Thomas
Research Products

CLASSIC
LED DRIVERS
& POWER ACCESSORIES

Intelligent Device
ECOSYSTEM

HUBBELL®

Thomas Research Products

LED Drivers classic

Welcome to our Classic LED Driver catalog--fixed output and dimmable models.

Our focus on continuous innovation results in adapting our product line to the changing needs of our industry. We provide three levels of products to fit the needs of the Intelligent Device Ecosystem. First is our Classic driver line, a comprehensive product line to cover most needs of commercial & industrial lighting OEMs for indoor and outdoor applications.

To step up to more integrated components, find our Dynamic and fully Intelligent driver products in our SelectSYNC™ Driver catalog.

Founded in 1997, we design, manufacture and distribute power solutions and accessories from our centrally-located headquarters in Elgin, Illinois USA. TRP designs are optimized for quality, efficiency, longevity, and cost-competitiveness.

We take pride in providing both superior standard products and custom options, tailored to customers' needs. The company is committed to providing superior quality and technology, along with superior service, to both OEM customers and replacement parts channels.

Custom Drivers & Solutions

We solve problems and create unique products to meet customer applications through our Norlux custom services: Design, testing and manufacturing. Contact us for details.

Capabilities include:

- Custom design/engineering for drivers, light engines, electronics and complete luminaires
- Electrical, Optical & Thermal design
- Rapid prototyping
- Fully-equipped development and testing labs
- Fixture electrical and light output testing
- Automated cleanroom manufacturing: class 100,000
- COB production and SMT assembly

NORLUX® CUSTOM SERVICES

LED Driver Essentials ..... Page 3
6 Watt LED Drivers ..... Page 4
9 Watt LED Drivers ..... Page 4
12 Watt LED Drivers ..... Pages 4-5
16 Watt LED Drivers ..... Page 5
17 Watt LED Drivers ..... Page 5
20 Watt LED Drivers ..... Page 6
25 Watt LED Drivers ..... Pages 7-8
30 Watt LED Drivers ..... Page 9
35 Watt LED Drivers ..... Page 9
40 Watt LED Drivers ..... Pages 9-14
50 Watt LED Drivers ..... Page 14
60 Watt LED Drivers ..... Page 15
75 Watt LED Drivers ..... Pages 15-16
96 Watt LED Drivers ..... Pages 16-18
100 Watt LED Drivers ..... Page 19
120 Watt LED Drivers ..... Page 19
150 Watt LED Drivers ..... Page 20
200 Watt LED Drivers ..... Page 21
Surge Protectors ..... Page 22
Transformers & Step-dimming Modules ..... Page 23
Warranty ..... Page 23

1225 Bowes Rd Elgin IL 60123 USA
T 847-515-3057 | F 847-515-3047

96W

PLED Series

- Performance
- Black Aluminum Case
- OA: 6.30" x 2.32" x 1.46"

