

# DIN Series

## 10~96W Miniature Single Output



### Features

- Universal AC input / Full range
- Installed on DIN rail TS-35 / 7.5 or 15
- Protections: Short circuit / Overload / Over voltage
- No load power consumption <0.75W (<1W for MDR-100)
- LED indicator for power on
- **Built-in active PFC and over temp. protection (MDR-100)**
- **Class I, Div 2 Hazardous Locations T4(MDR-40/60)**
- DC OK signal output (MDR-10/20)
- DC OK relay contact (MDR-40/60/100)
- Cooling by free air convection
- 100% full load burn-in test
- 3 years warranty

### General Specification

Model No.	MDR-10	MDR-20	MDR-40	MDR-60	MDR-100
AC input voltage range	85~264VAC; 120~370VDC				
AC inrush current	Cold start, 35A at 115VAC, 70A at 230VAC	Cold start, 20A at 115VAC, 40A at 230VAC	Cold start, 30A at 115VAC, 60A at 230VAC		
DC adjustment range	Fixed	±10% rated output voltage	0~+20% rated output voltage		
Overload protection	>105% hiccup mode, auto-recovery	105%~160% constant current limiting, auto-recovery	105%~150% constant current limiting, auto-recovery		
Over voltage protection	115%~135% rated output voltage		125%~150% rated output voltage		
Setup, rise, hold up time	500ms, 30ms, 120ms	500ms, 30ms, 50ms			3000ms, 50ms, 50ms
Withstand voltage	I/P-O/P:3kVAC, I/P-FG:2kVAC, 1minute				
Working temperature	-20~+70°C (refer to output derating curve)				-10~+60°C
DC OK signal	Open collector		Relay contact		
Safety standards	UL508, TUV EN60950-1 approved; MDR-40/60 also approved for UL60950-1, ANSI/ISA 12.12.01-2013 Class I, Div. 2 Group A, B, C, D Hazardous Locations T4				
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 heavy industry level (MDR-40/60/100)				
Connection	I/P: 3 poles, O/P: 3 poles screw DIN terminal		I/P: 3 poles, O/P: 6 poles screw DIN terminal		
Dimension (WxHxD)(mm)	22.5x90x100		40x90x100		55x90x100
Packing	72pcs / 13.2kg	72pcs / 14.7kg	42pcs / 13.6kg	42pcs / 14.8kg	30pcs / 13.6kg

### MDR-10 Series



Model No.	Output	Tol.	R&N	Effi.
MDR-10-5	5V, 0~2.0A	±5%	80mV	77%
MDR-10-12	12V, 0~0.84A	±3%	120mV	81%
MDR-10-15	15V, 0~0.67A	±3%	120mV	81%
MDR-10-24	24V, 0~0.42A	±2%	150mV	84%

### MDR-60 Series



Model No.	Output	Tol.	R&N	Effi.
MDR-60-5	5V, 0~10.0A	±2%	80mV	78%
MDR-60-12	12V, 0~5.00A	±1%	120mV	86%
MDR-60-24	24V, 0~2.50A	±1%	150mV	88%
MDR-60-48	48V, 0~1.25A	±1%	200mV	87%

### MDR-20 Series



Model No.	Output	Tol.	R&N	Effi.
MDR-20-5	5V, 0~3.0A	±2%	80mV	76%
MDR-20-12	12V, 0~1.67A	±1%	120mV	80%
MDR-20-15	15V, 0~1.34A	±1%	120mV	81%
MDR-20-24	24V, 0~1.00A	±1%	150mV	84%

### MDR-100 Series



Model No.	Output	Tol.	R&N	Effi.
MDR-100-12	12V, 0~7.5A	±1%	120mV	83%
MDR-100-24	24V, 0~4.0A	±1%	150mV	86%
MDR-100-48	48V, 0~2.0A	±1%	200mV	87%

### MDR-40 Series



Model No.	Output	Tol.	R&N	Effi.
MDR-40-5	5V, 0~6.00A	±2%	80mV	78%
MDR-40-12	12V, 0~3.33A	±1%	120mV	86%
MDR-40-24	24V, 0~1.70A	±1%	150mV	88%
MDR-40-48	48V, 0~0.83A	±1%	200mV	88%



#### Energy Saving –

We care about energy saving. This logo represents that this model has "low no load power consumption"!



#### To satisfy our customers is our goal –

- High Quality
- Low Cost
- Prompt Delivery
- Best Service

# DIN Series

15~100W Step Shape



## Features

- Isolation Class II
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temp. (DR-100)
- No load power consumption<1W (DR-100)  
No load power consumption<0.5W (DR-15)
- Installed on DIN rail TS-35 / 7.5 or 15
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- Suitable for building automation and control of household appliance
- 3 years warranty

