

### Incorporating PERFERM™ Technology

We produce a range of inverter units suitable for operating fluorescent lamps from low voltage AC or DC supplies, including central battery systems of 24 Volts, 50 Volts and 110 Volts and fluorescent lamps from 4 Watts to 100 Watts.

All PV range inverters incorporate our PERFERM™ technology to ensure good lamp life and correct operation with low mercury fluorescent lamps and sine-wave output to prolong lamp cathode life and prevent unpleasant visual lamp effects.

They are designed to comply with the European product standards EN50172, EN55015, EN 61547 and EN 61000.3.2 and are produced in our UK manufacturing plant which is registered to BS EN ISO9001:2000 by BSI.

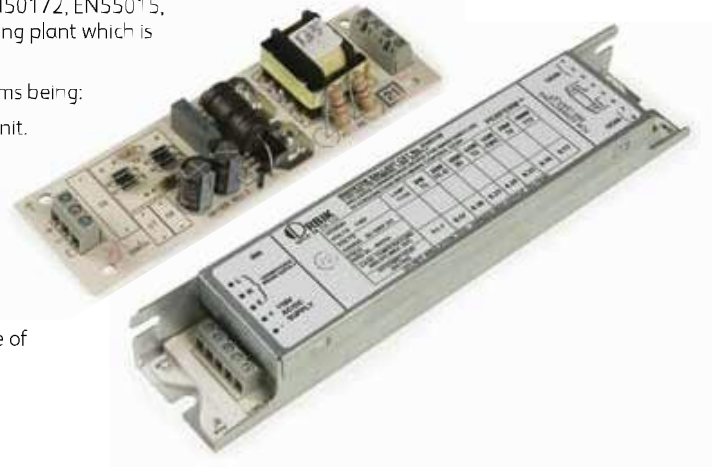
Two types of operation are normally encountered in low voltage systems being:

1. Slave inverters - where the lamp is operated only from the inverter unit.

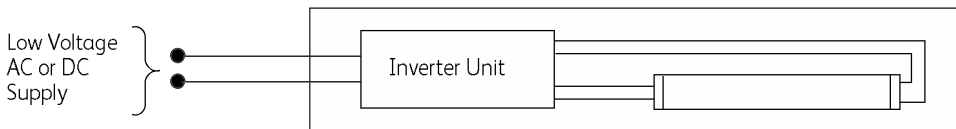
Typical of this type of use is vehicles where there is no mains supply or an emergency lighting system that is separate to the normal lighting luminaires. An example of a slave inverter of this type is our PV289.

2. Inverter units with an AC hold-off relay are used to convert normal mains luminaires to emergency luminaires by switching the amp from the normal mains control gear to the inverter output when the un-switched monitored mains supply fails. An example of this type of inverter unit is our PVR110.

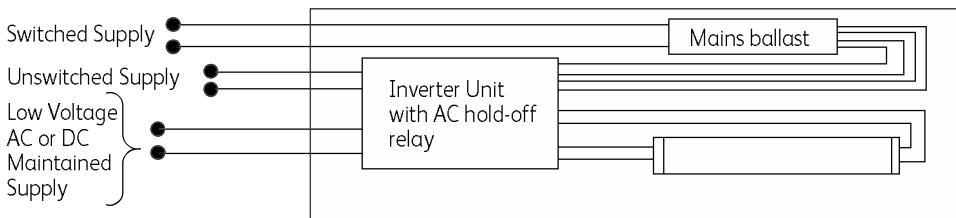
## Inverters for use with Central Systems