TYPE **TL** TYPE **HL**

Constant Current or Voltage	Dimming	Output Current *(mA)* *(range if CV)*	Output Voltage *(VDC)* *(range if CC)*	Catalog Number	Nominal Input Voltage *(Vac)*	Max Output Power *(Watts)*	Efficiency	In Stock *(typical)*	SAM
C	No	350	92-274	PLED96W-274-C0350	100-277	96	92%		
		450	71-213	PLED96W-213-C0450			92%		
		700	46-137	PLED96W-137-C0700			92%		
		1050	31-92	PLED96W-092-C1050			91%		
		1400	23-69	PLED96W-069-C1400			91%		
		1750	18-54	PLED96W-054-C1750		94.5	91%		
		2000	16-48	PLED96W-048-C2000		96	90%		
		2100	16-46	PLED96W-046-C2100			90%		
		2450	14-39	PLED96W-039-C2450			89%		
		2660	12-36	PLED96W-036-C2660			89%		
		2800	12-34	PLED96W-034-C2800			89%		
		3150	10-30	PLED96W-030-C3150			89%		
		3500	9-27	PLED96W-027-C3500			88%		
		3840	9-25	PLED96W-025-C3840			88%		
		4000	8-24	PLED96W-024-C4000			88%		
		4800	7-20	PLED96W-020-C4800			87%		
		5350	6-18	PLED96W-018-C5350			86%		
C	0-10V *Optional: 3-wire (-D3)*	350	92-274	PLED96W-274-C0350-D	100-277	96	92%	●	
		450	71-213	PLED96W-213-C0450-D			92%	●	
		700	46-137	PLED96W-137-C0700-D			92%	●	
		1050	31-92	PLED96W-092-C1050-D			91%	●	
		1400	23-69	PLED96W-069-C1400-D			91%	●	
		1750	18-54	PLED96W-054-C1750-D		94.5	91%	●	
		2000	16-48	PLED96W-048-C2000-D		96	90%		
		2100	16-46	PLED96W-046-C2100-D			90%	●	
		2450	14-39	PLED96W-039-C2450-D			89%	●	
		2660	12-36	PLED96W-036-C2660-D			89%		
		2800	12-34	PLED96W-034-C2800-D			89%	●	
		3150	10-30	PLED96W-030-C3150-D			89%	●	
		3500	9-27	PLED96W-027-C3500-D			88%	●	
		3840	9-25	PLED96W-025-C3840-D			88%		
		4000	8-24	PLED96W-024-C4000-D			88%	●	
		4800	7-20	PLED96W-020-C4800-D			87%		
		5350	6-18	PLED96W-018-C5350-D			86%		
V	No	1338-5350	18	PLED96W-018	100-277	96	86%		
		1200-4800	20	PLED96W-020			87%		
		1000-4000	24	PLED96W-024			88%	●	●
		960-3840	25	PLED96W-025			88%		
		875-3500	27	PLED96W-027			88%		
		788-3150	30	PLED96W-030			89%		
		700-2800	34	PLED96W-034			89%		
		665-2660	36	PLED96W-036			89%		
		613-2450	39	PLED96W-039			89%		
		525-2100	46	PLED96W-046			90%		
		500-2000	48	PLED96W-048			90%		
		438-1750	54	PLED96W-054			91%		
		350-1400	69	PLED96W-069			91%		
		263-1050	92	PLED96W-092			91%		
		175-700	137	PLED96W-137			92%		
		113-450	213	PLED96W-213			92%		
		88-350	274	PLED96W-274			92%		

96W

PLED-HV
Series

- **High Voltage 277- 480V Input**
- Black Aluminum Case
- OA: 5.95″ x 2.32″ x 1.47″

