VDC	-	0.13	0.1	17·12·8.5 (0.67·0.47·0.34)	4
	9-18VDC	-	0.13	0.1		
	18-36VDC	-	0.13	0.1		
	36-76VDC	-	0.13	0.1		
MGW6	4.5-9VDC	-	0.25	0.2	22·12·9.5 (0.87·0.47·0.37)	7
	9-18VDC	-	0.25	0.2		
	18-36VDC	-	0.25	0.2		
	36-76VDC	-	0.25	0.2		
MGW10	4.5-9VDC	-	0.42	0.34	22·12·9.5 (0.87·0.47·0.37)	7
	9-18VDC	-	0.42	0.34		
	18-36VDC	-	0.42	0.34		
	36-76VDC	-	0.42	0.34		
MGW15	9-18VDC	1.5	0.65	0.5	25.4·9.9·25.4 (1·0.39·1)	20
	18-36VDC	1.5	0.65	0.5		
	36-76VDC	1.5	0.65	0.5		
MGW30	9-18VDC	2.5	1.25	1	25.4·9.9·50.8 (1·0.39·2)	40
	18-36VDC	2.5	1.25	1		
	36-76VDC	2.5	1.25	1		
MGFW1R5	9-36VDC	-	0.065	0.05	17·12·8.5 (0.67·0.47·0.34)	4
	18-76VDC	-	0.065	0.05		
MGFW3	9-36VDC	-	0.13	0.1	17·12·8.5 (0.67·0.47·0.34)	4
	18-76VDC	-	0.13	0.1		
MGFW6	9-36VDC	-	0.25	0.2	22·12·9.5 (0.87·0.47·0.37)	7
	18-76VDC	-	0.25	0.2		
MGFW10	9-36VDC	-	0.42	0.34	22·12·9.5 (0.87·0.47·0.37)	7
	18-76VDC	-	0.42	0.34		
MGFW15	9-36VDC	1.5	0.65	0.5	25.4·9.9·25.4 (1·0.39·1)	20
	18-76VDC	1.5	0.65	0.5		
MGFW30	9-36VDC	2	1.25	1	25.4·9.9·50.8 (1·0.39·2)	40
	18-76VDC	2	1.25	1		
MGFW40	4.5-13VDC	-	1.3	1	25.4·9.9·25.4 (1·0.39·1)	30
	9-36VDC	-	1.7	1.4		
	18-76VDC	-	1.7	1.4		
MGFW80	9-36VDC	-	3.4	2.7	25.4·9.9·50.8 (1·0.39·2)	50
	18-76VDC	-	3.4	2.7		

COSEL DC-DC Converters PCB Mount Type

SU,SUC,SUT-Series



SUS SUCS SUW SUCW

SUTS SUTW

Feature

SMD mounting type and through-hole mounting type
High efficiency (synchronous rectifier circuit)
Remote ON/OFF (SU/SUC/SUT 3-10)
High reliability : No built-in aluminum and tantalum electrolytic capacitor

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]				CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		3.3[V]	5[V]	12[V]	15[V]		
SUTS3	4.5-9VDC	0.6	0.6	0.25	0.2	30•23.4•9.15 (1.18•0.92•0.36)	8
	9-18VDC	0.6	0.6	0.25	0.2		
	18-36VDC	0.6	0.6	0.25	0.2		
	36-76VDC	0.6	0.6	0.25	0.2		
SUTS6	4.5-9VDC	1.2	1	0.5	0.4	37.6•26.4•9.15 (1.48•1.04•0.36)	11
	9-18VDC	1.35	1.2	0.5	0.4		
	18-36VDC	1.35	1.2	0.5	0.4		
	36-76VDC	1.35	1.2	0.5	0.4		
SUTS10	4.5-9VDC	2.6	2	0.9	0.7	45.2•29.3•9.15 (1.78•1.15•0.36)	14
	9-18VDC	2.6	2	1	0.8		
	18-36VDC	2.6	2	1	0.8		
	36-76VDC	2.6	2	1	0.8		

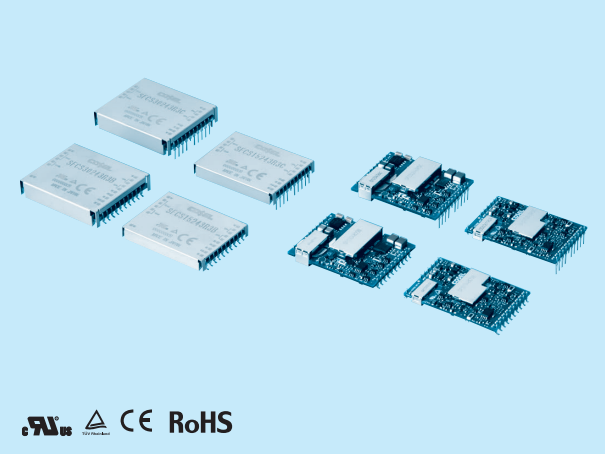
MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		±12 (+24) [V]	±15 (+30) [V]		
SUTW3	4.5-9VDC	0.13	0.1	30•23.4•9.15 (1.18•0.92•0.36)	8
	9-18VDC	0.13	0.1		
	18-36VDC	0.13	0.1		
	36-76VDC	0.13	0.1		
SUTW6	4.5-9VDC	0.25	0.2	37.6•26.4•9.15 (1.84•1.04•0.36)	11
	9-18VDC	0.25	0.2		
	18-36VDC	0.25	0.2		
	36-76VDC	0.25	0.2		
SUTW10	4.5-9VDC	0.45	0.35	45.2•29.3•9.15 (1.78•1.15•0.36)	14
	9-18VDC	0.45	0.35		
	18-36VDC	0.45	0.35		
	36-76VDC	0.45	0.35		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]				CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		3.3[V]	5[V]	12[V]	15[V]		
SUS1R5	4.5-9VDC	0.4	0.3	0.13	0.1	21.4•6.5•12.2 (0.84•0.26•0.48)	2
	9-18VDC	0.4	0.3	0.13	0.1		
	18-36VDC	0.4	0.3	0.13	0.1		
	36-76VDC	0.4	0.3	0.13	0.1		
SUS3	4.5-9VDC	0.6	0.6	0.25	0.2	24•6.5•15.1 (0.94•0.26•0.59)	3
	9-18VDC	0.6	0.6	0.25	0.2		
	18-36VDC	0.6	0.6	0.25	0.2		
	36-76VDC	0.6	0.6	0.25	0.2		
SUS6	4.5-9VDC	1.2	1	0.5	0.4	31.6•6.5•18.1 (1.24•0.26•0.71)	4
	9-18VDC	1.35	1.2	0.5	0.4		
	18-36VDC	1.35	1.2	0.5	0.4		
	36-76VDC	1.35	1.2	0.5	0.4		
SUS10	4.5-9VDC	2.6	2	0.9	0.7	39.2•6.5•21.0 (1.54•0.26•0.83)	6
	9-18VDC	2.6	2	1	0.8		
	18-36VDC	2.6	2	1	0.8		
	36-76VDC	2.6	2	1	0.8		
SUCS1R5	4.5-9VDC	0.4	0.3	0.13	0.1	22.4•7.0•13.2 (0.88•0.28•0.52)	3
	9-18VDC	0.4	0.3	0.13	0.1		
	18-36VDC	0.4	0.3	0.13	0.1		
	36-76VDC	0.4	0.3	0.13	0.1		
SUCS3	4.5-9VDC	0.6	0.6	0.25	0.2	25•7.0•16.1 (0.98•0.28•0.63)	5
	9-18VDC	0.6	0.6	0.25	0.2		
	18-36VDC	0.6	0.6	0.25	0.2		
	36-76VDC	0.6	0.6	0.25	0.2		
SUCS6	4.5-9VDC	1.2	1	0.5	0.4	32.6•7.0•19.1 (1.28•0.28•0.75)	7
	9-18VDC	1.35	1.2	0.5	0.4		
	18-36VDC	1.35	1.2	0.5	0.4		
	36-76VDC	1.35	1.2	0.5	0.4		
SUCS10	4.5-9VDC	2.6	2	0.9	0.7	40.2•7.0•22.0 (1.58•0.28•0.87)	10
	9-18VDC	2.6	2	1	0.8		
	18-36VDC	2.6	2	1	0.8		
	36-76VDC	2.6	2	1	0.8		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		±12 (+24) [V]	±15 (+30) [V]		
SUW1R5	4.5-9VDC	0.065	0.05	21.4•6.5•12.2 (0.84•0.26•0.48)	2
	9-18VDC	0.065	0.05		
	18-36VDC	0.065	0.05		
	36-76VDC	0.065	0.05		
SUW3	4.5-9VDC	0.13	0.1	24•6.5•15.1 (0.94•0.26•0.59)	3
	9-18VDC	0.13	0.1		
	18-36VDC	0.13	0.1		
	36-76VDC	0.13	0.1		
SUW6	4.5-9VDC	0.25	0.2	31.6•6.5•18.1 (1.24•0.26•0.71)	4
	9-18VDC	0.25	0.2		
	18-36VDC	0.25	0.2		
	36-76VDC	0.25	0.2		
SUW10	4.5-9VDC	0.45	0.35	39.2•6.5•21.0 (1.54•0.26•0.83)	6
	9-18VDC	0.45	0.35		
	18-36VDC	0.45	0.35		
	36-76VDC	0.45	0.35		
SUCW1R5	4.5-9VDC	0.065	0.05	22.4•7.0•13.2 (0.88•0.28•0.52)	3
	9-18VDC	0.065	0.05		
	18-36VDC	0.065	0.05		
	36-76VDC	0.065	0.05		
SUCW3	4.5-9VDC	0.13	0.1	25•7.0•16.1 (0.98•0.28•0.63)	5
	9-18VDC	0.13	0.1		
	18-36VDC	0.13	0.1		
	36-76VDC	0.13	0.1		
SUCW6	4.5-9VDC	0.25	0.2	32.6•7.0•19.1 (1.28•0.28•0.75)	7
	9-18VDC	0.25	0.2		
	18-36VDC	0.25	0.2		
	36-76VDC	0.25	0.2		
SUCW10	4.5-9VDC	0.45	0.35	40.2•7.0•22.0 (1.58•0.28•0.87)	10
	9-18VDC	0.45	0.35		
	18-36VDC	0.45	0.35		
	36-76VDC	0.45	0.35		

COSEL DC-DC Converters PCB Mount Type

SFS,SFCS-Series



SFS SFCS

Feature

SMD mounting type and through-hole mounting type
High efficiency (Synchronous rectifier circuit)
Parallel operation
Overcurrent, overvoltage and low voltage protection
Remote ON/OFF, alarm functions
High reliability : No built-in aluminum and tantalum electrolytic capacitor

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

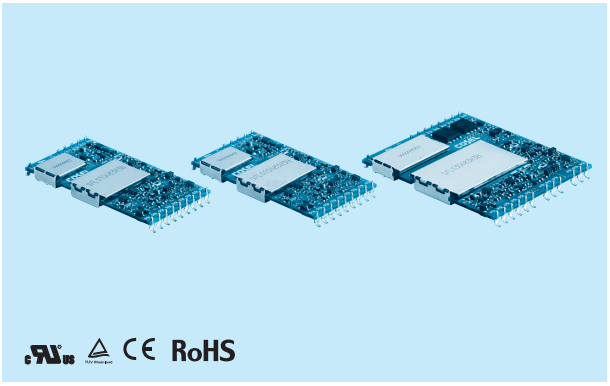
5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
SFS10	36-76VDC	1.2	3.5	38.7•5.0•27.2 (1.52•0.20•1.07)	12
		1.5	3.5		
		1.8	3		
		2.5	3		
		3.3	3		
		5	2		
		12	0.9		
		15	0.7		
SFS15	18-36VDC	2.5	4.5	38.7•5.0•27.2 (1.52•0.20•1.07)	12
		3.3	4.5		
		5	3		
		12	1.25		
		15	1		
	36-76VDC	1.2	5.2		
		1.5	5.2		
		1.8	4.5		
		2.5	4.5		
		3.3	4.5		
		5	3		
		12	1.25		
		15	1		
SFS20	36-76VDC	1.5	9	38.7•5.0•27.2 (1.52•0.20•1.07)	12
		1.8	8		
		2.5	7		
		3.3	6		
		5	4		
SFS30	18-36VDC	2.5	9	38.7•8.0•31.2 (1.52•0.31•1.23)	20
		3.3	9		
		5	6		
		12	2.5		
		15	2		
	36-76VDC	1.2	10.4		
		1.5	10.4		
		1.8	9		
		2.5	9		
		3.3	9		
		5	6		
		10	3		
		12	2.5		
		15	2		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
SFCS15	18-36VDC	3.3	4.5	39.1•6.8•29.5 (1.54•0.27•1.16)	16
		5	3		
		12	1.25		
		15	1		
	36-76VDC	3.3	4.5		
		5	3		
		12	1.25		
		15	1		
SFCS30	18-36VDC	3.3	9	39.3•8.8•33.5 (1.55•0.35•1.32)	25
		5	6		
		12	2.5		
		15	2		
	36-76VDC	3.3	9		
		5	6		
		12	2.5		
		15	2		

