

# ARCH NEW PRODUCTS & SUCCESSFUL CASE

2020/September – DB Lectro



# Agenda



62368 updates overview



8 NEW AC-DC encapsulated series introduction



NEW AC-DC SWITCHING POWER 240W & 500W



New DC-DC converter 5 ~ 60W



Successful cases

# EN62368 Update Overview

Version 2020/07

Status	Wattage (W)	Series	62368	Household 60335	Medical 60601
Current	4	AOC	5, 12, 15, 24		
Current	4	AOCH	5, 12, 15, 24		
NEW	5	AHCH05	V	Meet	
NEW	5	AOCH05	V	V	
Current	7	AUC	V		
NEW	10	AHCH10	V	Meet	
NEW	10	AOCH10	V	V	
Current	10	AFCN	V		
Current	10	AOD10	V	V	
Current	15	AVC	V		
Current	20	AFC20	V		
Current	20	AFC20N	V		
Current	20	AKC	V		
NEW	25	AFCH25	V	V	
Current	30	ATC30	V		
NEW	30	ATCH30	V	V	
Current	40	AJC	V		
Current	50	ANC50	V		
NEW	50	ANCH50	V	V	
NEW	60	ARC60	V	V	

Status	Wattage (W)	Series	62368	Household 60335	Medical 60601
Current	100	AQC100	V		
Current	100	MQC100	V		V
Current	150	MQC150	V		V
Current	240	MQF240O	12, 24, 48		V
Current	240	MQF240U	12, 24, 48		V
Current	240	MQF240E	12, 24, 48		V
Current	500	MQF500O	12, 24, 48		V
Current	500	MQF500U	12, 24, 48		V
Current	500	MQF500E	12, 24, 48		V
Current	60	SZA60O	V		
Current	60	SZA60U	V		
Current	100~120	AQF100O	V		
Current	120~180	AQF120O	V		
Current	120~180	AQF120U	V		
Current	120~180	AQF120E	V		
NEW	240	ARF240	V		Meet
Current	240	AQF240U	12, 24, 32, 48		
Current	240	AQF240E	12, 24, 32, 48		
NEW	500	ARF500	V		Meet
Current	700	AQF700	V		

62368 certified

Blank & V = Yes, all output updating

(AIC removed)

# AC/DC **NEW** ITE Module



- Power output: 5- 60W
- Universal input range 90 ~ 305 VAC
- I/O Isolation: 4K VAC
- Wide operating temp.: -40°C ~85°C
- CE, UL, CB approved( **Household 60335/IEC62368**)
- **EMC Compliant without External Components**
- 3-Year Product Warranty

# 8 Focusing New AC-DC Model

Output	Model	Operating Temperature	Safety		Input	Isolation
			EN62368	EN60335 (Household)		
5W	AHCH05	-40°C~+85°C (Wide) <b>NEW</b>	YES	MEET	90~305	4K
10W	AHCH10		YES	MEET		
30W	ATCH30		YES	YES		
60W	ARC60		YES	YES	90~264	
5W	AOCH05	-40°C~+70°C (Standard)	YES	YES	90~305	4K
10W	AOCH10		YES	YES		
25W	AFCH25		YES	YES		
50W	ANCH50		YES	YES		

- For Wide temperature requirement please choose the models in Blue

# 8 Focusing New AC-DC Model

Series	Output	Type of Output	PRICE (USD) 62368						
	(Watt)		Under 14	15+	50+	100+	500+	1K+	3K
AOCH05	5	Single	6.39	5.81	5.28	4.80	4.36	3.97	3.78
AHCH05	5	Single	8.25	7.50	6.82	6.20	5.64	5.12	4.88
AOCH10	10	Single	7.70	7.00	6.36	5.78	5.26	4.78	4.55
AHCH10	10	Single	9.56	8.69	7.90	7.18	6.53	5.94	5.65
AFCH25	25	Single	10.48	9.53	8.66	7.88	7.16	6.51	6.20
ATCH30	30	Single	14.43	13.12	11.92	10.84	9.85	8.96	8.53
ANCH50	50	Single	16.02	14.56	13.24	12.03	10.94	9.94	9.47
ARC60	60	Single	19.75	17.95	16.32	14.84	13.49	12.26	11.68

