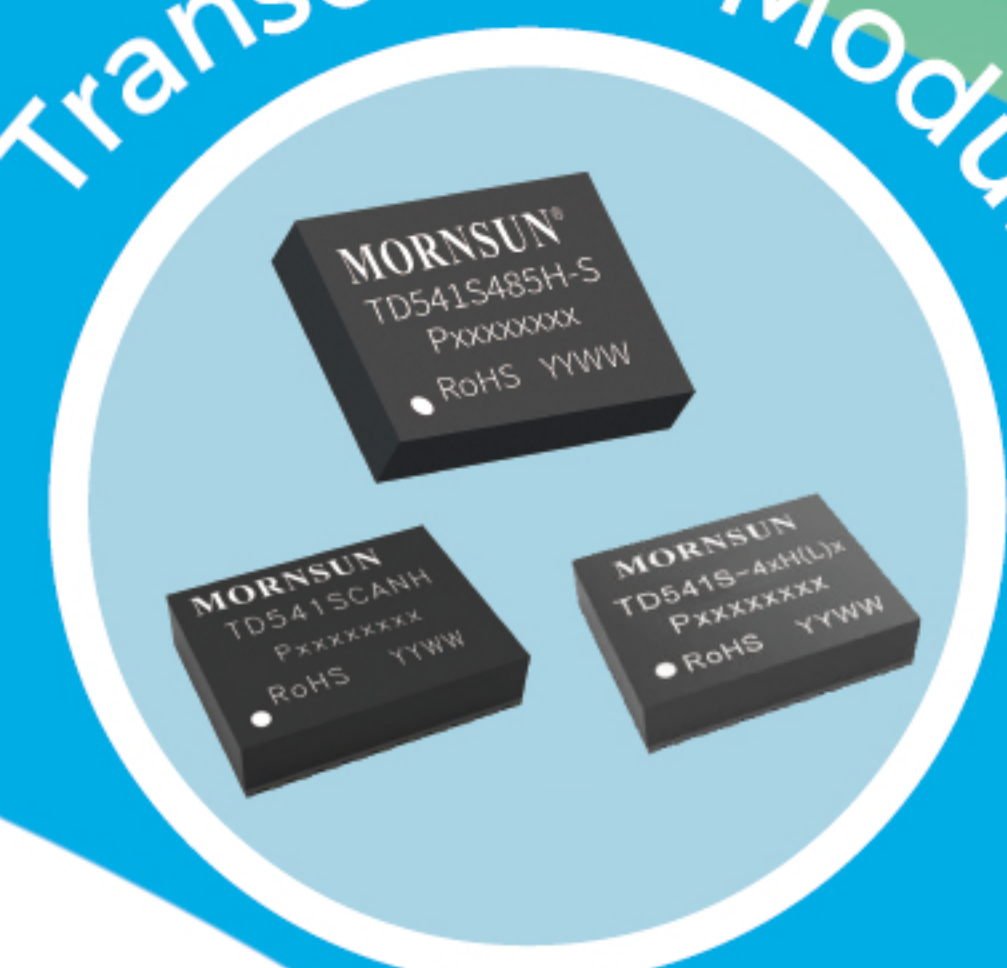


One-stop Power Solutions for EV Charging Stations



Transceiver Module



AC/DC DIN rail Power Supply



Current Sensor



DC/DC Converter

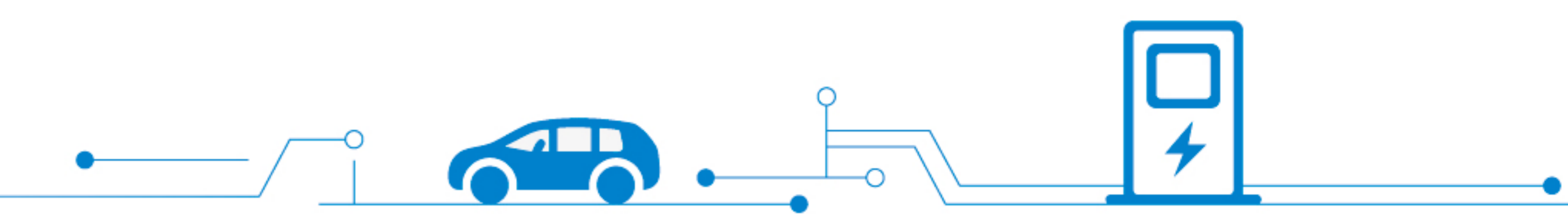


AC/DC Enclosed Switching Power Supply



AC/DC Converter





Research & Development

1200+ patents, 700+ R&D engineers



Fast delivery

45+ SMT production line, 80K^m production area



Timely service

