

2. Explanation on Specifications

1 Application and mode of operation

WARNING

Hazardous voltages are present in this electrical equipment during operation. Non-observance of the safety instructions can result in severe personal injury or property damage.

The power supply unit is used to operate AS-i systems with integrated data link. The unit generates a stabilized, highly constant direct current voltage of DC30V with low residual ripple. The power supply unit operates on the basis of the primary switched-mode regulator principle. The task of the DC/DC converter is to convert the high DC link voltage to the low output voltages. It also performs the task of safe electrical isolation between mains circuit and output circuit. A control IC performs all regulation and drive functions for the power-switching transistor. This transistor is switched at a frequency of 100kHz so as to produce a stabilized square-wave AC voltage in the transformer's secondary circuit. This AC voltage is rectified and filtered in the secondary circuit.

2 Technical data

Please refer to Fig1 for block diagram.

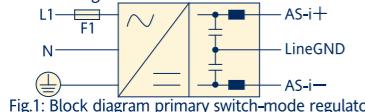


Fig.1: Block diagram primary switch-mode regulator

3 INCOMING INSPECTION, TRANSPORT AND STORAGE

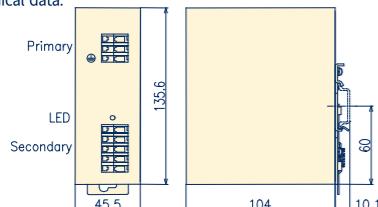
Immediately inspect the consignment for completeness and damage on receipt. If damage has occurred, please elaborate a damage report and consult the haulage contractor. The equipment should be transported carefully and, wherever possible, in the original packaging. Store the equipment in a dry location.

4 INSTALLATION, ASSEMBLY

WARNING

Safe operation is dependant upon proper handling and installation by qualified personnel under observance of all warnings contained in these operating instructions. In particular the general erecting and safety regulations (e.g. DIN, VDE, EN) and regulations regarding the correct use of hoisting gear and tools and of personal protective gear shall be observed. Non-observance can result in death, severe personal injury or substantial property damage.

The unit is designed for installation in enclosed controls and circuitry cubicles and, if wall-mounted, may be operated continually at temperatures up to the ambient temperature specified in the technical data.



The unit must be snapped onto a 35mm top-hat rail, in which case the ventilation slots must be at the top and bottom. Please refer to Fig. 2 for overall space required. Snap-in mounting to top hat rail acc. to DIN EN 50022-35x-7.5 or 35x-15

Fig. 2 : Outline dimensions

The unit is connected by means of cage-clamp terminals in accordance with the information on the rating plate. The terminals are safe from finger touch to DIN VDE 0106, Part 100. Fig. 3 the required insulation-stripping lengths for the leads and the way of connecting a wire. Connect the leads by operating the button to the left of the lead receptacle with a screwdriver to DIN 5264 (3.5x~0.5mm) and, at the same time, fully inserting the lead from which the insulation has been stripped to the required length beforehand.

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ISO14001&ISO9000 International Passport for Environmental Management, Quality and Reliability