## General Specification



Model No.	DR-15	DR-30	DR-60	DR-100
AC input voltage range	85~264VAC; 120~370VDC		88~264VAC; 124~370VDC	
AC inrush current (max.)	Cold start, 65A at 230VAC	Cold start, 30A at 230VAC	Cold start, 36A at 230VAC	Cold start, 45A at 230VAC
DC adjustment range	±10% rated output voltage			12V: 12~15V, 15V: 15~18V, 24V: 24~29V
Overload protection	Range	105%~160%		105%~135%
	Type	constant current limiting, auto-recovery		
Over voltage protection	Range	115%~135% rated output voltage		125%~155% rated output voltage
	Type	Shut off, clamp by zener diode	Shut down, re-power on to recover	
Withstand voltage	I/P-O/P: 3kVAC			
Working temperature	-20~+60°C (refer to output load derating curve)			
Vibration	10~500Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes			
Safety standards	UL60950-1, TUV60950-1 approved			
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, EN61204-3			
Connection	I/P and O/P: 2 poles screw DIN terminal	I/P: 2 poles, O/P: 4 poles screw DIN terminal		
Dimension (WxHxD)(mm)	25x93x56	78x93x56	100x93x56	
Case No.	985A	918B	970A	
Packing	140pcs / 15.0kg	48pcs / 14.0kg	48pcs / 15.4kg	36pcs / 13.6kg

## 15W DR-15

Model No.	Output	Tol.	R&N	Effi.
DR-15-5	5V, 0~2.40A	±2%	80mV	77.0%
DR-15-12	12V, 0~1.25A	±1%	120mV	84.0%
DR-15-15	15V, 0~1.00A	±1%	120mV	83.5%
DR-15-24	24V, 0~0.63A	±1%	150mV	85.0%

## 60W DR-60

Model No.	Output	Tol.	R&N	Effi.
DR-60-5	5V, 0~6.5A	±2%	80mV	76%
DR-60-12	12V, 0~4.5A	±1%	120mV	82%
DR-60-15	15V, 0~4.0A	±1%	120mV	83%
DR-60-24	24V, 0~2.5A	±1%	150mV	84%

## 30W DR-30

Model No.	Output	Tol.	R&N	Effi.
DR-30-5	5V, 0~3.0A	±2%	80mV	74%
DR-30-12	12V, 0~2.0A	±1%	120mV	81%
DR-30-15	15V, 0~2.0A	±1%	120mV	82%
DR-30-24	24V, 0~1.5A	±1%	150mV	83%

## 100W DR-100

Model No.	Output	Tol.	R&N	Effi.
DR-100-12	12V, 0~7.5A	±2%	120mV	87%
DR-100-15	15V, 0~6.5A	±1%	120mV	87%
DR-100-24	24V, 0~4.2A	±1%	150mV	89%



We provide specification, drawing, test report and more information, please visit our website —



### Energy Saving —

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# DIN Series

45~480W Single Output



## Features

- Universal AC input / Full range (DR-45/75, DRP-240)  
AC input selectable by switch (DR-120, DRP-480S)  
AC input 180~264VAC only (DRP-480)
- Built-in active PFC function (DRP-240)
- Built-in passive PFC function compliance to EN61000-3-2 (480W models)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- 100% full load burn-in test
- LED indicator for power on
- 3 years warranty

## General Specification

Model No.	DR-45	DR-75	DR-120	DRP-240	DRP-480	DRP-480S
AC input voltage range	85~264VAC(DR-45/75, DRP-240); 90~132/180~264VAC selectable by switch (DR-120, DRP-480S); 180~264VAC only (DRP-480)					
AC inrush current (230VAC)	56A	40A	40A	45A	40A	45A
DC adjustment range	±10%					
Overload protection	105%~150% constant current limiting, auto-recovery					
Over voltage protection	Range	115%~142% rated output voltage			30~36V for 24V model, 54~60V for 48V model	
	Type	Shut off, AC recycle to re-start				
Over temp. protection	Shut down output voltage, recovers automatically after temperature goes down (DRP-240, re-power on to recover)					
Withstand voltage	I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC, 1 minute					
Working temperature	-10~+50°C	-10~+60°C		-10~+70°C	-20~+70°C	
Safety standards	UL508, TUV EN60950-1 approved (UL60950-1 also for DR-120, DRP-240, DRP-480, DRP-480S)					
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 heavy industry level					
Connection	I/P: 3 poles, O/P: 4 poles screw DIN terminal					
Dimension (WxHxD)(mm)	78x93x67	55.5x125.2x100		125.5x125.2x100	227x125.2x100	
Case No.	918A	923	921A	922A	930	
Packing	48pcs / 17.5kg	20pcs / 13.0kg	20pcs / 16.5kg	12pcs / 15.5kg	6pcs / 15.0kg	6pcs / 16.6kg

### DR-45 Series



Model No.	Output	Tol.	R&N	Effi.
DR-4505	5V, 0~5.0A	±2%	100mV	72%
DR-4512	12V, 0~3.5A	±1%	200mV	77%
DR-4515	15V, 0~2.8A	±1%	240mV	77%
DR-4524	24V, 0~2.0A	±1%	480mV	80%

### DR-75 Series



Model No.	Output	Tol.	R&N	Effi.
DR-75-12	12V, 0~6.3A	±2%	100mV	76%
DR-75-24	24V, 0~3.2A	±1%	150mV	80%
DR-75-48	48V, 0~1.6A	±1%	240mV	81%