# Product Advantage of ARCH

Higher Efficiency

Compact Size

Higher Power Density

4K Isolation

Wider Input

60W

Brand	Model	Watt	Efficiency @ 12V	Measurement mm	Cubic mm	Power Density Watt / cubic inch	Ratio	No-load	Isolation	input range
ARCH	ARC60	60	90%	74.1*46.0*22.5	76,694	12.82	100%	<0.1W	4KVAC	90~264
ARCH	MSC60	60	88%	88.9*67*27	160,820	6.11	209%	<0.3W	4KVAC	90~264
C company	CFMXXX	60	88%	54.25*54.25*35.8	105,361	9.33	137%	<0.15W	3KVAC	90~264
M company	IRXXX	60	87.5%	87*52*29.5	133,458	7.37	173%	<0.1W	3KVAC	90~264
MO company	LH6XXXXX	60	86%	109*58.5*30	191,295	5.14	249%	>0.3W	4KVAC	90~264
MI company	AZXXX	60	82%	88.9*67.5*34.2	205,225	4.8	267%	>0.3~0.5W	3KVAC	90~264

50W

Brand	Model	Watt	Efficiency @ 12V	Measurement mm	Cubic mm	Power Density Watt / cubic inch	Ratio	No-load	Isolation	input range
ARCH	ANCH50	50	90%	74.5*54.1*21.8	87,864	9.32	100%	<0.1W	4KVAC	90~305
M company	IRXXX	45	88%	87*52*29.5	133,458	5.52	168%	<0.1W	3KVAC	90~264

30W

Brand	Model	Watt	Efficiency @ 12V	Measurement mm	Cubic mm	Power Density Watt / cubic inch	Ratio	No-load	Isolation	input range
ARCH	ATC30	30	89%	64*45*21.7	62,496	7.87	100%	<0.1W	4KVAC	90~305
M company	IRXXX	30	88%	69.5*39*24	65,052	7.55	104%	<0.1W	3KVAC	90~264

25W

Brand	Model	Watt	Efficiency @ 12V	Measurement mm	Cubic mm	Power Density Watt / cubic inch	Ratio	No-load	Isolation	input range
ARCH	AFCH25	25	88%	52.5*27.2*23.5	33,558	12.2	100%	<0.1W	4KVAC	90~305
C company	CFMXXX	25	84%	53.1*30.3*24.8	39,901	10.3	118%	<0.1W	3KVAC	90~264
M company	IRXXX	20	84%	52.4*27.2*24	34,206	9.58	127%	<0.1W	3KVAC	90~264

Power Density: take ARC60 as 100%, each cubic inch ARC60 will be able to provide more power. For instance compare to M company ratio is 173%, if ARC60 size change to M company's size, ARC60 will be able to provide  $60 \times 173\% = 103.8W$  of power

# New Switching Power

## New Available – ARF Series

**NEW**

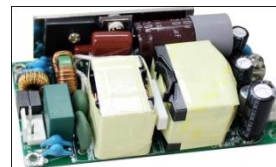
Model No.	Output Power	Air convection	Dimension (mm)	Output (V)
ARF240U	240	AC110V 50°C 210W AC230V 50°C 240W	104.0 x 62.0 x 39.2 mm	12,24,48
ARF500U	500	AC115V 50°C 250W AC230V 50°C 330W	139.7 x 82.55 x 42.1 mm	12,24,48

- ARF series improve the output under Air Convection
- And ARF is more compact
- Open/ U bracket / Enclosed type for options

[Click for Datasheet- ARF240](#)



[Click for Datasheet- ARF500](#)





# ARF2400/U/E- 240W AC-DC Switching PSU

No Fan 240W max



## ARF240 series

++ Natural Convection 240W max.

