Ref. Certif. No.

DE 3 - 41474

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	Medical power supplies Switch Mode Power Supply Series
Name and address of the applicant	**Integrated Power Designs, Inc.** **Hanover Industrial Estates** 300 Stewart Road Wilkes-Barre PA 18706 USA
Name and address of the manufacturer	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road, Wilkes-Barre PA 18706, USA
Name and address of the factory	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road, Wilkes-Barre PA 18706, USA
Ratings and principal characteristics	Rated Input Voltage: 100-240 VAC (REL Series) 18-36 V DC (DC2 Series) 36-72 VDC (DE4 Series) 9-18V DC (DC1-80 Series) Rated Frequency: 50-60 Hz (REL Series only)
Trade mark (if any)	INTEGRATED POWER DESIGNS
Model/type Ref.	REL-XXX-YYYY Series DC2-XXX-YYYY Series DC4-XXX-YYYY Series DC1-80-YYYY Series XXX = the typical output power designation of the supply, in watts, and may be 70, 110, 150 or 185. YYYY delineates the voltages found in the Model Numbers and Output Ratings
Additional information (if necessary)	Certificate DE 3 – 41020 issued 2018-09-19 is replaced by this version due to technical changes
A sample of the product was tested and found to be in conformity with	IEC 60601-1:2005 IEC 60601-1:2005/AMD1:2012
as shown in the Test Report Ref. No. which forms part of this certificate	090-72169683-000

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

Applicable Standards:
EN 60601-1:2006/A1:2013

Also Assessed To:
CAN/CSA-C22.2 No. 60601-1:2014
ANSI/AAMI ES60601-1:2005/(R)2012

The Risk Management requirements of the standard were not assessed.

Rated Input:

Model	Input Rating
REL-70:	100-240VAC, 50-60Hz, 1.6A
REL-110:	100-240VAC, 50-60Hz, 2.0A
REL-150:	100-240VAC, 50-60Hz, 4.0A
REL-150-4009	100-240VAC, 50-60Hz, 6.0A
REL-185:	100-240VAC, 50-60Hz, 4.0A
DC2-70:	18-36VDC, 7.0A
DC2-110:	18-36VDC, 12.0A
DC2-150	18-36VDC, 20.0A
DC2-185:	18-36VDC, 20.0A
DC4-70:	36-72VDC, 4.0A
DC4-110	36-72VDC, 7.0A
DC4-150	36-72VDC, 10.0A
DC4-185	36-72VDC, 10.0A
DC1-80:	9-18VDC, 15.0A

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01
Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

Model Numbers and Output Ratings:

Model Number	Transformer (6000XXX)	Output 1	Output 2	Output 3	Output 4
REL-70-4001 DC2-70-4001 DC4-70-4001	544 787 743	3.3V/6A	5V/5A	12V/2A(6)	12V/2A(6)
REL-70-4002 DC2-70-4002 DC4-70-4002	545 788 744	5V/6A	3.3V/5A	12V/2A(6)	12V/2A(6)
REL-70-4003 DC2-70-4003 DC4-70-4003	546 789 745	5V/6A	3.3V/5A	15V/2A(6)	15V/2A(6)
REL-70-4004 DC2-70-4004 DC4-70-4004	547 790 746	5V/6A	5V/5A	12V/2A(6)	12V/2A(6)
REL-70-4005 DC2-70-4005 DC4-70-4005	548 791 747	5V/6A	5V/5A	15V/2A(6)	15V/2A(6)
REL-70-4006 DC2-70-4006 DC4-70-4006	549 792 748	5V/6A	24V/2A	12V/2A(6)	12V/2A(6)
REL-70-4007 DC2-70-4007 DC4-70-4007	550 793 749	5V/6A	24V/2A	15V/2A(6)	15V/2A(6)
REL-70-4008	706	24V/1.25A	6V/2.5A	10V/.7A	6V/.5A
REL-70-4009	021	6.7V/5A	5V/4A	15V/2A(6)	15V/2A(6)
REL-70-4010	869	7.5V/3A	7.5V/2A	12V/2A(6)	12V/2A(6)
REL-70-3001 DC2-70-3001 DC4-70-3001	551 794 750	5V/6A	12V/2A	-	12V/2A(6)
REL-70-3002 DC2-70-3002 DC4-70-3002	552 795 751	5V/6A	15V/2A	-	15V/2A(6)
REL-70-3003	702	5.1V/6A	7.5V/2A		7.5V/2A(6)
REL-70-3004	741	3.3 V/6 A	7 V/5 A	12 V/2 A(6)	
REL-70-3005	358	5 V/5 A	18 V/2 A		18 V/ 2A(6)
REL-70-2001 DC2-70-2001 DC4-70-2001	553 796 752	3.3V/6A	5V/5A	-	-
REL-70-2002 DC2-70-2002 DC4-70-2002	554 797 753	5V/6A	12V/4A	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

REL-70-2003 DC2-70-2003 DC4-70-2003	555 798 754	5V/6A	24V/2A	-	-
REL-70-2004 DC2-70-2004 DC4-70-2004	556 799 755	12V/3A	12V/3A	-	-
REL-70-2005 DC2-70-2005 DC4-70-2005	557 800 756	15V/3A	15V/2A	-	-
REL-70-2006	707	5.5V/6A	5.5V/5A	-	-
REL-70-2007 DC2-70-2007 DC4-70-2007	876 874 875	5V/6A	29V/2A	-	-
REL-70-2008	1359	9V/2A	48V/1.5A		
REL-70-1001 DC2-70-1001 DC4-70-1001	558 801 757	2.5V/14A(7)		-	-
REL-70-1002 DC2-70-1002 DC4-70-1002	559 802 758	3.3V/14A(7)	-	-	-
REL-70-1003 DC2-70-1003 DC4-70-1003	560 803 759	5V/14A(7)	-	-	-
REL-70-1004 DC2-70-1004 DC4-70-1004	561 804 760	12V/5.8A	-	-	-
REL-70-1005 DC2-70-1005 DC4-70-1005	562 805 761	15V/4.7A	-	-	-
REL-70-1006 DC2-70-1006 DC4-70-1006	563 806 762	24V/2.9A	-	-	-
REL-70-1007 DC2-70-1007 DC4-70-1007	564 807 763	28V/2.5A	-	-	-
REL-70-1008 DC2-70-1008 DC4-70-1008	565 808 764	48V/1.5A	-	-	-
REL-110-4001 DC2-110-4001 DC4-110-4001	484 626 648	3.3V/10A(8)	5V/6A	12V/2A	12V/2A
REL-110-4002 DC2-110-4002 DC4-110-4002	485 627 649	5V/10A(8)	3.3V/6A	12V/2A	12V/2A
REL-110-4003 DC2-110-4003 DC4-110-4003	486 628 650	5V/10A(8)	3.3V/6A	15V/2A	15V/2A

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

REL-110-4004 DC2-110-4004 DC4-110-4004	487 629 651	5V/10A(8)	5V/6A	12V/2A	12V/2A
REL-110-4005 DC2-110-4005 DC4-110-4005	488 630 652	5V/10A(8)	5V/6A	15V/2A	15V/2A
REL-110-4006 DC2-110-4006 DC4-110-4006	489 631 653	5V/10A(8)	24V/2A	12V/2A	12V/2A
REL-110-4007 DC2-110-4007 DC4-110-4007	490 632 654	5V/10A(8)	24V/2A	15V/2A	15V/2A
DC2-110-4008	827	+3.3V/10A (8)	+5V/6A	+12V/3.7A	-12V/.3A
REL-110-4009	736	5V/10A (8)	24V/2A	7V/2.5A	7V/2.5A
REL-110-4010	871	9V/6A	24V/2A	15V/2A	15V/2A
REL-110-4011	872	32V/2A	32V/2A	12V/1A	12V/1A
REL-110-3001 DC2-110-3001 DC4-110-3001	491 624 646	5V/10A(8)	12V/3A	-	12V/3A
REL-110-3002 DC2-110-3002 DC4-110-3002	492 625 647	5V/10A(8)	15V/2A	-	15V/2A
REL-110-3003 DC2-110-3003	737 883	8V/5A(8)	8V/1A	-	30V/1A
REL-110-3004	088	9V/3A	24V/3A	13V/2A	-
REL-110-3005(14)	852	5/12A(8)	9.5V/1A	-	9.5V/1A
REL-110-3007	892	20V/2.5A	12V/2.5A	-	12V/2.5A
REL-110-2001 DC2-110-2001 DC4-110-2001	493 619 641	3.3V/10A(8)	5V/6A	-	-
REL-110-2002 DC2-110-2002 DC4-110-2002	494 620 642	5V/10A(8)	12V/5A	-	-
REL-110-2003 DC2-110-2003 DC4-110-2003	495 621 643	5V/10A(8)	24V/3A	-	-
REL-110-2004 DC2-110-2004 DC4-110-2004	496 622 644	12V/5A	12V/4A	-	-
REL-110-2005 DC2-110-2005 DC4-110-2005	497 623 645	15V/4A	15V/3A	-	-
REL-110-2006	704	18V/4A	18V/3A	-	-
REL-110-2007	1423	6V/10A (8)	7.5V/6A	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