COSEL DC-DC Converters PCB Mount Type

SFLS-Series



SFLS

Feature

Low profile SMD mounting type
High efficiency (Synchronous rectifier circuit)
Parallel operation
Overcurrent, overvoltage and low voltage protection
Remote ON/OFF, alarm functions
Power ready / Sequence control

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
SFLS10	36-76VDC	2.5	3	38.7•4.2•22.4 (1.52•0.166•0.88)	8
		3.3	3		
		5	2		
SFLS15	36-76VDC	1.2	5.2	38.7•4.2•22.4 (1.52•0.166•0.88)	8
		1.5	5.2		
		1.8	4.5		
		2.5	4.5		
		3.3	4.5		
		5	3		
		5.2	3		
		12	1.25		
SFLS30	36-76VDC	1.2	12	41.2•4.4•36.2 (1.62•0.174•1.43)	16
		1.5	11		
		1.8	11		
		2.5	10		
		3.3	9		
		5	6		

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

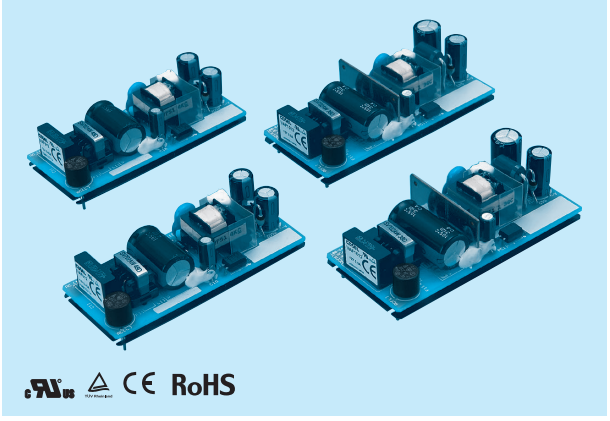
CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL AC-DC Power supplies PCB Mount Type

VAF-Series



VAF

Feature

PCB mount type AC-DC converter
Inrush current and overcurrent protection

Safety agency approvals

UL60950-1, EN62368-1, C-UL recognized TÜV approved
Complies with DEN-AN

EMI

FCC-B, VCCI-B, CISPR22-B (EN55022-B)

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
VAF5	85-264VAC 1φ or 110-370VDC	3.3	1.0 (1.20)*	32•20•72.5 (1.26•0.79•2.85)	30
		5	1.0 (1.20)*		
		12	0.45(0.54)*		
		15	0.35(0.42)*		
		24	0.22(0.27)*		
VAF10	85-264VAC 1φ or 110-370VDC	3.3	2.0 (2.40)*	36•21•78 (1.42•0.83•3.07)	40
		5	2.0 (2.40)*		
		12	0.9 (1.08)*		
		15	0.7 (0.84)*		
		24	0.45(0.54)*		

*Peak current.

EMS Compliance

EN55022-B
EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

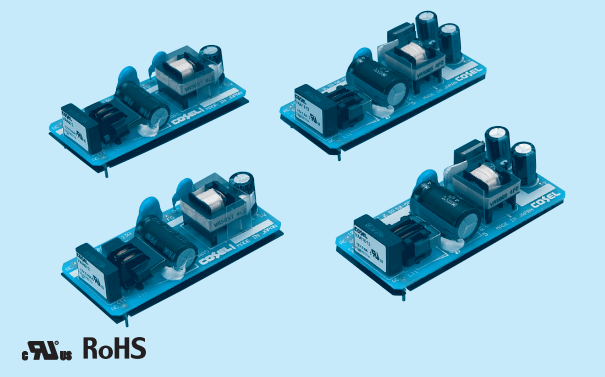
CE marking

Low Voltage Directive
RoHS Directive

3-year warranty

COSEL AC-DC Power supplies PCB Mount Type

VAA-Series



MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
VAA5	85-132VAC 1φ or 110-170VDC	5	1.0	32·18·65 (1.26•0.71•2.56)	30
		12	0.45		
VAA10		5	2.0	32·18·72.5 (1.26•0.71•2.85)	35
		12	0.9		

VAA

Feature

PCB mount type AC-DC converter
Inrush current and overcurrent protection

Safety agency approvals

UL60950-1, C-UL recognized
Complies with DEN-AN

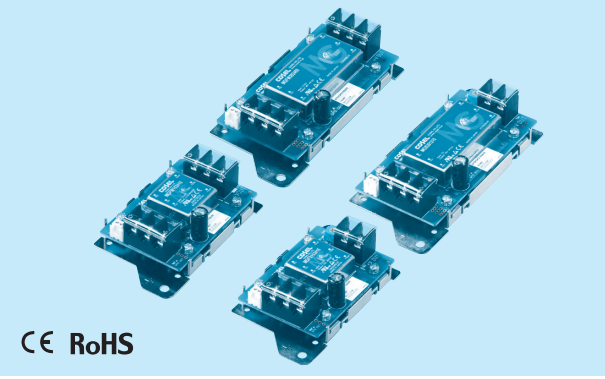
EMI

FCC-B, VCCI-A
(Additional capacitors required for meeting VCCI classB)

2-year warranty

COSEL DC-DC Converters PCB Mount Type Value-added Type

STMG-Series



MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]				CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		3.3[V]	5[V]	12[V]	15[V]		
STMGFS15	9-36VDC	4	3	1.3	1	52•27•93 (2.05•1.06•3.66)	110
	18-76VDC	4	3	1.3	1		
STMGFS30	9-36VDC	7.5	6	2.5	2	52•27•117 (2.05•1.06•4.61)	140
	18-76VDC	7.5	6	2.5	2		

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE[V]/ OUTPUT CURRENT[A]			CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
		±5 (+10) [V]	±12 (+24) [V]	±15 (+30) [V]		
STMGFW15	9-36VDC	1.5	0.65	0.5	52•27•93 (2.05•1.06•3.66)	110
	18-76VDC	1.5	0.65	0.5		
STMGFW30	9-36VDC	2	1.25	1	52•27•117 (2.05•1.06•4.61)	140
	18-76VDC	2	1.25	1		

STMGFS STMGFW

Feature

Isolated PCB mount type DC-DC converter
Wide input 9-36VDC/18-76VDC
Connector interface available (Option)
Case cover available (Option)
DIN rail attachment available (Option)
Overcurrent protection (Auto recovery type)
Overvoltage protection (for STMG30)
Remote ON/OFF
Output voltage adjustment (Single output only, ±10%)

Safety agency approvals

Complies with UL60950-1 C-UL EN60950-1

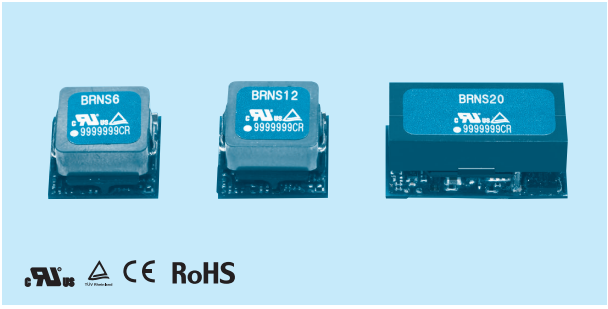
CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL DC-DC Converters POL Type

BRNS-Series



BRNS

Feature

Small size and high efficiency non-isolated DC-DC converter
Wide input voltage 3.0VDC to 14.4VDC
No need adjustment of gain control by external capacitor
Remote ON/OFF, power good, frequency synchronization
Overcurrent and thermal protection (Auto recovery type)

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
BRNS6	3.0-14.4VDC	0.6-5.5	6	12.2•7.2•12.2 (0.48•0.28•0.48)	4
BRNS12			12	12.2•7.2•12.2 (0.48•0.28•0.48)	4
BRNS20			20	20.3•8.5•11.4 (0.80•0.35•0.45)	6

Safety agency approvals

UL60950-1, C-UL, EN60950-1, EN62368-1

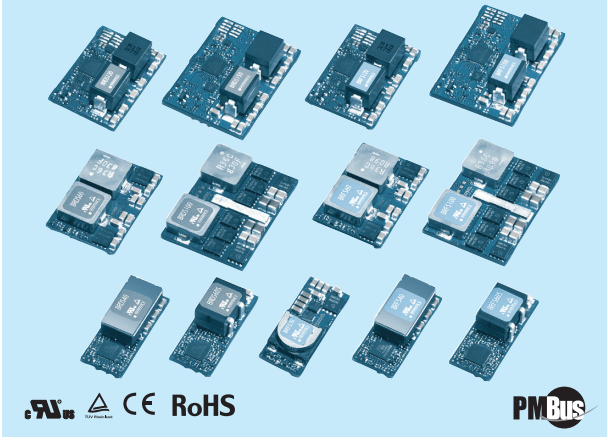
CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL DC-DC Converters POL Type

BRFS/BRDS-Series



BRFS BRDS

Feature

Small size and high efficiency non-isolated DC-DC converter
Wide input 4.5VDC to 14.0VDC
Fast transient response by robust control
Remote ON/OFF, power good, start-up sequence
Overcurrent and thermal protection (Auto recovery type)
PMBus (BRDS series)

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
BRFS30	4.5-14.0VDC	0.8-3.63	30	33.0•9.5•13.5 (1.30•0.37•0.53)	10
BRFS40		0.6-2.0	40	33.0•10.9•13.5 (1.30•0.43•0.53)	12
BRFS60		0.7-2.0	60	33.0•8.0•22.9 (1.30•0.31•0.90)	15
BRFS60S		0.6-2.0	60	33.0•12.7•13.5* (1.30•0.5•0.53)*	12*
BRFS100		0.7-2.0	100	38.0•8.5•27.7 (1.50•0.33•1.09)	22
BRFS120		0.6-1.8	120	33.0•12.7•22.9 (1.30•0.50•0.90)	14
BRFS150			150	38.0•13.8•27.7 (1.50•0.54•1.09)	21
BRDS40	4.5-14.0VDC	0.6-2.0	40	33.0•10.9•13.5 (1.30•0.43•0.53)	12
BRDS60		0.7-2.0	60	33.0•8.0•22.9 (1.30•0.31•0.90)	15
BRDS60S		0.6-2.0	60	33.0•12.7•13.5* (1.30•0.5•0.53)*	12*
BRDS100		0.7-2.0	100	38.0•8.5•27.7 (1.50•0.33•1.09)	22
BRDS120		0.6-1.8	120	33.0•12.7•22.9 (1.30•0.50•0.90)	14
BRDS150			150	38.0•13.8•27.7 (1.50•0.54•1.09)	21

*Small type: BRFS60S, BRDS60S

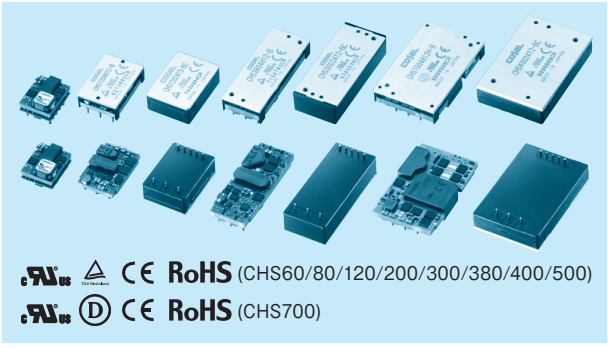
CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL DC-DC Converters Bus Converter/Power Module Type

