DESCRIPTIONS KNX Bus Power Supply



RoHS

CE Report EN62368-1

UKCA Report BS EN62368-1

FEATURES

- 180 - 264VAC or 254 - 370VDC Input voltage
- Operating ambient temperature range: -30℃ to +70℃
- Low standby power consumption, high efficiency
- High I/O isolation test voltage up to 4000VAC
- Output short circuit, over-current, over-voltage protection
- Compliant with EN/BS EN62368, meeting EN61558 and EN50491 certification standards
- Bus reset function
- LED indicator for working status, over-load and reset
- The internal integrated choke
- Compact dimensions, Din-rail design, din rail TS-35/7.5 or TS-35/15 mountable
- OVC III
- SELV
- 10-year life design

APPLICATIONS

- Smart home
- Building automation
- Lighting control
- Curtain and blinds control
- Heating and air conditioning systems

Selection Guide

Certification	Part No.	Output Power (W)	Nominal Output Voltage and Current (Vo/Io)	Efficiency at 230VAC (%) Typ.*	Max. Capacitive Load (μF)
EN/BS EN	ADKNX20-1A640	19.2	30V/640mA	86	2000

Note: 1. *The efficiency tested at Vo2.

2. *The product picture is for reference only. For details, please refer to the actual product.

Specifications

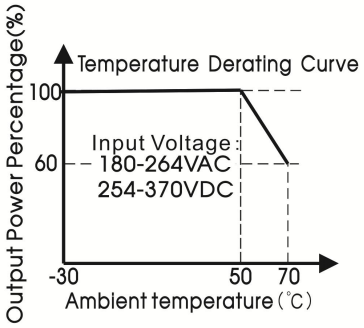
Specifications	Item		Operating Conditions		Min.	Typ.	Max.	Unit
Input Specifications	Input Voltage Range		AC input		180	--	264	VAC
			DC input		254	--	370	VDC
	Input Voltage Frequency				47	--	63	Hz
	Input Current		230VAC		--	--	0.25	A
	Inrush Current		230VAC	Cold start	--	--	45	
	Hot Plug				Unavailable			
Output Specifications	Output Current Range				0	--	640	mA
	Output Voltage Accuracy		Full load range		--	±5	--	%
	Line Regulation		Rated load		--	±1	--	
	Load Regulation		Primary output		--	±6	--	
			Secondary output		--	±4	--	
	Ripple & Noise*		20MHz bandwidth (peak-to-peak value)		--	90	100	mV
	Hold-up Time		230VAC		150	200	--	ms
	Short Circuit Protection		Recovery time <5s after the short circuit disappear.		Constant current, long-term short circuit protection, self-recovery			
	Over-current Protection		Room temperature		205% - 235% Io, self-recovery after the abnormality is removed			
	Over-voltage Protection		230VAC		33V - 35V (self-locking, restart to recovery)			
General Specifications	Isolation Test	Input - ⏚	Electric strength test for 1min., leakage current <10mA		2000	--	--	VAC
		Input - output			4000	--	--	
		Output - ⏚			1250	--	--	
	Insulation Resistance	Input - ⏚	Ambient temperature: 25±5℃ Relative humidity: less than 70% At 500VDC		100	--	--	MΩ
		Input - output			100	--	--	
		Output - ⏚			--	--	--	
	Operating Temperature				-30	--	+70	℃
	Storage Temperature				-40	--	+85	
	Storage Humidity		Non-condensing		--	--	95	%RH
	Switching Frequency				45	50	55	kHz
	Power Derating		Operating temperature derating	+50℃ to +70℃	2	--	--	%/℃
			Input voltage derating	180VAC - 264VAC	--	--	--	%/VAC
	Safety Class				CLASS II			
	MTBF		MIL-HDBK-217F@25℃		> 300,000 h			
Function	Reset		There is a button to reset the KNX, at least press the button for 20s for reset.					
	LED Indicator		LED1, Green indicates normal operation; LED2, Red indicates resets; LED3, Red indicates output over-current or short ciruit.					

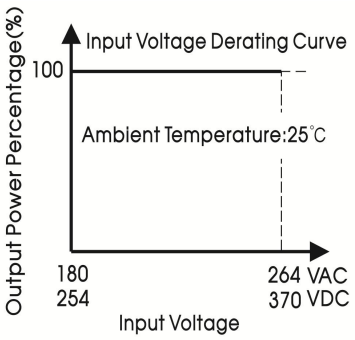
Mechanical Specifications	Choke	Product integrated choke.
	Dimensions	52.00mm x 90.00mm x 58.20mm
	Weight	195g (Typ.)
	Cooling Method	Free air convection
Note: When the working temperature is -30℃ to -5℃, the ripple and noise will be ±5%Vo.		