Product Service

REL-110-1001 DC2-110-1001 DC4-110-1001	512 611 633	2.5V/22A(9)	-	-	-
REL-110-1002 DC2-110-1002 DC4-110-1002	498 612 634	3.3V/22A(9)	-	-	-
REL-110-1003 DC2-110-1003 DC4-110-1003	499 613 635	5V/22A(9)	-	-	-
REL-110-1004 DC2-110-1004 DC4-110-1004	500 614 636	12V/9.2A	-	-	-
REL-110-1005 DC2-110-1005 DC4-110-1005	501 615 637	15V/7.3A	-	-	-
REL-110-1006 DC2-110-1006 DC4-110-1006	502 616 638	24V/4.6A	-	-	-
REL-110-1007 DC2-110-1007 DC4-110-1007	503 617 639	28V/3.9A	-	-	-
REL-110-1008 DC2-110-1008 DC4-110-1008	504 618 640	48V/2.3A	-	-	-
REL-150-4001 DC2-150-4001 DC4-150-4001	517 670 692	3.3V/15A(10)	5V/8A	12V/2A	12V/2A
REL-150-4002 DC2-150-4002 DC4-150-4002	518 671 693	5V/15A(10)	3.3V/8A	12V/2A	12V/2A
REL-150-4003 DC2-150-4003 DC4-150-4003	519 672 694	5V/15A(10)	3.3V/8A	15V/2A	15V/2A
REL-150-4004 DC2-150-4004 DC4-150-4004	520 673 695	5V/15A(10)	5V/8A	12V/2A	12V/2A
REL-150-4005 DC2-150-4005 DC4-150-4005	521 674 696	5V/15A(10)	5V/8A	15V/2A	15V/2A
REL-150-4006 DC2-150-4006 DC4-150-4006	522 675 697	5V/15A(10)	24V/3A	12V/2A	12V/2A
REL-150-4007 DC2-150-4007 DC4-150-4007	523	5V/15A(10)	24V/3A	15V/2A	15V/2A
DC4-150-4008	826	3.5V/10A	5.2V/9A	12.5V/1A	13.3V/3A

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

REL-150-4009(15)	610	24V/2.3A	10V/1A	6V/1.6A	6V/0.3A
REL-150-4010	809	5V/15A	12V/5A	24V/1A	24V/1A
REL-150-4011	824	3.3V/10A	5.2V/9A	12.5V/1A	13.3V/3A
REL-150-4012	825	3.3V/15A(10)	5V/8A	14V/2A	14V/2A
REL-150-4013	1022	7.25V/8.7A	30V/0.5A	24V/1.5A	24V/1.5A
REL-150-3001 DC2-150-3001 DC4-150-3001	524 668 690	5V/15A(10)	12V/4A	-	12V/3A
REL-150-3002 DC2-150-3002 DC4-150-3002	525 669 691	+5V/15A(10)	+15V/3A	-	15V/2A
REL-150-3003	609	22V/3.5A	22V/3.5A	-	24V/1A
REL-150-3004	608	5V/6A	12V/7A	-	12V/3A
REL-150-3005	129	5.5V/15A(10)	15.5V/3A	-	15.5V/2A
REL-150-2001 DC2-150-2001 DC4-150-2001	526 663 685	3.3V/15A(10)	5V/8A	-	-
REL-150-2002 DC2-150-2002 DC4-150-2002	527 664 686	5V/15A(10)	12V/5A	-	-
REL-150-2003 DC2-150-2003 DC4-150-2003	528 665 687	5V/15A(10)	24V/3A	-	-
REL-150-2004 DC2-150-2004 DC4-150-2004	529 666 688	12V/7.55A	12V/5A	-	-
REL-150-2005 DC2-150-2005 DC4-150-2005	530 667 689	15V/5A	15V/5A	-	-
REL-150-1001 DC2-150-1001 DC4-150-1001	531 655 677	2.5V/30A(11)	-	-	-
REL-150-1002 DC2-150-1002 DC4-150-1002	532 656 678	3.3V/30A(11)	-	-	-
REL-150-1003 DC2-150-1003 DC4-150-1003	533 657 679	5V/30A(11)	-	-	-
REL-150-1004 DC2-150-1004 DC4-150-1004	534 658 680	12V/12.5A	-	-	-
REL-150-1005 DC2-150-1005 DC4-150-1005	535 659 681	15V/10.0A	-	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

REL-150-1006 DC2-150-1006 DC4-150-1006	536 660 682	24V/6.3A	-	-	-
REL-150-1007 DC2-150-1007 DC4-150-1007	537 661 683	28V/5.4A	-	-	-
REL-150-1008 DC2-150-1008 DC4-150-1008	538 662 684	48V/3.1A	-	-	-
REL-150-1009	738	31V/5.4A	-	-	-
DC2-150-1009 DC4-150-1009	---- 822	20V/7.5A	-	-	-
REL-150-1010	742	36V/4.16A	-	-	-
REL-150-1011(16)	738	31V/5.4A	-	-	-
REL-185-4001 DC2-185-4001 DC4-185-4001	573 714 765	3.3V/20A(12)	5V/10A	12V/2A	12V/2A
REL-185-4002 DC2-185-4002 DC4-185-4002	574 715 766	5V/20A(12)	3.3V/10A	12V/2A	12V/2A
REL-185-4003 DC2-185-4003 DC4-185-4003	575 716 767	5V/20A(12)	3.3V/10A	15V/2A	15V/2A
REL-185-4004 DC2-185-4004 DC4-185-4004	576 717 768	5V/20A(12)	5V/10A	12V/2A	12V/2A
REL-185-4005 DC2-185-4005 DC4-185-4005	577 718 769	5V/20A(12)	5V/10A	15V/2A	15V/2A
REL-185-4006 DC2-185-4006 DC4-185-4006	578 719 770	5V/20A(12)	24V/3A	12V/2A	12V/2A
REL-185-4007 DC2-185-4007 DC4-185-4007	579 720 771	5V/20A(12)	24V/3A	15V/2A	15V/2A
REL-185-4008	873	3.3V/20A(12)	6V/5A	12V/2A	6V/5A
REL-185-4009	1075	5V/15A	12V/4A	28V/0.80A	12V/2A
REL-185-3001 DC2-185-3001 DC4-185-3001	580 721 772	5V/20A(12)	12V/5A	-	12V/2A

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

REL-185-3002 DC2-185-3002 DC4-185-3002	581 722 773	5V/20A(12)	15V/4A	-	15V/2A
REL-185-2001 DC2-185-2001 DC4-185-2001	582 723 774	3.3V/20A(12)	5V/10A	-	-
REL-185-2002 DC2-185-2002 DC4-185-2002	583 724 775	5V/20A(12)	12V/8A	-	-
REL-185-2003 DC2-185-2003 DC4-185-2003	584 725 776	5V/20A(12)	24V/4A	-	-
REL-185-2004 DC2-185-2004 DC4-185-2004	585 726 777	12V/10A	12V/6A	-	-
REL-185-2005 DC2-185-2005 DC4-185-2005	586 727 778	15V/8A	15V/5A	-	-
REL-185-2006	712	15V/6A	24V/4A	-	-
REL-185-2007	816	35V/3.5A	12V/5.2A	-	-
REL-185-1001 DC2-185-1001 DC4-185-1001	587 728 779	2.5V/37A(13)	-	-	-
REL-185-1002 DC2-185-1002 DC4-185-1002	588 729 780	3.3V/37A(13)	-	-	-
REL-185-1003 DC2-185-1003 DC4-185-1003	589 730 781	5V/37A(13)	-	-	-
REL-185-1004 DC2-185-1004 DC4-185-1004	590 731 782	12V/15.4A	-	-	-
REL-185-1005 DC2-185-1005 DC4-185-1005	591 732 783	15V/12.3A	-	-	-
REL-185-1006 DC2-185-1006 DC4-185-1006	592 733 784	24V/7.7A	-	-	-
REL-185-1007 DC2-185-1007 DC4-185-1007	593 734 785	28V/6.6A	-	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

