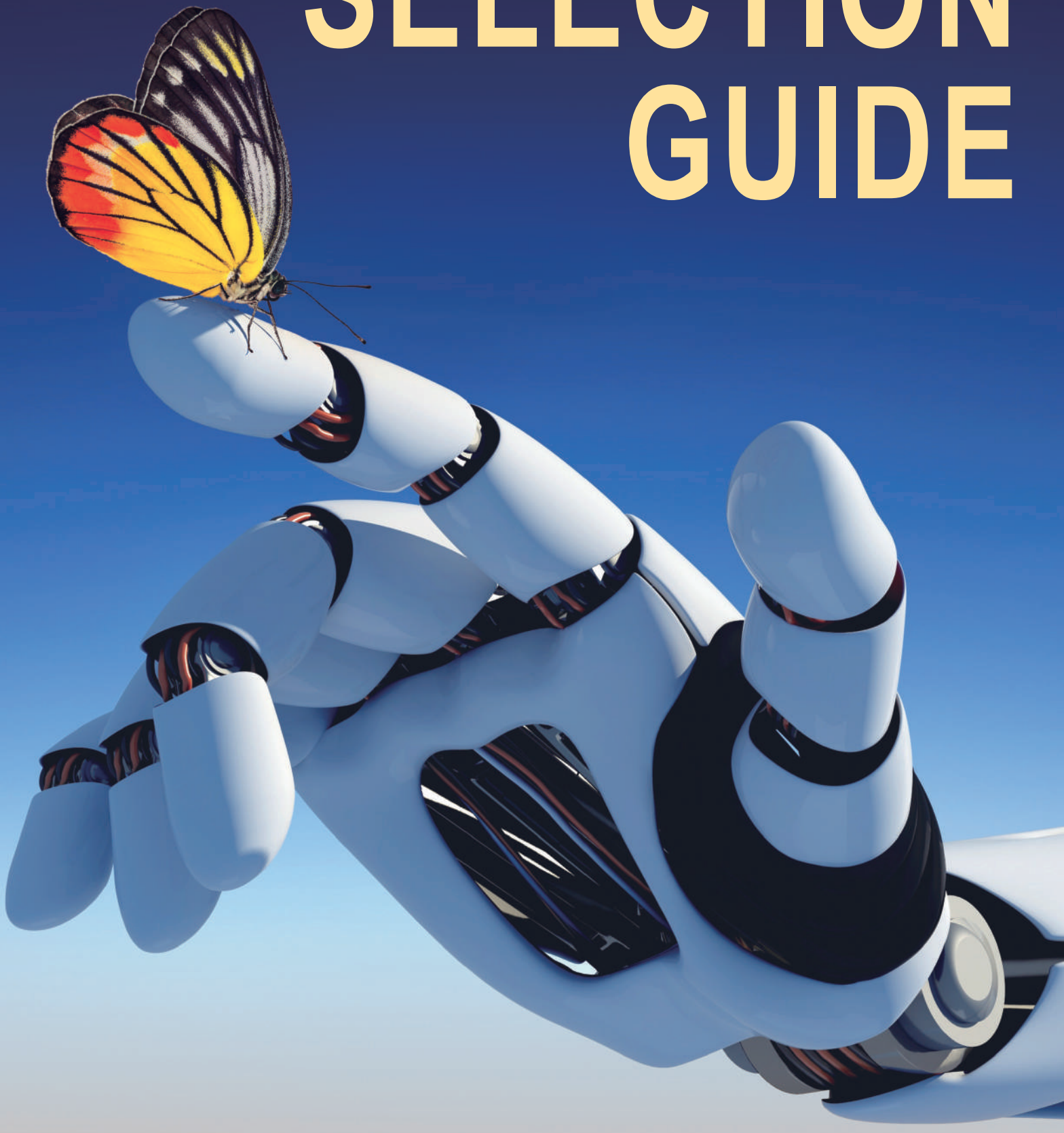
POWERGOOD

SELECTION GUIDE



POWERGOOD Develops a Reliable Power Modules.