CHS-Series



(CHS60/80/120/200/300/380/400/500)
(CHS700)

CHS

Feature

High efficiency 96% (CHS7004812H)
For telecommunication, server and factory automation market
High density
High reliability : No built-in aluminum and tantalum electrolytic capacitor
Overcurrent, overvoltage and thermal protection
Remote ON/OFF
PMBus (Option : -I)
(CHS3004810/CHS3004812/CHS4004812/CHS5004812)

Safety agency approvals

UL60950-1, C-UL, EN60950-1 approved
UL62368-1, C-UL, EN62368-1 approved (Only CHS700)
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

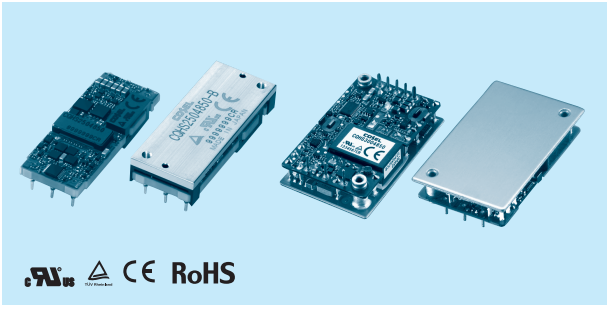
5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
CHS60	36-76VDC	3.3	18	19.05•12.7•23.36 (0.75•0.50•0.92)	15
		5	12		
		12	6		
CHS80	36-76VDC	3.3	25	33•10.5•22.76 (1.30•0.41•0.90)	21
		5	16		
		12	7.5		
CHS120	18-36VDC	5	24	33•10.5•22.86 (1.30•0.41•0.90)	19
		12	10	33.5•12.7•23.36* (1.32•0.50•0.92)*	28*
		15	8		
		24	4.2	36.5•12.7•26.5** (1.44•0.50•1.04)**	32**
	36-76VDC	3.3	30	33•10.5•22.86 (1.30•0.41•0.90)	19
		5	24		
		12	10	33.5•12.7•23.36* (1.32•0.50•0.92)	28*
		15	8		
		24	4.2		
CHS200	36-76VDC	3.3	50	57.9•10.5•22.76 (2.28•0.41•0.90)	30
		5	40	58.4•12.7•23.26* (2.30•0.50•0.92)*	45*
		12	16		
CHS300	18-36VDC	5	40	58.4•11.0•22.86 (2.30•0.43•0.90)	38
		12	16.7		
		15	13.5	58.9•12.7•23.26* (2.32•0.50•0.92)*	50*
		24	10.5		
		28	9	61.1•14.3•26.1** (2.41•0.56•1.03)**	57**
		32	7.9		
		48	5.3		
	36-76VDC	10	30	58.4•11.0•22.86 (2.30•0.43•0.90)	38
		12	25		
		15	20		
		24	12.5	58.9•12.7•23.26* (2.32•0.50•0.92)*	50*
		28	10.8		
		32	9.4		
		48	6.3		
CHS380	36-76VDC	10	38	58.4•11.0•22.86 (2.30•0.41•0.90)	38
		12	32	58.9•12.7•23.26* (2.32•0.50•0.92)*	50*
CHS400	18-36VDC	12	26.5	58.4•9.5•36.8 (2.30•0.37•1.45)	60
		15	26.5		
		24	14.5		
		28	12.5		
		32	11		
		48	6.3		
	36-76VDC	10	40	58.9•12.7•37.3* (2.32•0.50•1.47)*	90*
		12	33		
		15	26.5	61.6•12.7•40.3** (2.43•0.50•1.59)**	90**
		24	16.5		
		28	14		
		32	12.5		
		48	8.4		
CHS500	36-76VDC	12	42	58.4•9.5•36.8 (2.30•0.37•1.45)	60
				58.9•12.7•37.3* (2.32•0.50•1.47)*	90*
CHS700	36-76VDC	12	58.5	58.4•10.5•36.8 (2.30•0.41•1.45)	72
				58.9•12.7•37.3* (2.32•0.50•1.47)*	100*

*Baseplate option.
**Baseplate and case option

COSEL DC-DC Converters Bus Converter/Power Module Type

CQHS-Series



CQHS

Feature

For telecommunication market
High efficiency (Synchronous rectifier circuit)
High density
High reliability : No built-in aluminum and tantalum electrolytic capacitor
Overcurrent, overvoltage and thermal protection
Remote ON/OFF

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
CQHS250	36-76VDC	32	7.9	57.9·10.5·22.76 (2.28·0.41·090) 58.4·12.7·23.26* (2.30·0.50·0.92)*	30 45*
		50	5		
CQHS300	36-76VDC	32	9.4	57.9·12.7·36.8 (2.28·0.5·1.45)	75
		50	6		
CQHS350	36-65VDC	32	11	57.9·12.7·36.8 (2.28·0.5·1.45)	75
		50	7.0		

*Baseplate option.

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

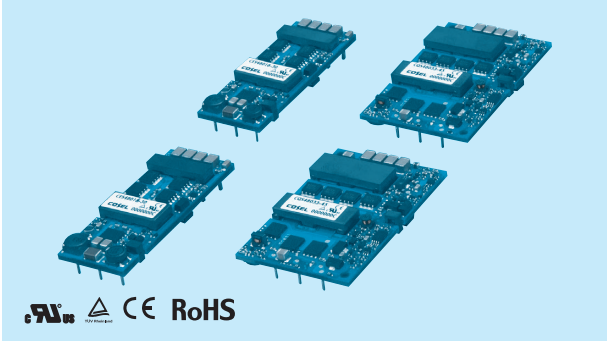
Optional parts

Heat sink (CQHS300/350)

5-year warranty

COSEL DC-DC Converters Bus Converter/Power Module Type

CES/CQS-Series



CES CQS

Feature

For telecommunication market
High efficiency
High density
High reliability : No built-in aluminum and tantalum electrolytic capacitor
Overcurrent, overvoltage and thermal protection
Remote ON/OFF

Safety agency approvals

UL60950-1, C-UL recognized, TÜV approved
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

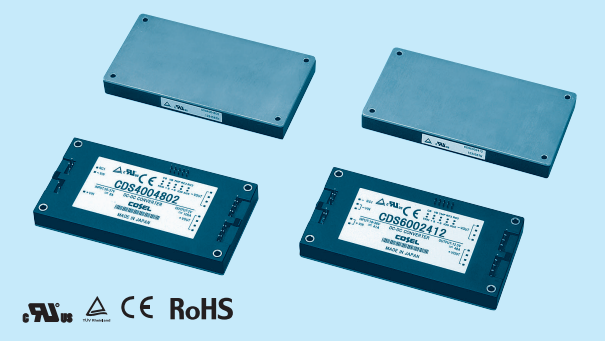
MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
CES	18-36VDC	3.3	25	57.9·8.5·22.76 (2.28·0.33·0.9)	26
		5	16		
		12	6		
	20-33VDC	15	4		
	36-76VDC	1.5	30		
		1.8	30		
		2.5	25		
		3.3	25		
		3.3	30		
		5	16		
		5	20		
		6	17		
		12	6		
	40-60VDC	15	4		
CES-P	36-76VDC	3.3	30	57.9·8.5·22.76 (2.28·0.33·0.9) 57.9·12.7·36.8* (2.28·0.5·1.45)*	26 50*
		5	20		
		12	7		
CQS	18-36VDC	3.3	40	57.9·8.5·36.8 (2.28·0.33·1.45)	40
		5	28		
		12	12		
	20-33VDC	15	8		
	36-76VDC	1.5	50		
		1.8	50		
		2.5	45		
		3.3	45		
		5	28		
		12	14		
	40-60VDC	15	8		

*Baseplate option.

5-year warranty

COSEL DC-DC Converters Bus Converter/Power Module Type

CDS-Series



CDS

Feature

Ideal for distributed power systems
Thin and small size
Overcurrent, overvoltage and thermal protection
Remote ON/OFF (Both sides of input and output)
Inverter operating monitoring (IOG)
Mounting hole (ϕ 3.4 thru)

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
CDS400	36-76VDC	2	100	61•12.7•116.8 (2.4•0.5•4.6)	180
		3.3	100		
		5	80		
		7.5	54		
		12.5	40		
		15	34		
		24	21		
		28	18		
CDS500	18-36VDC	28	18	61•12.7•116.8 (2.4•0.5•4.6)	200
CDS600	18-36VDC	12.5	48	61•12.7•116.8 (2.4•0.5•4.6)	200
		28	22		
	20.5-36VDC	12.5	48		
	19-36VDC	28	22		
	36-76VDC	12.5	56		
		28	25		

Safety agency approvals

UL60950-1, C-UL, EN60950-1, EN62368-1

CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL DC-DC Converters Bus Converter/Power Module Type

DHS-Series



DHS

Feature

Ideal for distributed power systems
Thin and small size
Overcurrent, overvoltage and thermal protection
Remote ON/OFF
Mounting hole (M3 tapped)

Safety agency approvals

UL60950-1, C-UL, EN60950-1
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
DHS50A	60-160VDC	5	10	58.4 •12.7•37.3 (2.3•0.5•1.47)	60
		12	4.2		
		15	3.4		
		24	2.1		
DHS100A	60-160VDC	5	20	58.4 •12.7•37.3 (2.3•0.5•1.47)	60
		12	8.4		
		15	6.7		
		24	4.2		
DHS200A	60-160VDC	5	40	58.4 ·12.7·61 (2.3•0.5•2.4)	100
		12	16.7		
		15	13.4		
		24	8.4		
DHS50B	200-400VDC	3.3	10	58.4 •12.7•37.3 (2.3•0.5•1.47)	60
		5	10		
		12	4.2		
		15	3.4		
		24	2.1		
		28	1.8		
DHS100B	200-400VDC	3.3	20	58.4 •12.7•37.3 (2.3•0.5•1.47)	60
		5	20		
		12	8.4		
		15	6.7		
		24	4.2		
		28	3.6		
DHS250B	200-400VDC	3.3	50	58.4 ·12.7·61 (2.3•0.5•2.4)	100
		5	50		
		7.5	33		
		12	21		
		15	16.5		
		24	10.5		
		28	9		
		48	5.2		

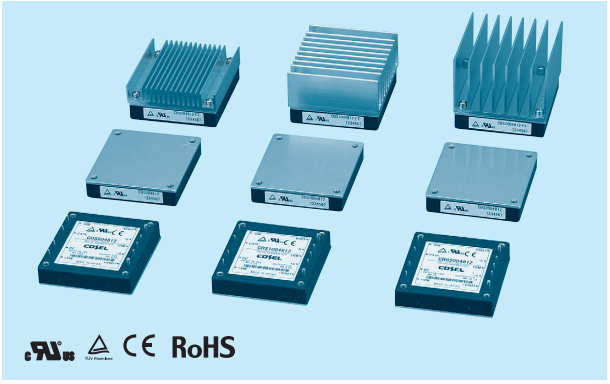
Optional parts

Heat sink

5-year warranty

COSEL DC-DC Converters Bus Converter/Power Module Type

CBS-Series



CBS

Feature

For telecommunication market
High efficiency
High density
High reliability : No built-in aluminum and tantalum electrolytic capacitor
Overcurrent, overvoltage and thermal protection
Remote ON/OFF
Mounting hole (M3 tapped)

Safety agency approvals

UL60950-1, C-UL recognized, TÜV approved
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