### DR-120 Series



Model No.	Output	Tol.	R&N	Effi.
DR-120-12	12V, 0~10A	±2%	80mV	80%
DR-120-24	24V, 0~5.0A	±1%	80mV	84%
DR-120-48	48V, 0~2.5A	±1%	100mV	85%

### DRP-240 Series



Model No.	Output	Tol.	R&N	Effi.
DRP-240-24	24V, 0~10A	±1%	80mV	84%
DRP-240-48	48V, 0~5.0A	±1%	150mV	85%

### DRP-480 Series



Model No.	Output	Tol.	R&N	Effi.
DRP-480-24	24V, 0~20A	±1%	120mV	89%
DRP-480-48	48V, 0~10A	±1%	120mV	89%

### DRP-480S Series



Model No.	Output	Tol.	R&N	Effi.
DRP-480S-24	24V, 0~20A	±1%	120mV	89%
DRP-480S-48	48V, 0~10A	±1%	120mV	89%



### Customer Satisfaction

— Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.

# DIN Series

120~960W High Input Voltage



## ■ Features

- Input 340~550VAC, 3-phase (2-phase for DRH-120)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in constant current limiting circuit
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed (240~960W)
- EN61000-6-2 (EN50082-2) industrial immunity level
- Optional parallel function (1+1) (960W only)
- 100% full load burn-in test
- LED indicator for power on
- 3 years warranty

## ■ General Specification

Model No.	DRH-120	DRT-240	DRT-480	DRT-960
AC input voltage range	340~550VAC, 2-phase	340~550VAC, 3-phase (two phase operation possible)		
AC inrush current (max.)	Cold start, 50A at 400VAC			
DC adjustment range	24V: 24~28V, 48V: 48~55V			
Overload protection	Range	105%~160%	105%~150%	105%~125%
	Type	Constant current limiting, auto-recovery		
Over voltage protection	Range	24V: 30~36V, 48V: 59~66V		
	Type	Shut off, AC recycle to re-start		
Over temperature protection	Shut down output voltage, recovers automatically after temperature goes down			
Withstand voltage	I/P - O/P: 3kVAC, I/P - FG: 1.5kVAC, O/P - FG: 0.5kVAC, 1 minute			
Working temperature	-20~+60°C	-20~+70°C		-20~+60°C
Safety standards	UL60950-1 approved	UL508, UL60950-1, TUV EN60950-1 approved		
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 heavy industry level			
Connection (screw DIN terminal)	I/P: 3 poles, O/P: 4 poles	I/P: 4 poles, O/P: 4 poles		I/P: 4 poles, O/P: 6 poles
Dimension (WxHxD)(mm)	65.5x125.2x100	125.5x125.2x100	227x125.2x100	276x125.2x100
Case No.	921A	922A	930A	934
Packing	20pcs / 16.0kg	12pcs / 16.6kg	6pcs / 16.0kg	4pcs / 14.2kg

### ■ DRH-120 (2-Phase)



Model No.	Output	Tol.	R&N	Effi.
DRH-120-24	24V, 0~5.0A	±1%	80mV	85%
DRH-120-48	48V, 0~2.5A	±1%	80mV	86%

### ■ DRT-480 (3-Phase)



Model No.	Output	Tol.	R&N	Effi.
DRT-480-24	24V, 0~20A	±1%	80mV	89%
DRT-480-48	48V, 0~10A	±1%	80mV	90%

### ■ DRT-240 (3-Phase)



Model No.	Output	Tol.	R&N	Effi.
DRT-240-24	24V, 0~10A	±1%	80mV	89%
DRT-240-48	48V, 0~5.0A	±1%	80mV	89%

### ■ DRT-960 (3-Phase)



Model No.	Output	Tol.	R&N	Effi.
DRT-960-24	24V, 0~40A	±1%	80mV	91%
DRT-960-48	48V, 0~20A	±1%	80mV	92%



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We provide specification, drawing, test report and more information, please visit our website —



#### 48hrs delivery—

We keep enough stock for 95% of standard models at our 2400m² warehouse. We can arrange prompt delivery within 48hrs.

# DIN Series

75~150W Slim and Economical



## Features

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test
- Low cost
- 2 years warranty

## General Specification



Model No.	EDR-75	EDR-120	EDR-150
AC input voltage range	90~264VAC; 127~370VDC		
AC inrush current (max.)	Cold start, 35A at 230VAC		
DC adjustment range	12V: 12~14V, 24V: 24~28V, 48V: 48~55V		
Overload protection	Range	105%~130%	
	Type	Constant current limiting, auto-recovery	
Over voltage protection	Range	12V: 14~17V, 24V: 29~33V, 48V: 56~65V	24V: 29~33V
	Type	Shut down o/p voltage, re-power on to recover	
Over temperature protection	Shut down o/p voltage, re-power on to recover		
Withstand voltage	I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC		
Working temperature	-20~+60°C (refer to output derating curve)		
Safety standards	UL508, TUV EN60950-1 approved		
EMC standards	EN55022 classA, EN61000-3-2(125W for EDR-150),3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(EN50082-2)		
Connection (screw DIN terminal)	I/P: 3 poles, O/P: 4 poles		
Dimension (WxHxD)(mm)	32x 125.2x 102	40x 125.2x 113.5	
Case No.	221B	992D	