TYPE TL **TYPE HL**

Constant Current or Voltage	Dimming	Output Current *(mA)* *(range if CV)*	Output Voltage *(VDC)* *(range if CC)*	Catalog Number	Nominal Input Voltage *(Vac)*	Max Output Power *(Watts)*	Efficiency	In Stock *(typical)*	SAM
C	No	350	92-274	PLED96W-274-C0350-HV	277-480	96	92%		
		450	71-213	PLED96W-213-C0450-HV			92%		
		700	46-137	PLED96W-137-C0700-HV			92%		
		1050	31-92	PLED96W-092-C1050-HV			91%		
		1400	23-69	PLED96W-069-C1400-HV			91%		
		1750	18-54	PLED96W-054-C1750-HV		94.5	91%		
		2000	16-48	PLED96W-048-C2000-HV		96	90%		
		2100	16-46	PLED96W-046-C2100-HV			90%		
		2450	14-39	PLED96W-039-C2450-HV			89%		
		2660	12-36	PLED96W-036-C2660-HV			89%		
		2800	12-34	PLED96W-034-C2800-HV			89%		
		3150	10-30	PLED96W-030-C3150-HV			89%		
		3500	9-27	PLED96W-027-C3500-HV			88%		
		3840	9-25	PLED96W-025-C3840-HV			88%		
		4000	8-24	PLED96W-024-C4000-HV			88%		
		4800	7-20	PLED96W-020-C4800-HV			87%		
		5350	6-18	PLED96W-018-C5350-HV			86%		
C	0-10V	350	92-274	PLED96W-274-C0350-D-HV	277-480	96	88%		
		450	71-213	PLED96W-213-C0450-D-HV			88%		
		700	46-137	PLED96W-137-C0700-D-HV			86%		
		1050	31-92	PLED96W-092-C1050-D-HV			86%		
		1400	23-69	PLED96W-069-C1400-D-HV			86%		
		1750	18-54	PLED96W-054-C1750-D-HV			85%		
		2000	16-48	PLED96W-048-C2000-D-HV			85%		
		2100	16-46	PLED96W-046-C2100-D-HV			85%		
		2450	14-39	PLED96W-039-C2450-D-HV			84%		
		2660	12-36	PLED96W-036-C2660-D-HV			84%		
		2800	12-34	PLED96W-034-C2800-D-HV			84%		
		3150	10-30	PLED96W-030-C3150-D-HV			84%		
		3500	9-27	PLED96W-027-C3500-D-HV			84%		
		3840	9-25	PLED96W-025-C3840-D-HV			84%		
		4000	8-24	PLED96W-024-C4000-D-HV			81%		
		4800	7-20	PLED96W-020-C4800-D-HV			81%		
		5350	6-18	PLED96W-018-C5350-D-HV			81%		
V	No	1338-5350	18	PLED96W-018-HV	277-480	96	81%		
		1200-4800	20	PLED96W-020-HV			87%		
		1000-4000	24	PLED96W-024-HV			86%		
		960-3840	25	PLED96W-025-HV			87%		
		875-3500	27	PLED96W-027-HV			87%		
		788-3150	30	PLED96W-030-HV			86%		
		700-2800	34	PLED96W-034-HV			85%		
		665-2660	36	PLED96W-036-HV			87%		
		613-2450	39	PLED96W-039-HV			86%		
		525-2100	46	PLED96W-046-HV			87%		
		500-2000	48	PLED96W-048-HV			87%		
		438-1750	54	PLED96W-054-HV			86%		
		350-1400	69	PLED96W-069-HV			85%		
		263-1050	92	PLED96W-092-HV			86%		
		175-700	137	PLED96W-137-HV			86%		
		113-450	213	PLED96W-213-HV			88%		
		88-350	217	PLED96W-274-HV			88%		

UL/CSA Class2

100W

LED-WPS1 Series

- **True Power Supply**
- White Steel Case
- OA: 9.49" x 1.69" x 1.18"

TYPE **HL**

Constant Current or Voltage	Dimming	Output Current *(mA)* *(range if CV)*	Output Voltage *(VDC)* *(range if CC)*	Catalog Number	Nominal Input Voltage *(Vac)*	Max Output Power *(Watts)*	Efficiency	In Stock *(typical)*	SAM
V	No	0-4150	24	LED100WPS1-24	120-277	100	88%		●

120W

PLED Series

- Performance
- Black Aluminum Case
- OA: 7.60" x 2.32" x 1.48"

