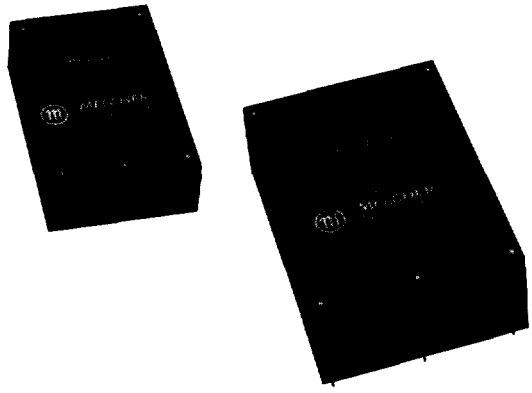


Input voltage range 85...265 V AC
1 or 2 outputs up to 30 V DC
4300 V DC I/O electric strength test voltage

- Class II equipment (double insulation)
- Short circuit protection
- Compact, low cost solution

Selection chart

Output 1 $U_{o\,nom}$ [V DC]	Output 1 $I_{o\,nom}$ [A]	Output 2 $U_{o\,nom}$ [V DC]	Output 2 $I_{o\,nom}$ [A]	Input voltage U_i [V AC]	Rated power $T_A = 50°C$ $P_{o\,tot}$ [W]	Type
3.3	3	-	-	85...265	10	LHR 1101-2
3.3	7	-	-	85...265	23	LGR 1101-2
5	2	-	-	85...265	10	LHR 1001-2
5	5	-	-	85...265	25	LGR 1001-2
12	0.84	-	-	85...265	10	LHR 1301-2
12	2.1	-	-	85...265	25	LGR 1301-2
15	0.67	-	-	85...265	10	LHR 1501-2
15	1.7	-	-	85...265	25	LGR 1501-2
24	0.42	-	-	85...265	10	LHR 1601-2
24	1	-	-	85...265	24	LGR 1601-2
5	1	12	0.5	85...265	10	LHR 2020-2
5	2.5	12	1	85...265	24.5	LGR 2020-2
±12	±0.42	-	-	85...265	10	LHR 2320-2
±12	±1	-	-	85...265	25	LGR 2320-2
±15	±0.335	-	-	85...265	10	LHR 2540-2
±15	±0.8	-	-	85...265	25	LGR 2540-2

Input

Input voltage	continuous range	85...265 V AC
Input frequency		47...63 Hz
Inrush current limitation	by thermistor, U_i = 230 V AC	<40 A

Output

Efficiency	230 V AC, $I_{o\,nom}$	up to 86%
Output voltage switching noise	$U_{i\,nom}$, $I_{o\,nom}$, 20 MHz bandwidth, peak-peak	<1%
Line regulation	$U_{i\,min}$...$U_{i\,max}$, $I_{o\,nom}$	±1%
Load regulation	$U_{i\,nom}$, 0...$I_{o\,nom}$	±2%
Minimum load	single output models	0%
	dual output models recommended	20%
Hold-up time	110/230 V AC, $I_{o\,nom}$	>10 ms

Protection

Output overload	current limiting with foldback characteristic	
Short circuit		
No load		

Control

Trim	single output models only	±10%

Safety and EMC

Safety marks	UL, ULc, CE	
Electric strength test voltage	I/O	3000 V AC
Electrostatic discharge	IEC/EN 61000-4-2, level 4 (15 kV)	criterion A
Electromagnetic field	IEC/EN 61000-4-3, level 3 (10 V/m)	criterion A
Electr. fast transients/burst	IEC/EN 61000-4-4, level 3 (2 kV)	criterion A
Surge	IEC/EN 61000-4-5, level 3 (2 kV)	criterion A
Electromagnetic emissions	CISPR 22/EN 55022, conducted	class B

Environmental

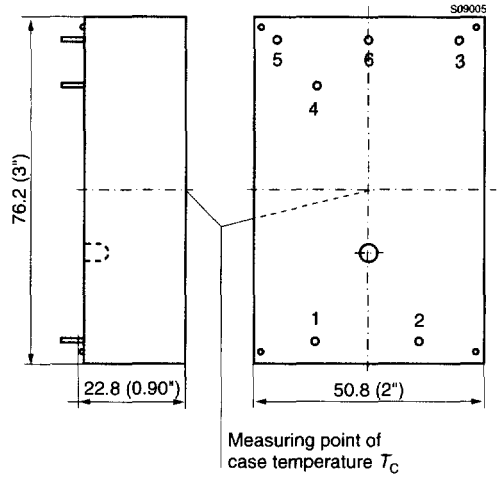
Ambient temperature	$U_{i\,nom}$, $I_{o\,nom}$, convection cooled	–10...50°C
Storage temperature	non operational	–40...100°C
Relative humidity	non condensing	5...95%
Shock	peak acceleration	20 g_n
Random vibration		2 $g_{n\,rms}$

Mechanical data

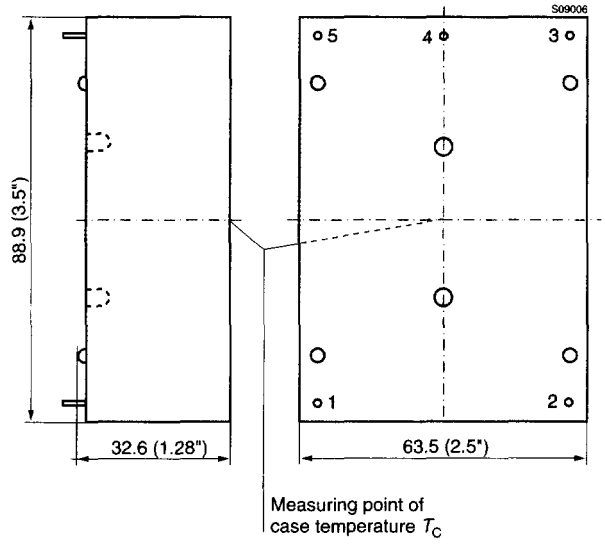
Tolerances ±0.3 mm (0.012") unless otherwise indicated.

European Projection

LHR



LGR



Pin allocation

Pin	Electrical determination	LHR		LGR		
		Single	Dual	Single	Dual +/–	Dual +/+
1	Input voltage	L	L	L	L	L
2	Input voltage	N	N	N	N	N
3	Output voltage (positive)	Vo+	Vo+	Vo+	Vo+	Vo1+
4	Output voltage (return potential)	-	-	Vo–	-	-
	Output voltage (common return)	-	-	-	Com	Com
	Control input Trim	-	-	-	-	-
5	Output voltage (negative or positive)	-	Vo–	-	Vo–	Vo2+
	Output voltage (return potential)	Vo–	-	-	-	-
	Control input	-	-	Trim	-	-
6	Output voltage	n.c.	Com	-	-	-