++ Full load @ -20 °C ~ +65 °C

++ Efficiency 92.5% ~ 94%



Brand/Model	ARCH	ARCH	M company	MO company
	ARF240U	ARF240O	RPS-2XX	LM200-XXX
Natural convection	<b>240W</b> <b>115-264 VAC</b>	170W 115-264 VAC	140W 115-264 VAC	200W 176-264 VAC
Forced air cooling	<b>240W</b>	<b>240W</b>	200W	200W
Conduction cooling	<b>Full load 240W at 65C</b>	Full load 170W at 50C	Full load 140W at 45C or 50C	Full load 140W at 40C or 50C
Efficiency	<b>92.5% ~ 94%</b>	92.5% ~ 94%	93% ~95%	87% ~89.5%
Measurement (mm)	<b>104.0 x 62.0 x 39.2</b>	102.0 x 52.0 x 27.6	103.4*62*40	179.00 x 99.00 x 30.00

# ARF500U/E- 500W AC-DC Switching PSU

## Best Value 500W



### ARF500 series

- ++ Natural Convection 330W max.
- ++ Conduction 400W max.
- ++ 30 CFM Fan 500W max.



Brand/Model	ARCH ARF500U	M company RPS500	P company TAH450	X company PBR500
Forced air cooling AC 100-240V	<b>500W</b>	500W	450W	500W
Natural convection AC230V 50°C	<b>330W</b>	300W	12/15V 250W 24/48V 320W	400W
Conduction cooling AC230V 50°C	<b>450W</b>	N/A	12/15V 280W 24/48V 350W	n/a
Operating Temperature	<b>-30 ~ +80°C</b>	-30 ~ +70°C	-40 ~ +85°C	-10 ~ +70°C
Price range	<b>\$48</b>	\$50	\$129	\$125

# AC-DC SWITCHING POWER 240 & 500W

Series	Output	Type of Output	PRICE (USD)						
	(Watt)		Under 14	15+	50+	100+	500+	1K+	3K
ARF240O	240	Open Frame	34.84	33.18	31.60	30.09	28.66	27.30	26.00
ARF240U	240	U Bracket	40.16	38.24	36.42	34.69	33.04	31.46	29.97
ARF240E	240	Enclosed	41.04	39.09	37.23	35.46	33.77	32.16	30.63
ARF500U	500	U Bracket	61.28	58.37	55.59	52.94	50.42	48.02	45.73
ARF500E	500	Enclosed	69.87	66.54	63.37	60.36	57.48	54.74	52.14

# SW20F – New Most Competitive 20W DC-DC

## SW20F Series



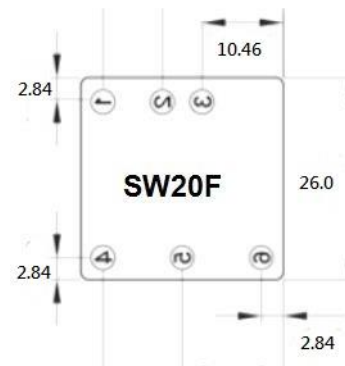
- ++ Pin to Pin with MW SKMW20
- ++ More competitive offer
- + Compact size: 26 X 26 X11.3 mm, (1" x 1" Footprint )
- + 4:1 Wide Input Range
- + Wide Working temperature -40C~+85C
- + Meet UL/IEC/EN 62368-1 & 60950
- + 3 years warranty



Efficiency	3.3V	5V	12V	15V	24V	Isolation
Arch SW20F	-	89%	90%	88.50%	90%	2.25K
SKMW20	87%	87%	89%	88%	-	1.5K



- Pin to Pin with M company SKMW20F/G
- SKMW20 price range: ±\$14 ~ \$15



Click for Datasheet



# ST50F – New Most Competitive 50W DC-DC

## DC-DC Convertor - 50W

### ST50F Series



++ Pin to Pin with MW SKM50

++ More competitive offer

+ Compact size: 51 X 25.5 X12 mm  
(1" X 2" Foot print)