T+4 hours quick respond from Mornsun Team



Manufacturing Center in Huaihua



R&D Center in Guangzhou

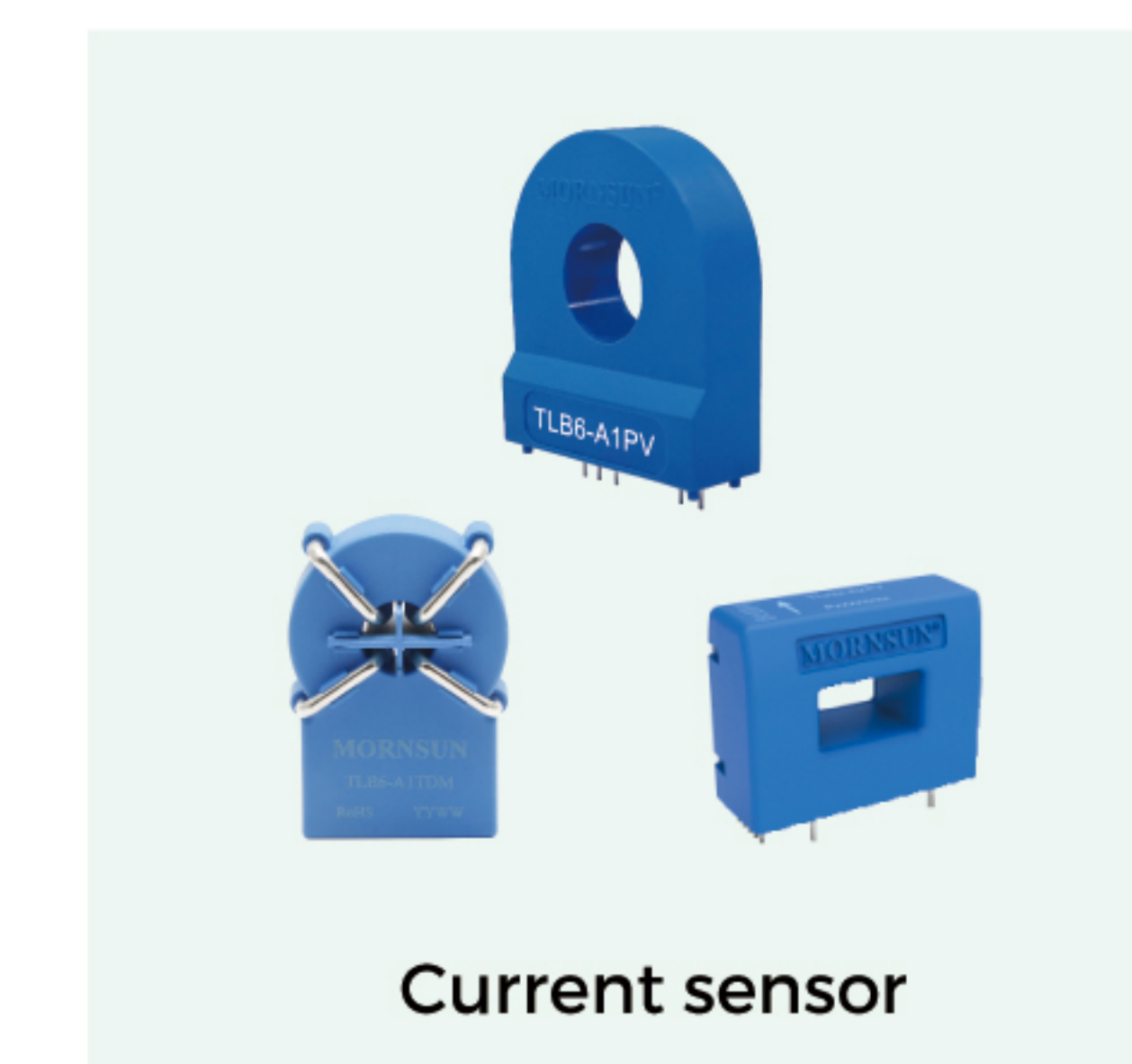
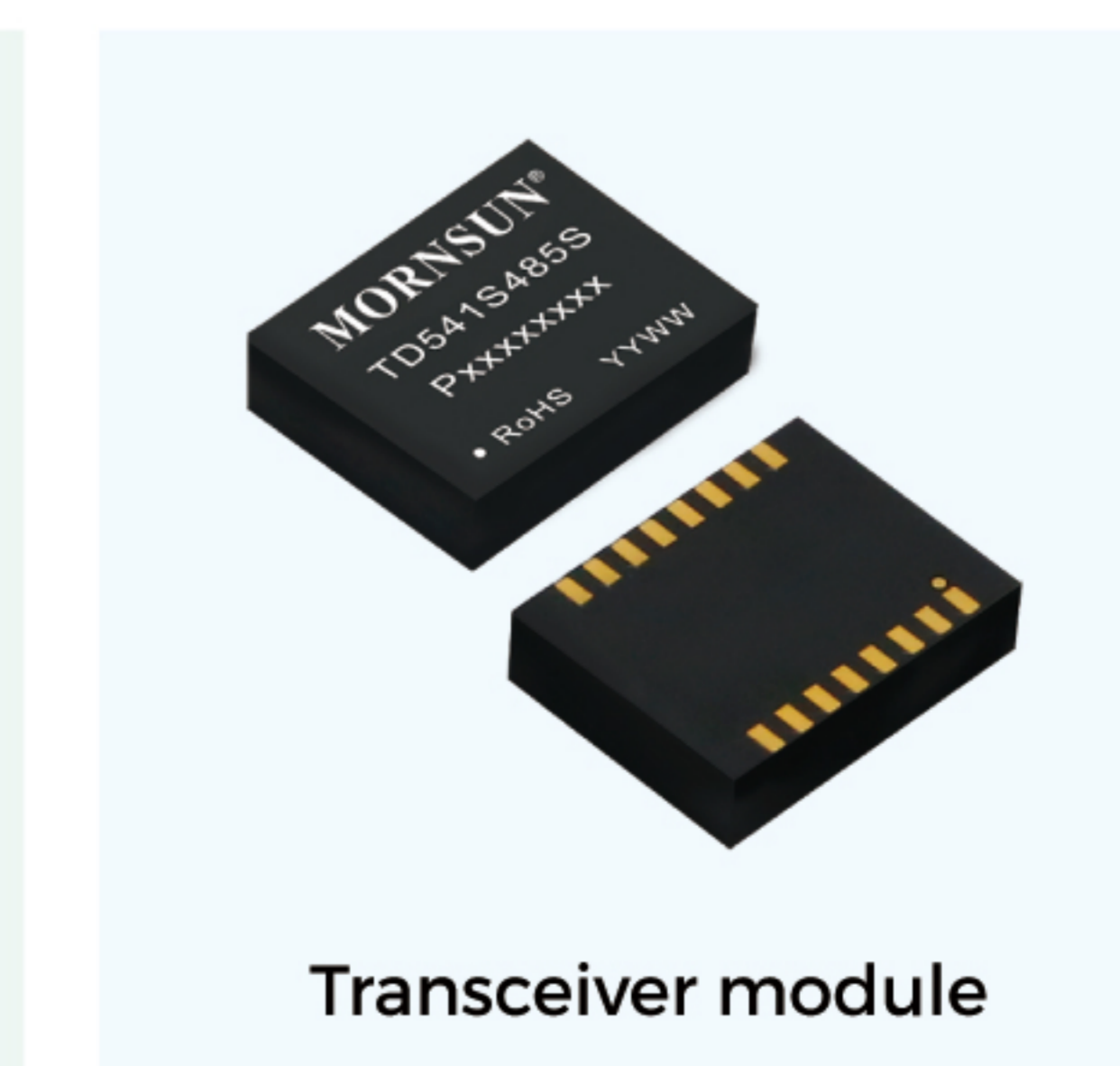
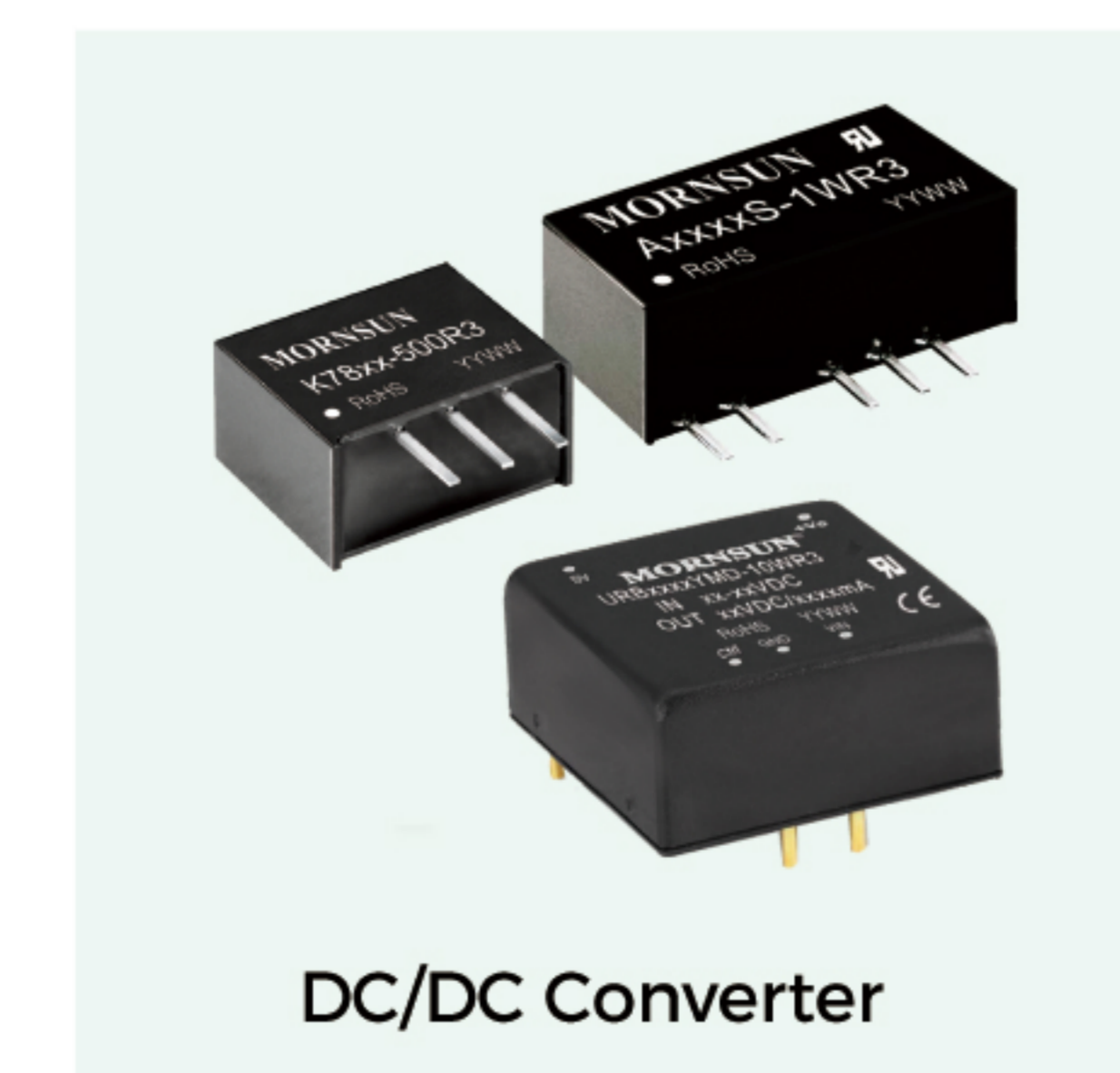
- Established: 1998
- Employees: 3500+
- Size: 3 subsidiaries, 6 R&D center
- Certifications: EN50155, IATF16949, ISO14001
- Markings: UL, CE, CB, REACH, RoHS COMPLIANT, CCC, CQC, IECEx, Ex