TYPE **TL** TYPE **HL**

Constant Current or Voltage	Dimming	Output Current *(mA)* *(range if CV)*	Output Voltage *(VDC)* *(range if CC)*	Catalog Number	Nominal Input Voltage *(Vac)*	Max Output Power *(Watts)*	Efficiency	In Stock *(typical)*	SAM
C	No	350	171-343	PLED120W-343-C0350	100-277	120	93%		
		450	133-266	PLED120W-266-C0450			93%		
		700	85-171	PLED120W-171-C0700			93%		
		1050	57-114	PLED120W-114-C1050			92%		
		1400	43-86	PLED120W-086-C1400			92%		
		1750	34-68	PLED120W-068-C1750			92%		
		2100	28-57	PLED120W-057-C2100			92%		
		2450	24-49	PLED120W-049-C2450			92%		
		2800	21-43	PLED120W-043-C2800			91%		
		3150	19-38	PLED120W-038-C3150			91%		
		3500	17-34	PLED120W-034-C3500			91%		
		4200	14-28	PLED120W-028-C4200			91%		
		5000	12-24	PLED120W-024-C5000			89%		
	0-10V *Optional: 3-wire (-D3)*	350	171-343	PLED120W-343-C0350-D			93%	●	
		450	133-266	PLED120W-266-C0450-D			93%		
		700	85-171	PLED120W-171-C0700-D			93%	●	
		1050	57-114	PLED120W-114-C1050-D			92%	●	
		1400	43-86	PLED120W-086-C1400-D			92%	●	
		1750	34-68	PLED120W-068-C1750-D			92%		
		2100	28-57	PLED120W-057-C2100-D			92%	●	
		2450	24-49	PLED120W-049-C2450-D			92%		
		2800	21-43	PLED120W-043-C2800-D			91%	●	
		3150	19-38	PLED120W-038-C3150-D			91%		
		3500	17-34	PLED120W-034-C3500-D			91%		
		4200	14-28	PLED120W-028-C4200-D			91%		
		5000	12-24	PLED120W-024-C5000-D			89%		
V	No	1250-5000	24	PLED120W-024	100-277	120	89%	●	●
		1050-4200	28	PLED120W-028			91%		
		875-3500	34	PLED120W-034			91%		
		788-3150	38	PLED120W-038			91%		
		700-2800	43	PLED120W-043			91%		
		613-2450	49	PLED120W-049			92%		
		525-2100	57	PLED120W-057			92%		
		438-1750	68	PLED120W-068			92%		
		350-1400	86	PLED120W-086			92%		
		263-1050	114	PLED120W-114			92%		
		175-700	171	PLED120W-171			93%		
		113-450	266	PLED120W-266			93%		
		88-350	343	PLED120W-343			93%		

150W

PLED Series

- **AC or DC input**
- Black Aluminum Case
- OA: 7.60" x 2.32" x 1.48

TYPE TL **TYPE HL**

Constant Current or Voltage	Dimming	Output Current *(mA)* *(range if CV)*	Output Voltage *(VDC)* *(range if CC)*	Catalog Number	Nominal Input Voltage *(Vac)*	Max Output Power *(Watts)*	Efficiency	In Stock *(typical)*	SAM
C	No	350	142-428	PLED150W-428-C0350	100-277	150	92%		
		450	111-333	PLED150W-333-C0450			92%		
		530	95-283	PLED150W-283-C0530			91%		
		700	72-214	PLED150W-214-C0700			91%		
		1050	48-142	PLED150W-142-C1050			91%		
		1400	36-107	PLED150W-107-C1400			91%		
		1750	29-85	PLED150W-085-C1750			90%		
		2100	24-71	PLED150W-071-C2100			90%		
		2450	21-61	PLED150W-061-C2450			90%		
		2800	18-53	PLED150W-053-C2800			90%		
		3150	16-48	PLED150W-048-C3150			89%		
		3500	14-42	PLED150W-042-C3500			89%		
		4200	12-35	PLED150W-035-C4200			89%		
		4900	10-30	PLED150W-030-C4900			88%		
		6250	8-24	PLED150W-024-C6250			88%		
	0-10V *Optional: 3-wire (-D3)*	350	142-428	PLED150W-428-C0350-D	100-277	150	92%	●	
		450	111-333	PLED150W-333-C0450-D			92%		
		530	95-283	PLED150W-283-C0530-D			91%		
		700	72-214	PLED150W-214-C0700-D			91%	●	
		1050	48-142	PLED150W-142-C1050-D			91%		
		1400	36-107	PLED150W-107-C1400-D			91%		
		1750	29-85	PLED150W-085-C1750-D			90%		
		2100	24-71	PLED150W-071-C2100-D			90%	●	
		2450	21-61	PLED150W-061-C2450-D			90%		
		2800	18-53	PLED150W-053-C2800-D			90%	●	
		3150	16-48	PLED150W-048-C3150-D			89%		
		3500	14-42	PLED150W-042-C3500-D			89%		
		4200	12-35	PLED150W-035-C4200-D			89%		
		4900	10-30	PLED150W-030-C4900-D			88%		
		6250	8-24	PLED150W-024-C6250-D			88%		
V	No	1563-6250	24	PLED150W-024	100-277	150	88%		●
		1225-4900	30	PLED150W-030			88%		
		1050-4200	35	PLED150W-035			89%		
		875-3500	42	PLED150W-042			89%		
		788-3150	48	PLED150W-048			89%		
		700-2800	53	PLED150W-053			90%		
		613-2450	61	PLED150W-061			90%		
		525-2100	71	PLED150W-071			90%		
		438-1750	85	PLED150W-085			90%		
		350-1400	107	PLED150W-107			91%		
		263-1050	142	PLED150W-142			91%		
		175-700	214	PLED150W-214			91%		
		133-530	283	PLED150W-283			91%		
		113-450	333	PLED150W-333			92%		
		88-350	428	PLED150W-428			92%		