### 75W EDR-75

Model No.	Output	Tol.	R&N	Effi.
EDR-75-12	12V, 0~6.3A	±2.0%	80mV	85.5%
EDR-75-24	24V, 0~3.2A	±1.0%	120mV	87.5%
EDR-75-48	48V, 0~1.6A	±1.0%	150mV	88.5%

### 120W EDR-120

Model No.	Output	Tol.	R&N	Effi.
EDR-120-12	12V, 0~10A	±2.0%	100mV	85.0%
EDR-120-24	24V, 0~5A	±1.0%	120mV	87.5%
EDR-120-48	48V, 0~2.5A	±1.0%	150mV	88.5%

### 150W EDR-150

Model No.	Output (230VAC/115VAC)	Tol.	R&N	Effi.
EDR-150-24	24V, 0~6.5A / 0~5.2A	±1.0%	150mV	87%

## HEP-480 Series

### 480W Harsh Environment Power

Under Development

- Universal AC input 90~305VAC
- Built-in active PFC function
- High efficiency up to 95%
- Fanless design, cooling by free air convection
- -55~+70°C wide operating range
- Meet 6kV surge immunity level
- Withstand 10G vibration test
- Operating altitude up to 5000 meters
- Output models: 12V / 15V / 24V / 36V / 48V / 54V
- Design refer to UL60950-1
- 6 years warranty

# DIN Series

75~480W Slim and Economical



## Features

- Universal AC input / Full range
- Built-in active PFC function(NDR-240/480)
- High efficiency up to 92.5%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508 (industrial control equipment) listed
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test
- 3 years warranty

## General Specification

Model No.	NDR-75	NDR-120	NDR-240	NDR-480
AC input voltage range	90~264VAC; 127~370VDC			
AC inrush current (max.)	Cold start, 35A at 230VAC			
DC adjustment range	12V: 12~14V, 24V: 24~28V, 48V: 48~55V			
Overload protection	Range	105%~130%		
	Type	Constant current limiting, auto-recovery		Constant current limiting, shut off after 3 sec., re-power on to recover
Over voltage protection	Range	12V: 14~17V, 24V: 29~33V, 48V: 56~65V		
	Type	Shut down o/p voltage, re-power on to recover		
Over temperature protection	Shut down o/p voltage, re-power on to recover		Shut down o/p voltage, auto-recovery	
Withstand voltage	I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC			
Working temperature	-20~+70°C (refer to output derating curve)			
Safety standards	UL508, TUV EN60950-1 approved			
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2(EN50082-2), EN61204-3			
Connection (screw DIN terminal)	I/P: 3 poles, O/P: 4 poles			
Dimension (WxHxD)(mm)	32x 125.2x 102	40x 125.2x 113.5	63x 125.2x 113.5	85.5x 125.2x 128.5
Case No.	221B	992D	979C	984D
Packing	28pcs / 15.3kg	20pcs / 13kg	12pcs / 13kg	8pcs / 15.4kg

### NDR-75 Series



Model No.	Output	Tol.	R&N	Effi.
NDR-75-12	12V, 0~6.3A	±2.0%	80mV	85.5%
NDR-75-24	24V, 0~3.2A	±1.0%	150mV	88.0%
NDR-75-48	48V, 0~1.6A	±1.0%	240mV	89.0%

### NDR-240 Series



Model No.	Output	Tol.	R&N	Effi.
NDR-240-24	24V, 0~10A	±1.0%	150mV	88.5%
NDR-240-48	48V, 0~5A	±1.0%	150mV	90.0%

### NDR-120 Series



Model No.	Output	Tol.	R&N	Effi.
NDR-120-12	12V, 0~10A	±2.0%	100mV	85.5%
NDR-120-24	24V, 0~5A	±1.0%	120mV	88.0%
NDR-120-48	48V, 0~2.5A	±1.0%	150mV	89.0%

### NDR-480 Series



Model No.	Output	Tol.	R&N	Effi.
NDR-480-24	24V, 0~20A	±1.0%	150mV	92.5%
NDR-480-48	48V, 0~10A	±1.0%	150mV	92.5%



#### Customer Satisfaction

— Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



#### Products

- One Stop Shopping
- Total Solution

# DIN Series

75~960W Slim and High Efficiency



## Features

- High efficiency up to 94%
- Universal AC input / Full range (SDR-75/120/240/480)  
AC input 180~264VAC only (SDR-960)
- Built-in active PFC function (SDR-120/240/480/960)
- Protections: Short circuit / Overload /  
Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508(industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact (except for SDR-75)
- 150% peak load capability (SDR-75/120/240/480)  
130% peak load capability (SDR-960)
- Current sharing up to 3840W (7+1) for SDR-480P  
Current sharing up to 3840W (3+1) for SDR-960
- Comply with GL (SDR-120/240/480)  
Comply with SEMI F47 (SDR-75/120/240/480)
- 3 years warranty