POWERGOOD Product Model Number Structure

AC / DC Part Number Structure

ACQ100 - 120 S - 100

Series Name	Output Voltage (VDC)	Output Quantity	Output Power (W)
ACE25	050: 5	S : Single	
ACE30	120: 12	T : Triple	
ACE60	150: 15		
ACQ100	240: 24		
ACH250	280: 28		
ACF700	360: 36		
ACO100	480: 48		
ACO250			

DC / DC Part Number Structure

SQB - 018 120 - S - P - B 100

Series Name	Input Voltage (VDC)	Output Voltage (VDC)	Output Quantity	Remote Control Option	Shape	Output Power (W)
ESB	012: 9-18	033: 3.3	S : Single (Dosa pin out)	P : Positive logic	F : Flat (Baseplate without Flange)	
ESC	018: 9-36	050: 5	D : Dual	N : Negative logic	P : PV (Heat sink embedded)	
STB	024: 18-36	120: 12	V : Vicor pin out		B : Baseplate (with Flange)	
SQB	036: 18-75	150: 15				
SQBF	048: 36-75	240: 24				
SHB	110: 40-160 (40-180)	280: 28				
SHBF		480: 48				
SFB	300: 180-425	050: ± 5				
MQB	028: 9-75	120: ±12				
	054: 14-154	150: ±15				
		240: ±24				

DC / DC Encapsulated-S、Bricks-S Part Number Structure

SQBS - 024W 120 - S - P - B 100

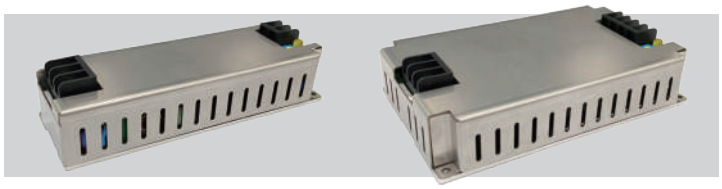
Series Name	Input Voltage (VDC)	Output Voltage (VDC)	Output Quantity	Remote Control Option	Shape	Output Power (W)
ESAS	024W: 9-36	050: 5	S : Single (Dosa pin out)	P : Positive logic	F : Flat (Baseplate without Flange)	
ESBS	048W: 18-75	120: 12	D : Dual	N : Negative logic	B : Baseplate (with Flange)	
ESCS	024 : 18-36	150: 15	V : Vicor pin out			
SQBS	048 : 36-75	240: 24				
SHBS	110 : 40-160 (40-180)	280: 28				
SFBS		480: 48				
	300 : 180-425	120: ±12				
		150: ±15				

AC to DC Encapsulated Bricks

Series	ACE25 / ACE30	ACE60	ACQ100	ACH250	ACF700
Features	▪ 2"X1" compact size ▪ 50W / 60W Peak load Capability ▪ Easy Hold-up time extension ▪ Low No Load Power Consumption<0.3W ▪ Low leakage current 100μA ▪ ±10% Output Trimming Function OCP OVP OTP SCP	▪ 2"X2" compact size ▪ 120W Peak load Capability ▪ Easy Hold-up time extension ▪ Low No Load Power Consumption<0.5W ▪ Low leakage current 100μA ▪ ±10% Output Trimming Function OCP OVP OTP SCP	▪ Quarter Brick size ▪ No aluminum and tantalum electrolytic capacitor inside for High Reliability ▪ Easy Hold-up time extension ▪ Baseplate cooled ▪ Built-in Active PFC OCP OVP OTP SCP	▪ Half Brick size ▪ No aluminum and tantalum electrolytic capacitor inside for High Reliability ▪ Easy Hold-up time extension ▪ Remote On / Off (Optional) ▪ Built-in Active PFC OCP OVP OTP SCP	▪ Full Brick size ▪ No aluminum and tantalum electrolytic capacitor inside for High Reliability ▪ Easy Hold-up time extension ▪ Built-in Active PFC ▪ Parallel function OCP OVP OTP SCP
Output Power (W)	25W / 30W	60W	150W	350W	700W
Input Voltage (VAC)	90 ~ 264	90 ~ 264	90 ~ 264	90 ~ 264	90 ~ 264
Output Voltage (VDC)	5, 12, 15, 24, 36, 48 / 5, ±12	5, 12, 15, 24, 36, 48	5, 12, 15, 19, 24, 28, 36, 48	12, 15, 19, 24, 28, 36, 48	12, 15, 24, 28, 36, 48
Efficiency	Up to 88%	Up to 90%	Up to 91%	Up to 91%	Up to 90%
Isolation	Up to 4000VAC	Up to 4000VAC	Up to 3000VAC	Up to 3000VAC	Up to 3000VAC
Dimension	2.10"x 1.10"x 0.96"	2.10"x 2.10"x 1.10"	2.36"x 1.57"x 0.50"	2.36"x 2.30"x 0.50"	4.62" x 2.40" x 0.50"
Case Temperature	-40°C ~ +80°C	-40°C ~ +80°C	-40°C ~ +100°C	-40°C ~ +100°C	-40°C ~ +100°C
Package	Plastic case	Plastic case	Aluminum base with plastic case	Aluminum base with plastic case	Aluminum base with plastic case
EMI	EN55032 Class B	EN55032 Class B	EN55032 Class B (with external filter)	EN55032 Class B (with external filter)	EN55032 Class B (with external filter)
Safety	CE RoHS	CE RoHS	CE RoHS	CE RoHS	CE RoHS
Warranty	2 Years	2 Years	3 Years	3 Years	3 Years