Optional parts

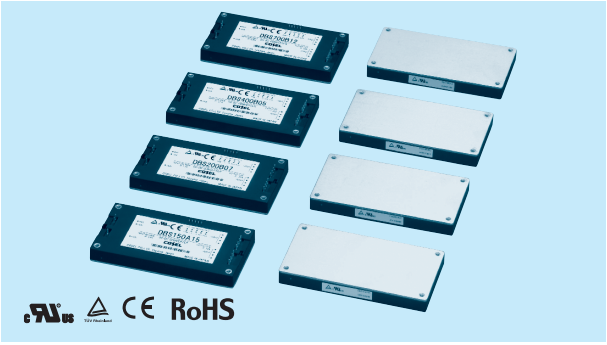
Heat sink

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
CBS50	18-36VDC	1.8	11.7	57.9•12.7•61 (2.28•0.5•2.4)	83
		2.5	11.7		
		3.3	11.7		
		5	10.0		
		12	4.2		
		15	3.4		
		24	2.1		
		28	1.8		
	36-76VDC	1.8	11.7		
		2.5	11.7		
		3.3	11.7		
		5	10.0		
		12	4.2		
		15	3.4		
		24	2.1		
		28	1.8		
CBS100	18-36VDC	1.8	23.4	57.9•12.7•61 (2.28•0.5•2.4)	83
		2.5	23.4		
		3.3	23.4		
		5	20.0		
		12	8.4		
		15	6.7		
		24	4.2		
		28	3.6		
	36-76VDC	1.8	23.4		
		2.5	23.4		
		3.3	23.4		
		5	20.0		
		12	8.4		
		15	6.7		
		24	4.2		
		28	3.6		
CBS200	18-36VDC	1.8	35.0	57.9•12.7•61 (2.28•0.5•2.4)	83
		2.5	35.0		
		3.3	35.0		
		5	30.0		
		12	16.7		
		15	13.4		
		24	8.4		
		28	7.2		
	36-76VDC	1.8	35.0		
		2.5	35.0		
		3.3	35.0		
		5	30.0		
		12	16.7		
		15	13.4		
		24	8.4		
		28	7.2		
		48	4.2		
CBS350	20-36VDC	12	25.0	57.9•12.7•61 (2.28•0.5•2.4)	83
		24	14.5		
		28	12.5		
		32	11.0		
		48	6.3		
	36-76VDC	12	29.0		
		24	14.5		
		28	12.5		
		32	11.0		
	36-60VDC	48	7.3		
CBS450	38-60VDC	24	19	57.9•12.7•61 (2.28•0.5•2.4)	83
	36-76VDC	28	16		
		32	12.5		

COSEL DC-DC Converters Bus Converter/Power Module Type

DBS-Series



DBS

Feature

Ideal for distributed power systems
Thin and small size
Overcurrent, overvoltage and thermal protection
Remote ON/OFF (Both sides of input and output)
Inverter operating monitoring (IOG)
Mounting hole (M3 tapped)
Low beet noise (By crystal oscillator) (DBS700)

Safety agency approvals

UL, C-UL recognized, TÜV approved
EN62368-1 pending

CE marking

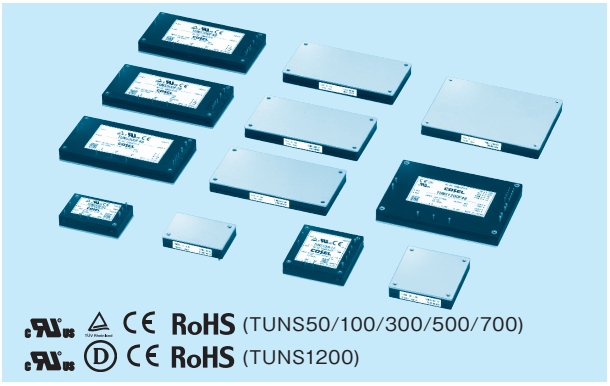
Low Voltage Directive
RoHS Directive

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
DBS100A	45-160VDC	5	20	61•12.7•116.8 (2.4•0.5•4.6)	150
		13.8	7.3		
DBS150A	66-160VDC	12	12.5	61•12.7•116.8 (2.4•0.5•4.6)	150
		15	10		
		24	6.3		
DBS200B	200-400VDC	3.3	50	61•12.7•116.8 (2.4•0.5•4.6)	150
		5	40		
		7.5	28		
		12	20		
DBS400B	200-400VDC	3.3	80	61•12.7•116.8 (2.4•0.5•4.6)	180
		5	80		
		7.5	54		
		12	34		
		15	27		
		18	22		
		24	17		
		28	14.5		
DBS700B	200-400VDC	12	58	61•12.7•116.8 (2.4•0.5•4.6)	180
		24	29		
		28	25		
		36	19.5		
		48	14.5		

COSEL AC-DC Power Supplies Bus Converter/Power Module Type

TUNS-Series



RoHS (TUNS50/100/300/500/700)
RoHS (TUNS1200)

TUNS

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
TUNS50	85-264VAC 1 ϕ	5	10	58.4•12.7•37.3 (2.3•0.5•1.47)	80
		12	4.2		
		24	2.1		
TUNS100	85-264VAC 1 ϕ	5	20	58.4•12.7•61.0 (2.3•0.5•2.4)	120
		12	8.4		
		24	4.2		
TUNS300	85-264VAC 1 ϕ	12	25	117.3•12.7•61.5 (4.62•0.5•2.42)	190
		28	11		
		48	6.5		
TUNS500	85-264VAC 1 ϕ	12	42 (55)*	117.3•12.7•61.5 (4.62•0.5•2.42)	190
		28	18 (24)*		
		48	10.5 (14)*		
TUNS700	85-264VAC 1 ϕ	12	58.4	117.3•12.7•61.5 (4.62•0.5•2.42)	190
		28	25		
		48	14.6		
TUNS1200	85-305VAC 1 ϕ	12	84	117.3•12.7•86.8 (4.62•0.5•3.42)	280
		28	43		
		48	25		

*Peak current.

Feature

AC-DC power module type converter
Harmonic attenuator (Complies with IEC61000-3-2 class A)
Thin and small size
Overcurrent, overvoltage and thermal protection
Universal input 85-264VAC (TUNS50/100/300/500/700)
Wide input 85 - 305VAC (TUNS1200)
For medical applications (TUNS1200)
Constant current function (TUNS1200)
Output voltage can be adjusted to approximately 0V (TUNS1200)
Parallel operation (TUNS1200) (-P option : TUNS700)

Safety agency approvals

UL60950-1, C-UL, EN60950-1, EN62368-1 pending (TUNS50/100/300/500/700)
UL62368-1, C-UL, EN62368-1 (TUNS1200)
ANSI/AAMI ES60601-1, EN60601-1 3rd (TUNS1200)

CE marking

Low Voltage Directive
RoHS Directive

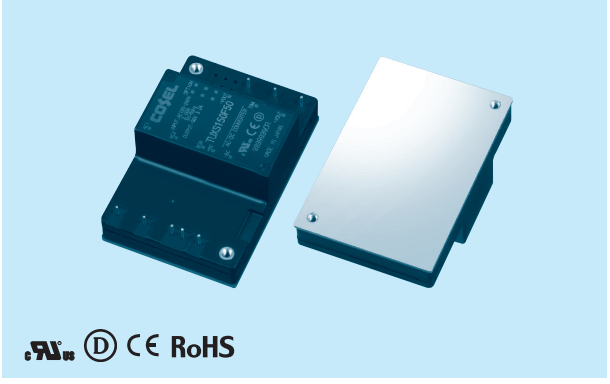
Optional parts

Heat sink (TUNS50/TUNS100)

5-year warranty

COSEL AC-DC Power Supplies Bus Converter/Power Module Type

TUXS-Series



RoHS

TUXS

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
TUXS150	85-264VAC 1 ϕ	50	3	76.2•28.5•50.8 (3.0•1.12•2.0)	150
TUXS200	85-264VAC 1 ϕ	50	4	76.2•28.5•50.8 (3.0•1.12•2.0)	150
		42	4.7		
		32	6.2		
		28	7		
		24	8.3		

Feature

AC-DC power module type converter
Harmonic attenuator (Complies with IEC61000-3-2 class A)
Overcurrent, overvoltage and thermal protection
PMBus (Option : -I / TUXS200F50)

5-year warranty

Safety agency approvals

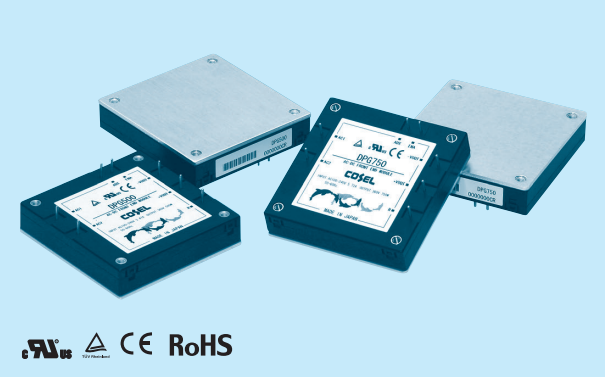
UL60950-1, C-UL, EN60950-1
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

COSEL AC-DC Power Supplies Bus Converter/Power Module Type

DPG-Series



MODEL	INPUT VOLTAGE	OUTPUT WATTAGE [W]	OUTPUT VOLTAGE [V]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
DPG500	85-264VAC 1φ	300	360	58.4·12.7·61 (2.3·0.5·2.4)	100
	170-264VAC 1φ	500	360		
DPG750	85-264VAC 1φ	500	360	58.4·12.7·61 (2.3·0.5·2.4)	100
	170-264VAC 1φ	750	360		

DPG

Power factor correction module

Feature

Harmonic attenuator (Complies with IEC61000-3-2)
High efficiency 93% (100VAC), 96% (200VAC)
Universal input (85 - 264VAC)
Inrush current protection
Overvoltage and thermal protection
Enable signal (ENA)
Auxiliary power supply for external signal (AUX)
Ideal for distributed power systems

Safety agency approvals

UL, C-UL recognized, TÜV approved
EN62368-1 pending

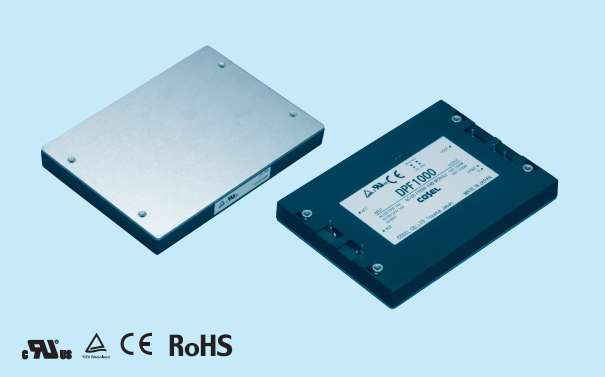
CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL AC-DC Power Supplies Bus Converter/Power Module Type

DPF-Series



MODEL	INPUT VOLTAGE	MAX OUTPUT WATTAGE [W]	OUTPUT VOLTAGE [V]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
DPF1000	85-264VAC 1φ	1000	DC360	118.6·12.7·85 (4.67·0.5·3.35)	200
	170-264VAC 1φ	1500			

DPF

Power factor correction module

Feature

Harmonic attenuator (Complies with IEC61000-3-2)
High efficiency 90% (100VAC), 95% (200VAC)
Universal input voltage (85 - 264VAC)
Inrush current protection
Parallel operation (Current balancing function)
Overvoltage and thermal protection
Inverter operation monitoring (IOG)
Enable signal (ENA)
Auxiliary power supply for external signal (AUX)
Ideal for distributed power systems

Safety agency approvals

UL, C-UL recognized, TÜV approved
EN62368-1 pending

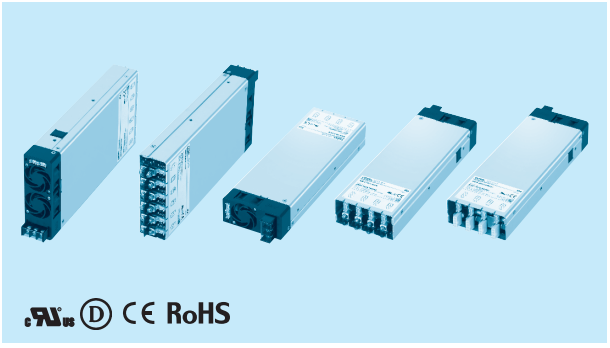
CE marking

Low Voltage Directive
RoHS Directive

5-year warranty

COSEL AC-DC Power Supplies Configurable Type

AME-Series



AME

Feature

Configurable type power supply
Low profile (41mm, 1.61 inches = Meets 1U height)
Universal input (85-264VAC)
For medical applications
(ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
AUX output 5V 1A
Global inhibit, remote ON/OFF control
Connector type (Output terminal) (Option)

Safety agency approvals

UL62368-1, ANSI/AAMI ES60601-1
C-UL (CAN/CSA62368-1), C-UL (CAN/CSA60601-1)
EN62368-1, EN60601-1 3rd

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR32-B,
EN55011-B, EN55032-B, VCCI-B

MODEL [TYPE]	INPUT VOLTAGE	NUMBER OF SLOT	TOTAL OUTPUT WATTAGE [W]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
AME400F (AM04)	85-264VAC 1 ϕ	4	250 (ACIN90-150V) 400 (ACIN170-264V)	89•41.5•257 (3.50•1.61•10.12)	1.2
AME600F (AM06)	85-264VAC 1 ϕ	4	400 (ACIN90-150V) 600 (ACIN170-264V)	89•41.5•257 (3.50•1.61•10.12)	1.2
AME800F (AM08)	85-264VAC 1 ϕ	6	600 (ACIN90-150V) 800 (ACIN170-264V)	127・41・257 (5.00•1.61•10.12)	1.8
AME1200F (AM12)	85-264VAC 1 ϕ	6	1000 (ACIN90-150V) 1200 (ACIN170-264V)	127・41・257 (5.00•1.61•10.12)	1.8

OUTPUT MODULE

OUTPUT		
CODE	VOLTAGE[V]	CURRENT[A]
A	5	12
B	12	8.5
C	24	5
D	48	2.5
E	5	32
F	12	20
G	24	10(15)*
H	48	5(7.5)*

*Peak current.

