

T e s t R e p o r t

Report No : L15310 Amd 1

Client: : Link by Design Ltd
Unit 10
Business Development Centre
Stafford Park 4
Telford
TF3 3BA

Description : Modustar and Midustar

Manufacturer : Not Disclosed

Type/Model : P008 and P050

Test Specification : Measurement of power consumption in accordance with the
'Unmetered Supplies Operational Information Document' –
Version 14.0 (17/12/2014)

Date Testing Started : 29/09/2015

Conclusion : Refer to body of report

Date of Issue : 21/10/2015

Date of Expiry : 18/10/2020

Tested by: M.ALI
Position: Photometric Engineer



Approved: J.ADAMS
Position: Laboratory Supervisor



1286

INTRODUCTION

Link by Design Ltd has supplied the product identified in table 1 for measurement of power consumption in accordance with the 'Unmetered Supplies Operational Information Document' – Version 14.0 (17/12/2014).

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	Modustar and Midustar
Model No.	P008 and P050
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	305mm x 405mm
Product Supply Requirement	240v 50Hz
Lamp Type and Power	LED
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page

RESULTS

Table 2. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 0				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	14.67	14.64	14.44	14.66	14.56
220	14.85	14.82	14.64	14.85	14.74
230	15.13	15.09	14.93	15.13	15.05
240	15.44	15.38	15.26	15.65	15.29
250	15.81	15.75	15.66	16.06	15.62
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	20.54	19.91	20.78	20.03	20.82
220	21.81	20.88	22.21	20.97	22.29
230	23.85	22.51	24.49	22.55	24.33
240	26.57	24.66	27.88	24.90	27.07
250	30.56	28.00	32.17	28.15	30.82
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.71	0.74	0.69	0.73	0.70
220	0.68	0.71	0.66	0.71	0.66
230	0.63	0.67	0.61	0.67	0.62
240	0.58	0.62	0.55	0.63	0.56
250	0.52	0.56	0.49	0.57	0.51
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 3. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 1				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	16.01	16.00	15.81	16.04	15.88
220	16.18	16.15	15.96	16.18	16.01
230	16.41	16.39	16.20	16.41	16.27
240	16.69	16.65	16.49	16.86	16.53
250	17.05	16.98	16.88	17.27	16.88
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	22.02	21.45	22.23	21.56	22.33
220	23.25	22.39	23.55	22.43	23.52
230	25.04	23.79	25.64	23.85	25.49
240	27.73	25.92	28.77	26.00	28.17
250	31.46	28.99	33.02	29.16	31.79
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.73	0.75	0.71	0.74	0.71
220	0.70	0.72	0.68	0.72	0.68
230	0.66	0.69	0.63	0.69	0.64
240	0.60	0.64	0.57	0.65	0.59
250	0.54	0.59	0.51	0.59	0.53
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 4. Wattage and VA results for Modustar

Operating Mode		Modustar Mode 2			
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	16.26	16.25	16.05	16.28	16.11
220	16.42	16.40	16.21	16.43	16.25
230	16.64	16.62	16.41	16.63	16.42
240	16.93	16.88	16.74	17.19	16.75
250	17.26	17.21	17.10	17.53	17.09
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	22.30	21.73	22.47	21.82	22.53
220	23.53	22.68	23.87	22.77	23.78
230	25.23	24.00	25.89	24.11	25.60
240	27.88	26.12	29.02	26.25	28.39
250	31.66	29.22	33.27	29.40	31.90
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.73	0.75	0.71	0.75	0.72
220	0.70	0.72	0.68	0.72	0.68
230	0.66	0.69	0.63	0.69	0.64
240	0.61	0.65	0.58	0.65	0.59
250	0.55	0.59	0.51	0.60	0.54
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 5. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 3				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	16.75	16.74	16.52	16.75	16.60
220	16.86	16.86	16.65	16.87	16.69
230	17.10	17.08	16.87	17.09	16.90
240	17.36	17.33	17.17	17.64	17.19
250	17.71	17.68	17.56	17.99	17.55
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	22.88	22.32	22.98	22.35	23.13
220	24.01	23.19	24.36	23.28	24.21
230	25.71	24.52	26.41	24.65	26.04
240	28.31	26.58	29.42	26.71	28.73
250	32.07	29.65	33.71	29.88	32.61
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.73	0.75	0.72	0.75	0.72
220	0.70	0.73	0.68	0.72	0.69
230	0.67	0.70	0.64	0.69	0.65
240	0.61	0.65	0.58	0.66	0.60
250	0.55	0.60	0.52	0.60	0.54
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 6. *Wattage and VA results for Modustar*