Headquarters in Guangzhou

Content

- Company profile + Content ----- 01-02
- DC charger application details ----- 03
- AC charger application details ----- 04
- Product selection guide ----- 05-12



Power supply solutions of DC charger

Power supply solutions of AC charger



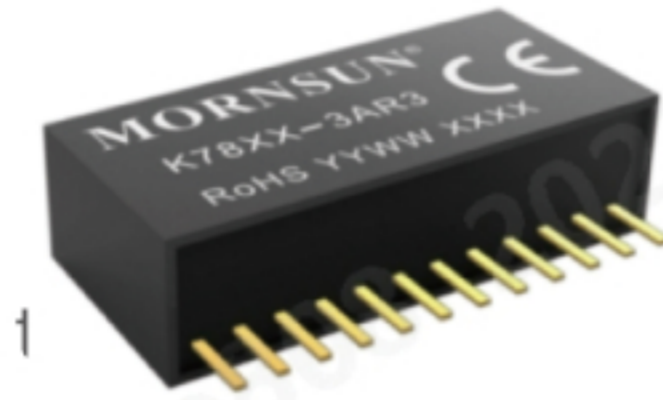
Recommend: LI30-20B24PR2

- ① 24V/30W, single phase, Din-rail
- ② Operating temperature range: -40 C to +70 C