Applications ▪ Wireless Network ▪ Telecom / Data Communication ▪ Industrial Control System
▪ Semiconductor Equipment ▪ Medical Application

AC to DC PSU



Series	ACO100	ACO250
Features	▪ Quarter Brick module Built-in ▪ Built-in Radiator ▪ High Power Density Ratio ▪ Metal Baseplate & Cover ▪ Built-in Active PFC OCP OVP OTP SCP	▪ Half Brick module Built-in ▪ Built-in Radiator ▪ High Power Density Ratio ▪ Metal Baseplate & Cover ▪ Built-in Active PFC OCP OVP OTP SCP
Output Power (W)	150W	350W
Input Voltage (VAC)	90 ~ 264	90 ~ 264
Output Voltage (VDC)	12, 15, 24, 28, 36, 48	12, 15, 24, 28, 36, 48
Efficiency	Up to 90%	Up to 91%
Isolation	Up to 3000VAC	Up to 3000VAC
Dimension	5.00" x 1.64" x 1.00"	5.00" x 3.00" x 1.00"
Case Temperature	-40°C ~ +85°C	-40°C ~ +85°C
Package	Metal case	Metal case
EMI	EN55032 Class B	EN55032 Class B
Safety	CE RoHS	CE RoHS
Warranty	3 Years	3 Years

Applications ▪ Wireless Network ▪ Telecom / Data Communication ▪ Industrial Control System
▪ Semiconductor Equipment ▪ Medical Application