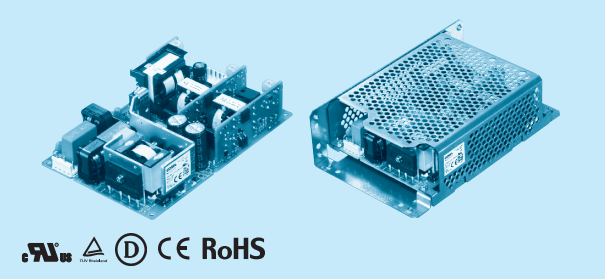
EMS Compliance: EN61204-3, EN61000-6-2
IEC60601-1-2 (2014), EN60601-1-2 (2015)

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Configurable Type

RB-Series



RB

Feature

Configurable type power supply
Multiple outputs combination (driving and control systems) for robot controller applications
Meets OVC III (Complies with EN60204-1)
Reinforced isolation between SLOT3 and SLOT1, 2

Safety agency approvals

UL62368-1
C-UL (CAN/CSA-C22.2 No.62368-1)
EN62368-1
EN62477-1 (OVC III)
Complies with EN61558-2-16 (OVC III)

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR11-B, CISPR32-B, EN55011-B, EN55032-B, VCCI-B

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

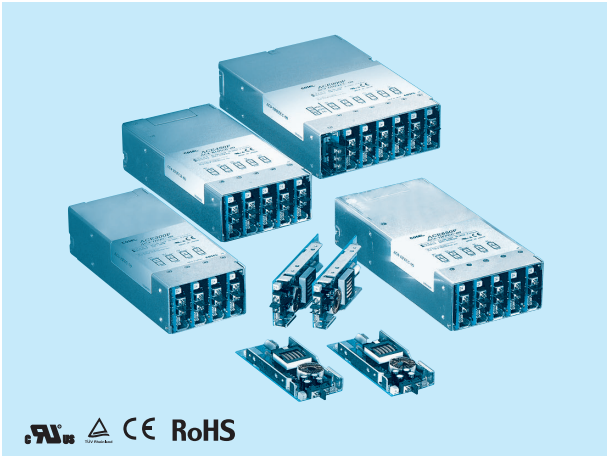
MODEL	INPUT VOLTAGE	NUMBER OF SLOT	TOTAL OUTPUT WATTAGE [W]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
RBC200F	85-264VAC 1ϕ	3	207	101•38.3•152 (3.98•1.51•5.98)	450

OUTPUT MODULE

OUTPUT		
CODE	VOLTAGE[V]	CURRENT[A]
V	12	10
W	15	8.5
Y	24	6
Z	48	3
B	5	3
C	12	1.3
D	24	0.65
E	±12	0.6
F	±15	0.5
G	3.3	5
H	5	5
J	12	2.5
K	16.5	1.9
L	24	1.3
M	48	0.65
P	±12	0.7
Q	±15	0.7

COSEL AC-DC Power Supplies Configurable Type

ACE-Series



ACE

Feature

Configurable type power supply
Remote ON/OFF control, alarm functions

Safety agency approvals

UL60950-1, C-UL (CSA60950-1), EN60950-1, EN62368-1, EN50178
Complies with DEN-AN
UL60601-1, C-UL (CSA601.1), EN60601-1 approvals (optional: -H)

EMI

Complies with FCC-B, CISPR22-B,
EN55022-B, VCCI-B

CE marking

Low Voltage Directive
RoHS Directive

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

ICE60601-1-2 (2014), EN60601-1-2 (2015) (optional: -H)

3-year warranty

MODEL [TYPE]	INPUT VOLTAGE	NUMBER OF SLOT	TOTAL OUTPUT WATTAGE [W]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [kg]
ACE300F (AC3)	85-264VAC 1φ/ 120-350VDC	4	250 (AC 90-150V) / 300 (AC170-264V)	103•63.5•254 (4.06•2.5•10)	1.7
ACE450F (AC4)	85-264VAC 1φ/ 120-350VDC	5	400 (AC 90-150V) / 450 (AC170-264V)	127・63.5・254 (5•2.5•10)	2.2
ACE650F (AC6)	85-264VAC 1φ/ 120-350VDC	5	600 (AC 90-150V) / 650 (AC170-264V)	127・63.5・279 (5•2.5•10.98)	2.4
ACE900F (AC9)	85-264VAC 1φ/ 120-350VDC	6	800(Peak 1K) (AC 90-150V) / 900(Peak 1K) (AC170-264V)	177.5・63.5・254 (6.99•2.5•10)	3.0

OUTPUT MODULE

OUTPUT			
CODE	VOLTAGE[V]	CURRENT1[A]	CURRENT2[A]
A	2	26	—
B	3.3	26	—
C	5	26	—
D	7.5	18	—
E	12	13	—
F	15	10	—
G	18	8.5	—
H	24	6.5	—
J	34	4.5	—
K	48	3.2	—
L	3.3	10	—
M	5	10	—
N	12	5	—
P	15	4	—
R	24	2.5	—
Y	± 5	3	7
W	±12	3.2	4.2
Z	±15	2.5	3.5
9	±24	1.6	2.5

OUTPUT			
CODE	VOLTAGE[V]	CURRENT1[A]	CURRENT2[A]
2A	2	60	—
2B	3.3	60	—
2C	5	60	—
2D	7.5	40	—
2E	12	25	—
2F	15	20	—
2G	18	17	—
2H	24	14	—
2J	34	10	—
2K	48	7	—
S	V1:+5 V2: +5	10 5	—
T	V1:+5 V2:+12	10 4.2	—
U	V1:+5 V2:+24	10 2.1	—
Q	±12	6.4	8
V	±15	5.5	7
I	INPUT MODULE Contact us for details.		

COSEL AC-DC Power Supplies DIN Rail Type

KH-Series



KH

Feature

DIN (35mm) rail type (Full function series)
Attachment available with DIN EN60715
TH35 (35×7.5mm) (Top hat shaped DIN rail)
Convection cooling
Wide operating ambient temperature (Derating is required)
2 types of I/O terminal (Euro style and barrier blocks style)
Overcurrent protection, overvoltage protection
-KHEA30F/60F/90F, KHNA30F/60F/90F
Low power consumption at no load
Complies with SEMI F-47 (Derating is required)
-KHEA120F/240F/480F, KHNA120F/240F/480F
Remote ON/OFF
Relay signal for checking output voltage
Complies with SEMI F-47

5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
KHEA30F/ KHNA30F	85-264VAC 1φ or 88-370VDC	5	5	22.5•75•90 (0.89•2.95•3.54)	165
		12	2.3		
		24	1.3		
KHEA60F/ KHNA60F	85-264VAC 1φ or 88-370VDC	12	4.5	32•90•90 (1.26•3.54•3.54)	270
		24	2.5		
KHEA90F/ KHNA90F	85-264VAC 1φ or 88-250VDC	12	6.8	50•90•90 (1.97•3.54•3.54)	405
		24	3.8		
KHEA120F/ KHNA120F	85-264VAC 1φ or 88-370VDC	24	5 (7.5)*	37•124•117 (1.46•4.88•4.61)	580
KHEA240F/ KHNA240F	85-264VAC 1φ or 88-350VDC	24	10 (15)*	50•124•117 (1.97•4.88•4.61)	900
KHEA480F/ KHNA480F	85-264VAC 1φ or 88-350VDC	24	20 (30)*	70•124•117 (2.76•4.88•4.61)	1200
		48	10 (15)*		

*Peak current.

Safety agency approvals

30-90F: <AC input>
UL60950-1, C-UL (CSA60950-1), EN60950-1, UL508 (NEC Class2 per UL1310)※, ANSI/ISA12.12.01, ATEX
Complies with DEN-AN
※90F: Only option -E
<DC input>
UL60950-1, C-UL(CSA60950-1), EN60950-1

EN62368-1 pending

120-480F: <AC input>
UL60950-1, C-UL (CSA60950-1), EN60950-1, UL508, ANSI/ISA12.12.01, GL (Except 480F-48), ATEX
Complies with DEN-AN
<DC input>
UL60950-1, C-UL (CSA60950-1), EN60950-1

EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B,VCCI-B

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

COSEL AC-DC Power Supplies DIN Rail Type

KL-Series



KL

Feature

DIN (35mm) rail type (Basic function series)
Attachment available with DIN EN60715
TH35 (35×7.5mm) (Top hat shaped DIN rail)
Convection cooling
Wide operating ambient temperature (Derating is required)
2 types of I/O terminal (Euro style and barrier blocks style)
Harmonic attenuator (Complies with IEC61000-3-2 Class A)
Overcurrent and overvoltage protection

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
KLEA120F/ KLNA120F	85-264VAC 1φ	24	5	38•124•117 (1.50•4.88•4.61)	580
		48	2.5		
KLEA240F/ KLNA240F	85-264VAC 1φ	24	10	50•124•117 (1.97•4.88•4.61)	750
		48	5		

Safety agency approvals

UL60950-1, UL508, C-UL (CSA60950-1), EN60950-1
Complies with DEN-AN
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL Redundancy Module DIN Rail Type

KR-Series



KR

Feature

DIN(35mm) rail type (Redundancy module)
Attachment available with DIN EN60715
TH 35 (35 x 7.5 mm) (Top hat shaped DIN rail)
Convection cooling
Wide operating ambient temperature (Derating is required)
LED signal for checking input voltage balance
Relay signal for checking input voltage

Safety agency approvals

UL60950-1, UL508, C-UL (CSA60950-1), EN60950-1
EN62368-1 pending

MODEL	INPUT VOLTAGE	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
KRE-20A	10-60VDC	20 (30)*	38•124•117 (1.50•4.88•4.61)	480
KRE-40A	10-30VDC	40 (60)*		610

*Peak current.