Recommend: K7805-3AR3

- ① 5V/3A switching regulator
- ② Operating temperature range: -40 C to +105 C



Recommend: LIF120-10B12R2

- ① 12V/120W, single phase, Din-rail
- ② Operating temperature range: -40 C to +70 C



Recommend: TD541SCANH-S

- ① Integrate 5V power supply
- ② Isolation voltage: 5000VDC



Recommend: LITF480-26B24S

- ① 24V/480W, 3 phase, Din-rail
- ② Operating temperature range: -40 C to +70 C



URH2412P-6WR3

- ① 6W, 9-36VDC input
- ② Isolation voltage: 6000VDC



QA123C-xxxxR3 SiC drive power supply

- ① Isolation voltage: 5000VAC
- ② Isolation capacitance: $\leq 5\text{pF}$



Specific solution for DC charger

AC/DC	DC/DC	Transceiver module	Current sensor
Three-phase DIN rail, LIT(F) series, 240-960W	Isolated, 1-60W Non-isolated, 0.5-3A Driving power supply QA series	CAN: TDx41SCAN series RS485: TDx41S485 series Digital isolation module: TD541S-4xHx series	TL series, 0-300A current detection range
Single-phase DIN rail, LI(F) series, 15-960W			
Enclosed, LM(F) series, 15-1500W			
Fanless&Semi-potted, LMF-UH series, 200-1000W			

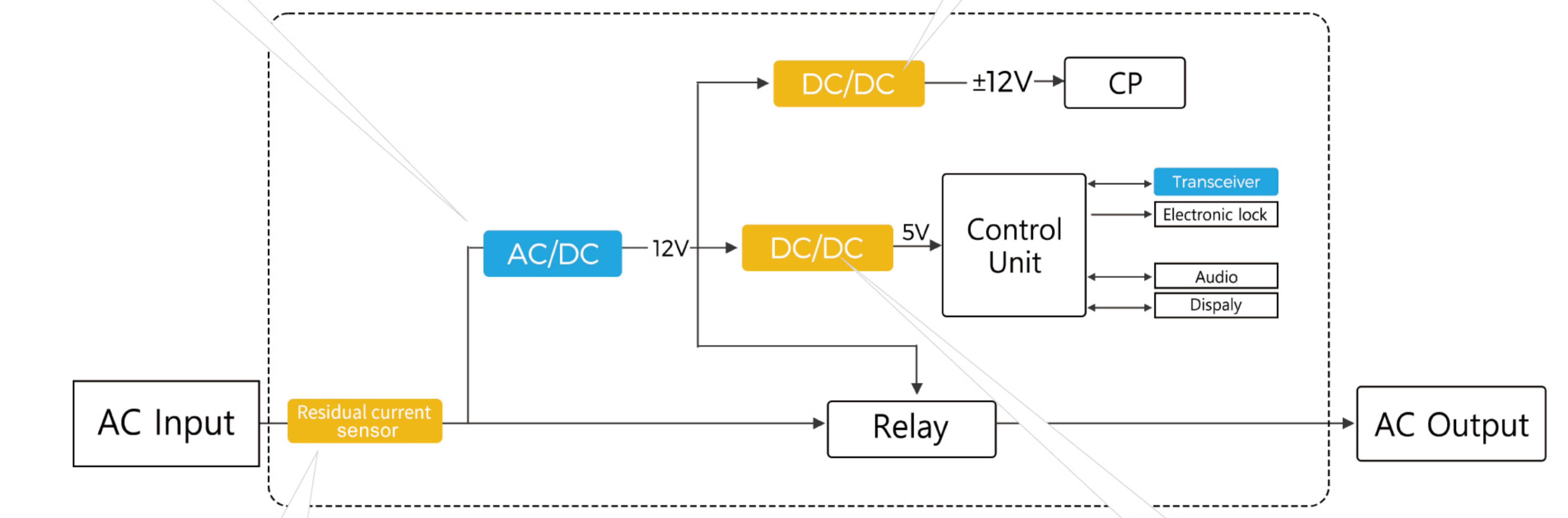
Recommend: LD20-23B12R2

- ① 12V/20W, single phase, PCB mount
- ② OVC III
- ③ Operating temperature range: -40 C to +85 C



Recommend: A1212XT-1WR3

- ① 1W, 12V input, $\pm 12\text{V}$ output
- ② Isolation voltage: 1500VDC
- ③ Operating temperature range: -40 C to +105 C



Recommend: TLB6-A1PV

- ① Open-loop, fluxgate residual current sensor
- ② Rated operating residual current: DC 6mA / AC 30mA
- ③ IEC62955 approved



Recommend: K7805MT-1000R4

- ① 5V/1A switching regulator
- ② 9.00*7.00*3.10 mm
- ③ Temperature range: -40 C to +105 C



Specific solution for AC charger

AC/DC	DC/DC	Transceiver module	Residual current sensor
Encapsulated, LD-R2 series, 3-90W	Isolated, 1-10W Non-isolated, 0.5-3A	CAN: TDx41SCAN series RS485: TDx41S485 series Digital isolation module: TD541S-4xHx series	TLB6 series, AC 30mA and DC 6mA residual current detection
Open frame, LS series, 1-15W			

15-1500W AC/DC enclosed and Din rail power supply



High reliability

Superior EMC performance

High safety

Support customization

Semi-potted & Fanless enclosed product parameter

Type	power	Input voltage (V)	Output voltage	Isolation voltage	Certifications
LMF200-23BxxUH	200W	85-305VAC/120-430VDC	5, 12, 24, 28, 36, 48	4000VAC	UL, CE, CB, UK
LMF350-23BxxUH	350W	85-305VAC/120-430VDC	5, 12, 24, 28, 36, 48	4000VAC	UL, CE, CB, UK
LMF500-23BxxUH	500W	85-305VAC/120-430VDC	5, 12, 24, 36, 48, 55	4000VAC	UL, CE, CB, UK
LMF750-23BxxUH	750W	85-305VAC/120-430VDC	12, 24, 28, 36, 48	4000VAC	UL, CE, CB, UK
LMF1000-23BxxUH	1000W	85-305VAC/180-430VDC	12, 24, 36, 48	4000VAC	Pending