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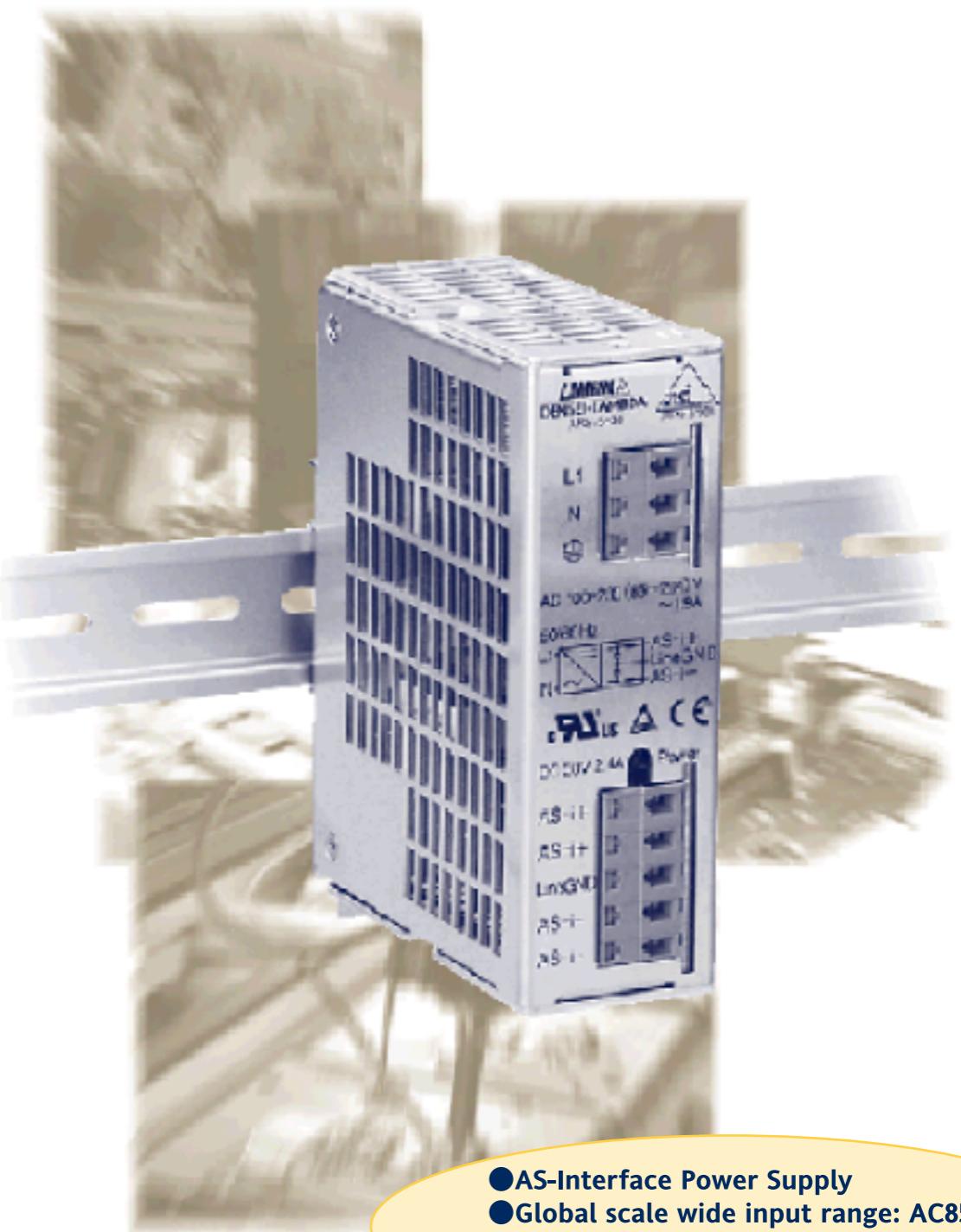
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- AS-Interface Power Supply
- Global scale wide input range: AC85-264V
- Output: 30V 2.4A max.
- DIN rail mountable type

APS75-30 Specification

Outline

APS75-30 was developed to meet AS-Interface (Actuator Sensor Interface) requirement.

AS-Interface is a kind of international open network for FA application as the actuator-sensor level of the architecture.

AS-Interface applies one cable only that supplies the signal and electric power stably together, so that will make cost saving and cable reduction possible.

Feature

AS-Interface Power Supply
Global scale wide input range: AC85-264V
Output: 30V 2.4A max.
DIN rail mountable type

Safety standard

CE	MEET	Low Voltage Directive
UL	APPROVE	UL1950,CSA950 (C-UL)
△	APPROVE	EN60950 (TÜV)

AS-i

△	APPROVE	EN50295 (AS-i)
△	APPROVE	AS-International Association(No.37901)

EMC

EMI	CONFORM	EN55011-B, EN55022-B
Radiated	CONFORM	VCCI-B
Emission Noise	CONFORM	FCC-B

Immunity : Conform to EN50082-2
EN61000-4-2 (Electrostatics discharge)
EN61000-4-3 (Radiated electromagnetic field)
EN61000-4-4 (Electrical fast transient)
EN61000-4-5 (Surge)
EN61000-4-6 (Induced electromagnetic field)

APS75-30 Specifications

(Please refer to Instruction manual before use)