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

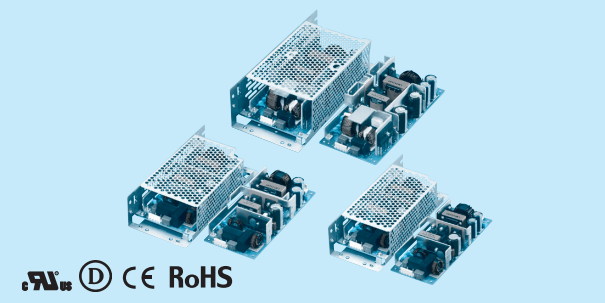
EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6

5-year warranty

COSEL AC-DC Power Supplies Medical Type

LMA-Series



MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
LMA100F	85-264VAC 1φ	24	4.3 (8.6)*		62•33•155 (2.44•1.30•6.10)	290
LMA150F	85-264VAC 1φ	24	6.3 (12.6)*		75•36.5•160 (2.95•1.44•6.30)	370
LMA240F	85-264VAC 1φ	24	Convection	10 (20)*	84•46•180 (3.31•1.81•7.09)	540
			Forced air	12.5 (20)*		

*Peak current (Optional: -H)

LMA

Feature

For medical applications
Internal dual fuses
Low leakage current
High power and peak power (Option)
Compact open frame type
Inrush current, overcurrent and overvoltage protection
Harmonic attenuator (Complies with IEC61000-3-2 class A)
Universal input (85-264VAC)
Power factor correction

Safety agency approvals

ANSI/AAMI ES60601, EN60601-1 3rd

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

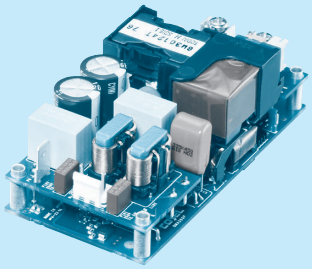
EMS Compliant : EN61204-3, EN61000-6-2
IEC60601-1-2 (2014), EN60601-1-2 (2015)

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Medical Type

GMA-Series



MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
GMA300F	85-264VAC 1φ	12	Forced air	25	50.8•37•101.6 (2.00•1.46•4.00)	230
		24	Forced air	12.5		

GMA

Feature

Maximum 300W
For medical applications (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
For type BF medical applications
(Output-FG : 1MOPP, Input-Output : 2MOPP)
2"X4"standard footprint
Remote ON/OFF (Option)
AUX1(12V 1A), AUX2(5V 1A) (Option)

Safety agency approvals

UL62368-1, ANSI/AAMI ES60601-1
C-UL (CSA62368-1, CAN/CSA60601-1)
EN62368-1, EN60601-1 3rd
Complies with IEC60601-1-2 4th Ed.

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR11-B, CISPR32-B, EN55011-B, EN55032-B, VCCI-B

EMS Compliance

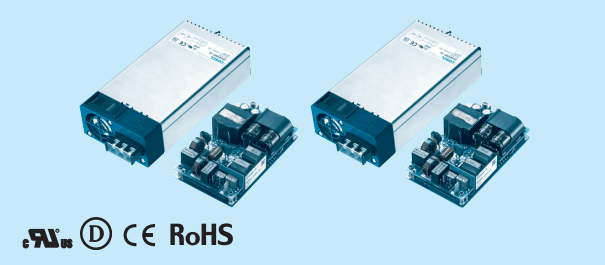
: EN61204-3, EN61000-6-2, IEC60601-1-2 (2014), EN60601-1-2 (2015)

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Medical Type

GHA-Series



GHA

Feature

Maximum 500W
Conduction cooling (GHA500F)
3"X5"standard footprint
Meets 1U high
For medical applications
Low leakage current
Remote ON/OFF (Option)
AUX1(12V 1A), AUX2(5V 1A) (Option)
Fan (Option: -SNF)

Safety agency approvals

UL60950-1, ANSI/AAMI ES60601-1, C-UL, EN60950-1, EN60601-1 3rd
Complies with DEN-AN
EN62368-1 pending

CE marking

Low Voltage Directive
RoHS Directive

EMI

Complies with FCC-B, CISPR11-B, CISPR22-B, EN55011-B,
EN55022-B, VCCI-B

EMS Compliance : EN61204-3, EN61000-6-2,
IEC60601-1-2 (2014), EN60601-1-2 (2015)

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

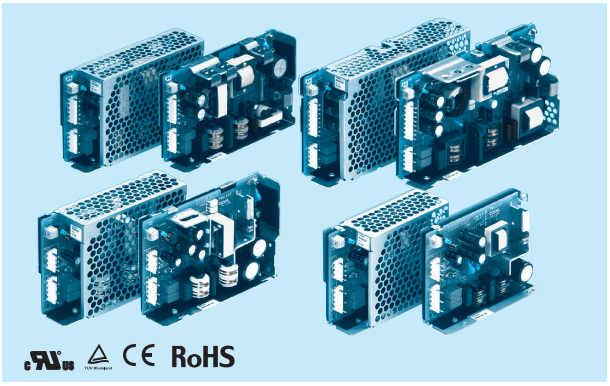
5-year warranty

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]		CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
GHA300F	90-264VAC 1φ	12	Forced air	25	76.2•35•127 (3.0•1.4•5.0)	400
			Convection	4.5		
		24	Forced air	12.5		
			Convection	2.2		
		48	Forced air	6.3		
			Convection	1.1		
GHA500F	90-264VAC 1φ	12	Forced air	41.7	76.2•35•127 (3.0•1.4•5.0)	420
			Convection	9.2		
			Conduction	16.7		
		15	Forced air	33.4		
			Convection	7.4		
			Conduction	13.4		
		24	Forced air	21		
			Convection	4.6		
			Conduction	8.4		
		30	Forced air	16.7		
			Convection	3.7		
			Conduction	6.7		
		48	Forced air	10.5		
			Convection	2.3		
			Conduction	4.2		
		56	Forced air	9.0		
			Convection	1.9		
			Conduction	3.6		
GHA300F-SNF	90-264VAC 1φ	12	25		85.2•41•165.3 (3.35•1.61•6.51)	620
		24	12.5			
		48	6.3			
GHA500F-SNF	90-264VAC 1φ	12	37.5		85.2•41•165.3 (3.35•1.61•6.51)	660
		15	33.4			
		24	21			
		30	16.7			
		48	10.5			
		56	9			

∗Derating is required. For details, please see cosel website. (https://en.cosel.co.jp).

COSEL AC-DC Power Supplies Medical Type

PMA-Series



PMA

Feature

For medical applications
Internal dual fuses
High efficiency by synchronous rectification technology (PMA60F, PMA100F)

Safety agency approvals

UL60601-1, C-UL (CSA-C22.2 No.601.1), EN60601-1

EMI

FCC-B, CISPR11-B, CISPR22-B, EN55011-B, EN55022-B, VCCI-B

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE [V]	OUTPUT CURRENT [A]	CASE SIZE W·H·D [mm] (inches)	WEIGHT [g]
PMA15F	85-264VAC 1φ	3.3	3	31•78•103 (1.22•3.07•4.06)	230
		5	3		
		12	1.3		
		15	1		
		24	0.7		
PMA30F	85-264VAC 1φ	3.3	6	31·82·120 (1.22•3.23•4.72)	240
		5	6		
		12	2.5		
		15	2		
		24	1.3		
PMA60F	85-264VAC 1φ	3.3	12	32·82·135 (1.26•3.23•5.31)	350
		5	12		
		12	5		
		15	4		
		24	2.5		
PMA100F	85-264VAC 1φ	3.3	20	34·93·168 (1.34•3.66•6.61)	560
		5	20		
		12	8.5		
		24	4.5		
		48	2.1		

CE marking

Low Voltage Directive
RoHS Directive

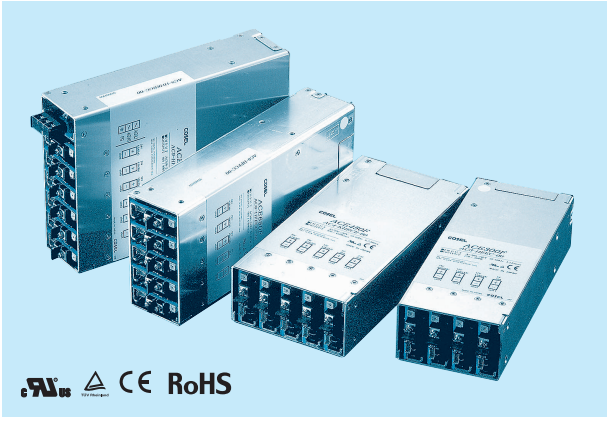
EMS Compliance: EN61204-3, EN61000-6-2

EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5 (Common mode Level4, Differential mode Level2)
EN61000-4-6
EN61000-4-8
EN61000-4-11

5-year warranty

COSEL AC-DC Power Supplies Medical Type

ACE-H-Series



ACE-H

ACE-H option is a configurable type power supply for medical use.

For more details, please refer to the specifications of ACE series.

Feature

Configurable type power supply
Remote ON/OFF control, alarm functions

Safety agency approvals

UL60950-1, C-UL (CSA60950-1), EN60950-1, EN62368-1, EN50178
Complies with DEN-AN
UL60601-1, C-UL (CSA601.1), EN60601-1 approvals (optional)

EMI

Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B

CE marking

Low Voltage Directive

EMS Compliance : EN61204-3, EN61000-6-2

IEC60601-1-2 (2014), EN60601-1-2 (2015)
EN61000-4-2
EN61000-4-3
EN61000-4-4
EN61000-4-5
EN61000-4-6
EN61000-4-8
EN61000-4-11

3-year warranty

COSEL EMI/EMC Filter Selection Guide by Type

Three phase EMI/EMC Filter

Rated current: 4A 6A 10A 20A 30A

RoHS

JAC Series (1-stage filter) — Compact and low profile / General-purpose
- Push down type terminal block
- Selectable leakage current specification
- 30A or less
- JAC Series 6A to 30A
- High attenuation for Low frequency band (150kHz to 1MHz)
- Option(-H) Ultra high attenuation type
- Option(-U) Improve differential mode attenuation (Three-phase 250V)
- DIN rail (Option) JAC Series 6A to 30A

TAC Series / TAH Series (1-stage filter) — Low-profile / General-purpose
- Push down type terminal block
- Selectable leakage current specification
- TAC/TAH Series for 30A or less
- TAC Series 4A to 30A
- High attenuation for Low frequency band (150kHz to 1MHz)
- TAH Series 4A to 30A
- Ultra high attenuation for ultra low frequency band (10kHz to 1MHz)
- DIN rail (Option) TAC Series TAH Series 4A to 30A

TBC Series (2-stage filter) — Low-profile / High-attenuation
- Selectable leakage current specification

FTA Series (1-stage filter) — Book type / General-purpose
- Selectable leakage current specification
- Ultra high attenuation for EU
- Option(-H) Ultra high attenuation type
- Option(-G) With switch of line to ground capacitor
- Option(-U) Improve differential mode attenuation (Three-phase 250V)
- Option(-L) Ultra high attenuation for EU
- 80A 100A 125A 150A Standard
- Option(-S) Hexagon socket head cap screws option

FTB Series (2-stage filter) — Book type / High-attenuation
- Selectable leakage current specification

FSB Series (2-stage filter) — Book type / Saturation resistance type
- Push down type terminal block
- Selectable leakage current specification
- 30A or less
- Option(-H) Ultra high attenuation type
- Option(-U) Improve differential mode attenuation (Three-phase 250V)
- FSB Series 10A to 30A
- EMI/EMC Filter for motor drive system. Improve saturation resistance.