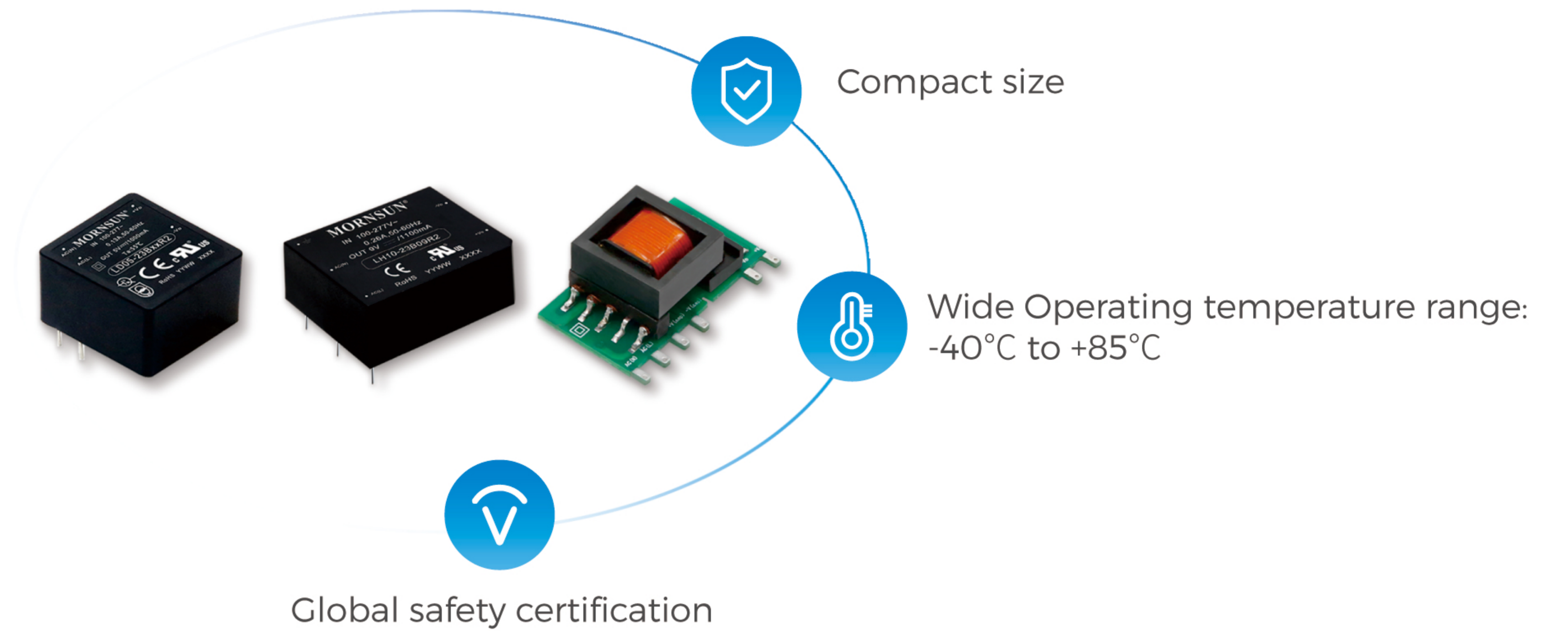
Enclosed product parameter

Type	power	Input voltage (V)	Output voltage	Isolation voltage	Certifications
LM15-23Bxx	15W	85-305VAC/100-430VDC	3.3, 5, 12, 15, 24, 48	4000VAC	UL, CE, CB, UK
LM25-23Bxx	25W	85-305VAC/100-430VDC	3.3, 5, 12, 15, 24, 48	4000VAC	UL, CE, CB, UK
LM35-23Bxx	35W	85-305VAC/120-430VDC	5, 12, 15, 24	4000VAC	UL, CE, CB, UK
LM50-23Bxx	50W	85-305VAC/100-430VDC	5, 12, 15, 24, 36, 48	4000VAC	UL, CE, CB, UK
LM75-23Bxx	75W	85-305VAC/120-430VDC	5, 12, 15, 24, 36, 48, 55	4000VAC	UL, CE, CB, UK
LM100-23Bxx	100W	85-305VAC/120-430VDC	5, 12, 15, 24, 36, 48	4000VAC	UL, CE, CB, UK
LMF150-23Bxx	150W	85-305VAC/120-430VDC	12, 15, 24, 48	4000VAC	UL, CE, CB, UK
LMF200-23Bxx	200W	85-305VAC/120-430VDC	4, 5, 12, 15, 24, 27, 48	4000VAC	UL, CE, CB, UK
LMF320-23Bxx	320W	85-305VAC/120-430VDC	4, 5, 12, 15, 24, 27, 48	4000VAC	UL, CE, CB, UK
LMF500-20Bxx	500W	80-264VAC/110-370VDC	3.3, 5, 12, 15, 24, 27, 36, 48, 54	4000VAC	CE, UK
LMF600-20Bxx	600W	80-277VAC/110-390VDC	12, 15, 24, 27, 36, 48	4000VAC	UL, CE, CB, UK
LMF750-20Bxx	750W	80-277VAC/110-390VDC	12, 15, 24, 27, 48	4000VAC	CE, UK
LMF1000-20Bxx	1000W	90-264VAC/120-370VDC	12, 15, 24, 27, 36, 48, 54	4000VAC	UL, CE, CB, UK
LMF1500-20Bxx	1500W	85-264VAC/120-370VDC	12, 15, 24, 27, 36, 48, 54	4000VAC	UL, CE, UK