REL-185-1008 DC2-185-1008 DC4-185-1008	594 735 786	48V/3.8A	-	-	-
REL-185-1009	022	6.3V/29A	-	-	-
REL-185-1010	593	31V/6A	-	-	-
DC1-80-4001	1114	3.3V/6A	5V/5A	12V/2A	12V/2A
DC1-80-4002	1115	5V/6A	3.3V/5A	12V/2A	12V/2A
DC1-80-4003	1116	5V/6A	5V/5A	12V/2A	12V/2A
DC1-80-4004	1117	5V/6A	5V/5A	15V/2A	15V/2A
DC1-80-4005	1118	5V/6A	24V/2A	12V/2A	12V/2A
DC1-80-4006	1119	5V/6A	24V/2A	15V/2A	15V/2A
DC1-80-3001	1112	5V/6A	12V/2A	-	12V/2A
DC1-80-3002	1113	5V/6A	15V/2A	-	15V/2A
DC1-80-2001	1108	5V/6A	12V/4A	-	-
DC1-80-2002	1109	5V/6A	24V/2A	-	-
DC1-80-2003	1110	12V/3.5A	12V/3.5A	-	-
DC1-80-2004	1111	15V/3A	15V/3A	-	-
DC1-80-1001	1101	5V/16A	-	-	-
DC1-80-1002	1102	12V/6.7A	-	-	-
DC1-80-1003	1103	15V/5.3A	-	-	-
DC1-80-1004	1104	24V/3.3A	-	-	-
DC1-80-1005	1105	28V/2.9A	-	-	-
DC1-80-1006	1106	36V/2.2A	-	-	-
DC1-80-1007	1107	48V/1.5A	-	-	-
DC-1-80-1008	1176	19V/4.2A	-	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01
Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

Notes (Apply to all models, except if specifically noted otherwise.):

1. Outputs can be positive, negative, or floating with respect to Output 1.
2. Total output power, with free air convection, must not exceed:
   REL, DC2, DC4-70: 50 watts (open frame), 40 watts (chassis/cover option)
   REL, DC2, DC4-110: 80 watts (open frame), 65 watts (chassis/cover option)
   REL, DC2, DC4-150: 100 watts (open frame), 85 watts (chassis/cover option)
   REL, DC2, DC4-185: 135 watts (open frame), 110 watts (chassis/cover option)
   DC1-80 (Singles): 60 watts (open frame or chassis), 50 watts (chassis/cover option)
   DC1-80 (Multis): 50 watts (open frame or chassis), 40 watts (chassis/cover option)
3. Total output power, with 300LFM forced air cooling, must not exceed:
   REL, DC2, DC4-70: 70 watts (open frame or chassis/cover option)
   REL, DC2, DC4-110: 110 watts (open frame or chassis/cover option)
   REL, DC2, DC4-150: 150 watts (open frame or chassis/cover option)
   REL, DC2, DC4-185: 185 watts (open frame or chassis/cover option)
   DC1-80: 80 watts (open frame or chassis/cover option)
4. Total current from Outputs 1 and 2, convection cooled, must not exceed:
   REL, DC2, DC4-110: 12A
   REL, DC2, DC4-150: 15A
   REL, DC2, DC4-185: 20A
5. Total current from Outputs 3 and 4, convection cooled, must not exceed:
   REL, DC2, DC4-110: 3A
   REL, DC2, DC4-150: 3A
   REL, DC2, DC4-185: 3A
6. Rated 1.5A maximum with convection cooling.
7. Rated 10A maximum with convection cooling.
8. Rated 8A maximum with convection cooling.
9. Rated 16A maximum with convection cooling.
10. Rated 12A maximum with convection cooling.
11. Rated 20A maximum with convection cooling.
12. Rated 15A maximum with convection cooling.
13. Rated 27A maximum with convection cooling.
14. Open Frame or chassis mount only, no cover.
15. Rated Input for this supply is 40-95Vac, 6A. Maximum output power is 77 Watts.
16. Total output power must not exceed 167.4 Watts with 300 LFM Forced Air Cooling.
17. A suffix, or any combination of, may be added to the model number to indicate the following optional configuration(s): CH-chassis, CO-cover, IO-isolated outputs, PF-power fail, OVP-over voltage protection, PG-power good, WT- wide temperature, RE- Remote On/Off, TS-terminal strips, TB- terminal blocks, GOLD-gold pins input / output headers, Y or NY-decreased, or removed, line to ground capacitors, O – Y2 caps secondary to ground, P – Y1 caps secondary to ground or removed, BD- Blocking Diode (DC Series only)

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

Product Service

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

Conditions of Acceptability:

1. These components have been judged on the basis of the required spacings in the Standard for Safety of Medical Electrical Equipment, IEC60601-1:2005 + CORR. 1:2006 + CORR. 2:2007 + AM1:2012.
2. These components have been evaluated for the output power ratings specified, at a 50□C ambient. The temperature tests are to be repeated in the end product. Isolation Transformer T1 utilizes a R/C OBJS2 Class B (130°C) Electrical Insulation System issued by Underwriters Laboratories except for DC1-80 Series which utilizes a R/C OBJS2 Class F (155°C) Electrical Insulation System issued by Underwriters Laboratories.
3. The input circuit includes only one fuse in the line input. A second fuse must be included in the neutral input in the end product, in consideration of paragraph 8.11.5 of IEC60601-1:2005 + CORR. 1:2006 + CORR. 2:2007 + AM1:2012.
4. Evaluated for class I applications, pollution degree II.
5. The supply terminal grounding connector is connected to the chassis through a land on the printed wiring board. An Earthing Test between the chassis and input ground terminal was successfully performed. All mounting holes on the printed circuit board must be reliably connected to the end product's grounding connection.
6. These components require Electrical and Fire enclosures as part of the end product.
7. All models provide 2MOPP from Primary Mains to Secondary Output.
8. All models are SELV, non-hazardous energy, except where noted otherwise.
9. Standard model numbers, no suffix, provide 1MOPP Primary Mains to Protective Earth and Operational Insulation Secondary Output to Ground.
10. Model Number Suffix "O" indicates 1MOOP Secondary Output to Protective Earth (secondary to ground capacitors are Y2 or removed).
11. Model Number Suffix "P" indicates 1MOPP Secondary Output to Protective Earth (secondary to ground capacitors are Y1 or removed).
12. This unit utilizes both input/output connectors and alternate output terminal blocks, see critical components list. The input/output connectors are not acceptable for field connections and are only intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of these mating connectors relative to secureness, insulating materials and temperatures should be considered.
    However, the units that utilize terminal blocks are acceptable for field wiring. These terminal blocks accept 16-30 AWG wire.
13. Touch Currents and/or Leakage Currents must be repeated in the end product.
14. In consideration of IEC60601-1:2005 + CORR. 1:2006 + CORR. 2:2007 + AM1:2012, Clause 8.8, care must be taken to insure the voltage applied to a reinforced insulation does not overstress basic insulation. Breakdown of basic insulation and catastrophic failure of the power supply may result if a test voltage of greater than 1800 VAC is applied between primary and secondary circuits. Each isolating component is factory tested at 4000 VAC minimum prior to installation.
15. Model Number Suffix "D" indicates power supply is acceptable for use up to an altitude of 4000m, applicable to the REL-150 Series only.

This CB Test Certificate is issued by the National Certification Body

CB 030824 0355 Rev. 01

Date, 2021-09-16

(Antony Young-Taylor)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

Ref. Certif. No.

DE 3 - ITAV525

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	Audio/Video, Information and Communication technology equipment Power Supply
Name and address of the applicant	**Integrated Power Designs, Inc.** **Hanover Industrial Estates** 300 Stewart Road Wilkes-Barre PA 18706 USA
Name and address of the manufacturer	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road, Wilkes-Barre PA 18706, USA
Name and address of the factory	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road, Wilkes-Barre PA 18706, USA
Ratings and principal characteristics	Rated Input Voltage: 100-240 V AC Rated Frequency: 50-60 Hz Rated Input Current: 1.6 A Protection Class: I Degree of Protection: IPX0 Ambient Temperature: 50°C
Trade mark (if any)	IPD
Customer's Testing Facility (CTF) Stage used	CTF STAGE 3
Model/type Ref.	**REL-70, REL-110, REL-150, REL-185, DC2-70, DC2-110, DC2-150, DC2-185, DC4-70, DC4-110, DC4-150, DC4-185, DC1-80 Series**
Additional information (if necessary)	Certificate DE 3 - ITAV485 issued 2020-08-04 is replaced by this version due to technical changes
A sample of the product was tested and found to be in conformity with	IEC 62368-1:2014
as shown in the Test Report Ref. No. which forms part of this certificate	72137232-200

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

Rating Information:

Model Series	Input Voltage	Frequency	Input Current (max)
REL-70	100-240V AC	50-60 Hz	1.6 A
DC2-70	18-36 V DC	--	7.0 A
DC4-70	36-72 V DC	--	4.0 A
REL-110	100-240 V AC	50-60 Hz	2.0 A
DC2-110	18-36 V DC	--	12.0 A
DC4-110	36-72 V DC	--	7.0 A
REL-150	100-240 V AC	50-60 Hz	4.0 A
REL-150-4009	100-240 V AC	50-60 Hz	6.0 A
DC2-150	18-36 VDC	--	20 A
DC4-150	36-72 V DC	--	10 A
REL-185	100-240 V AC	50-60 Hz	4.0 A
DC2-185	18-36 V DC	--	20 A
DC4-185	36-72 VDC	--	10 A
DC1-80	9-18 V DC	--	15 A