Operating Mode	Modustar Mode 4				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	17.06	17.06	16.86	17.10	16.91
220	17.17	17.18	16.98	17.20	17.03
230	17.39	17.38	17.22	17.44	17.22
240	17.66	17.63	17.47	17.95	17.48
250	18.01	17.98	17.87	18.25	17.86
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	23.22	22.68	23.37	22.77	23.43
220	24.29	23.50	24.64	23.58	24.61
230	25.99	24.82	26.75	25.02	26.34
240	28.56	26.86	29.73	27.06	29.10
250	32.32	29.94	34.19	30.35	32.96
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.73	0.75	0.72	0.75	0.72
220	0.71	0.73	0.69	0.73	0.69
230	0.67	0.70	0.64	0.70	0.65
240	0.62	0.66	0.59	0.66	0.60
250	0.56	0.60	0.52	0.60	0.54
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 7. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 5				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	17.72	17.71	17.51	17.74	17.58
220	17.80	17.80	17.60	17.81	17.66
230	18.05	18.03	17.85	18.05	17.83
240	18.29	18.26	18.11	18.56	18.10
250	18.62	18.59	18.48	18.88	18.50
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	23.94	23.41	24.08	23.48	24.13
220	24.97	24.19	25.31	24.25	25.29
230	26.74	25.57	27.44	25.74	26.93
240	29.17	27.50	30.31	27.69	29.56
250	32.74	30.42	34.76	30.96	33.50
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.74	0.76	0.73	0.76	0.73
220	0.71	0.74	0.70	0.73	0.70
230	0.68	0.71	0.65	0.70	0.66
240	0.63	0.66	0.60	0.67	0.61
250	0.57	0.61	0.53	0.61	0.55
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 8. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 6				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	18.37	18.38	18.13	18.37	18.21
220	18.45	18.46	18.23	18.45	18.27
230	18.64	18.64	18.44	18.67	18.47
240	18.87	18.85	18.71	19.22	18.71
250	19.20	19.18	19.06	19.51	18.99
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	24.67	24.17	24.77	24.20	24.83
220	25.69	24.95	25.96	24.96	25.89
230	27.36	26.24	27.98	26.36	27.64
240	29.58	27.98	30.87	28.35	30.17
250	33.19	30.93	35.06	31.39	33.76
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.74	0.76	0.73	0.76	0.73
220	0.72	0.74	0.70	0.74	0.71
230	0.68	0.71	0.66	0.71	0.67
240	0.64	0.67	0.61	0.68	0.62
250	0.58	0.62	0.54	0.62	0.56
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 9. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 7				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	19.37	19.37	19.13	19.35	19.21
220	19.46	19.47	19.26	19.47	19.31
230	19.68	19.67	19.49	19.96	19.48
240	19.87	19.85	19.70	20.11	19.69
250	20.20	20.17	20.08	20.53	20.05
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	25.77	25.29	25.86	25.29	25.91
220	26.76	26.05	27.07	26.12	27.06
230	28.39	27.31	29.05	27.57	28.64
240	30.63	29.06	31.77	29.32	31.04
250	33.97	31.80	35.95	32.37	34.66
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.75	0.77	0.74	0.77	0.74
220	0.73	0.75	0.71	0.75	0.71
230	0.69	0.72	0.67	0.72	0.68
240	0.65	0.68	0.62	0.69	0.63
250	0.59	0.63	0.56	0.63	0.58
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 10. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 8				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	19.99	20.00	19.74	19.99	19.86
220	20.11	20.13	19.91	20.15	19.99
230	20.32	20.33	20.13	20.67	20.18
240	20.53	20.52	20.34	20.89	20.38
250	20.84	20.83	20.70	21.22	20.71
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	26.47	26.01	26.50	26.01	26.63
220	27.49	26.81	27.77	26.88	27.79
230	29.12	28.07	29.69	28.29	29.40
240	31.23	29.74	32.32	30.00	31.70
250	34.59	32.45	36.35	32.93	35.23
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.77	0.74	0.77	0.75
220	0.73	0.75	0.72	0.75	0.72
230	0.70	0.72	0.68	0.73	0.69
240	0.66	0.69	0.63	0.70	0.64
250	0.60	0.64	0.57	0.64	0.59
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 11. Wattage and VA results for Modustar