ITEM	MODEL	APS75-30
1. Nominal Output Voltage	30VDC	
2. Minimum Output Current	0A	
3. Maximum Output Current	2.4A	
4. Maximum Output Power	72W	
5. Efficiency (Typ) (*1)	80%	
6. Input Voltage Range (*2)	85 ~ 264VAC	
7. Input Frequency	50Hz / 60Hz (47Hz ~ 63Hz)	
8. Input Current(100/200VAC)(Typ)	1.9A / 1.2A (1.6A at 115VAC)	
9. Inrush Current(Typ) (*3)	18A at 100VAC, 40A at 230VAC, Ta=25, Cold Start	
10. Output Voltage Range	Fixed	
11. Maximum Ripple & Noise (*4)	150m Vpp	
12. Initial Setting Voltage (*1)	± 1%	
13. Maximum Line & Load (*5) & temperature Regulation	± 2%	
14. Over Current Protection (*6)	2.8A ~ 4.8A	
15. Over Voltage Protection(Typ) (*7)	115% ~	
16. Leakage Current (*8)	0.2mA(Typ) at 100VAC / 0.45mA(Typ) at 230VAC	
17. Hold-up Time (Typ) (*9)	20ms at 100VAC	
18. Operating Temperature (*10)	-10 ~ +50 : 100%, +55 : 70%	
19. Operating Humidity	30% ~ 90%RH (No dewdrop)	
20. Storage Temperature	-30 ~ +85	
21. Storage Humidity	10% ~ 95%RH (No dewdrop)	
22. Cooling	Convection Cooling	
23. Withstand Voltage	Input - FG: 2kVAC (20mA), Input - Output: 3kVAC (20mA) Output - FG: 500VDC (100mA) for 1 min	
24. Isolation Resistance	More than 100M at 25 and 70%RH, Output - FG...500VDC	
25. Vibration (IEC68-2-6)	Mounting DIN rail : 10Hz ~ 55Hz, Half-wave Amplitude 0.5mm (1 hour), Mounting screw: 10Hz ~ 55Hz, Half-wave Amplitude 1mm (1 hour)	
26. Shock (IEC68-2-27)	Mounting DIN rail : 150m/s ² (11ms), Mounting screw: 300m/s ² (18ms)	
27. Safety	Approved by UL1950, CSA950(C-UL), EN60950(TÜV), Built to meet EN50295(AS-i)	
28. Conducted Emission	Built to meet EN55011-B, EN55022-B, FCC-ClassB, VCCI-B	
29. Radiated Emission	Built to meet EN55011-B, EN55022-B, FCC-ClassB, VCCI-B	
30. Immunity	Built to meet EN50082-2, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6	
31. Impulse Noise Simulation	Noise Voltage : 2kV (Nomal, Common), pulse Width : 1us (Pulse Rise 1ns)	
32. Degree of Protection (IEC529)	IP20	
33. Weight(Typ.)	620g	
34. Size (W x H x D)	45 x 135 x 105 mm (Refer to Outline Drawing)	

=NOTES=

*1 At 100/200VAC,Ta = 25 and maximum output power.

*2 For cases where conformance to various safety specs (UL,CSA,EN) are required, input voltage range will be 100~230VAC(50/60Hz).

*3 Not applicable for the in-rush current to Noise Filter less than 0.2ms.

*4 Measure with JEITA RC-9131 probe, Bandwidth of scope : 100MHz, and Please refer to Fig. A for measurement of ripple voltage.

*5 85~264VAC,constant load at Line Regulation, No load-full load at Load Regulation.

*6 Constant current limit with automatic recovery. Avoid to operate over load or dead short for 30seconds.

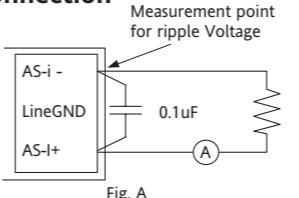
*7 OVP circuit will shutdown output, manual reset.

*8 Measure by the each measuring method of UL,CSA,EN (at 60Hz).

*9 At 100VAC maximum output current.

*10 Refer to OUTPUT DERATING CURVE (BB018-01-03_)

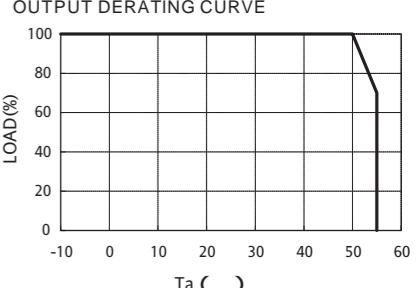
Basic Connection



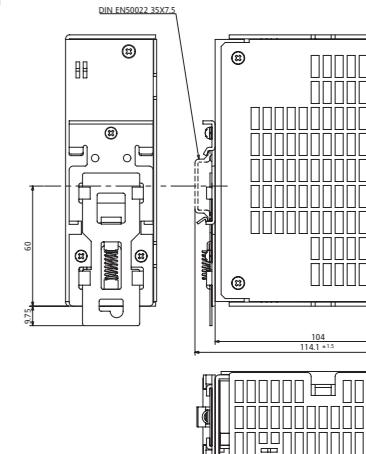
APS75-30 Derating Curve

Output Derating Curve

OUTPUT DERATING CURVE



【APS75-30】



APS75-30

These operating instructions do not purport to cover all details or various installation, operation or maintenance. Should further information be required for these purposes, the matter should be referred to the local Sales Office. This agreement, commitment or relationship. The Sales Contract contains the same statements contained herein do not create new warranties or modifications.

DANGER

For the purpose of this operating instructions and product labels, "Danger" means severe personal injury or substantial property damage will result if proper

WARNING

For the purpose of this operating instructions and product labels, "Warning" means severe personal injury or substantial property damage can result if proper

CAUTION

For the purpose of this operating instructions and product labels, "Caution" indicates minor personal injury or property damage can result if proper

1. Terminal Explanation