This CB Test Certificate is issued by the National Certification Body

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

Model Numbers:

Model Number	Transformer (6000XXX)	Output 1	Output 2	Output 3	Output 4
REL-70-4001 DC2-70-4001 DC4-70-4001	544 787 743	3.3V/6A	5V/5A	12V/2A(6)	12V/2A(6)
REL-70-4002 DC2-70-4002 DC4-70-4002	545 788 744	5V/6A	3.3V/5A	12V/2A(6)	12V/2A(6)
REL-70-4003 DC2-70-4003 DC4-70-4003	546 789 745	5V/6A	3.3V/5A	15V/2A(6)	15V/2A(6)
REL-70-4004 DC2-70-4004 DC4-70-4004	547 790 746	5V/6A	5V/5A	12V/2A(6)	12V/2A(6)
REL-70-4005 DC2-70-4005 DC4-70-4005	548 791 747	5V/6A	5V/5A	15V/2A(6)	15V/2A(6)
REL-70-4006 DC2-70-4006 DC4-70-4006	549 792 748	5V/6A	24V/2A	12V/2A(6)	12V/2A(6)
REL-70-4007 DC2-70-4007 DC4-70-4007	550 793 749	5V/6A	24V/2A	15V/2A(6)	15V/2A(6)
REL-70-4008	706	24V/1.25A	6V/2.5A	10V/.7A	6V/.5A
REL-70-4009	021	6.7V/5A	5V/4A	15V/2A(6)	15V/2A(6)
REL-70-4010	869	7.5V/3A	7.5V/2A	12V/2A(6)	12V/2A(6)
REL-70-3001 DC2-70-3001 DC4-70-3001	551 794 750	5V/6A	12V/2A	-	12V/2A(6)
REL-70-3002 DC2-70-3002 DC4-70-3002	552 795 751	5V/6A	15V/2A	-	15V/2A(6)
REL-70-3003	702	5.1V/6A	7.5V/2A		7.5V/2A(6)
REL-70-3004	741	3.3 V/6 A	7 V/5 A	12 V/2 A(6)	
REL-70-3005	358	5 V/5 A	18 V/2 A		18 V/ 2A(6)
REL-70-2001 DC2-70-2001 DC4-70-2001	553 796 752	3.3V/6A	5V/5A	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

REL-70-2002 DC2-70-2002 DC4-70-2002	554 797 753	5V/6A	12V/4A	-	-
REL-70-2003 DC2-70-2003 DC4-70-2003	555 798 754	5V/6A	24V/2A	-	-
REL-70-2004 DC2-70-2004 DC4-70-2004	556 799 755	12V/3A	12V/3A	-	-
REL-70-2005 DC2-70-2005 DC4-70-2005	557 800 756	15V/3A	15V/2A	-	-
REL-70-2006	707	5.5V/6A	5.5V/5A	-	-
REL-70-2007 DC2-70-2007 DC4-70-2007	876 874 875	5V/6A	29V/2A	-	-
REL-70-2008	1054	9V/2A	48V/1.5A		
REL-70-1001 DC2-70-1001 DC4-70-1001	558 801 757	2.5V/14A(7)	-	-	-
REL-70-1002 DC2-70-1002 DC4-70-1002	559 802 758	3.3V/14A(7)	-	-	-
REL-70-1003 DC2-70-1003 DC4-70-1003	560 803 759	5V/14A(7)	-	-	-
REL-70-1004 DC2-70-1004 DC4-70-1004	561 804 760	12V/5.8A	-	-	-
REL-70-1005 DC2-70-1005 DC4-70-1005	562 805 761	15V/4.7A	-	-	-
REL-70-1006 DC2-70-1006 DC4-70-1006	563 806 762	24V/2.9A	-	-	-
REL-70-1007 DC2-70-1007 DC4-70-1007	564 807 763	28V/2.5A	-	-	-
REL-70-1008 DC2-70-1008 DC4-70-1008	565 808 764	48V/1.5A	-	-	-
REL-110-4001	484	3.3V/10A(8)	5V/6A	12V/2A	12V/2A

This CB Test Certificate is issued by the National Certification Body

DC2-110-4001 DC4-110-4001	626 648				
REL-110-4002 DC2-110-4002 DC4-110-4002	485 627 649	5V/10A(8)	3.3V/6A	12V/2A	12V/2A
REL-110-4003 DC2-110-4003 DC4-110-4003	486 628 650	5V/10A(8)	3.3V/6A	15V/2A	15V/2A
REL-110-4004 DC2-110-4004 DC4-110-4004	487 629 651	5V/10A(8)	5V/6A	12V/2A	12V/2A
REL-110-4005 DC2-110-4005 DC4-110-4005	488 630 652	5V/10A(8)	5V/6A	15V/2A	15V/2A
REL-110-4006 DC2-110-4006 DC4-110-4006	489 631 653	5V/10A(8)	24V/2A	12V/2A	12V/2A
REL-110-4007 DC2-110-4007 DC4-110-4007	490 632 654	5V/10A(8)	24V/2A	15V/2A	15V/2A
DC2-110-4008	827	+3.3V/10A (8)	+5V/6A	+12V/3.7A	-12V/.3A
REL-110-4009	736	5V/10A (8)	24V/2A	7V/2.5A	7V/2.5A
REL-110-4010	871	9V/6A	24V/2A	15V/2A	15V/2A
REL-110-4011	872	32V/2A	32V/2A	12V/1A	12V/1A
REL-110-4012	1043	5V/10A(8)	9V/3A	15V/2A	15V/2A
REL-110-4014	1143	5V/8A	12V/4A	17V/1.5A	17V/1.5A
REL-110-3001 DC2-110-3001 DC4-110-3001	491 624 646	5V/10A(8)	12V/3A	-	12V/3A
REL-110-3002 DC2-110-3002 DC4-110-3002	492 625 647	5V/10A(8)	15V/2A	-	15V/2A
REL-110-3003 DC2-110-3003	737 883	8V/5A(8)	8V/1A	-	30V/1A
REL-110-3004	088	9V/3A	24V/3A	13V/2A	-
REL-110-3005(14)	852	5/12A(8)	9.5V/1A	-	9.5V/1A
REL-110-3007	892	20V/2.5A	12V/2.5A	-	12V/2.5A
REL-110-2001 DC2-110-2001 DC4-110-2001	493 619 641	3.3V/10A(8)	5V/6A	-	-
REL-110-2002	494	5V/10A(8)	12V/5A	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

DC2-110-2002 DC4-110-2002	620 642				
REL-110-2003 DC2-110-2003 DC4-110-2003	495 621 643	5V/10A(8)	24V/3A	-	-
REL-110-2004 DC2-110-2004 DC4-110-2004	496 622 644	12V/5A	12V/4A	-	-
REL-110-2005 DC2-110-2005 DC4-110-2005	497 623 645	15V/4A	15V/3A	-	-
REL-110-2006	704	18V/4A	18V/3A	-	-
REL-110-2007	1423	6V/10A (8)	7.5V/6A	-	-
REL-110-1001 DC2-110-1001 DC4-110-1001	512 611 633	2.5V/22A(9)	-	-	-
REL-110-1002 DC2-110-1002 DC4-110-1002	498 612 634	3.3V/22A(9)	-	-	-
REL-110-1003 DC2-110-1003 DC4-110-1003	499 613 635	5V/22A(9)	-	-	-
REL-110-1004 DC2-110-1004 DC4-110-1004	500 614 636	12V/9.2A	-	-	-
REL-110-1005 DC2-110-1005 DC4-110-1005	501 615 637	15V/7.3A	-	-	-
REL-110-1006 DC2-110-1006 DC4-110-1006	502 616 638	24V/4.6A	-	-	-
REL-110-1007 DC2-110-1007 DC4-110-1007	503 617 639	28V/3.9A	-	-	-
REL-110-1008 DC2-110-1008 DC4-110-1008	504 618 640	48V/2.3A	-	-	-
REL-150-4001 DC2-150-4001 DC4-150-4001	517 670 692	3.3V/15A(10)	5V/8A	12V/2A	12V/2A
REL-150-4002 DC2-150-4002	518 671	5V/15A(10)	3.3V/8A	12V/2A	12V/2A