200W

PLED Series

- Performance
- Black Aluminum Case
- OA: 9.32" x 2.32" x 1.48

TYPE **TL** TYPE **HL**

Constant Current or Voltage	Dimming	Output Current *(mA)* *(range if CV)*	Output Voltage *(VDC)* *(range if CC)*	Catalog Number	Nominal Input Voltage *(Vac)*	Max Output Power *(Watts)*	Efficiency	In Stock *(typical)*	SAM
C	No	450	149-445	PLED200W-445-C0450	100-277	200	93%		
		700	95-285	PLED200W-285-C0700			93%		
		1050	64-190	PLED200W-190-C1050			93%		
		1400	48-142	PLED200W-142-C1400			93%		
		1750	38-114	PLED200W-114-C1750			92%		
		2100	32-95	PLED200W-095-C2100			92%		
		2450	27-81	PLED200W-081-C2450			92%		
		2800	24-71	PLED200W-071-C2800			91%		
		3150	21-63	PLED200W-063-C3150			91%		
		3500	19-57	PLED200W-057-C3500			91%		
		4200	16-47	PLED200W-047-C4200			91%		
		4900	14-40	PLED200W-040-C4900			91%		
		5600	12-35	PLED200W-035-C5600			91%		
		6300	11-32	PLED200W-032-C6300			91%		
		8330	8-24	PLED200W-024-C8330			90%		
	0-10V *Optional: 3-wire (-D3)*	450	149-445	PLED200W-445-C0450-D	100-277	200	93%		
		700	95-285	PLED200W-285-C0700-D			93%	●	
		1050	64-190	PLED200W-190-C1050-D			93%	●	
		1400	48-142	PLED200W-142-C1400-D			93%	●	
		1750	38-114	PLED200W-114-C1750-D			92%		
		2100	32-95	PLED200W-095-C2100-D			92%	●	
		2450	27-81	PLED200W-081-C2450-D			92%		
		2800	24-71	PLED200W-071-C2800-D			91%		
		3150	21-63	PLED200W-063-C3150-D			91%		
		3500	19-57	PLED200W-057-C3500-D			91%		
		4200	16-47	PLED200W-047-C4200-D			91%		
		4900	14-40	PLED200W-040-C4900-D			91%		
		5600	12-35	PLED200W-035-C5600-D			91%		
		6300	11-32	PLED200W-032-C6300-D			91%		
		8330	8-24	PLED200W-024-C8330-D			90%		
V	No	2083-8330	24	PLED200W-024	100-277	200	90%	●	●
		1575-6300	32	PLED200W-032			91%		
		1400-5600	35	PLED200W-035			91%		
		1225-4900	40	PLED200W-040			91%		
		1050-4200	47	PLED200W-047			91%		
		875-3500	57	PLED200W-057			91%		
		788-3150	63	PLED200W-063			91%		
		700-2800	71	PLED200W-071			91%		
		613-2450	81	PLED200W-081			92%		
		525-2100	95	PLED200W-095			92%		
		438-1750	114	PLED200W-114			92%		
		350-1400	142	PLED200W-142			93%		
		163-1050	190	PLED200W-190			93%		
		175-700	285	PLED200W-285			93%		
		113-450	445	PLED200W-445			93%		