Din rail product parameter

Type	power	Input voltage (V)	Output voltage (V)	Isolation voltage	Certifications
LI15-20BxxPR2	15W	85-264VAC/120-370VDC	5, 12, 15, 24, 48	4000VAC	CE ㉔
LI30-20BxxPR2	30W	85-264VAC/120-370VDC	5, 12, 15, 24, 48	4000VAC	UL CE CB ㉔
LI60-20BxxPU	60W	85-264VAC/120-370VDC	5, 12, 24, 48	4000VAC	CE ㉔
LI60-20BxxPR2	60W	85-264VAC/120-370VDC	5, 12, 15, 24, 48	4000VAC	UL CE CB ㉔
LI75-23BxxR3	75W	85-305VAC/120-430VDC	12, 24, 48	4000VAC	UL CE ㉔
LIF120-10BxxR2	120W	85-264VAC/120-370VDC	12, 24, 48, 55	3000VAC	UL CE
LIF240-10BxxR2	240W	85-264VAC/120-370VDC	12, 24, 48, 55	3000VAC	UL CE ㉔
LIF480-10BxxR2	480W	85-264VAC/120-370VDC	24, 48	3000VAC	UL CE ㉔
LIMF120-23Bxx	120W	85-277VAC/120-390VDC	12, 24, 48	4000VAC	UL CE ㉔
LIMF240-23Bxx	240W	85-277VAC/120-390VDC	12, 24, 48	4000VAC	UL CE ㉔
LIMF480-23Bxx	480W	85-277VAC/120-390VDC	24, 48	4000VAC	UL CE ㉔
LIHF240-23Bxx	240W	85-277VAC/120-390VDC	24, 48	4000VAC	UL CE ㉔
LIHF480-23Bxx	480W	85-277VAC/120-390VDC	24, 48	4000VAC	UL CE ㉔
LIHF960-23Bxx	960W	85-277VAC/120-390VDC	24, 48	4000VAC	CE ㉔
LIT240-26Bxx	240W	3x320-600VAC/450-850VDC	24, 48	4000VAC	UL CE ㉔
LITF240-26Bxx	240W	3x320-600VAC/450-800VDC	24, 48	4000VAC	Pending
LITF480-26Bxx	480W	3x320-600VAC/450-800VDC	24, 36, 48	4000VAC	UL CE ㉔
LITF480-26BxxS	480W	3x320-550VAC/450-800VDC	24, 48	4000VAC	CE ㉔
LITF960-26Bxx	960W	3x320-600VAC/450-800VDC	24, 36, 48	4000VAC	Pending

AC/DC On-board Converters



Product parameter

Type	power	Input voltage (V)	Output voltage (V)	Isolation voltage	Certifications
LD05-23B12R2	5W	85-305VAC/100-430VDC	12	4000VAC	UL CE CB
LD10-23B12R2	10W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB
LD15-23B12R2	15W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB
LD20-23B12R2	20W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB ㉔
LD30-23B12R2	30W	85-305VAC/120-430VDC	12	4200VAC	UL CE CB ㉔
LD40-23B12R2	40W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB ㉔
LD60-23B12R2	60W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB ㉔
LD90-23B12R2	90W	85-305VAC/110-430VDC	12	4200VAC	UL CE CB ㉔
LHE15-23B12R2	15W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB
LHE20-23B12R2	20W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB
LD10-23B12R2-RC	10W	85-305VAC/100-430VDC	12	4200VAC	CE ㉔
LD20-23B12R2-RC	20W	85-305VAC/100-430VDC	12	4200VAC	UL CE CB ㉔
LS05-13B12R3	5W	85-305VAC/70-430VDC	12	3600VAC	UL CE CB ㉔
LS10-13B12R3	10W	85-305VAC/100-430VDC	12	3600VAC	UL CE CB ㉔
LS15-23B12DR3	15W	85-305VAC/100-430VDC	12	4000VAC	CE

DC/DC Converters



Isolated & Wide input product parameter

Type	power	Input voltage (V)	Output voltage(V)	Isolation voltage	Certifications
B0505XT-1WR3	1W	4.5-5.5VDC	5	1500VDC	UL CE CB
F0505XT-1WR3	1W	4.5-5.5VDC	5	3000VDC	UL CE CB
B0505MT-1WR4	1W	4.5-5.5VDC	5	3000VDC	UL CE CB
A1212XT-1WR3	1W	10.8-13.2VDC	12	1500VDC	UL CE CB
E1212XT-1WR3	1W	10.8-13.2VDC	12	3000VDC	UL CE CB
H0505S-1WR3	1W	4.5-5.5VDC	5	5000VAC/ 6000VDC	UL CE
H1212S-1WR3	1W	10.8-13.2VDC	12	5000VAC/ 6000VDC	UL CE
H2424S-1WR3	1W	21.6-26.4VDC	24	5000VAC/ 6000VDC	UL CE
URB24xxYMD-6WR3	6W	9-36VDC	3.3, 5, 9, 12, 15, 24	1500VDC	UL CE CB
URB24xxYMD-10WR3	10W	9-36VDC	3.3, 5, 9, 12, 15, 24	1500VDC	UL CE CB
URB24xxYMD-15WR3	15W	9-36VDC	3.3, 5, 12, 15, 24	1500VDC	UL CE CB
URB24xxYMD-20WR3	20W	9-36VDC	3.3, 5, 6, 12, 15, 24	1500VDC	UL CE CB
URB24xxYMD-40WR3	40W	9-36VDC	3.3, 5, 12, 15, 24, 28	1500VDC	CE
URH24xxP-6WR3	6W	9-36VDC	5, 6, 9, 12, 15, 18, 24	6000VDC	CE
URH24xxLP-20WR3	20W	9-36VDC	3.3, 5, 12, 15, 24	5000VAC	CE