Single phase EMI/EMC Filter

Rated current: 3A 4A 6A 10A 16A 20A 30A

RoHS

ES Series (1-stage filter) — Screwless type / Small size type
- Torque management unnecessary
- Selectable leakage current specification
- ESC Series 3A to 16A
- High attenuation for Low frequency band (150kHz to 1MHz)
- ESM Series 3A to 16A
- Low leakage current
- ESP Series 3A to 16A
- High-voltage pulses attenuation
- Installation compatible ①
- DIN rail (Option) ES Series

EA Series (1-stage filter) — Screw type / Small size type
- Push down type terminal block
- Selectable leakage current specification
- EAC Series 3A to 30A
- High attenuation for Low frequency band (150kHz to 1MHz)
- EAM Series 3A to 30A
- Low leakage current
- EAP Series 3A to 30A
- High-voltage pulses attenuation
- DIN rail (Option) EA Series

NA Series (1-stage filter) — Screw type / General-purpose
- Push down type terminal block
- Selectable leakage current specification
- NAC Series 4A to 30A
- High attenuation for Low frequency band (150kHz to 1MHz)
- NAM Series 4A to 30A
- Low leakage current
- NAP Series 4A to 30A
- High-voltage pulses high attenuation
- NAH Series 6A to 30A
- Ultra high attenuation for ultra low frequency band (10kHz to 1MHz)
- DIN rail (Option) NA Series

NB Series (2-stage filter) — Screw type / High-attenuation
- Push down type terminal block
- Selectable leakage current specification
- NBC Series 6A to 30A
- High attenuation for Low frequency band (150kHz to 1MHz)
- NBM Series 6A to 30A
- Low leakage current Withstand voltage 4KV
- Installation compatible ②
- NBH Series 6A to 30A
- Ultra high attenuation and broadband (10kHz to 10MHz)
- DIN rail (Option) NB Series

DC EMI/EMC Filter

Rated current: 1A 3A 6A 10A

RoHS

SNA Series / SNR Series (1-stage filter)

Ripple noise attenuation for switch mode power supplies

- SNA Series 1A/3A — For ±V output power supply
- SNA Series 6A — For ±V output power supply
- SNR Series 10A — For +V output power supply (Peak load)
- DIN rail (Option) SNA Series SNR Series
- Terminal block (Option) SNA(6A) SNR(10A)

40A 50A 60A | 80A 100A 125A | 150A | 200A 250A 300A | 400A 600A

RoHS

JAC Series for 40A or more

JAC Series 40A 50A 60A NEW

High attenuation for Low frequency band (150kHz to 1MHz)

TAC Series ※ → **TAH Series** 50A 60A

TAC Series ※ → **TAH Series** 80A 100A

TAC Series ※ → **TAH Series** 150A

TAC Series 200A to 300A

High attenuation for Low frequency band (150kHz to 1MHz)

Ultra high attenuation for ultra low frequency band (10kHz to 1MHz)

Option(-U)
Improve differential mode attenuation
TAC/TAH Series for 50A or more
(Three-phase 250V)

※Same external dimensions as TAH series

TBC Series 50A 60A

TBC Series 80A 100A

TBC Series 150A

TBC Series 200A to 300A

Ultra high attenuation for Low frequency band (150kHz to 1MHz)

2-stage filter

RoHS

TSC Series

multi-stage filter

TSC Series 400A 600A

Ultra high attenuation for star connection with neutral earthing

High attenuation for Low frequency band (150kHz to 1MHz)

FTA Series 40A 50A 60A

FTA Series 80A 100A 125A

FTA Series 150A

Ultra high attenuation for Low frequency band (150kHz to 1MHz)

FTB Series 80A 100A

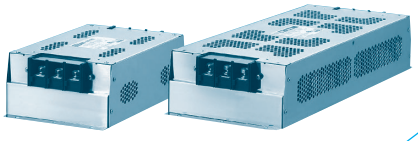
FTB Series 150A

EMI/EMC Filter for motor drive system. Improve saturation resistance.

FSB Series 40A 50A 60A NEW

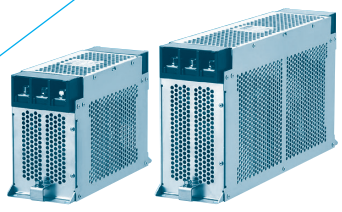
FSB Series 80A 100A NEW

FSB Series 150A NEW

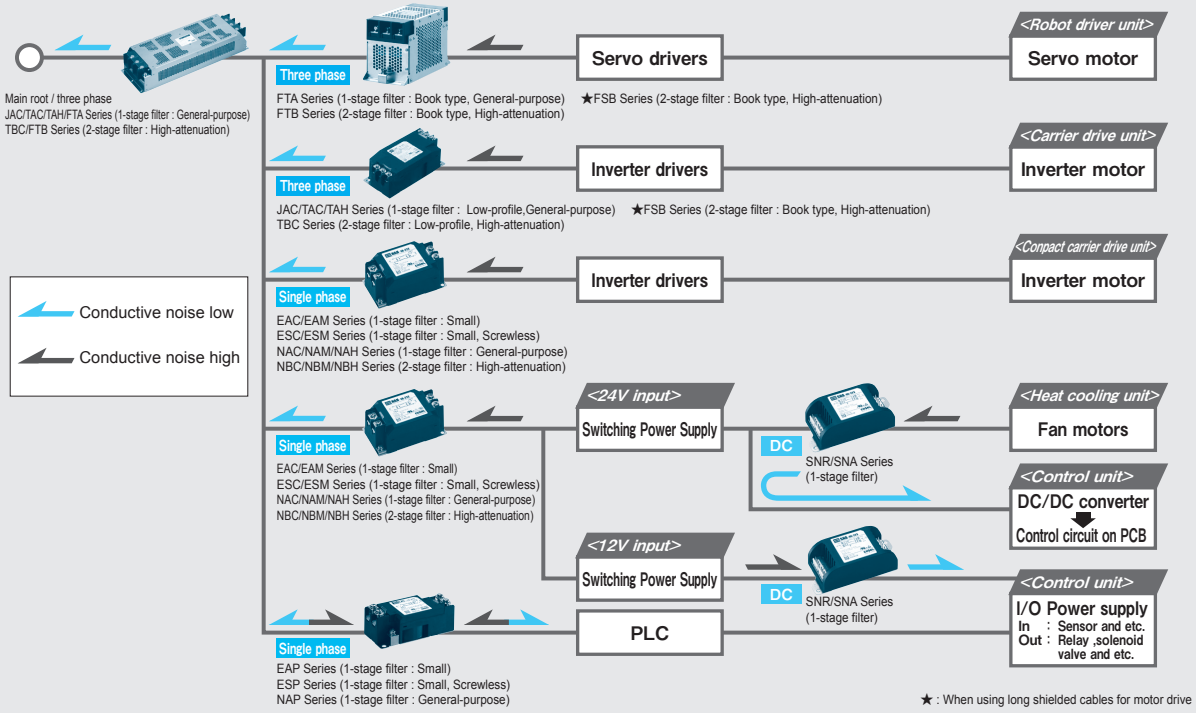


Low-profile

Book type



■Diagram of Sample application



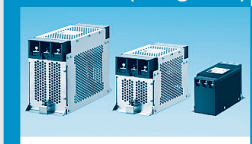
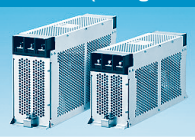
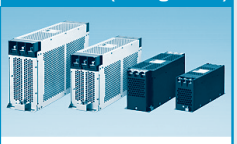
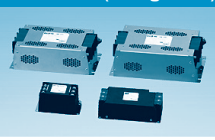
EMI/EMC Filter Selection Guide by Function

By using the flow chart below, you can easily select the model you need.

START

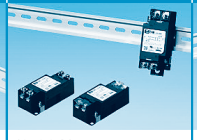
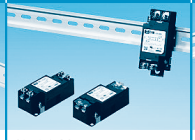
- For ripple noise attenuation for switch mode power supplies(DC line)
- For AC line
  - Three-phase input type ※Can also be used as single-phase input
  - Single-phase input type
    - Low-profile
      - Book type (Space-saving type)
        - High-attenuation (2-stage filter)
          - General-purpose (1-stage filter)
            - When using long motor cables (Over 10m)
            - When using normal length motor cables(10m or less)
        - High-attenuation (2-stage filter or more)
          - General-purpose (1-stage filter)
            - Compact-size
            - General-purpose
              - For ultra Low frequency band
              - For Low frequency band

Three-phase EMI/EMC filter

FTA series(1-stage filter)	FTB series(2-stage filter)	FSB series(2-stage filter)	TAC series(1-stage filter)	TAH series(1-stage filter)
				
(40-150A) EMI/EMC filters for anti-conducted emission of servomotor and device having inverter General-purpose from 150kHz to 1MHz	(80-150A) EMI/EMC filters for anti-conducted emission of servomotor and device having inverter High-attenuation from 150kHz to 1MHz	(10-150A) EMI/EMC filters for motor drive system Improve saturation resistance	(4-300A) EMI/EMC filters for anti-conducted emission of servomotor and device having inverter General-purpose from 150kHz to 1MHz	(4-150A) EMI/EMC filters for anti-conducted emission of servomotor and device having inverter General-purpose from 10kHz to 1MHz (Ultra low-frequency band)
■Option -H, -U, -G, -S(80-150A)	■Option -H, -L, -S	■Option -H, -U, -HU, -S(80-150A)	■Option -D(4-30A), -U(50-300A)	■Option -D(4-30A), -U(50-150A)
■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc	■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc	■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc	■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc	■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc

- For conduction noise attenuation
  - For high-voltage pulses attenuation
    - Small-size
      - General -purpose
      - Screwless type
      - Screw type
    - Medical equipment (Low leakage current type)
      - General-purpose
        - High-attenuation (2-stage filter)
          - General-purpose (1-stage filter)
            - Small-size
              - General-purpose
              - Screwless type
              - Screw type
            - For ultra Low frequency band
              - For Low frequency band

Single-phase EMI/EMC filter

NAP series(1-stage filter)	EAP series(1-stage filter)	ESP series(1-stage filter)	NAC series(1-stage filter)	NAH series(1-stage filter)(★)	EAC series(1-stage filter)	ESC series(1-stage filter)
						
(4-30A) EMI/EMC filters for anti-malfunction by external noise High-voltage pulses high-attenuation	(3-30A) EMI/EMC filters for anti-malfunction by external noise High-voltage pulses high-attenuation Small-size	(3-16A) EMI/EMC filters for anti-malfunction by external noise High-voltage pulses high-attenuation Small-size Screwless terminal type	(4-30A) EMI/EMC filters for anti-conducted emission General-purpose from 150kHz to 1MHz	(6-30A) EMI/EMC filters for anti-conducted emission General-purpose from 10kHz to 1MHz (Ultra low-frequency band)	(3-30A) EMI/EMC filters for anti-conducted emission General-purpose from 150kHz-1MHz Small-size	(3-16A) EMI/EMC filters for anti-conducted emission General-purpose from 150kHz-1MHz Small-size Screwless terminal type
■Option -D	■Option -D	■Option -D	■Option -D	■Option -D	■Option -D	■Option -D
■Use:PLC, industrial equipment with computer, etc	■Use:PLC, industrial equipment with computer, etc	■Use:PLC, industrial equipment with computer, etc	■Use:Using multiple switching power supplies, single phase inverter, etc	■Use:Using multiple switching power supplies, single phase inverter, robot with servo motor, medical equipment, etc	■Use:Using multiple switching power supplies, single phase inverter, etc	■Use:Using multiple switching power supplies, single phase inverter, etc

■Option
-D : DIN rail installation type
-H : Ultra high attenuation type
-U : Improve differential mode attenuation (Rated voltage 250V)
-L : Ultra high attenuation type for EU
-G : With switch of line to ground capacitor
-S : Hexagon socket head cap screw (Standard type is Hexagon head screw)
-T : Terminal block type

→ Rated current 400A or more
↓ Rated current less than 400A

→ For +V output power supply (Peak load)
↓ For ±V output power supply
※Can also be used for +V output power supply

JAC series(1-stage filter)

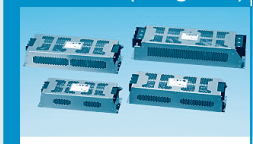


(6-60A)
EMI/EMC filters for anti-conducted emission of servomotor and device having inverter
General-purpose from 150kHz to 1MHz
Compact-size

■Option
-D (6-30A) , -H, -U

■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc

TBC series(2-stage filter)



(50-300A)
EMI/EMC filters for anti-conducted emission of servomotor and device having inverter
High-attenuation from 150kHz to 1MHz

■Option
—

■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc

TSC series(multi-stage filter)



(400, 600A)
Ultra high-attenuation for star connection with neutral earthing

■Option ※1
—

■Use:Robot with inverter or servomotor, Welding machine, Elevator, Medical equipment, etc

SNA series(1-stage filter)



(1, 3, 6A)
Ripple noise attenuation for switch mode power supplies
(DC±50V)

■Option
-D, -T(6A), -DT(6A)

■Use:DC EMI/EMC filter for ±V output power supply of analog circuit (Operational amplifier etc.)