Electromagnetic Compatibility (EMC)

Electromagnetic Compatibility (EMC)	Emissions	CE	CISPR22/EN55022 CLASS B, EN 50491-5-2:2010	
		RE	CISPR22/EN55022 CLASS B, EN 50491-5-2:2010	
	Immunity	ESD	IEC/EN 61000-4-2 Contact ±4KV/Air ±8KV	Perf. Criteria A
		RS	IEC/EN 61000-4-3 10V/m	Perf. Criteria A
		EFT	IEC/EN 61000-4-4 ±2KV	Perf. Criteria A
		Surge	IEC/EN 61000-4-5 ±1KV/±2KV	Perf. Criteria A
		CS	IEC/EN61000-4-6 3 Vr.m.s	Perf. Criteria A
		Voltage dips, short interruptions and voltage variations immunity	IEC/EN61000-4-11 0%, 95%	Perf. Criteria A

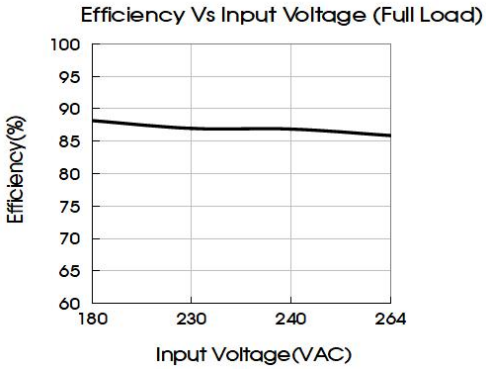
Characteristic Curve

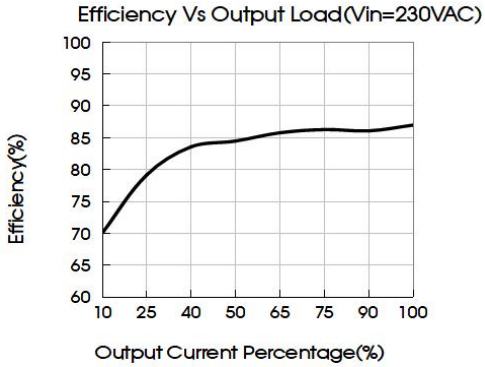




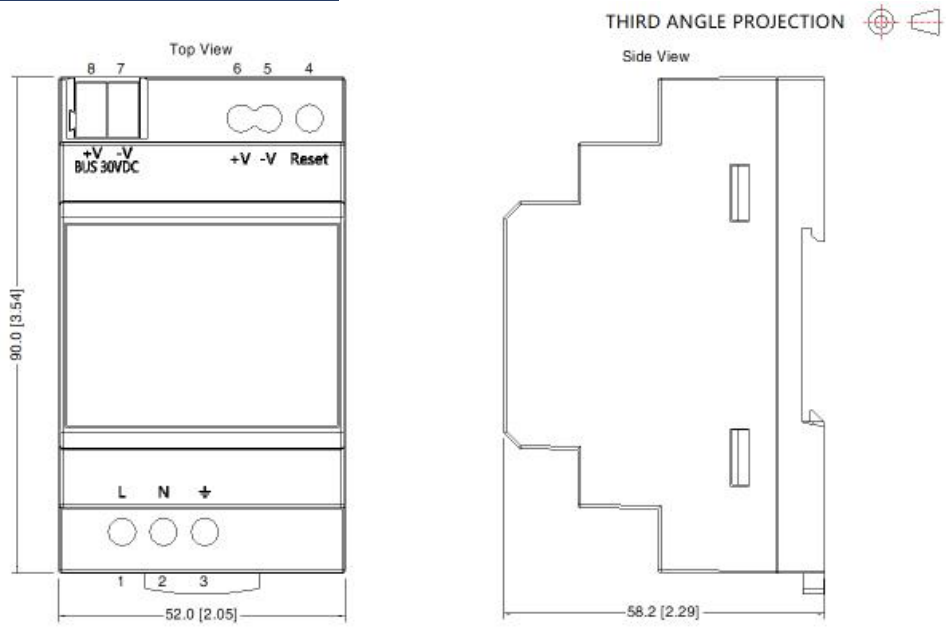
Note: 1.The efficiency curve is the efficiency of the secondary output.

2. This product is suitable for applications using free air cooling..





Dimensions and Recommended



Port function			
Port	Mark	Port	Mark
1	L	4	Reset
2	N	5	$-Vo_2$
3	⏚	6	$+Vo_2$
Led1	ON(G)	7	KNX Bus $-Vo_1$
Led2	Reset(R)	8	KNX Bus $+Vo_1$
Led3	I>Imax(R)		

Note:
Unit: mm[inch]
General tolerances: ±0.5[±0.02]

Note:

1. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet;
2. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, humidity<75% RH with nominal input voltage and rated output load;
3. Products are related to laws and regulations: see "Features" and "EMC";
4. The image certification marks are for reference only; please refer to the selection table for actual specifications. Certification is based on the physical mark or packaging label.