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

DC4-150-4002	693				
REL-150-4003 DC2-150-4003 DC4-150-4003	519 672 694	5V/15A(10)	3.3V/8A	15V/2A	15V/2A
REL-150-4004 DC2-150-4004 DC4-150-4004	520 673 695	5V/15A(10)	5V/8A	12V/2A	12V/2A
REL-150-4005 DC2-150-4005 DC4-150-4005	521 674 696	5V/15A(10)	5V/8A	15V/2A	15V/2A
REL-150-4006 DC2-150-4006 DC4-150-4006	522 675 697	5V/15A(10)	24V/3A	12V/2A	12V/2A
REL-150-4007 DC2-150-4007 DC4-150-4007	523 676 698	5V/15A(10)	24V/3A	15V/2A	15V/2A
DC4-150-4008	826	3.5V/10A	5.2V/9A	12.5V/1A	13.3V/3A
REL-150-4009(15)	610	24V/2.3A	10V/1A	6V/1.6A	6V/0.3A
REL-150-4010	809	5V/15A	12V/5A	24V/1A	24V/1A
REL-150-4011	824	3.3V/10A	5.2V/9A	12.5V/1A	13.3V/3A
REL-150-4012	825	3.3V/15A(10)	5V/8A	14V/2A	14V/2A
REL-150-4013	1022	7.25V/8.7A	30V/0.5A	24V/1.5A	24V/1.5A
REL-150-3001 DC2-150-3001 DC4-150-3001	524 668 690	5V/15A(10)	12V/4A	-	12V/3A
REL-150-3002 DC2-150-3002 DC4-150-3002	525 669 691	5V/15A(10)	15V/3A	-	15V/2A
REL-150-3003	609	22V/3.5A	22V/3.5A	-	24V/1A
REL-150-3004	608	5V/6A	12V/7A	-	12V/3A
REL-150-3005	129	5.5V/15A(10)	15.5V/3A	-	15.5V/2A
REL-150-2001 DC2-150-2001 DC4-150-2001	526 663 685	3.3V/15A(10)	5V/8A	-	-
REL-150-2002 DC2-150-2002 DC4-150-2002	527 664 686	5V/15A(10)	12V/5A	-	-
REL-150-2003 DC2-150-2003 DC4-150-2003	528 665 687	5V/15A(10)	24V/3A	-	-
REL-150-2004	529	12V/7.5A	12V/5A	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

DC2-150-2004 DC4-150-2004	666 688				
REL-150-2005 DC2-150-2005 DC4-150-2005	530 667 689	15V/5A	15V/5A	-	-
REL-150-1001 DC2-150-1001 DC4-150-1001	531 655 677	2.5V/30A(11)	-	-	-
REL-150-1002 DC2-150-1002 DC4-150-1002	532 656 678	3.3V/30A(11)	-	-	-
REL-150-1003 DC2-150-1003 DC4-150-1003	533 657 679	5V/30A(11)	-	-	-
REL-150-1004 DC2-150-1004 DC4-150-1004	534 658 680	12V/12.5A	-	-	-
REL-150-1005 DC2-150-1005 DC4-150-1005	535 659 681	15V/10.0A	-	-	-
REL-150-1006 DC2-150-1006 DC4-150-1006	536 660 682	24V/6.3A	-	-	-
REL-150-1007 DC2-150-1007 DC4-150-1007	537 661 683	28V/5.4A	-	-	-
REL-150-1008 DC2-150-1008 DC4-150-1008	538 662 684	48V/3.1A	-	-	-
REL-150-1009	738	31V/5.4A	-	-	-
DC4-150-1009	822	20V/7.5A	-	-	-
REL-150-1010	742	36V/4.16A	-	-	-
REL-150-1011(16)	738	31V/5.4A	-	-	-
REL-185-4001 DC2-185-4001 DC4-185-4001	573 714 765	3.3V/20A(12)	5V/10A	12V/2A	12V/2A
REL-185-4002 DC2-185-4002 DC4-185-4002	574 715 766	5V/20A(12)	3.3V/10A	12V/2A	12V/2A
REL-185-4003 DC2-185-4003 DC4-185-4003	575 716 767	5V/20A(12)	3.3V/10A	15V/2A	15V/2A

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

REL-185-4004 DC2-185-4004 DC4-185-4004	576 717 768	5V/20A(12)	5V/10A	12V/2A	12V/2A
REL-185-4005 DC2-185-4005 DC4-185-4005	577 718 769	5V/20A(12)	5V/10A	15V/2A	15V/2A
REL-185-4006 DC2-185-4006 DC4-185-4006	578 719 770	5V/20A(12)	24V/3A	12V/2A	12V/2A
REL-185-4007 DC2-185-4007 DC4-185-4007	579 720 771	5V/20A(12)	24V/3A	15V/2A	15V/2A
REL-185-4008	873	3.3V/20A(12)	6V/5A	12V/2A	6V/5A
REL-185-4009	1075	5V/15A	12V/4A	28V/0.80A	12V/2A
REL-185-3001 DC2-185-3001 DC4-185-3001	580 721 772	5V/20A(12)	12V/5A	-	12V/2A
REL-185-3002 DC2-185-3002 DC4-185-3002	581 722 773	5V/20A(12)	15V/4A	-	15V/2A
REL-185-2001 DC2-185-2001 DC4-185-2001	582 723 774	3.3V/20A(12)	5V/10A	-	-
REL-185-2002 DC2-185-2002 DC4-185-2002	583 724 775	5V/20A(12)	12V/8A	-	-
REL-185-2003 DC2-185-2003 DC4-185-2003	584 725 776	5V/20A(12)	24V/4A	-	-
REL-185-2004 DC2-185-2004 DC4-185-2004	585 726 777	12V/10A	12V/6A	-	-
REL-185-2005 DC2-185-2005 DC4-185-2005	586 727 778	15V/8A	15V/5A	-	-
REL-185-2006	712	15V/6A	24V/4A	-	-
REL-185-2007	816	35V/3.5A	12V/5.2A	-	-
REL-185-1001 DC2-185-1001 DC4-185-1001	587 728 779	2.5V/37A(13)	-	-	-
REL-185-1002 DC2-185-1002	588 729	3.3V/37A(13)	-	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Product Service

DC4-185-1002	780				
REL-185-1003 DC2-185-1003 DC4-185-1003	589 730 781	5V/37A(13)	-	-	-
REL-185-1004 DC2-185-1004 DC4-185-1004	590 731 782	12V/15.4A	-	-	-
REL-185-1005 DC2-185-1005 DC4-185-1005	591 732 783	15V/12.3A	-	-	-
REL-185-1006 DC2-185-1006 DC4-185-1006	592 733 784	24V/7.7A	-	-	-
REL-185-1007 DC2-185-1007 DC4-185-1007	593 734 785	28V/6.6A	-	-	-
REL-185-1008 DC2-185-1008 DC4-185-1008	594 735 786	48V/3.8A	-	-	-
REL-185-1009	022	6.3V/29A	-	-	-
REL-185-1010	593	31V/6A	-	-	-
DC1-80-4001	1114	3.3V/6A	5V/5A	12V/2A	12V/2A
DC1-80-4002	1115	5V/6A	3.3V/5A	12V/2A	12V/2A
DC1-80-4003	1116	5V/6A	5V/5A	12V/2A	12V/2A
DC1-80-4004	1117	5V/6A	5V/5A	15V/2A	15V/2A
DC1-80-4005	1118	5V/6A	24V/2A	12V/2A	12V/2A
DC1-80-4006	1119	5V/6A	24V/2A	15V/2A	15V/2A
DC1-80-3001	1112	5V/6A	12V/2A	-	12V/2A
DC1-80-3002	1113	5V/6A	15V/2A	-	15V/2A
DC1-80-2001	1108	5V/6A	12V/4A	-	-
DC1-80-2002	1109	5V/6A	24V/2A	-	-
DC1-80-2003	1110	12V/3.5A	12V/3.5A	-	-
DC1-80-2004	1111	15V/3A	15V/3A	-	-
DC1-80-1001	1101	5V/16A	-	-	-
DC1-80-1002	1102	12V/6.7A	-	-	-
DC1-80-1003	1103	15V/5.3A	-	-	-
DC1-80-1004	1104	24V/3.3A	-	-	-
DC1-80-1005	1105	28V/2.9A	-	-	-
DC1-80-1006	1106	36V/2.2A	-	-	-
DC1-80-1007	1107	48V/1.5A	-	-	-

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

Notes:

1. Outputs can be positive, negative, or floating with respect to Output 1.
2. Total output power, with free air convection, must not exceed:
   REL, DC2, DC4-70: 50 watts (open frame), 40 watts (chassis/cover option)
   REL, DC2, DC4-110: 80 watts (open frame), 65 watts (chassis/cover option)
   REL, DC2, DC4-150: 100 watts (open frame), 85 watts (chassis/cover option)
   REL, DC2, DC4-185: 135 watts (open frame), 110 watts (chassis/cover option)
   DC1-80 (Singles): 60 watts (open frame or chassis), 50 watts (chassis/cover option)
   DC1-80 (Multis): 50 watts (open frame or chassis), 40 watts (chassis/cover option)
3. Total output power, with 300LFM forced air cooling, must not exceed:
   REL, DC2, DC4-70: 70 watts (open frame or chassis/cover option)
   REL, DC2, DC4-110: 110 watts (open frame or chassis/cover option)
   REL, DC2, DC4-150: 150 watts (open frame or chassis/cover option)
   REL, DC2, DC4-185: 185 watts (open frame or chassis/cover option)
   DC1-80: 80 watts (open frame or chassis/cover option)
4. Total current from Outputs 1 and 2, convection cooled, must not exceed:
   REL, DC2, DC4-110: 12A
   REL, DC2, DC4-150: 15A
   REL, DC2, DC4-185: 20A
5. Total current from Outputs 3 and 4, convection cooled, must not exceed:
   REL, DC2, DC4-110: 3A
   REL, DC2, DC4-150: 3A
   REL, DC2, DC4-185: 3A
6. Rated 1.5A maximum with convection cooling.
7. Rated 10A maximum with convection cooling.
8. Rated 8A maximum with convection cooling.
9. Rated 16A maximum with convection cooling.
10. Rated 12A maximum with convection cooling.
11. Rated 20A maximum with convection cooling.
12. Rated 15A maximum with convection cooling.
13. Rated 27A maximum with convection cooling.
14. Open Frame or chassis mount only, no cover.
15. Rated Input for this supply is 40-95Vac, 6A. Maximum output power is 77 Watts.
16. Total output power must not exceed 167.4 Watts with 300 LFM Forced Air Cooling.
17. A suffix, or any combination of, may be added to the model number to indicate the following optional configuration(s): CH-chassis, CO-cover, IO-isolated outputs, PF-power fail, OVP-over voltage protection, PG-power good, WT- wide temperature, RE- Remote On/Off, TS-terminal strips, TB- terminal blocks, GOLD-gold pins input / output headers, Y or NY-decreased, or removed, line to ground capacitors, O – Y2 caps secondary to ground, P – Y1 caps secondary to ground or removed, BD- Blocking Diode (DC Series only)

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

Application Considerations:

- These components have been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment (IEC/EN 62368-1, 2nd Edition)
- These components have been evaluated for the output power ratings specified, convection cooled open-frame and in optional chassis and cover, at a 50°C ambient. The temperature tests are to be repeated in the end product. Isolation Transformer T1 utilizes a Class B (130°C) Electrical Insulation System designated IPD-130-1 issued by Underwriters Laboratories except for DC1-80 series which utilizes Class F (155oC) Electrical Insulation System designated IPD-155-1 issued by Underwriters Laboratories.
- The input circuit includes a fuse in the line input only.
- These components have been evaluated as Class I equipment for use in a pollution degree 2 environments.
- The supply terminal grounding connector is connected to the chassis through a land on the printed wiring board. An Earthing Test between the chassis and input ground terminal was successfully performed at 40A and must be performed in the end product.
- These components require Electrical and Fire enclosures as part of the end product.
- These components provide reinforced insulation between the primary and secondary circuits and basic insulation between primary and earth. All outputs are classified ES1 except the DC2-70-1008, DC4-70-1008, DC2-150-1007, DC2-150-1008, DC4-150-1007, DC4-150-1008 and DC1-80-1007 which are classified ES2.
- This unit utilizes both input/output connectors and optional output terminal blocks, see critical components list. The input/output connectors are not acceptable for field connections and are only intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of these mating connectors relative to secureness, insulating, materials and temperatures should be considered. However, the units that utilize terminal blocks are acceptable for field wiring. These terminal blocks accept 16-30 AWG wire.
- Touch Currents and/or Leakage Currents must be performed in the end product, applicable to REL Series only.
- Care must be taken to insure the voltage applied to a reinforced insulation does not overstress basic insulation. Breakdown of basic insulation and catastrophich failure of the power supply may result if a test voltage of greater than 1800 VAC is applied between primary and secondary circuits. Each isolating component is factory tested at 4000 V AC minimum prior to installation.
- Option SB, REL-185 Series only, indicates a 8.5V / 5mA standby voltage accessible on P3 pins 5 and 6.

This CB Test Certificate is issued by the National Certification Body

CB 030824 0370 Rev. 01
Date, 2020-09-03

(William J. Stinson)

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

IEC IECEE CB SCHEME	Ref. Certif. No.
	DE 3 - 501568

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE
CERTIFICAT D'ESSAI OC

Product Produit	Power supply
Name and address of the applicant Nom et adresse du demandeur	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road Wilkes-Barre PA 18706, USA
Name and address of the manufacturer Nom et adresse du fabricant	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road, Wilkes-Barre PA 18706, USA
Name and address of the factory Nom et adresse de l'usine	Integrated Power Designs, Inc. Hanover Industrial Estates 300 Stewart Road, Wilkes-Barre PA 18706, USA
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	REL-70-1001 Rated Input Voltage: 100-240 V AC Rated Frequency: 50-60 Hz Rated Input Current: 1.6 A max Protection Class: I See certificate attachment for ratings, configurations and license conditions
Trade mark (if any) Marque de fabrique (si elle existe)	IPD
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	CTF Stage 3
Model/type Ref. Ref. de type	1) REL-70, DC2-70, DC4-70 Series 2) REL-110, DC2-110, DC4-110 Series 3) REL-150, DC2-150, DC4-150 Series 4) REL-185, DC2-185, DC4-185 Series Each model of each series can have from one (1) to four (4) outputs of any voltage/current configurations with a max total output power of 70W(1), 110W(2), 150W(3) or 185W(4).
Additional information (if necessary) Information complémentaire (si nécessaire)	Certificate DE 3 – 59690 issued 2012-05-18 is replaced by this version due to technical changes
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1(ed.2);am1;am2
as shown in the Test Report Ref. No. which forms part of this certificate comme indiqué dans le Rapport d'essais numéro de référence qui constitue une partie de ce certificat	72108766-000

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

Date, 2015-12-02
CB 15 11 30824 291

William Stinson

TÜV SÜD Product Service GmbH · Certification Body · Ridlerstrasse 65 · D-80339 München

TÜV SÜD Product Service

CB-1 03.06

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-70-4001 DC2-70-4001 DC4-70-4001	544 787 743	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	3.3V/6A	5V/5A	12V/2A(6)	12V/2A(6)
REL-70-4002 DC2-70-4002 DC4-70-4002	545 788 744	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	3.3V/5A	12V/2A(6)	12V/2A(6)
REL-70-4003 DC2-70-4003 DC4-70-4003	546 789 745	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	3.3V/5A	15V/2A(6)	15V/2A(6)
REL-70-4004 DC2-70-4004 DC4-70-4004	547 790 746	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	5V/5A	12V/2A(6)	12V/2A(6)
REL-70-4005 DC2-70-4005 DC4-70-4005	548 791 747	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	5V/5A	15V/2A(6)	15V/2A(6)
REL-70-4006 DC2-70-4006 DC4-70-4006	549 792 748	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	24V/2A	12V/2A(6)	12V/2A(6)
REL-70-4007 DC2-70-4007 DC4-70-4007	550 793 749	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	24V/2A	15V/2A(6)	15V/2A(6)
REL-70-4008	706	100-240V~	1.6A	24V/1.25A	6V/2.5A	10V/.7A	6V/.5A
REL-70-4009	021	100-240V~	1.6A	6.7V/5A	5V/4A	15V/2A(6)	15V/2A(6)
REL-70-4010	869	100-240V~	1.6A	7.5V/3A	7.5V/2A	12V/2A(6)	12V/2A(6)
REL-70-3001 DC2-70-3001 DC4-70-3001	551 794 750	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	12V/2A	-	12V/2A(6)
REL-70-3002 DC2-70-3002 DC4-70-3002	552 795 751	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	15V/2A	-	15V/2A(6)
REL-70-3003	702	100-240V~	1.6A	5.1V/6A	7.5V/2A		7.5V/2A(6)
REL-70-3004	741	100-240V~	1.6A	3.3 V/6 A	7 V/5 A	12 V/2 A(6)	
REL-70-3005	358	100-240V~	1.6A	5 V/5 A	18 V/2 A		18 V/ 2A(6)
REL-70-2001 DC2-70-2001 DC4-70-2001	553 796 752	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	3.3V/6A	5V/5A	-	-
REL-70-2002 DC2-70-2002 DC4-70-2002	554 797 753	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	12V/4A	-	-
REL-70-2003 DC2-70-2003 DC4-70-2003	555 798 754	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	24V/2A	-	-