Encapsulated-E
Encapsulated-S

Series	ESB	ESC	ESAS	ESBS	ESCS
Features	▪ Built-in EMI filter ▪ Wide range operating temperature ▪ Single / Dual Outputs ▪ +70°C without derating UVLO OCP OVP OTP	▪ Built-in EMI filter ▪ Wide range operating temperature ▪ Single / Dual Outputs ▪ +70°C without derating UVLO OCP OVP OTP	▪ Built-in PI filter ▪ Wide range operating temperature ▪ Single / Dual Outputs ▪ SMD optional ▪ +70°C without derating UVLO OCP OVP OTP	▪ Built-in PI filter ▪ Wide range operating temperature ▪ Single / Dual Outputs ▪ +70°C without derating UVLO OCP OVP OTP	▪ Built-in PI filter ▪ Wide range operating temperature ▪ Single / Dual Outputs ▪ +60°C without derating UVLO OCP OVP OTP
Output Power (W)	15W ~ 30W	20W ~ 50W	15W	20W ~ 50W	50W ~ 100W
Input Voltage (VDC)	9~18, 9~36, 18~36, 18~75, 36~75	9~18, 9~36, 18~36, 18~75, 36~75, 40~160	9~36, 18~75	9~36, 18~75	9~36, 18~75, 40~180
Output Voltage (VDC)	3.3, 5, 12, 15, 24, ±5, ±12, ±15, ±24	3.3, 5, 12, 15, 24, ±12, ±15, ±24	5, 12, 15, ±12, ±15	5, 12, 15, ±12, ±15	5, 12, 15, ±12, ±15
Efficiency	Up to 91%	Up to 90%	Up to 88%	Up to 88%	Up to 89%
Isolation	Up to 2250VDC	Up to 2250VDC	Up to 1600VDC	Up to 2000VDC	Up to 2000VDC
Dimension	1.6"x 1.0"x 0.4" (Flat) 1.6"x 1.0"x 0.5" (Heat sink embedded)	2.00"x 1.20"x 0.40" (Flat) 2.00"x 1.20"x 0.50" (Heat sink embedded) 2.03"x 1.68"x 0.46" (Baseplate)	1.27"x 0.65"x 0.40" (DIP 24) 1.27"x 0.65"x 0.40" (SMD 24)	1.00"x 1.00"x 0.40"	2.00"x 1.00"x 0.40"
Case Temperature	-45°C ~ +115°C -55°C ~ +125°C (Optional)	-45°C ~ +115°C -55°C ~ +125°C (Optional)	-40°C ~ +100°C	-40°C ~ +100°C	-40°C ~ +100°C
Package	Heat sink embedded & Flat	Heat sink embedded & Flat & Baseplate	DIP 24, SMD 24 (Metal or PVC)	Flat	Flat
EMI	EN55032 Class A & Class B	EN55032 Class A & Class B	EN55032 Class A	EN55032 Class A	EN55032 Class A
Safety	CE RoHS	CE RoHS	CE RoHS	CE RoHS	CE RoHS
Warranty	3 Years	3 Years	3 Years	3 Years	3 Years

Applications ▪ Railway Application ▪ Aviation Use ▪ Wireless Network ▪ Telecom / Data Communication ▪ Industrial Control System ▪ Semiconductor Equipment

Bricks-B

Series	STB (1 / 16 Brick compliant)	SQB (1/8、1/4 Brick compliant)	SHB (1 / 2 Brick compliant)	SFB (Full Brick)	MQB (1 / 4 Brick compliant)
Features	▪ DOSA pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP	▪ DOSA pin out / Vicor pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP	▪ DOSA pin out / Vicor pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP	▪ Vicor pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ Optional parallel output UVLO OCP OVP OTP	▪ DOSA pin out ▪ 8:1 & 12:1 Ultra-Wide input voltage ▪ Wide range operating temperature ▪ Single / Dual / Multi output ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP
Output Power (W)	40W ~ 60W	100W ~ 150W	200W ~ 300W	400W ~ 600W	50W ~ 75W
Input Voltage (VDC)	9~18, 9~36, 18~36, 18~75, 36~75	9~36, 18~36, 18~75, 40~180, 180~425	9~36, 18~36, 18~75, 40~180, 180~425	9~36, 18~36, 18~75, 40~180, 180~425	9~75, 14~154
Output Voltage (VDC)	3.3, 5, 12, 15, 24	5, 12, 15, 24, 28, 48	5, 12, 15, 24, 28, 48	12, 15, 24, 28, 48	5, 12, 15, 24, ±12, ±15, ±24
Efficiency	Up to 91%	Up to 92%	Up to 92%	Up to 91%	Up to 90%
Isolation	Up to 2250VDC	Up to 2250VDC	Up to 2250VDC	Up to 2250VDC	Up to 2250VDC
Dimension	1.48"x 1.08"x 0.52" (Flat) 1.49"x 1.46"x 0.52" (Baseplate)	2.42"x 1.08"x 0.50" (1/8 Flat) 2.42"x 1.47"x 0.50" (1/4 Baseplate)	2.42"x 2.40"x 0.59"	4.62"x 2.40"x 0.59"	2.36"x 1.57"x 0.49"
Case Temperature	-45°C ~ +105°C	-45°C ~ +105°C -55°C ~ +125°C (Optional)	-45°C ~ +105°C -55°C ~ +125°C (Optional)	-45°C ~ +105°C -55°C ~ +125°C (Optional)	-45°C ~ +105°C
Package	6-side baseplate & Flat	6-side baseplate & Flat	6-side baseplate	6-side baseplate	6-side baseplate
Safety	CE RoHS	CE RoHS	CE RoHS	CE RoHS	CE RoHS
Warranty	3 Years	3 Years	3 Years	3 Years	3 Years