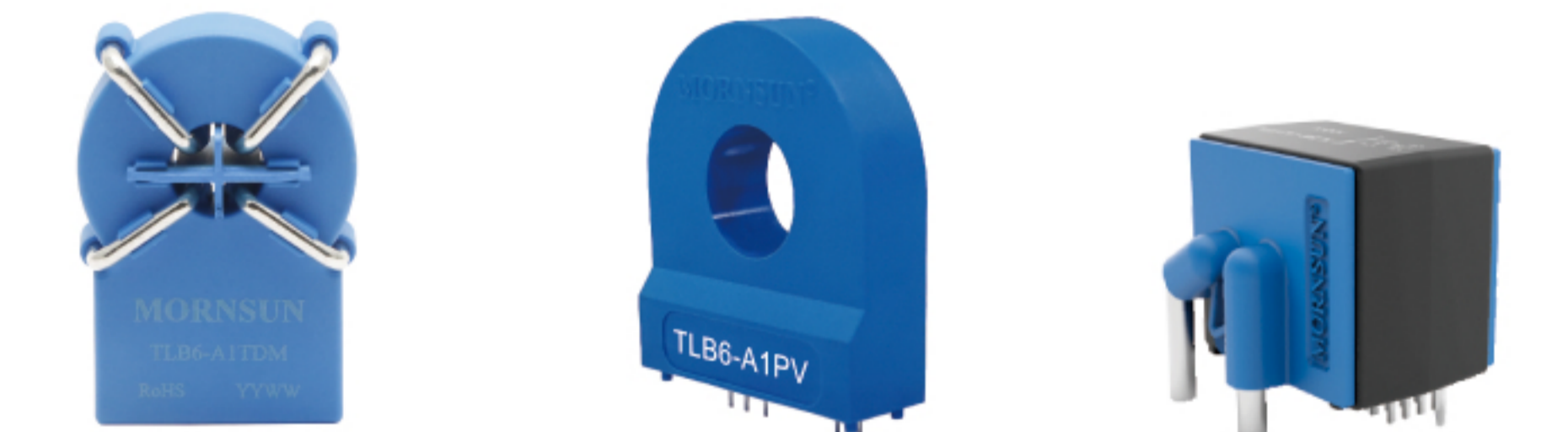
DC/DC Converters



Non-isolated product parameter

Type	Input voltage (V)	Output voltage(V)	Output Current(mA)	Size	Certifications
KAE2405T-0.5A	6.5-28VDC	5	500	4.00 x 3.00 x 2.68 mm	—
K7805-500R3-LB	6.5-36VDC	5	500	10.27 x 6.00 x 8.61 mm	CE
K7805JT-500R3-LB	6.5-36VDC	5	500	12 x 12 x 4.5 mm	CE
K7805-500R3	6.5-36VDC	5	500	11.60 x 7.55 x 10.16 mm	UL CE CB
K7812-500R3	8-24VDC	-12	-150	11.60 x 7.55 x 10.16 mm	UL CE CB
K7805M-1000R3	8-36VDC	5	1000	11.60 x 8.00 x 10.40 mm	CE
K7805MT-500R4	6.5-36VDC	5	500	9.00 x 7.00 x 3.10 mm	CE
K7805MT-1000R4	6.5-36VDC	5	1000	9.00 x 7.00 x 3.10 mm	CE
K7805-2000R3	8-36VDC	5	2000	11.50 x 9.00 x 17.50 mm	CE
K7812-2000R3	16-36VDC	12	2000	11.50 x 9.00 x 17.50 mm	CE
K7812-3AR3	16-36VDC	12	3000	32.15 x 14.85 x 9.05 mm	CE

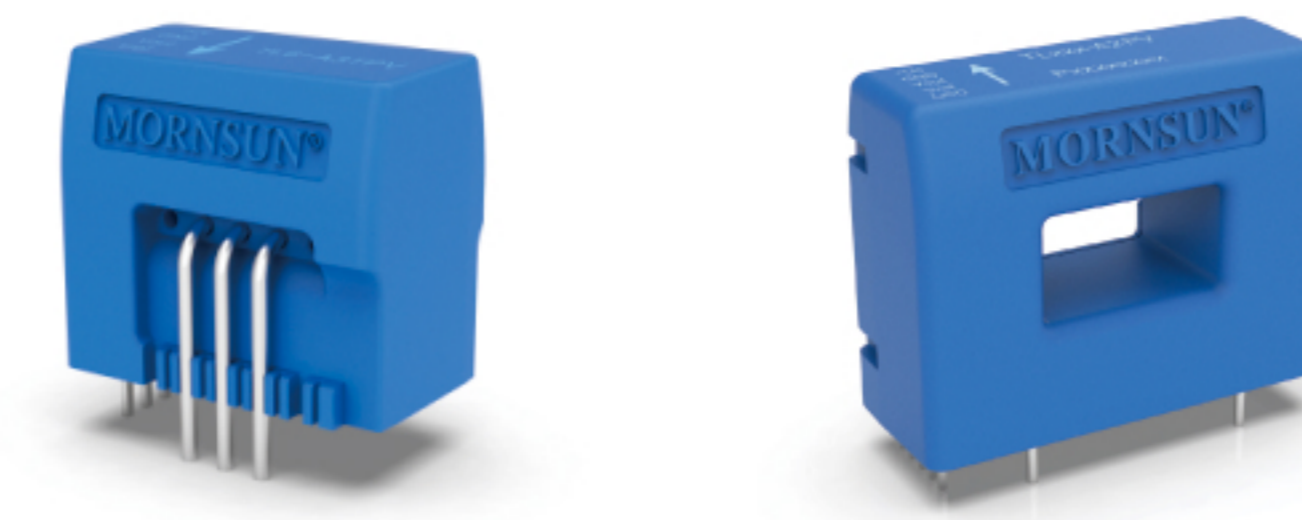
Residual Current Sensor



Product parameter

Type	Rated residual current	Rated current	Certifications
TLB6-A1PC	DC: 6mA AC: 30mA	80A/ 40A (Single/Three phase)	meets IEC62752, IEC 62955
TLB6-A1PCE	DC: 6mA AC: 30mA	80A/ 40A (Single/Three phase)	meets IEC62752, IEC 62955
TLB6-A1PD	DC: 6mA AC: 30mA	80A/ 40A (Single/Three phase)	meets IEC62752, IEC 62955
TLB6-A1PDM	DC: 6mA AC: 30mA	80A/ 40A (Single/Three phase)	meets IEC62752, IEC 62955
TLB6-A1PDMK	DC: 6mA AC: 30mA	80A/ 40A (Single/Three phase)	meets IEC62752, IEC 62955
TLB6-A1PV	DC: 6mA AC: 30mA	80A/ 40A (Single/Three phase)	meets IEC62752, IEC 62955
TLB6-A1SVE	DC: 6mA AC: 30mA	40A	meets IEC62752, IEC 62955
TLB6-A1TDM	DC: 6mA AC: 30mA	40A	meets IEC62752, IEC 62955