Test Report No: 72108766-000
Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-70-2004 DC2-70-2004 DC4-70-2004	556 799 755	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	12V/3A	12V/3A	-	-
REL-70-2005 DC2-70-2005 DC4-70-2005	557 800 756	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	15V/3A	15V/2A	-	-
REL-70-2006	707	100-240V~	1.6A	5.5V/6A	5.5V/5A	-	-
REL-70-2007 DC2-70-2007 DC4-70-2007	876 874 875	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/6A	29V/2A	-	-
REL-70-2008	1359	100-240V~	1.6A	9V/2A	48V/1.5A		
REL-70-1001 DC2-70-1001 DC4-70-1001	558 801 757	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	2.5V/14A(7)		-	-
REL-70-1002 DC2-70-1002 DC4-70-1002	559 802 758	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	3.3V/14A(7)	-	-	-
REL-70-1003 DC2-70-1003 DC4-70-1003	560 803 759	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	5V/14A(7)	-	-	-
REL-70-1004 DC2-70-1004 DC4-70-1004	561 804 760	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	12V/5.8A	-	-	-
REL-70-1005 DC2-70-1005 DC4-70-1005	562 805 761	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	15V/4.7A	-	-	-
REL-70-1006 DC2-70-1006 DC4-70-1006	563 806 762	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	24V/2.9A	-	-	-
REL-70-1007 DC2-70-1007 DC4-70-1007	564 807 763	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	28V/2.5A	-	-	-
REL-70-1008 DC2-70-1008 DC4-70-1008	565 808 764	100-240V~ 18-36Vdc 36-72Vdc	1.6A 7A 4A	48V/1.5A	-	-	-
REL-110-4001 DC2-110-4001 DC4-110-4001	484 626 648	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	3.3V/10A(8)	5V/6A	12V/2A	12V/2A
REL-110-4002 DC2-110-4002 DC4-110-4002	485 627 649	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	3.3V/6A	12V/2A	12V/2A
REL-110-4003 DC2-110-4003 DC4-110-4003	486 628 650	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	3.3V/6A	15V/2A	15V/2A

Test Report No: 72108766-000
Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-110-4004 DC2-110-4004 DC4-110-4004	487 629 651	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	5V/6A	12V/2A	12V/2A
REL-110-4005 DC2-110-4005 DC4-110-4005	488 630 652	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	5V/6A	15V/2A	15V/2A
REL-110-4006 DC2-110-4006 DC4-110-4006	489 631 653	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	24V/2A	12V/2A	12V/2A
REL-110-4007 DC2-110-4007 DC4-110-4007	490 632 654	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	24V/2A	15V/2A	15V/2A
DC2-110-4008	827	18-36Vdc	12A	+3.3V/10A (8)	+5V/6A	+12V/3.7A	-12V/.3A
REL-110-4009	736	100-240V~	2A	5V/10A (8)	24V/2A	7V/2.5A	7V/2.5A
REL-110-4010	871	100-240V~	2A	9V/6A	24V/2A	15V/2A	15V/2A
REL-110-4011	872	100-240V~	2A	32V/2A	32V/2A	12V/1A	12V/1A
REL-110-3001 DC2-110-3001 DC4-110-3001	491 624 646	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	12V/3A	-	12V/3A
REL-110-3002 DC2-110-3002 DC4-110-3002	492 625 647	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	15V/2A	-	15V/2A
REL-110-3003 DC2-110-3003	737 883	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	8V/5A(8)	8V/1A	-	30V/1A
REL-110-3004	088	100-240V~	2A	9V/3A	24V/3A	13V/2A	-
REL-110-3005(14)	852	100-240V~	2A	5/12A(8)	9.5V/1A	-	9.5V/1A
REL-110-3007	892	100-240V~	2A	20V/2.5A	12V/2.5A	-	12V/2.5A
REL-110-2001 DC2-110-2001 DC4-110-2001	493 619 641	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	3.3V/10A(8)	5V/6A	-	-
REL-110-2002 DC2-110-2002 DC4-110-2002	494 620 642	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	12V/5A	-	-
REL-110-2003 DC2-110-2003 DC4-110-2003	495 621 643	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/10A(8)	24V/3A	-	-
REL-110-2004 DC2-110-2004 DC4-110-2004	496 622 644	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	12V/5A	12V/4A	-	-
REL-110-2005 DC2-110-2005 DC4-110-2005	497 623 645	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	15V/4A	15V/3A	-	-

Test Report No: 72108766-000
Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-110-2006	704	100-240V~	2A	18V/4A	18V/3A	-	-
REL-110-2007	1423	100-240V~	2A	6V/10A (8)	7.5V/6A	-	-
REL-110-1001 DC2-110-1001 DC4-110-1001	512 611 633	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	2.5V/22A(9)	-	-	-
REL-110-1002 DC2-110-1002 DC4-110-1002	498 612 634	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	3.3V/22A(9)	-	-	-
REL-110-1003 DC2-110-1003 DC4-110-1003	499 613 635	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	5V/22A(9)	-	-	-
REL-110-1004 DC2-110-1004 DC4-110-1004	500 614 636	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	12V/9.2A	-	-	-
REL-110-1005 DC2-110-1005 DC4-110-1005	501 615 637	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	15V/7.3A	-	-	-
REL-110-1006 DC2-110-1006 DC4-110-1006	502 616 638	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	24V/4.6A	-	-	-
REL-110-1007 DC2-110-1007 DC4-110-1007	503 617 639	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	28V/3.9A	-	-	-
REL-110-1008 DC2-110-1008 DC4-110-1008	504 618 640	100-240V~ 18-36Vdc 36-72Vdc	2A 12A 7A	48V/2.3A	-	-	-
REL-150-4001 DC2-150-4001 DC4-150-4001	517 670 692	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	3.3V/15A(10)	5V/8A	12V/2A	12V/2A
REL-150-4002 DC2-150-4002 DC4-150-4002	518 671 693	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	3.3V/8A	12V/2A	12V/2A
REL-150-4003 DC2-150-4003 DC4-150-4003	519 672 694	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	3.3V/8A	15V/2A	15V/2A
REL-150-4004 DC2-150-4004 DC4-150-4004	520 673 695	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	5V/8A	12V/2A	12V/2A
REL-150-4005 DC2-150-4005 DC4-150-4005	521 674 696	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	5V/8A	15V/2A	15V/2A
REL-150-4006 DC2-150-4006 DC4-150-4006	522 675 697	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	24V/3A	12V/2A	12V/2A

Test Report No: 72108766-000

Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-150-4007 DC2-150-4007 DC4-150-4007	523	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	24V/3A	15V/2A	15V/2A
DC4-150-4008	826	100-240V~	4A	3.5V/10A	5.2V/9A	12.5V/1A	13.3V/3A
REL-150-4009(15)	610	100-240V~	6A	24V/2.3A	10V/1A	6V/1.6A	6V/0.3A
REL-150-4010	809	100-240V~	4A	5V/15A	12V/5A	24V/1A	24V/1A
REL-150-4011	824	100-240V~	4A	3.3V/10A	5.2V/9A	12.5V/1A	13.3V/3A
REL-150-4012	825	100-240V~	4A	3.3V/15A(10)	5V/8A	14V/2A	14V/2A
REL-150-4013	1022	100-240V~	4A	7.25V/8.7A	30V/0.5A	24V/1.5A	24V/1.5A
REL-150-3001 DC2-150-3001 DC4-150-3001	524 668 690	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	12V/4A	-	12V/3A
REL-150-3002 DC2-150-3002 DC4-150-3002	525 669 691	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	+5V/15A(10)	+15V/3A	-	15V/2A
REL-150-3003	609	100-240V~	4A	22V/3.5A	22V/3.5A	-	24V/1A
REL-150-3004	608	100-240V~	4A	5V/6A	12V/7A	-	12V/3A
REL-150-3005	129	100-240V~	4A	5.5V/15A(10)	15.5V/3A	-	15.5V/2A
REL-150-2001 DC2-150-2001 DC4-150-2001	526 663 685	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	3.3V/15A(10)	5V/8A	-	-
REL-150-2002 DC2-150-2002 DC4-150-2002	527 664 686	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	12V/5A	-	-
REL-150-2003 DC2-150-2003 DC4-150-2003	528 665 687	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/15A(10)	24V/3A	-	-
REL-150-2004 DC2-150-2004 DC4-150-2004	529 666 688	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	12V/7.55A	12V/5A	-	-
REL-150-2005 DC2-150-2005 DC4-150-2005	530 667 689	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	15V/5A	15V/5A	-	-
REL-150-1001 DC2-150-1001 DC4-150-1001	531 655 677	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	2.5V/30A(11)	-	-	-
REL-150-1002 DC2-150-1002 DC4-150-1002	532 656 678	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	3.3V/30A(11)	-	-	-
REL-150-1003 DC2-150-1003 DC4-150-1003	533 657 679	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/30A(11)	-	-	-