+ 4:1 Wide Input Range: 9-36 & 18-75VDC

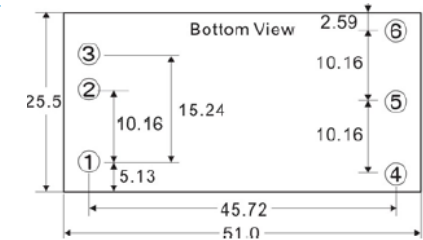
+ Wide Working temperature: -40°C +80 °C

+ Meet UL/IEC/EN 62368-1 & 60950

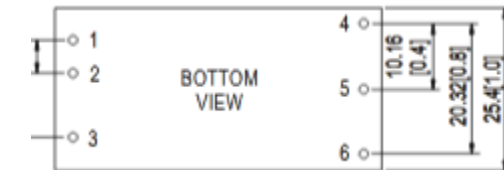
+ 3 years warranty



ST50F



SKM50



	Work. Temp	Isolation	Dimension
Arch ST50F	-40~+80C	2.25K	51.0 x 25.5x 12.0 mm
SKM50	-40~+75C	1.5K	50.8 x 25.4 x 13.7 mm



	Input	Output	Warranty	
Arch ST50F	4:1	24V 9~36 VDC	5, 12, 15, 24	3 yrs
		48V 18~75 VDC		
SKM50	2:1	24V 18~36 VDC	5, 12, 15	2 yrs
		48V 36~75 VDC		