SURGE PROTECTORS

TRP's most effective surge protectors advance the lighting industry. They provide LED Drivers with an additional level of protection from dangerous power-line disturbances in industrial and commercial settings. Perfect for critical 24/7 applications.

- Protects Line-Ground, Line-Neutral & Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines
- High-temp, flameproof plastic enclosure with 85ºC max surface rating
- Surge Location Rated Category C3
- Operate on AC or DC circuits

BSP3

- 10,000 Amp protection for 120 to 480V power
- 1.55" Ø x 2.82" Nom, three leads

BSP3 Model	Max Mains Voltage	Max Clamping Voltage 8/20 µS @ 10kA	UL1449	UL935/ UL1029
BSP3-120	120	600		✓
BSP3-208/240	240	1000		✓
BSP3-277	277	1500	✓	✓
BSP3-347	347	1900		✓
BSP3-480	480	2500	✓	✓

Pulse Rating	
Strikes	Surge
1	10,000 A
2	6,500 A
10	3,000 A
100	1,500 A

BSP3 (LC)

- Same protection in low-cost, compact housing
- 1.55" Ø x 1.51" Nom, three leads

BSP3 (LC) Model	Max Mains Voltage	Max Clamping Voltage 8/20 µS @ 10kA	UL1449	UL935/ UL1029
BSP3-120 (LC)	120	600		✓
BSP3-208/240(LC)	240	1000		✓
BSP3-277 (LC)	277	1500	✓	✓
BSP3-347 (LC)	347	1900		✓
BSP3-480 (LC)	480	2500	✓	✓

Pulse Rating	
Strikes	Surge
1	10,000 A
2	6,500 A
10	3,000 A
100	1,500 A

BSP3-20KA

- 20,000 Amp protection for 277V or 480V power
- Available "TN" option includes threaded nipple
- 1.55" Ø x 2.25" Nom, three leads

BSP3-20KA Model	Mains Voltage	Max Clamping Voltage 8/20 µS @ 20kA	UL1449
BSP3-277-20KA	100-277	2600	✓
BSP3-480-20KA	480	3800	✓

Pulse Rating	
Strikes	Surge
1	20,000 A
2	15,000 A
15	10,000 A
120	3,000 A

FSP3-277-20KA, FSP3-480-20KA

- Includes In-line fusing
- **Operating Indicator**: Green LED lights up to show unit is functioning. Unlit indicates unit needs replacing.
- NI option eliminates indicator
- At End-of-Life, turns off the fixture
- 20,000 Amp protection for 277V or 480V power
- 7.0 Amp maximum load
- 1.89" Ø x 2.95" Nom
- Patent Pending

FSP-277-20KA Model	Mains Voltage	Max Clamping Voltage 8/20 µS @ 20kA	UL1449	LED Indicator
FSP3-277-20KA	100-277	2600	✓	Local
FSP3-277-20KA-NI	100-277	2600	✓	none
FSP3-480-20KA	480V	3800	✓	Local
FSP3-480-20KA-NI	480V	3800	✓	none