Test Report No: 72108766-000
Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-150-1004 DC2-150-1004 DC4-150-1004	534 658 680	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	12V/12.5A	-	-	-
REL-150-1005 DC2-150-1005 DC4-150-1005	535 659 681	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	15V/10.0A	-	-	-
REL-150-1006 DC2-150-1006 DC4-150-1006	536 660 682	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	24V/6.3A	-	-	-
REL-150-1007 DC2-150-1007 DC4-150-1007	537 661 683	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	28V/5.4A	-	-	-
REL-150-1008 DC2-150-1008 DC4-150-1008	538 662 684	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	48V/3.1A	-	-	-
REL-150-1009	738	100-240V~	4A	31V/5.4A	-	-	-
DC2-150-1009 DC4-150-1009	---- 822	18-36Vdc 36-72Vdc	20A 10A	20V/7.5A	-	-	-
REL-150-1010	742	100-240V~	4A	36V/4.16A	-	-	-
REL-150-1011(16)	738	100-240V~	4A	31V/5.4A	-	-	-
REL-185-4001 DC2-185-4001 DC4-185-4001	573 714 765	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	3.3V/20A(12)	5V/10A	12V/2A	12V/2A
REL-185-4002 DC2-185-4002 DC4-185-4002	574 715 766	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	3.3V/10A	12V/2A	12V/2A
REL-185-4003 DC2-185-4003 DC4-185-4003	575 716 767	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	3.3V/10A	15V/2A	15V/2A
REL-185-4004 DC2-185-4004 DC4-185-4004	576 717 768	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	5V/10A	12V/2A	12V/2A
REL-185-4005 DC2-185-4005 DC4-185-4005	577 718 769	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	5V/10A	15V/2A	15V/2A
REL-185-4006 DC2-185-4006 DC4-185-4006	578 719 770	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	24V/3A	12V/2A	12V/2A
REL-185-4007 DC2-185-4007 DC4-185-4007	579 720 771	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	24V/3A	15V/2A	15V/2A
REL-185-4008	873	100-240V~	4A	3.3V/20A(12)	6V/5A	12V/2A	6V/5A
REL-185-4009	1075	100-240V~	4A	5V/15A	12V/4A	28V/0.80A	12V/2A

Test Report No: 72108766-000

Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-185-3001 DC2-185-3001 DC4-185-3001	580 721 772	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	12V/5A	-	12V/2A
REL-185-3002 DC2-185-3002 DC4-185-3002	581 722 773	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	15V/4A	-	15V/2A
REL-185-2001 DC2-185-2001 DC4-185-2001	582 723 774	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	3.3V/20A(12)	5V/10A	-	-
REL-185-2002 DC2-185-2002 DC4-185-2002	583 724 775	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	12V/8A	-	-
REL-185-2003 DC2-185-2003 DC4-185-2003	584 725 776	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/20A(12)	24V/4A	-	-
REL-185-2004 DC2-185-2004 DC4-185-2004	585 726 777	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	12V/10A	12V/6A	-	-
REL-185-2005 DC2-185-2005 DC4-185-2005	586 727 778	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	15V/8A	15V/5A	-	-
REL-185-2006	712	100-240V~	4A	15V/6A	24V/4A	-	-
REL-185-2007	816	100-240V~	4A	35V/3.5A	12V/5.2A	-	-
REL-185-1001 DC2-185-1001 DC4-185-1001	587 728 779	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	2.5V/37A(13)	-	-	-
REL-185-1002 DC2-185-1002 DC4-185-1002	588 729 780	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	3.3V/37A(13)	-	-	-
REL-185-1003 DC2-185-1003 DC4-185-1003	589 730 781	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	5V/37A(13)	-	-	-
REL-185-1004 DC2-185-1004 DC4-185-1004	590 731 782	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	12V/15.4A	-	-	-
REL-185-1005 DC2-185-1005 DC4-185-1005	591 732 783	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	15V/12.3A	-	-	-
REL-185-1006 DC2-185-1006 DC4-185-1006	592 733 784	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	24V/7.7A	-	-	-
REL-185-1007 DC2-185-1007 DC4-185-1007	593 734 785	100-240V~ 18-36Vdc 36-72Vdc	4A 20A 10A	28V/6.6A	-	-	-

Test Report No: 72108766-000

Date, 2015-12-02

CB 15 11 30824 291

Attachment to Certificate CB 15 11 30824 291

Model Number	Transformer (6000XXX)	Input voltage	Input current	Output 1	Output 2	Output 3	Output 4
REL-185-1008	594	100-240V~	4A	48V/3.8A	-	-	-
DC2-185-1008	735	18-36Vdc	20A				
DC4-185-1008	786	36-72Vdc	10A				
REL-185-1009	022	100-240V~	4A	6.3V/29A	-	-	-
REL-185-1010	593	100-240V~	4A	31V/6A	-	-	-

Notes:

1. Outputs can be positive, negative, or floating with respect to Output 1.
2. Total output power, with free air convection, must not exceed:
   REL, DC2, DC4-70: 50 watts (open frame), 40 watts (chassis/cover option)
   REL, DC2, DC4-110: 80 watts (open frame), 65 watts (chassis/cover option)
   REL, DC2, DC4-150: 100 watts (open frame), 85 watts (chassis/cover option)
   REL, DC2, DC4-185: 135 watts (open frame), 110 watts (chassis/cover option)
3. Total output power, with 300LFM forced air cooling, must not exceed:
   REL, DC2, DC4-70: 70 watts (open frame or chassis/cover option)
   REL, DC2, DC4-110: 110 watts (open frame or chassis/cover option)
   REL, DC2, DC4-150: 150 watts (open frame or chassis/cover option)
   REL, DC2, DC4-185: 185 watts (open frame or chassis/cover option)
4. Total current from Outputs 1 and 2, convection cooled, must not exceed:
   REL, DC2, DC4-110: 12A
   REL, DC2, DC4-150: 15A
   REL, DC2, DC4-185: 20A
5. Total current from Outputs 3 and 4, convection cooled, must not exceed:
   REL, DC2, DC4-110: 3A
   REL, DC2, DC4-150: 3A
   REL, DC2, DC4-185: 3A
6. Rated 1.5A maximum with convection cooling.
7. Rated 10A maximum with convection cooling

Attachment to Certificate CB 15 11 30824 291

8. Rated 8A maximum with convection cooling.
9. Rated 16A maximum with convection cooling.
10. Rated 12A maximum with convection cooling.
11. Rated 20A maximum with convection cooling.
12. Rated 15A maximum with convection cooling.
13. Rated 27A maximum with convection cooling.
14. Open Frame or chassis mount only, no cover.
15. Rated Input for this supply is 40-95Vac, 6A. Maximum output power is 77 Watts.
16. Total output power must not exceed 167.4 Watts with 300 LFM Forced Air Cooling.
17. A suffix, or any combination of, may be added to the model number to indicate the following optional configuration(s): CH- chassis, CO-cover, IO-isolated outputs, PF-power fail, OVP-over voltage protection, PG-power good, WT- wide temperature, RE- Remote On/Off, TS-terminal strips, TB- terminal blocks, GOLD-gold pins input / output headers, Y or NY-decreased, or removed, line to ground capacitors, O – Y2 caps secondary to ground, P – Y1 caps secondary to ground or removed, BD- Blocking Diode (DC Series only)

Attachment to Certificate CB 15 11 30824 291

Conditions of Acceptability:

1. These components has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, IEC/EN 60950-1 2nd Ed.

2. These components have been evaluated for the output power ratings specified, at a 50°C ambient. The temperature tests are to be repeated in the end product. Isolation Transformer T1 employs a R/C OBJY2 Class B (130°C) electrical insulation system designated IPD-130-1.

3. The input circuit includes only one fuse in the line input.

4. These components have been evaluated as Class I equipment for use in pollution degree 2 environments.

5. The supply terminal grounding connector is connected to the chassis through a land on the printed wiring board. An Earthing Test between the chassis and input ground terminal was successfully performed. All mounting holes on the printed circuit board must be reliably connected to the end product's grounding connection.

6. These components require Electrical and Fire enclosures as part of the end product.

7. These components provide reinforced insulation between the primary and secondary circuits and basic insulation between primary and secondary. All outputs are SELV type, non hazardous energy. The DC2-70-1008, DC4-70-1008, DC2-150-1007, DC2-150-1008, DC4-150-1007 and DC4-150-1008 which are ELV type, non-hazardous energy.

8. This unit utilizes both input/output connectors and alternate output terminal blocks, see critical components list. The input/output connectors are not acceptable for field connections and are only intended for connection to mating connectors of internal wiring inside the end-use machine. The acceptability of these mating connectors relative to secureness, insulating materials and temperatures should be considered.

   However, the units that utilize terminal blocks are acceptable for field wiring. These terminal blocks accept 16-30 AWG wire.

9. Touch Currents and/or Leakage Currents must be performed in the end product. Note applicable to REL-70 Series only.

10. Care must be taken to insure the voltage applied to a reinforced insulation does not overstress basic insulation. Breakdown of basic insulation and catastrophic failure of the power supply may result if a test voltage of greater than 1800 VAC is applied between primary and secondary circuits. Each isolating component is factory tested at 4000 VAC minimum prior to installation.
11. Option SB, REL-185 Series Only, indicates a 8.5V/5mA standby voltage accessible on P3 pins 5 and 6.

Test Report No: 72108766-000
Date, 2015-12-02

CB 15 11 30824 291