## General Specification

Model No.	SDR-75	SDR-120	SDR-240	SDR-480□	SDR-960
AC input voltage range	88~264VAC; 124~370VDC			90~264VAC; 127~370VDC	180~264VAC; 254~370VDC
AC inrush current (max.)	Cold start, 50A at 230VAC	Cold start, 70A at 230VAC	Cold start, 65A at 230VAC	Cold start, 80A at 230VAC	Cold start, 50A at 230VAC
DC adjustment range	12V: 12~14V (only for SDR-75/120), 24V: 24~28V, 48V: 48~55V				
Overload protection	Normally works within 110%-150% rated output power for 3 seconds and then shut down output voltage with auto-recovery (re-power on to recover for SDR-75)				Normally works within 105%-130% rated output power for 3 seconds and then shut down o/p voltage with auto-recovery after 30 seconds if the peak load condition is removed
	>150% rated power or short circuit, constant current limiting with auto-recovery within 2 seconds and may cause to shut down if over 2 seconds				Constant current limiting within 130%-150% rated output power for more than 3 seconds and then shut down o/p voltage, re-power on to recover
Over voltage protection	Range	14~17V for 12V model(SDR-75/120), 29~33V for 24V model, 56~65V for 48V model			
	Type	Shut down o/p voltage, re-power on to recover		Shut down o/p voltage with auto-recovery, or re-power on to recover	
Over temperature protection	Re-power on to recover	Recovers automatically after temperature goes down			
Withstand voltage	I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:0.5kVAC, O/P-DC OK:0.5kVAC (except for SDR-75)				
Working temperature	-30~+70°C	-25~+70°C (refer to output derating curve)			-30~+70°C
Safety standards	UL508, TUV EN60950-1, GL (SDR-120/240/480) approved				
EMC standards	EN55011(SDR-120/240/480), EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3; SEMI (SDR-75/120/240/480), GL (SDR-120/240/480)				
Connection (screw DIN terminal)	I/P: 3 poles, O/P: 4 poles		I/P: 3 poles, O/P: 6 poles	I/P: 3 poles, O/P: 8 poles	I/P:3 poles, O/P: 6 poles
Dimension (WxHxD)(mm)	32x125.2x102	40x125.2x113.5	63x125.2x113.5	85.5x125.2x128.5	110x125.2x150

### SDR-75 Series



Model No.	Output	Tol.	R&N	Effi.
SDR-75-12	12V, 0~6.3A	±1.0%	100mV	88.5%
SDR-75-24	24V, 0~3.2A	±1.0%	100mV	89.0%
SDR-75-48	48V, 0~1.6A	±1.0%	120mV	90.0%

### SDR-120 Series



Model No.	Output	Tol.	R&N	Effi.
SDR-120-12	12V, 0~10A	±1.0%	100mV	89.0%
SDR-120-24	24V, 0~ 5A	±1.0%	100mV	91.0%
SDR-120-48	48V, 0~2.5A	±1.0%	120mV	90.5%

### SDR-240 Series



Model No.	Output	Tol.	R&N	Effi.
SDR-240-24	24V, 0~10A	±1.0%	100mV	94%
SDR-240-48	48V, 0~5A	±1.0%	120mV	94%

### SDR-480 Series



Model No.	Output	Tol.	R&N	Effi.
SDR-480□-24	24V, 0~20A	±1.2%	100mV	94%
SDR-480□-48	48V, 0~10A	±1.0%	120mV	94%

□ =blank, P ; Blank: basic function, P: with parallel function

### SDR-960 Series



Model No.	Output	Tol.	R&N	Effi.
SDR-960-24	24V, 0~40A	±1.0%	180mV	94%
SDR-960-48	48V, 0~20A	±1.0%	250mV	94%

# DIN Series

120~480W Slim and Wide Input Range



## ■ Features

- Single and two phase wide input range 180~550VAC
- Built-in active PFC function (WDR-240/480)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35 / 7.5 or 15
- UL508(industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