### Luminaire with Slave inverter



### Converted luminaire



### Technical details for inverters

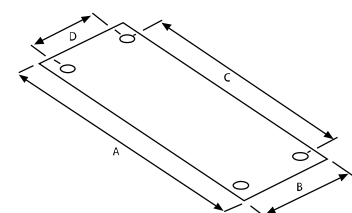
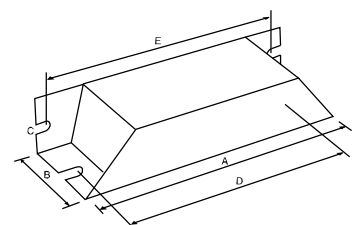
- Inverters are designed to conform to EN60924/60925. They are EMC compliant and carry the CE mark.
- Output circuitry uses a high efficiency sinusoidal inverter.
- Operating temperature range Inverter 0 to 70°C (centre side of case).
- DC Inverter Supply Range Nominal Supply - 16% + 25%
- AC/DC Inverter Supply Range Nominal Supply - 16% + 25% DC supply +/- 10% AC supply

### Dimensions

Sizes	A	B	C	Fixing Centre		Kg
				D	E	
Lamps up to 20W	154	42	35	144	138	0.25
Inverters with relay	216	42	28	206	200	0.35
Open PCB versions	131	40	114	31	-	-

Inverter Dimensions (millimetres)

### Technical Details



# Technical Specification Inverters For Fluorescent Lamps

No Relay	24 Volt AC/DC				50 Volt AC/DC				110 Volt AC/DC			
Canned Unit	PV288				PV289				PV290			
PCB Version	19288				19289				19290			
	Power Input		BLF		Power Input		BLF		Power Input		BLF	
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
4W (150mm)	11VA	4.3W	0.44	0.36	14VA	3.96W	0.56	0.34	15VA	4.6W	0.50	0.43
5W TC-S	12VA	4.7W	0.68	0.40	14VA	4.73W	0.46	0.34	1VA	5.2W	0.65	0.51
6W (225mm)	13VA	5.0W	0.56	0.41	16VA	5.2W	0.58	0.53	17VA	5.6W	0.85	0.71
7W TC-S	13VA	5.5W	0.39	0.38	16VA	5.2W	0.44	0.40	18VA	5.9W	0.62	0.49
8W (300mm)	15VA	6.3W	0.60	0.47	18VA	6.3W	0.80	0.60	20VA	6.9W	0.70	0.57

No Relay	24 Volt AC/DC				50 Volt AC/DC				110 Volt AC/DC			
Canned Unit	PV190				PV191				PV192			
PCB Version	19720				19721				19722			
	Power Input		BLF		Power Input		BLF		Power Input		BLF	
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
9W TC-S	20VA	11W	0.60	0.40	23VA	11W	0.54	0.45	26VA	9W	0.51	0.42
11W TC-S	22VA	13W	0.40	0.31	29VA	14W	0.49	0.41	32VA	11W	0.49	0.41
13W TC-D, TC-T	21VA	13W	0.51	0.41	30VA	15W	0.54	0.44	31VA	11W	0.61	0.48
16W 2D	22VA	16W	0.42	0.32	32VA	16W	0.49	0.38	33VA	12W	0.49	0.35
14W T5	22VA	15W	0.50	0.45	31VA	16W	0.50	0.41	35VA	13W	0.49	0.39
18W TC-D, TC-L	20VA	13W	0.49	0.40	28VA	14W	0.37	0.31	32VA	12W	0.41	0.37
18/20W T8	21VA	14W	0.29	0.19	33VA	17W	0.35	0.29	35VA	13W	0.27	0.21



