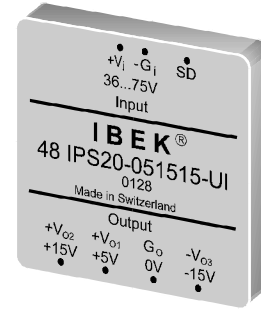


**Single & triple outputs**  
**Input to output isolated**  
**High performance**

- 1:2 and 1:4 wide input voltage ranges
- Very high efficiency up to 89%
- IPR20: Synchronous rectifier
- Low output voltage noise
- Continuous no-load and short-circuit proof
- IPR20: Extended ambient temperature range -40...+85°C
- 2" x 2" x 0.5" case with standard pinning
- Made in Switzerland, accordingly ISO 9001:2000
- 2 years warranty

**NEW!**

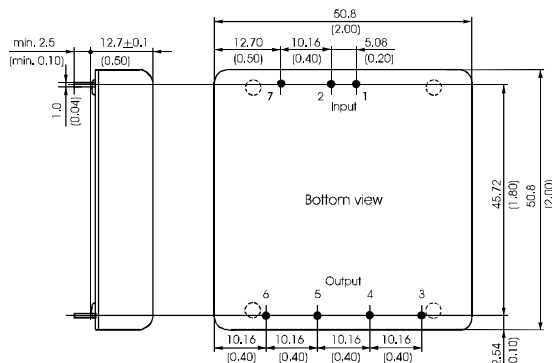


**Electromagnetic emission EN 55022 < A**  
Conducted and radiated emissions

	24 IPR	48 IPR	24 IPS	48 IPS	
No load input current	50	30	20	12	mA typ.
Switching frequency	200	200	400	400	kHz typ.
Input current in shutdown condition	3 mA typ.				
Output voltage accuracy	± 1% max.				
Static line regulation	+Vo1 ± 20mV	+Vo2 ± 3%	-Vo3 ± 3%		max.
Static load regulation FL to 10%	± 30mV ± 3%				max.
Output voltage noise (20 MHz BW)	All outputs 100 mVpp max.				
Efficiency	up to 89% typ.				
I/O Electric strength test voltage	1500 VDC				
Coupling capacitance	1000 pF				
Shutdown input (SD)	Apply -0.3...+0.6 VDC to shut down (switch off) the output voltage(s). Normal operation with open pin.				
Ambient temperature range	-U: -40...+71°C;		-S: -40...+85°C		
Case temperature range	-U: -40...+95°C <sup>1</sup> ;		-S: -40...+105°C		
Storage temperature range	-U: -55...+105°C;		-S: -55...+105°C		
Case material	Metal with plastic bottom cover, UL94 V-0 rated				
MTBF, GB @ 40°C case (MIL-HDBK-217F, Notice 2)	> 500.000 hours				

<sup>1</sup>IPS20: -40...+100°C

Dimensions in mm (inches)



Standard Types <sup>2</sup>	Input voltage VDC	Output 1		Output 2	
		VDC	mA	VDC	mA
Single output	9...36 (nominal 24)	3.3	6000	-	-
xx IPR20-03-UI					
xx IPR20-05-UI		5	4000	-	-
xx IPR20-03-SI <sup>3</sup>		18...75 (nominal 48)	3.3	5000	-
xx IPR20-05-SI <sup>3</sup>					
Single output	18...36 (nominal 24)	3.3	4000	-	-
xx IPS20-03-UI					
xx IPS20-05-UI		5	4000	-	-
xx IPS20-12-UI		12	1660	-	-
xx IPS20-15-UI		36...75 (nominal 48)	15	1330	-
xx IPS20-24-UI					
Triple output		5	2660	± 12	± 277
xx IPS20-051212-UI					
xx IPS20-051515-UI		5	2660	± 15	± 222

<sup>2</sup> To complete type number replace "xx" by the required nominal input voltage, e.g. 48 IPS20-051515-UI.

<sup>3</sup> Extended ambient temperature range -40...+85°C.

Modifications and customs are available upon request.

Option R: Trim function for single outputs.

The output voltage can be adjusted with an external resistor in the range of ± 10%.

Pin Configuration		
Pin	Single output	Triple output
1	+Vi	+Vi
2	-Gi	-Gi
3	No Pin	+Vo2
4	+Vo	+Vo1
5	Go	Go
6	Trim <sup>4</sup>	-Vo3
7	SD	SD

<sup>4</sup> Optional Trim pin. If required add R to type number, e.g. 24 IPS20-03-UIR.