SNR series(1-stage filter)



(10A)
Ripple noise attenuation for switch mode power supplies
(DC+50V)

■Option
-D, -T, -DT

■Use:DC EMI/EMC filter for +V output power supply of analog circuit

DC EMI/EMC filter

※1 Please contact us about low leakage current type (Change to low grounding capacitor)

→ High-attenuation (2-stage filter)
↓ General-purpose (1-stage filter)
→ Small-size
↓ General-purpose
→ For ultra Low frequency band
NAH series(★)
↓ For Low frequency band
→ Screwless type
↓ Screw type

→ For Broadband
↓ For Low frequency band

→ For Broadband
NBH series(◆)
↓ For Low frequency band

NBC series(2-stage filter)



(6-30A)
EMI/EMC filters for anti-conducted emission
High-attenuation from 150kHz to 1MHz

■Option
-D

■Use:Using multiple switching power supplies, single phase inverter, etc

NBH series(2-stage filter◆)



(6-30A)
EMI/EMC filters for anti-conducted emission
Ultra high-attenuation and broadband from 10kHz to 10MHz
※Including 4kV withstand voltage model(Medical equipment)

■Option
-D

■Use:Using multiple switching power supplies, single phase inverter, robot with servo motor, medical equipment, etc

NAM series(1-stage filter)

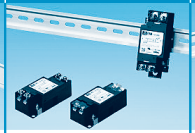


(4-30A)
EMI/EMC filters for medical applications
Low leakage current type
General-purpose from 150kHz to 1MHz

■Option
-D

■Use:A case when using multiple switching power supplies, or for medical applications like endoscope, etc

EAM series(1-stage filter)



(3-30A)
EMI/EMC filters for medical applications
Low leakage current type
General-purpose from 150kHz to 1MHz
Small-size

■Option
-D

■Use:A case when using multiple switching power supplies, or for medical applications like endoscope, etc

ESM series(1-stage filter)

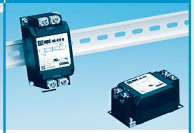


(3-16A)
EMI/EMC filters for medical applications
Low leakage current type
General-purpose from 150kHz to 1MHz
Small-size Screwless terminal type

■Option
-D

■Use:A case when using multiple switching power supplies, or for medical applications like endoscope, etc

NBM series(2-stage filter)



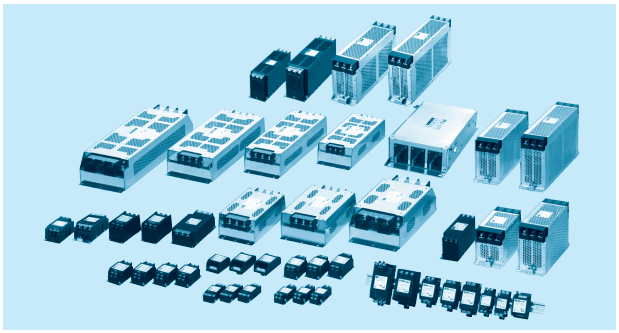
(6-30A)
EMI/EMC filters for medical applications
Low leakage current type
General-purpose from 150kHz to 1MHz with stand voltage 4kV

■Option
-D

■Use:A case when using multiple switching power supplies, or for medical applications like endoscope, etc

EMI/EMC Filter

5-year Warranty



Line-up

■ Single phase type

	Rated voltage	Series	Rated current [A] 3	4	6	10	16	20	30	Released year	Main feature
1-stage	AC250V	EAC	●	–	●	●	●	●	●	'10	Small, attenuation (150kHz-1MHz), DIN rail installation (Optional)
	AC250V	EAM	●	–	●	●	●	●	●	'10	Small, Low leakage current, DIN rail installation (Optional)
	AC250V	EAP	●	–	●	●	●	●	●	'10	Small, High-voltage pulses attenuation, DIN rail installation (Optional)
	AC250V	ESC	●	–	●	●	●	–	–	'10	Small,attenuation(150kHz-1MHz), Screwless terminal type,DIN rail installation (Optional)
	AC250V	ESM	●	–	●	●	●	–	–	'10	Small,Low leakage current, Screwless terminal type,DIN rail installation (Optional)
	AC250V	ESP	●	–	●	●	●	–	–	'10	Small,High-voltage pulses attenuation, Screwless terminal type,DIN rail installation (Optional)
	AC250V	NAC	–	●	●	●	●	●	●	'05	General-purpose High-attenuation (150kHz-1MHz), DIN rail installation (Optional)
	AC250V	NAM	–	●	●	●	●	●	●	'05	Low leakage current, DIN rail installation (Optional)
	AC250V	NAH	–	–	●	●	●	●	●	'05	Ultra high-attenuation (10kHz-1MHz), DIN rail installation (Optional)
	AC250V	NAP	–	●	●	●	●	●	●	'05	High-voltage pulses high-attenuation, DIN rail installation (Optional)
2-stage	AC250V	NBH	–	–	●	●	●	●	●	'07	Ultra high-attenuation and broadband (10kHz-10MHz), DIN rail installation (Optional)
	AC250V	NBC	–	–	●	●	●	●	●	'07	High-attenuation (150kHz-1MHz), DIN rail installation (Optional)
	AC250V	NBM	–	–	●	●	●	●	●	'07	Low leakage current, Withstand voltage 4KVAC, DIN rail installation (Optional)

■ Three phase type

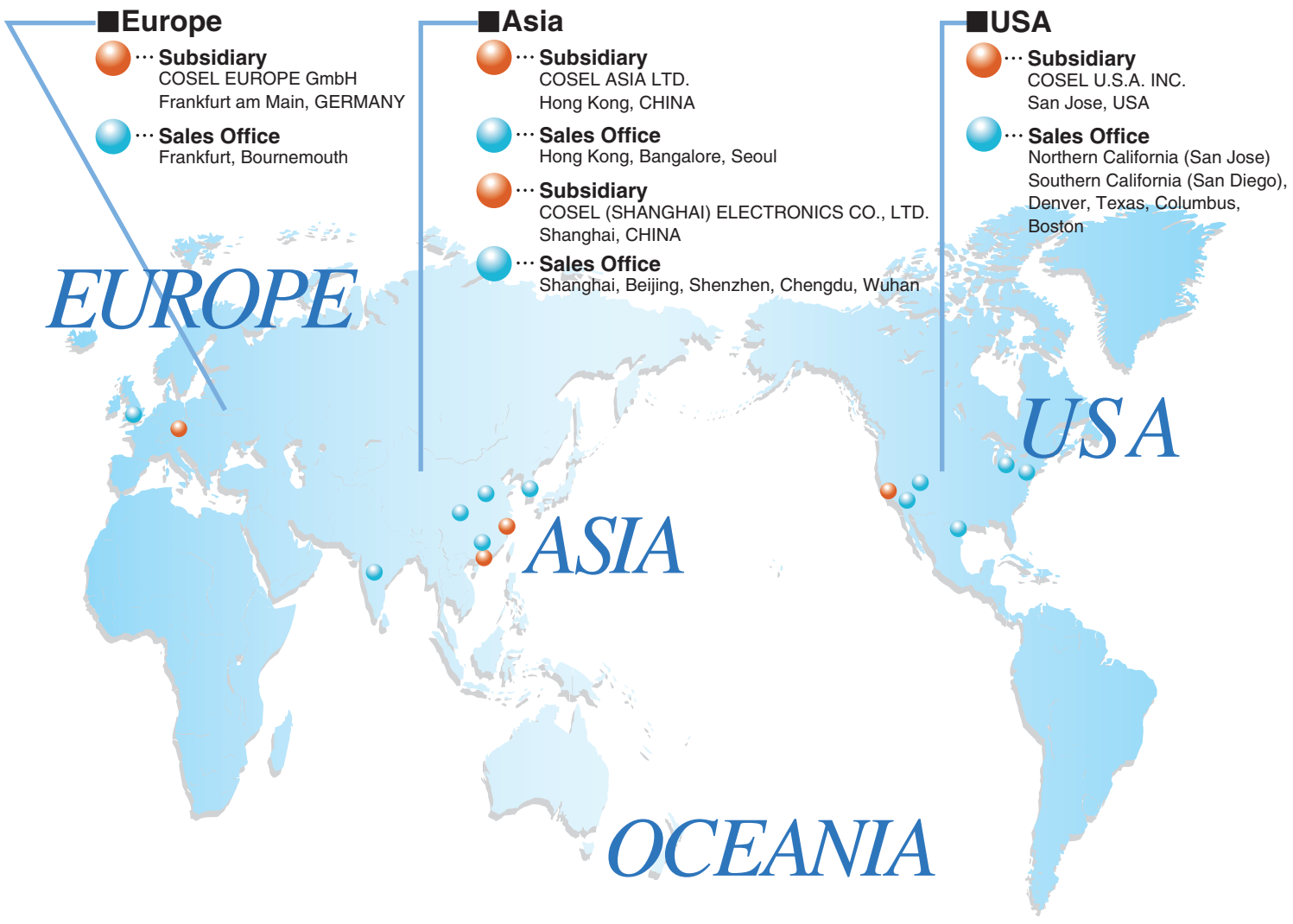
	Rated voltage	Series	Rated current [A] 4	6	10	20	30	40	50	60	80	100	125	150	200	250	300	400	600	Released year	Main feature
1-stage	AC500V	JAC	–	●	●	●	●	–	–	–	–	–	–	–	–	–	–	–	–	'14	Compact and low profile General-purpose High-attenuation (150kHz-1MHz), Ultra high-attenuation(optional) DIN rail installation (Optional)
	AC500V	JAC	–	–	–	–	–	●	●	●	–	–	–	–	–	–	–	–	–	NEW '19	Compact and low profile General-purpose High-attenuation (150kHz-1MHz), Ultra high-attenuation(optional) Input voltage range 528VAC max
	AC500V	TAC	●	●	●	●	●	–	–	–	–	–	–	–	–	–	–	–	–	'05	General-purpose High-attenuation (150kHz-1MHz), DIN rail installation (Optional)
	AC500V	TAH	●	●	●	●	●	–	–	–	–	–	–	–	–	–	–	–	–	'05	Ultra high-attenuation (10kHz-1MHz), DIN rail installation (Optional)
	AC500V	TAC	–	–	–	–	–	–	●	●	●	●	–	●	–	–	–	–	–	'08	General-purpose High-attenuation (150kHz-1MHz), Input voltage range 528VAC max
	AC500V	TAH	–	–	–	–	–	–	●	●	●	●	–	●	–	–	–	–	–	'16	Ultra high-attenuation(10kHz-1MHz), Input voltage range 528VAC max
	AC500V	TAC	–	–	–	–	–	–	–	–	–	–	–	–	●	●	●	–	–	'09	General-purpose High-attenuation (150kHz-1MHz), Input voltage range 528VAC max
	AC500V	FTA	–	–	–	–	–	●	●	●	–	–	–	–	–	–	–	–	–	'13	General-purpose High-attenuation (150kHz-1MHz), For Europe high-attenuation, Ultra high-attenuation(Optional) With switch of line to ground capacitor (Optional)
	AC500V	FTA	–	–	–	–	–	–	–	–	●	●	●	●	–	–	–	–	–	'11	General-purpose High-attenuation (150kHz-1MHz), For Europe high-attenuation, Ultra high-attenuation(Optional)
2-stage	AC500V	TBC	–	–	–	–	–	–	●	●	●	●	–	●	–	–	–	–	–	'08	High-attenuation (150kHz-1MHz), Input voltage range 528VAC max
	AC500V	TBC	–	–	–	–	–	–	–	–	–	–	–	–	●	●	●	–	–	'09	High-attenuation (150kHz-1MHz), Input voltage range 528VAC max
	AC500V	FTB	–	–	–	–	–	–	–	–	●	●	–	●	–	–	–	–	–	'11	High-attenuation(150kHz-1MHz), Ultra high-attenuation(Optional)
	AC500V	FSB	–	–	●	●	●	–	–	–	–	–	–	–	–	–	–	–	–	'16	EMI/EMC Filter for motor drive system. Improve saturation resistance.
	AC500V	FSB	–	–	–	–	–	●	●	●	–	–	–	–	–	–	–	–	–	NEW '18	EMI/EMC Filter for motor drive system. Improve saturation resistance.
	AC500V	FSB	–	–	–	–	–	–	–	–	●	●	–	●	–	–	–	–	–	NEW '17	EMI/EMC Filter for motor drive system. Improve saturation resistance.
multi-stage	AC500V	TSC	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	●	'13	Ultra high attenuation for star connection with neutral earthing, Input voltage range 528VAC max

■ DC type

	Rated voltage	Series	Rated current [A] 1	3	6	10	Released year	Main feature
1-stage	DC±50V	SNA	●	●	●	–	'05	Ripple noise attenuation for switch mode power supplies (±Vin), DIN rail installation (Optional)
	DC50V	SNR	–	–	–	●	'07	Ripple noise attenuation for switch mode power supplies (+Vin), Peak load, DIN rail installation (Optional)

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For additional information, please visit Cosel website.

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〔POWER SUPPLIES〕
〔EMI FILTERS〕

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