Incorporating mains holdoff Relay	24 Volt AC/DC PVR24				50 Volt AC/DC PVR50				110 Volt AC/DC PVR110			
	Power Input		BLF		Power Input		BLF		Power Input		BLF	
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
7W TC-S	15VA	7W	0.38	0.28	18VA	7W	0.47	0.35	20VA	8W	0.53	0.40
8W T5	15VA	7W	0.45	0.56	19VA	8W	0.60	0.45	21VA	9W	0.57	0.43
9W TC-S	15VA	8W	0.42	0.35	19VA	8W	0.58	0.48	21VA	9W	0.58	0.46
11W TC-S	16VA	8W	0.40	0.29	20VA	8W	0.55	0.43	22VA	9W	0.61	0.49
13W T5	16VA	8W	0.62	0.48	20VA	8W	0.64	0.50	22VA	9W	0.58	0.46
14W T5	16VA	9W	0.36	0.27	21VA	9W	0.50	0.36	23VA	9W	0.42	0.33
16W 2D	17VA	9W	0.45	0.38	21VA	9W	0.60	0.46	23VA	9W	0.56	0.44
18W/20W T8	18VA	8W	0.20	0.14	21VA	8W	0.24	0.20	23VA	9W	0.24	0.18
18W TC-D	19VA	9W	0.31	0.24	23VA	10W	0.45	0.35	24VA	10W	0.42	0.32
21W T5	19VA	10W	0.32	0.24	24VA	11W	0.44	0.34	25VA	11W	0.40	0.32
22W T5 Circular	19VA	10W	0.28	0.25	26VA	11W	0.40	0.33	26VA	11W	0.38	0.30
24W TC-L	19VA	9W	0.25	0.20	21VA	9W	0.43	0.28	24VA	10W	0.36	0.25
26W TC-D	20VA	11W	0.24	0.18	27VA	11W	0.35	0.22	26VA	11W	0.30	0.25
28W 2D T5	19VA	9W	0.24	0.19	27VA	11W	0.36	0.27	25VA	11W	0.33	0.24
28W T5	22VA	12W	0.31	0.23	31VA	13W	0.46	0.35	30VA	13W	0.42	0.35
32W TC-T	21VA	12W	0.37	0.28	28VA	12W	0.51	0.40	29VA	12W	0.49	0.38
35W T5	25VA	14W	0.31	0.23	36VA	16W	0.45	0.33	34VA	15W	0.41	0.34
36W TC-L	22VA	11W	0.22	0.16	26VA	11W	0.30	0.25	29VA	12W	0.29	0.21
36W T8	21VA	11W	0.17	0.14	27VA	11W	0.27	0.20	28VA	11W	0.22	0.18
38W 2D T5	19VA	11W	0.16	0.13	27VA	11W	0.24	0.19	30VA	13W	0.23	0.17
39W T5	22VA	12W	0.15	0.12	30VA	13W	0.24	0.18	30VA	13W	0.22	0.17
40W T5 Circular	24VA	13W	0.30	0.23	33VA	14W	0.45	0.35	30VA	13W	0.43	0.34
40W TC-L	24VA	13W	0.29	0.21	30VA	13W	0.39	0.28	31VA	14W	0.36	0.28
42W TC-T	23VA	13W	0.23	0.13	32VA	14W	0.39	0.24	32VA	13W	0.36	0.24
49W T5	26VA	15W	0.29	0.22	37VA	17W	0.44	0.28	35VA	16W	0.33	0.26
54W T5	27VA	15W	0.18	0.14	36VA	16W	0.26	0.20	35VA	16W	0.24	0.20
55W T5 Circular	26VA	14W	0.25	0.20	35VA	15W	0.39	0.29	33VA	15W	0.33	0.27
55W 2D	23VA	12W	0.17	0.13	30VA	12W	0.26	0.19	30VA	13W	0.21	0.17
55W TC-L	26VA	14W	0.22	0.18	32VA	13W	0.31	0.24	33VA	15W	0.30	0.25
58W T8	24VA	13W	0.13	0.11	34VA	14W	0.29	0.22	33VA	14W	0.22	0.18
70W T8	27VA	15W	0.12	0.09	38VA	16W	0.10	0.08	36VA	17W	0.10	0.08
80W T5	30VA	17W	0.17	0.14	41VA	19W	0.28	0.22	39VA	19W	0.25	0.21
100W T12	27VA	14W	0.09	0.06	37VA	16W	0.15	0.10	35VA	16W	0.13	0.11