## ■ General Specification

Model No.	WDR-120	WDR-240	WDR-480
AC input voltage range	180~550VAC(single and two phase); 254~780VDC		
AC input current	0.55A / 400VAC, 1.2A / 230VAC	1A / 400VAC, 2A / 230VAC	1.6A / 400VAC, 4A / 230VAC
AC inrush current (max.)	Cold start, 50A at 400VAC		
DC adjustment range	12V: 12~15V, 24V: 24~29V, 48V: 48~58V	24V: 24~28V, 48V: 48~55V	
Overload protection	105%~130% rated output power, constant current limiting, auto-recovery		105%~130% rated output power, constant current limiting, unit will shut down after 3 sec.; auto-recovery after 1 minute if the fault condition is removed.
Over voltage protection	Range	16~18V for 12V model (only for WDR-120), 29~33V for 24V model, 56~65V for 48V model	
	Type	Shut down o/p voltage, auto-recovery	
Setup, rise, hold up time	2000ms, 70ms, 10ms at full load and 230VAC; 2000ms, 70ms, 50ms at full load and 400VAC		2000ms, 150ms, 16ms at full load and 230VAC; 800ms, 150ms, 18ms at full load and 400VAC
			1500ms, 150ms, 18ms at full load and 230VAC; 800ms, 150ms, 18ms at full load and 400VAC
Over temp. protection	Shut down output voltage, recovers automatically after temperature goes down		
Withstand voltage	I/P-O/P:3kVAC, I/P-FG:1.5kVAC, O/P-FG:0.5kVAC, O/P-DC OK:0.5kVAC, 1 minute		
Isolation resistance	100MΩ(min.)@500VDC		
Working temperature	-25~+70°C (refer to output derating curve)	-30~+70°C (refer to output derating curve)	
DC OK signal	Relay Contact		
Leakage current	<3.5mA at 530VAC		
Vibration	10~500Hz, 2G 10 minutes / 1 cycle, period of 60 minutes each along X, Y, Z axes		
Safety standards	UL508 approved ; IEC60950-1 CB approved by SIQ ; Design refer to GL		
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level		
Connection (screw DIN terminal)	I/P: 3 poles, O/P: 4 poles	I/P: 3 poles, O/P: 6 poles	
Dimension (WxHxD)(mm)	40x125.2x113.5	63x125.2x113.5	85.5x125.2x128.5
Packing	20pcs / 14kg	12pcs / 13.7kg	8pcs / 14.6kg

## ■ WDR-120 Series



Model No.	Output	Tol.	R&N	Effi.
WDR-120-12	12V, 0~10A	±1.5%	120mV	89.5%
WDR-120-24	24V, 0~5A	±1.0%	120mV	91%
WDR-120-48	48V, 0~2.5A	±1.0%	150mV	92%

## ■ WDR-240 Series



Model No.	Output	Tol.	R&N	Effi.
WDR-240-24	24V, 0~10A	±1.0%	150mV	91%
WDR-240-48	48V, 0~5A	±1.0%	150mV	91%

## ■ WDR-480 Series



Model No.	Output	Tol.	R&N	Effi.
WDR-480-24	24V, 0~20A	±1.0%	100mV	92%
WDR-480-48	48V, 0~10A	±1.0%	150mV	93%



### Customer Satisfaction —

Today's effort, tomorrow's reward. Continuously improve CQTS to satisfy customer is our goal.



### To satisfy our customers is our goal —

- High Quality
- Low Cost
- Prompt Delivery
- Best Service



# DIN Series

480~960W Slim 3-phase High Input Voltage



## Features

- 3-phase, 340~550VAC wide range input (2-phase operation possible)
- Width only 110mm for TDR-960; 85.5mm for TDR-480
- Built-in active PFC function
- High efficiency up to 94.5%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Current sharing up to 3840W(3+1) for TDR-960
- Built-in DC OK relay contact (optional for TDR-480)
- 100% full load burn-in test
- 3 years warranty

## General Specification



Model No.	TDR-480	TDR-960
AC input voltage range	3-phase 340~550VAC (2-phase operation possible), 480~780VDC	
AC input current (Typ.)	1.6A / 400VAC, 1.3A / 500VAC	2.0A / 400VAC, 1.4A / 500VAC
AC inrush current (max.)	Cold start, 50A at 400VAC	Cold start, 60A at 400VAC
DC adjustment range	24V: 24~28V, 48V: 48~55V	
Overload protection	105%~130% rated output power, constant current limiting, unit will shut down after 3 sec., re-power on to recover	
Over voltage protection	Range	29~33V for 24V model, 56~65V for 48V model
	Type	Shut down o/p voltage, re-power on to recover
Over temperature protection	Shut down o/p voltage, auto-recovery after temperature goes down	
Withstand voltage	I/P-O/P:3kVAC I/P-FG:2kVAC O/P-FG:0.5kVAC, O/P-DC OK: 0.5kVAC(TDR-960)	
Working temperature	-30~+70°C (refer to output derating curve)	
Safety standards	UL508 approved; IEC60950-1 CB approved by SIO (TDR-480 pending); Design refer to EN61558-1/-2-16 for TDR-480	
EMC standards	EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204, heavy industry level	
Connection (screw DIN terminal)	I/P: 3 poles, O/P: 4 poles	I/P: 3 poles, O/P: 6 poles
Case No.	984	214A
Dimension (WxHxD)(mm)	85.5x 125.2x 128.5	110x 125.2x 150

## 480W Under Development TDR-480

Model No.	Output	Tol.	R&N	Effi.
TDR-480-24	24V, 0~20A	±1.0%	150mV	92%
TDR-480-48	48V, 0~10A	±1.0%	240mV	92%

## 960W TDR-960

Model No.	Output	Tol.	R&N	Effi.
TDR-960-24	24V, 0~40A	±1.0%	180mV	94.0%
TDR-960-48	48V, 0~20A	±1.0%	250mV	94.5%