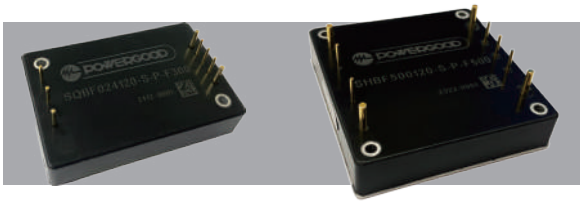
Applications ▪ Railway Application ▪ Aviation Use ▪ Wireless Network ▪ Telecom / Data Communication ▪ Industrial Control System ▪ Semiconductor Equipment

Bricks-S

Series	SQBS (1/8、1/4 Brick compliant)	SHBS (1 / 2 Brick compliant)	SFBS (Full Brick)
Features	▪ DOSA pin out / Vicor pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP	▪ Vicor pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP	▪ Vicor pin out ▪ Wide range operating temperature ▪ Ceramic Capacitor design ▪ Provides predictable EMI UVLO OCP OVP OTP
Output Power (W)	50W ~ 100W	50W ~ 100W	50W ~ 200W
Input Voltage (VDC)	9~36, 18~36, 18~75, 40~180, 180~425	9~36, 18~36, 18~75, 40~180, 180~425	9~36, 18~36, 18~75, 40~180, 180~425
Output Voltage (VDC)	5, 12, 15, 24, 28, 48	5, 12, 15, 24, 28, 48	5, 12, 15, 24, 28, 48
Efficiency	Up to 89%	Up to 89%	Up to 89%
Isolation	Up to 2250VDC	Up to 2250VDC	Up to 2250VDC
Dimension	2.42"x 1.08"x 0.50" (1/8 Flat) 2.42"x 1.47"x 0.50" (1/4 Baseplate)	2.42"x 2.40"x 0.59"	4.62"x 2.40"x 0.59"
Case Temperature	-40°C ~ +100°C	-40°C ~ +100°C	-40°C ~ +100°C
Package	6-side baseplate & Flat	6-side baseplate	6-side baseplate
Safety	CE RoHS	CE RoHS	CE RoHS
Warranty	3 Years	3 Years	3 Years

Applications ▪ Railway Application ▪ Aviation Use ▪ Wireless Network ▪ Telecom / Data Communication ▪ Industrial Control System ▪ Semiconductor Equipment

Bricks-F



Series	SQBF (1/4 Brick compliant)	SHBF (1 / 2 Brick compliant)
Features	▪ DOSA pin out ▪ Maximum Power Density Ratio ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP	▪ DOSA pin out ▪ Maximum Power Density Ratio ▪ Ceramic Capacitor design ▪ Provides predictable EMI ▪ No minimum load requirement UVLO OCP OVP OTP
Output Power (W)	300W	600W
Input Voltage (VDC)	18~36, 18~75, 180~425	18~36, 36~75, 66~180, 180~425
Output Voltage (VDC)	12, 15, 24, 28, 48	12, 15, 24, 28, 48
Efficiency	Up to 93%	Up to 94%
Isolation	Up to 2250VDC	Up to 2250VDC
Dimension	2.40"x 1.60"x 0.50"	2.40"x 2.30"x 0.50"
Case Temperature	-45°C ~ +105°C	-45°C ~ +105°C
Package	Aluminum base with plastic case	Aluminum base with plastic case
Safety	CE RoHS	CE RoHS
Warranty	3 Years	3 Years

Applications ▪ Railway Application ▪ Aviation Use ▪ Wireless Network ▪ Telecom / Data Communication ▪ Industrial Control System ▪ Semiconductor Equipment

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