Current Sensor



Product parameter

Type	Rated current (mA)	Precision	Technology
TLxx-DIC	100/200/300A	±0.5%	Hall closed-loop
TLxxP-DIC	100/200/300A	±0.5%	Hall closed-loop
TLxx-D2C	100/300A	±0.3%	Hall closed-loop
TLxx-A3TPV	6/15/25/50A	±0.45%	Hall closed-loop
TLxx-A2PV	100/150/200A	±0.5%	Hall closed-loop
TLxx-A2TPV	100/150/200A	±0.5%	Hall closed-loop

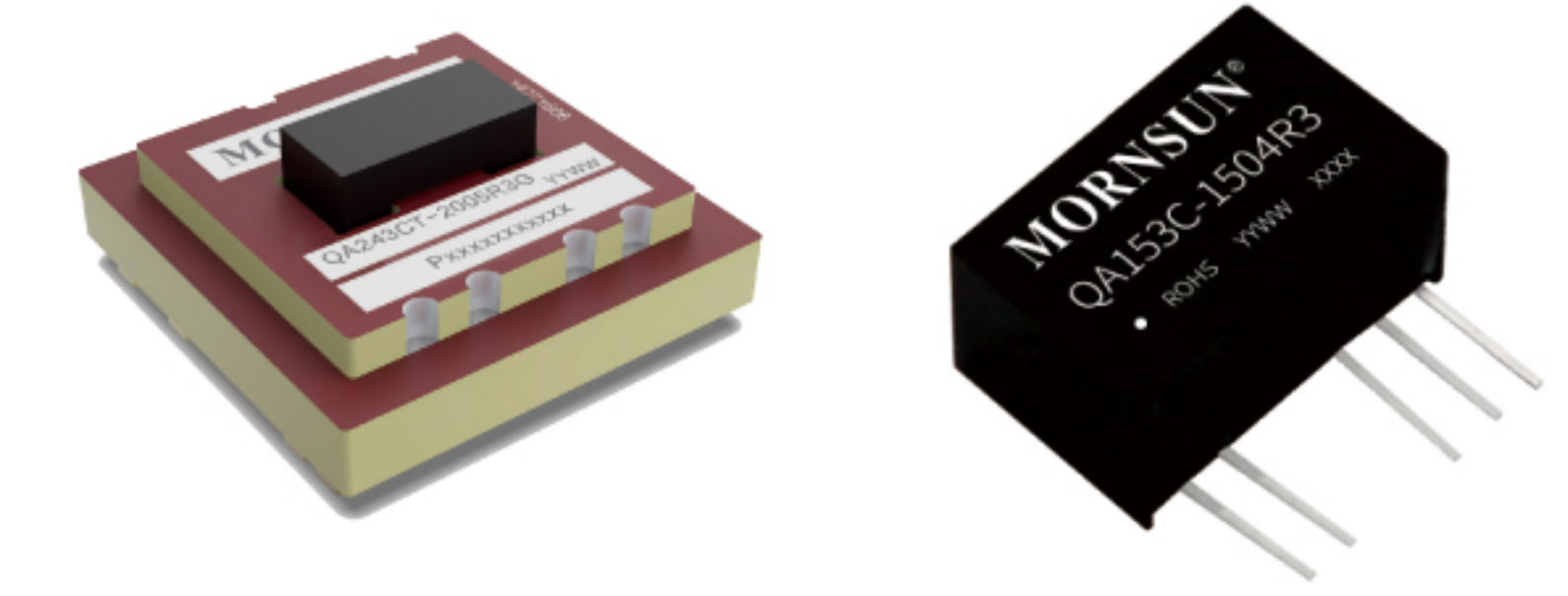
Transceiver module



Product parameter

Product line	Type	Transmission rate (bps)	Input voltage (VDC)	Isolated & Wide input	Integrated Power Supplies
CAN	TDA51SCANHC	1M	5	5000Vrms	✓
	TD541SCANH-S	1M	5	5000VDC	✓
	TD341SCAN	1M	3.3, 5	5000VDC	✓
	TD041SCANH-S	1M	3.3, 5	3750Vrms	—
RS485	TDA51S485HC	0.5M	5	5000Vrms	✓
	TD541S485H-S	10M	5	5000VDC	✓
	TD341S485H	1M	3.3	5000VDC	✓
	TD041S485H	1M	3.3, 5	3750Vrms	—
Digital isolator	TDA51S-41HC	100M	3.3, 5	5000 Vrms	✓
	TD541S-41H5	150M	5	5000VDC	✓

Driving Power Supply



Product parameter

type	Power	Input voltage (VDC)	Output voltage (VDC)	Isolated & Wide input	package
QA123C-1502R3	2W	12	+15/-2.5	5000VAC	SIP
QA123C-1803R3	2W	12	+18/-3	5000VAC	SIP
QA123C-1504R3	2W	12	+15/-4	5000VAC	SIP
QA123C-2005R3	2W	12	+20/-5	5000VAC	SIP
QA153C-1504R3	2W	15	+15/-4	5000VAC	SIP
QA153C-2005R3	2W	15	+20/-5	5000VAC	SIP
QA243C-1504R3	2W	24	+15/-4	5000VAC	SIP
QA243C-2005R3	2W	24	+20/-5	5000VAC	SIP
QA123CT-2005R3G	2W	12	+20/-5	5000VAC	SMD
QA123CT-1803R3G	2W	12	+18/-3	5000VAC	SMD
QA123CT-1504R3G	2W	12	+15/-4	5000VAC	SMD
QA243CT-2005R3G	2W	24	+20/-5	5000VAC	SMD
QA243CT-1803R3G	2W	24	+18/-3	5000VAC	SMD
QA243CT-1504R3G	2W	24	+15/-4	5000VAC	SMD



EV charging station
selection guide



<https://www.mornsun-power.com/>



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