Click for Datasheet

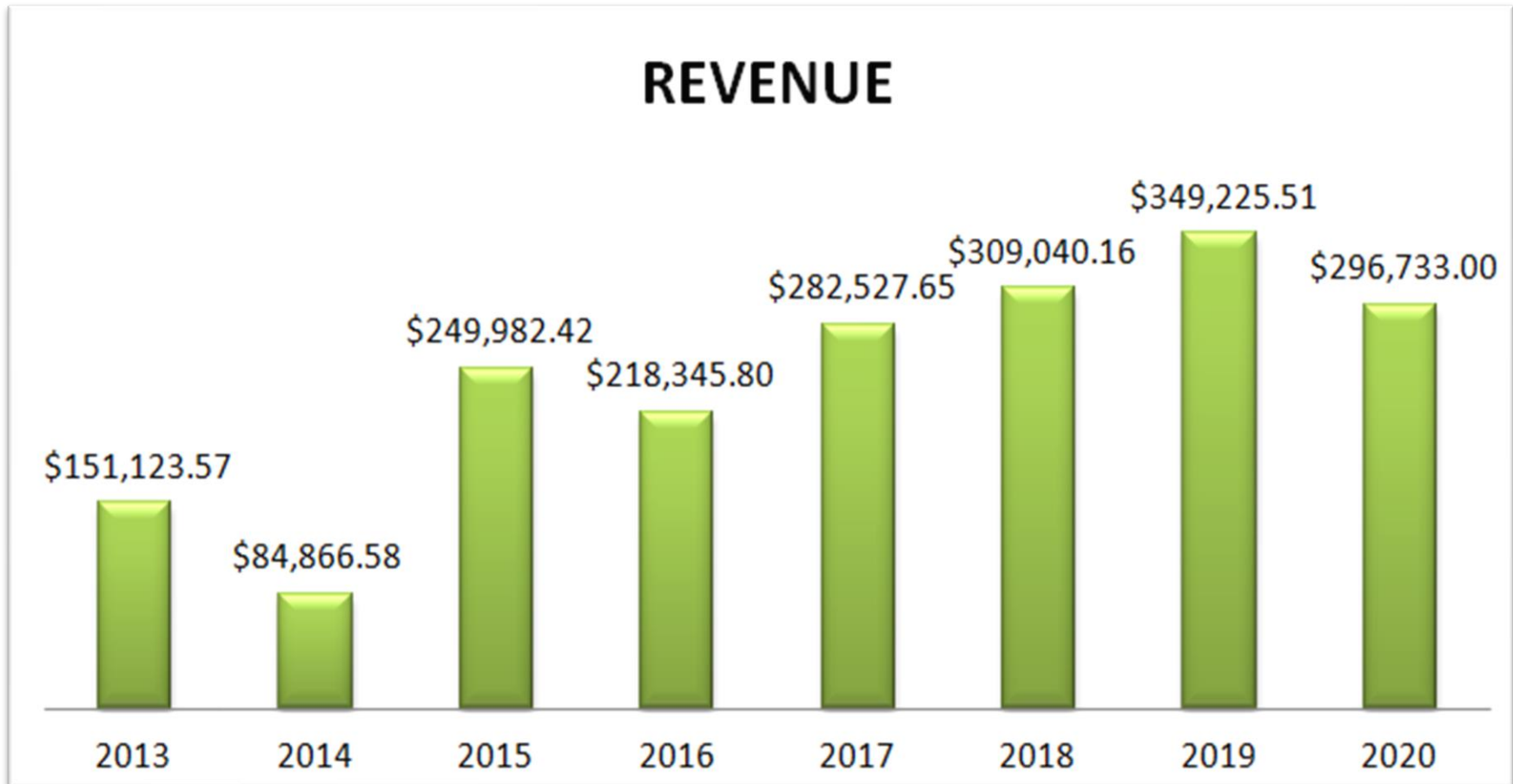


ST50F

# DC-DC product line

Series	Output	Type of		PRICE (USD)						
	(Watt)	Input	Output	Under 14	15+	50+	100+	500+	1K+	3K
ZC05	5	4:1	Single	6.31	6.07	5.84	5.61	5.40	5.19	5.03
			Dual	7.13	6.79	6.47	6.16	5.87	5.59	5.48
ZB15	15	2:1	Single	10.04	9.65	9.28	8.92	8.58	8.25	7.84
			Dual	11.49	11.04	10.62	10.21	9.82	9.44	8.97
SW20F	20	4:1	Single	14.38	13.69	13.04	12.42	11.83	11.26	10.73
ST50F	50	4:1	Single	25.14	23.94	22.80	21.72	20.68	19.70	17.91
ST60	60	4:1	Single	26.99	25.71	24.48	23.32	22.21	21.15	20.14

## 2013 ~2020 revenue



# Q & A

## ● May we follow the current project status

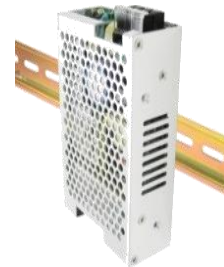
ARCH P/N	Selling qty	selling qty	Latest status
	2019	2020	
AQF240U-24S- VKI coffee machine	8,000	2,000	Any feedback from VKI?
AOCH05-5S-GROZONE	10,000	55,000	2021 year, is it possible to work on backlog order 50K to have better price at USD3.36 (two shipment) what we offered 3.42 /20K previous

- Free samples – 3 times ( allowance USD300)
- MDF rewards:USD3,492.26
- Promote new products to exist / Prospective customer:  
VKI – ARF240/500 & MQF240/500 promotion  
I control/ Jyga → new modules 5-60W

Features are better/ size smaller/ cost effective on whole new products.  
e.g. : AQF240U at USD40 → ARF240U at USD31.46