Pulse Rating	
Strikes	Surge
1	20,000 A
2	15,000 A
15	10,000 A
120	3,000 A

TEST QUALIFIED FOR TEXAS DOT, DEPARTMENTAL MATERIALS SPECIFICATION FOR LED ROADWAY LIGHTING

EOL3-277-20KA

- Includes In-line fusing
- **End-of-Life Indicator**: Blue LED lights up when unit needs to be replaced.
- LED indicator flashes at "power-up" to confirm that LED is functional.
- At End-of-Life, turns off the fixture
- Two models:
  - L model includes local LED indicator
  - R model operates a remote-mounted LED indicator *(purchased separately)*
- 20,000 Amp protection for 277V power
- 7.0 Amp maximum load
- 1.89" Ø x 3.44" Nom
- Patent Pending

EOL3-277-20KA Model	Mains Voltage	Max Clamping Voltage 8/20 µS @ 20kA	UL1449	LED Indicator
EOL3-277-20KA-L	100-277	2600	✓	Local
EOL3-277-20KA-R	100-277	2600	✓	Remote
EOL3-LED-18-B	LED (blue) assembly with 18" leads			

Pulse Rating	
Strikes	Surge
1	20,000 A
2	15,000 A
15	10,000 A
120	3,000 A

SSP3

- Low Profile
- Cost-effective 3 point protection.
- Universal input voltage ranges: up to 277V or 480V
- UL1449 Type 5 Recognized Component.
- At end-of-life, individual surge protection elements will be in short circuit mode for one or more coupling modes
- 20,000 Amp protection for 277V or 480V power

SSP3 Model	Mains Voltage	Line-Neutral	Line-Ground / Neutral-Ground	UL1449
		Max Clamping Voltage 8/20 µS @ 20kA	Max Clamping Voltage 8/20 µS @ 12kA	
SSP3-277	100-277	2600	1800	✓

SSP3 Model	Mains Voltage	Phase1-Phase2	Phase1-Ground / Phase2-Ground	UL1449
		Max Clamping Voltage 8/20 µS @ 20kA	Max Clamping Voltage 8/20 µS @ 12kA	
SSP3-480	347-480	3800	2700	✓

Line-Neutral	
Pulse Rating	
Strikes	Surge
1	20,000 A
2	15,000 A
15	10,000 A
100	3,000 A

Line-Ground Neutral-Ground	
Pulse Rating	
Strikes	Surge
1	12,000 A
2	8,000 A
100	3,000 A
1600	750 A

Phase1-Phase2	
Pulse Rating	
Strikes	Surge
1	20,000 A
2	15,000 A
15	10,000 A
100	3,000 A

Phase1-Ground Phase2-Ground	
Pulse Rating	
Strikes	Surge
1	12,000 A
2	6,000 A
40	3,000 A
1600	750 A

STEP-DOWN AUTO TRANSFORMERS

F-CAN STYLE

Allow 100-277V Universal Voltage LED drivers to run on 347-480V mains. Also for Electronic Fluorescent & HID Ballasts.

- UL Listed
- Thermally protected.

Model	Input	Output	VA Rating	Dimensions
480V:277-250VA-L	347-480V	277V/200V	250	9.45″ x 1.69″ x 1.22″
480V:277-375VA-L	347-480V	277V/200V	375	11.69″ x 1.69″ x 1.22″

TRADITIONAL STYLE

Allow 100-277V LED drivers to run on 347-480V mains. Also for Electronic Fluorescent & HID Ballasts. Step-up transformers are also available.

Model	Input	Output	VA Rating	Dimensions
480:347:277-125VA	347-480V	277V	125	3.74″ x 2.56″ x 2.36″
480:347:277:220-245VA	347-480V	277V & 220V	245	3.39″ x 3.07″ x 3.34″
480:347:277-460VA	347-480V	277V	460	3.82″ x 3.34″ x 3.74″

STEP-DIMMING MODULES

Use two standard wall switches for quick switching between light levels in 120V applications. Eliminates the need for dimming switches. Works with occupancy sensors.