**Under Development HDR-15/30/60/100 Series 15~100W Ultra Slim Step Shape**

- Ultra slim design, 17.5mm(1SU) / 35mm(2SU) / 52.5mm(3SU) / 70mm(4SU) for HDR-15/30/60/100 respectively
- Universal AC input / Full range
- No load power consumption<0.3W
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- NEC class 2 / LPS (15~60W)
- Isolation class II
- LED indicator for power on
- Design refer to UL60950-1/508/1310, EN60950-1/61558-2-16
- Output models: 5V / 12V / 15V / 24V / 48V
- 3 years warranty

# DIN Series

40W & 60W Output Current Programmable / 20W KNX Power Supply



## 40W & 60W Output Current Programmable

- Universal AC input / Full range
- **Io can be trimmed 10-100% by 1-10Vdc, PWM signal or resistance**
- Installed on DIN rail TS-35 / 7.5 or 15
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- **Suitable for machine vision inspection system and plant cultivation application**
- 3 years warranty



AC input voltage range ..... 90-264VAC; 127-370VDC  
 AC inrush current ..... Cold start, 60A at 230VAC  
 DC adjustment range ..... 12V: 12-15V, 24V: 24-30V  
 Current adjustment range ..... 10%-100% rated output current adjustable by 1-10VDCc, PWM signal or resistance  
 Overload protection ..... 95%-108% rated output power, constant current limiting, auto-recovery  
 Over voltage protection..... 120%-155% rated output power, shut down o/p voltage, re-power on to recover  
 Withstand voltage ..... I/P-O/P: 3kVAC, I/P-FG: 2kVAC, O/P-FG: 0.5kVAC  
 Working temperature ..... -30~+70°C (refer to output derating curve)  
 Safety standards ..... UL60950-1, TUV EN60950-1 approved  
 EMC standards ..... EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN61204-3  
 Connection ..... I/P: 3 poles, O/P: 6 poles screw DIN terminal

### ♦ DRA-40 Series

Model No.	Output	Tol.	R&N	Effi.
DRA-40-12	12V, 0~3.34A	±1.0%	120mV	85%
DRA-40-24	24V, 0~1.7A	±1.0%	150mV	87%

### ♦ DRA-60 Series

Model No.	Output	Tol.	R&N	Effi.
DRA-60-12	12V, 0-5A	±1.0%	120mV	85%
DRA-60-24	24V, 0-2.5A	±1.0%	150mV	87%

## 20W KNX Power Supply



- **EIB / KNX power supply with integrated choke**
- **Compact size with 3SU(52.5mm) width**
- 180-264VAC input
- No load power consumption <0.5W
- 200ms mains failure back-up time
- Button for bus reset on top
- Protections: Short circuit / Overload (short-circuit-proof) / Over voltage
- Cooling by free air convection
- Isolation class I
- LED indicator for normal operation, bus reset and bus overload
- Installed on DIN rail TS-35/7.5 or 15
- 3 years warranty

AC input voltage range ..... 180-264VAC; 254-370VDC  
 AC inrush current ..... Cold start, 40A at 230VAC  
 LED indicators ..... ON: Green LED, normal operation, no fault  
 Reset: Red LED, reset of the KNX bus  
 I<sub>out</sub>> I<sub>max</sub>: Red LED, KNX bus overload  
 Overload protection ..... 205%~235% rated output power ; constant current limiting, auto-recovery after fault condition is removed  
 Over voltage protection ..... 110%~115% ; Shut down o/p voltage, re-power on to recover  
 Setup, rise, hold up time ..... 1000ms, 50ms, 200ms at 230VAC  
 Working temperature ..... -30~+70°C  
 (-30~+50°C@100% load, 70°C@60% load)  
 Safety standards ..... EN61558-1,EN61558-2-16 approved  
 EMC standards ..... EN50491-5-1,-5-2,-5-3  
 Connection ..... I/P: 3 poles; O/P: 2 poles screw DIN terminal & 2 KNX bus terminals (black/red)

Model No.	V <sub>out1</sub> (with choke)	V <sub>out2</sub> (without choke)	I <sub>out</sub> (I <sub>1</sub> +I <sub>2</sub> )	R&N	Effi.
KNX-20E-640	Bus, 30VDC	30VDC	640mA	100mV	86%

### ► KNX-20E Feature Description



The KNX Power Supply KNX-20E is a 640mA power supply with high efficiency and a small footprint of only 3SU (52.5 mm). The device has a KNX bus choke output and an additional output for ancillary power.

The -30~+70°C wide temperature operating range can meet all kinds of applications. LED indicators are used in case of normal operation, overload conditions and RESET operation. It is perfectly suitable to power up any products labeled with the KNX trademark. With over 30 years of industrial power supply experience, KNX-20E is engineered to be a reliable and safe solution for KNX bus environment.