# Successful case



# Successful Case



Transportation  
AC-DC ITE Power Module

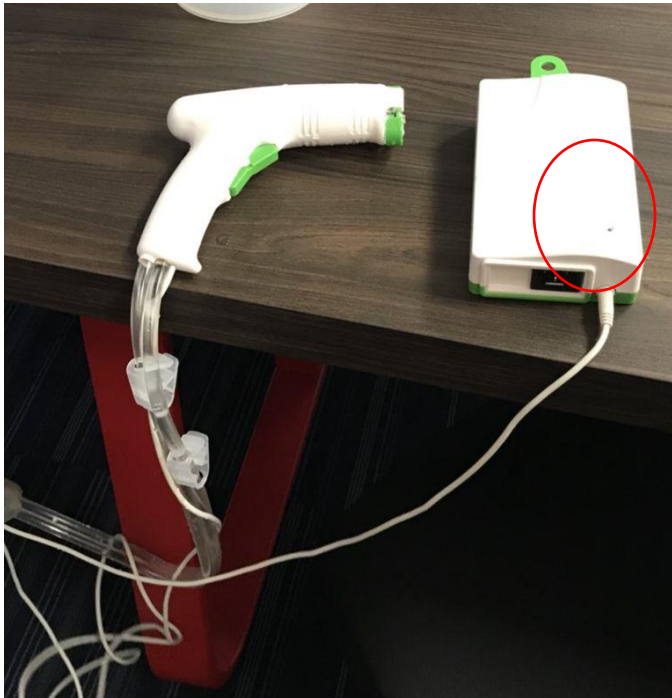


## AHCH10/AFCH25

## Electrical Vehicle Charger

Charging station

# Successful Case



Medical Device  
AC-DC Medical Power Module

EN60601

## MSC-9S (40W)

# Wound Cleaner

MSC-9S installed in the external device of this wound cleaner. The tube and the cable are disposable

# Successful Case



Industry /Household  
AC-DC ITE Power Module

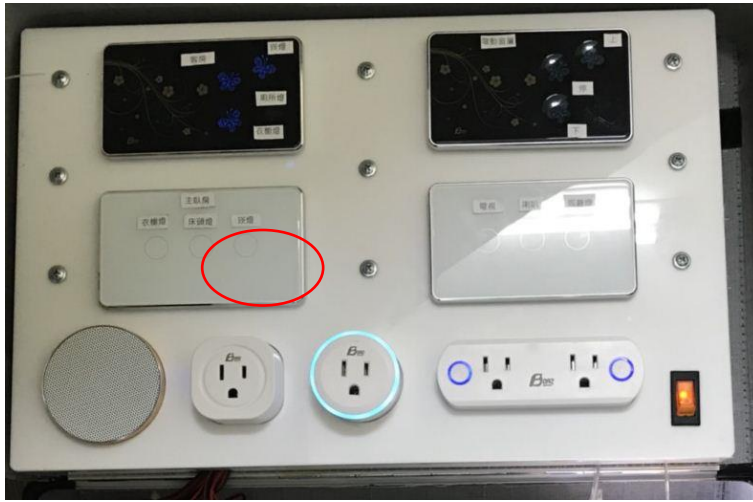
**AYC-5S (2W)**

## Industrial Air Cleaner

AYC-5S is mounted on the control board of the air cleaner



# Successful Case



Industry /Household  
AC-DC ITE Power Module

EN60335

## AOCH10-12S (10W) Smart Home Controller

AOCH10 is install behind the control and in the wall

AOCH10 is dual certified with ITE 62368 and household 60335

# Successful Case



**ATC-5S (10W)/ ATC30-5S**

**Display in Railway Transportation**

**Transportation**  
AC-DC ITE Power Module



**AQF240U-24**

**Railway User Information**

**Transportation**  
AC-DC Switching Power Module

# Successful Case



MSC40, MSC60

## Rehabilitation Machine

Medical Device  
AC-DC Medical Power Module



MQF120E



MQF240U

## Chest Percussion Device

Medical Device  
AC-DC Medical Switching Power

# Successful Case



**AQF5000**



**MQF5000E**

**Medical Device**  
AC-DC Medical Switching Power

## Automated Blood Analysis Device



**AQF240E-12S-DRK**

**Semiconductor**  
AC-DC ITE Switching Power

## Wafer Automated Testing Machine



# Successful Case



Household Electronics Appliance  
AC-DC ITE Power Module



**AFCN-12S (10W)**

**High-End Dishwasher**



Lighting Industry  
AC-DC ITE Power Module



**AKC-15S (20W)**

**Security Light Monitoring Relay Switch**

# Successful Case



**ATC-12S (10W)**

**Control Board of Elevator**

**Construction Industry**  
AC-DC ITE Power Module



**ALC-5S (8W)**



**AIC-5S (3W)**

**Automatic Feeding System**

**Biotech Industry**  
AC-DC ITE Power Module

**THANK YOU**