- Compatible with TRP 0-10V dimmable LED drivers
- IP66

3.35″ x 1.42″ x 0.75″

Model	Output Levels	Max Pass Current	LED Driver Max Power	Insertion Loss
SD2-120	50-100%	1.0 A	100W	<1.5W
SD3-25-120	25-50-100%	1.0 A	100W	<1.5W
SD3-33-120	33-66-100%	1.0 A	100W	<1.5W

THOMAS RESEARCH PRODUCTS LIMITED WARRANTY

Thomas Research Products warrants to the Purchaser that its LED drivers, surge protectors, and lighting transformers will be free from defects in material and workmanship and will be of the designated kind and quality for five years from the date of manufacture. (EXCEPT: BLED Drivers, which are two years.) All other electronic circuits will be free from defects in material and workmanship and will be of the designated kind and quality for one year from the date of manufacture.

This warranty is not applicable to any circuit not installed and operated in accordance with the current edition of National Electrical Code and Underwriters Laboratories, Inc. Standards for Safety.

If it appears within our circuit warranty period that any circuit does not meet the warranty specified above, the Purchaser must notify in writing by United States mail of its warranty claim and return the circuits promptly at Purchaser's expense to Thomas Research Products. Thomas Research Products shall thereupon at Thomas Research Products expense, make available a repaired or new replacement part.

NO IMPLIED STATUTORY WARRANTY OR IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY BEYOND THE AFOREMENTIONED CIRCUIT WARRANTY PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

The foregoing warranty is exclusive of all other statutory, written or oral warranties and no other warranties of any kind, statutory or otherwise, are given or herein expressed.

LIMITATIONS OF LIABILITY

UNDER NO CIRCUMSTANCES, WHETHER AS A RESULT OF BREACH OF CONTRACT, BREACH OF WARRANTY, TORT, STRICT LIABILITY OR OTHERWISE WILL THOMAS RESEARCH PRODUCTS BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROPERTIES, LOSS OF USE OR DAMAGE TO ANY PROPERTY OR EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTE PRODUCTS, FACILITIES OR SERVICES, DOWNTIME COSTS OR CLAIMS OF PURCHASER'S CUSTOMERS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THOMAS RESEARCH PRODUCTS LIABILITY ON ALL CLAIMS OF ANY KIND FOR ANY LOSS OR DAMAGE ARISING OUT OF, RESULTING FROM OR CONCERNING ANY ASPECT OF THIS AGREEMENT OR FROM THE PRODUCTS OR SERVICES FURNISHED HEREUNDER SHALL NOT EXCEED THE PRICE OF THE SPECIFIC PRODUCT WHICH GIVES RISE TO THE CLAIM, EXCEPT IN ACCORDANCE WITH THOMAS RESEARCH PRODUCTS TECHNICAL ENGINEERING SERVICE PROGRAM.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Thomas Research Products

INNOVATION IN ILLUMINATION

Product Lines:

SelectSYNC™ LED Drivers
- Intelligent Programmable Drivers
- Dynamic Programmable Drivers
- Classic Fixed Output Drivers

Lighting Controls
- Intelligent Wireless Lighting Controls
- Classic Energy-saving Controls
- Classic Lighting Step-down Transformers
- Classic HID Quartz Restrike Controllers

Surge Protectors
- Classic Surge Protectors
- Classic Low Profile Surge Protectors

Light Engines
- Classic LED Light Engines
- Custom LED Light Engines

A Name You Can Trust

Thomas Research Products provides complete component solutions for OEMs utilizing LEDs. Products include high-performing LED drivers, LED light engines, surge protectors and lighting controls. The company also offers Norlux brand custom design, testing and manufacturing services.

Founded in 1997, Thomas Research Products is a division of Hubbell Lighting, one of the largest lighting manufacturers in North America. Hubbell Lighting brands offer products for commercial, industrial and residential markets. The company's history of innovation extends back to 1886 and Harvey Hubbell's invention of the very first lighting control device—the pull chain switch.

© 2017 Thomas Research Products. All rights reserved. Subject to change without notice.
Trademarks are property of their respective owners.

TRPCAT (04/2017)