### ■ Applications

#### KNX-based home, office, building

- Lighting control
- Heating/ventilation & Air Conditioning control
- Shutter/Blind control
- Alarm monitoring
- Energy management & Electricity / Gas / Water metering
- Security systems control
- Automation & remote access control

# DIN Series

## 20A & 40A Peripheral Module



### 20A Power Supply Redundancy Module

- Suitable for redundant operation of 24V system
- Installed on DIN rail TS-35 / 7.5 or 15
- Relay contact signal output and LED indicator for input failure alarm
- Cooling by free air convection
- 3 years warranty



DC input voltage range .....21~28V, 20A max. x 2 channels  
 Reverse voltage ..... 30V  
 DC output current ..... 20A max.  
 DC output voltage drop ..... 0.6V max.  
 Input voltage alarm ..... When input is > 20V(±5%) and <30V(±5%), relay contacts  
 Relay contact rating ..... 30VDC, 1A  
 Working temperature ..... -40~+70°C  
 Safety standard ..... UL508 approved  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 4 poles, O/P: 2 poles screw DIN terminal,  
 Single output: 4 poles

Model No.	Output	Reverse Voltage	Current
DR-RDN20	24V, 20A	30V max.	20A max.

#### ► Feature Description

**DR-RDN20** is a 20A redundancy (decoupling) module for the 24VDC power system. Containing 2 sets of 20A Or-ing diodes with wonderful heat dissipation deployment, DR-RDN20 offers a safe option of 1+1 redundant set-up. Not only perfectly decouple power sources from each other as well as from the load, DR-RDN-20 also provides users monitoring signals for both input channels through the built-in relays.

**DR-UPS40** is a 40A max. DC UPS (battery control) module for the 24VDC power system. Accompany with external batteries, it can back-up up to 40A of current to critical loads for certain period of time depending on the capacity of batteries. With complete monitoring signals / LED indicators for DC BUS OK, Battery Fail, Battery Discharge, and the repeated Battery Test function to check the situation of external batteries, users can customize their own DC UPS system to back up critical loads and capture the status of the whole system easily.

### 40A DC UPS Module

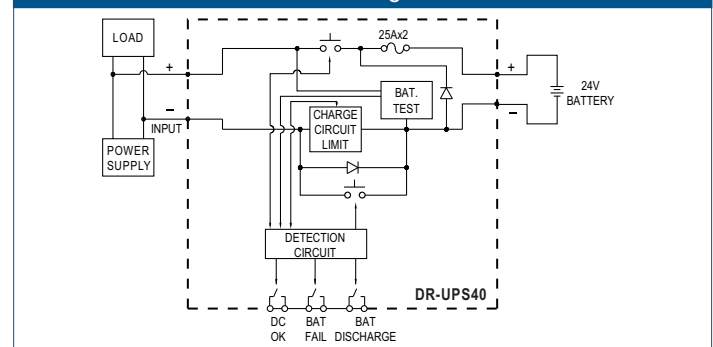
- Battery controller for DIN rail UPS system
- Parallel connected to DC BUS
- Suitable for 24V system up to 40A
- Installed on DIN Rail TS-35 / 7.5 or 15
- Built-in battery test function
- Battery polarity protection
- Relay contact signal output and LED indicator for DC BUS OK, Battery Fail, and Battery Discharge
- Cooling by free air convection
- 3 years warranty



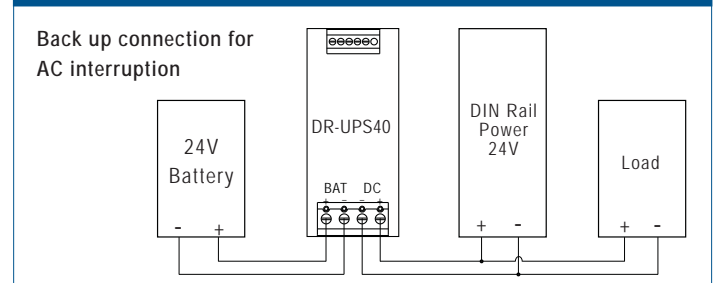
DC input / DC bus ..... 24~29V, 40A max.  
 Battery input voltage ..... 21~29V  
 Battery input Current ..... 0~40A  
 Charge current (typ.) ..... 2A  
 External battery (typ.) ..... 24V, 4AH / 7AH / 12AH  
 DC bus ok ..... Relay status : Short when DC voltage between 21~29V(±3%), relay contacts  
 LED(Green) : DC bus OK : light;  
 DC bus fail : dark  
 Battery fail ..... Relay status : Short when battery failure is observed through the battery test function, relay contacts  
 LED(Red) : Battery over-discharge warning or battery broken: light;  
 Battery OK: dark  
 Battery discharge ..... Relay status : Short when battery in discharge condition, relay contacts  
 LED(Yellow) : Battery discharging: light;  
 Battery is not discharging or discharging current <2A: dark  
 Working temperature ..... -20~+70°C  
 EMC standards ..... EN55022 class B, EN61000-4-2,3,4,5,6,8,11  
 Connection ..... I/P: 2 poles, O/P: 2 poles screw DIN terminal,  
 Single output: 6 poles

Model No.	DC BUS Voltage	DC BUS Current
DR-UPS40	24~29V	40A max.

#### Block Diagram



#### Example of Application



**To satisfy our customers is our goal —**

- High Quality
- Low Cost
- Prompt Delivery
- Best Service