Operating Mode	Modustar Mode 9				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	21.07	21.07	20.85	21.06	20.95
220	21.19	21.19	20.98	21.18	21.09
230	21.40	21.40	21.24	21.67	21.29
240	21.64	21.63	21.48	21.89	21.48
250	21.94	21.91	21.81	22.31	21.84
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	27.69	27.24	27.72	27.23	27.81
220	28.68	28.01	28.86	27.99	29.02
230	30.23	29.20	30.85	29.43	30.50
240	32.45	30.98	33.46	31.19	32.83
250	35.56	33.47	37.21	33.91	36.27
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.77	0.75	0.77	0.75
220	0.74	0.76	0.73	0.76	0.73
230	0.71	0.73	0.69	0.74	0.70
240	0.67	0.70	0.64	0.70	0.65
250	0.62	0.65	0.59	0.66	0.60
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 13. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 0				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	36.68	36.13	35.19	36.29	35.00
220	36.77	36.61	35.57	36.38	35.37
230	37.23	37.12	36.06	36.81	35.75
240	37.79	37.65	36.62	37.34	36.65
250	38.40	38.24	37.29	37.92	36.86
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	47.97	47.29	50.26	47.08	47.62
220	49.51	49.16	54.37	48.28	49.99
230	51.79	51.42	60.25	50.10	53.32
240	55.06	54.54	68.17	52.67	58.22
250	59.77	57.08	79.00	56.33	65.76
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.76	0.70	0.77	0.74
220	0.74	0.74	0.65	0.75	0.71
230	0.72	0.72	0.60	0.73	0.67
240	0.69	0.69	0.54	0.71	0.63
250	0.64	0.67	0.47	0.67	0.56
Ambient Temperature During Test (°C)			24.5		
PF Leading/Lagging			Lagging		

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Table 13. Wattage and VA results for Midistar

Operating Mode	Midustar Mode 1				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	37.79	37.61	36.60	37.38	36.41
220	38.09	37.93	36.89	37.66	36.59
230	38.52	38.36	37.30	38.08	37.07
240	39.05	38.92	37.88	38.60	37.43
250	39.72	39.49	38.56	39.22	38.53
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	49.48	49.10	51.75	48.58	49.18
220	51.03	50.59	55.58	49.83	51.33
230	53.28	52.70	61.06	51.63	54.51
240	56.47	55.85	69.03	54.15	59.01
250	61.32	60.44	79.22	57.96	66.14
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.77	0.71	0.77	0.74
220	0.75	0.75	0.66	0.76	0.71
230	0.72	0.73	0.61	0.74	0.68
240	0.69	0.70	0.55	0.71	0.63
250	0.65	0.65	0.49	0.68	0.58
Ambient Temperature During Test (°C)			24.0		
PF Leading/Lagging			Lagging		

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Table 14. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 2				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	38.05	37.83	36.85	37.64	36.62
220	38.50	38.20	37.19	38.08	36.90
230	38.77	38.63	37.60	38.33	37.28
240	39.25	39.16	38.14	38.79	37.73
250	39.88	39.72	38.78	39.38	38.37
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	49.72	49.31	51.92	48.82	49.39
220	51.41	50.99	56.04	50.25	51.56
230	53.51	53.12	61.68	51.89	54.74
240	56.65	56.18	69.43	54.35	59.57
250	61.58	60.69	80.26	58.21	66.64
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.77	0.77	0.71	0.77	0.74
220	0.75	0.75	0.66	0.76	0.72
230	0.72	0.73	0.61	0.74	0.68
240	0.69	0.70	0.55	0.71	0.63
250	0.65	0.65	0.48	0.68	0.58
Ambient Temperature During Test (°C)			25.5		
PF Leading/Lagging			Lagging		

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Table 15. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 3				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	38.50	38.31	37.32	38.07	37.02
220	38.78	38.62	37.59	38.35	37.31
230	39.15	39.05	38.00	38.69	37.68
240	39.72	39.55	38.53	39.25	38.64
250	40.33	40.21	39.26	39.82	38.79
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	50.34	49.89	52.40	49.43	49.92
220	51.80	51.39	56.25	50.63	52.01
230	53.95	53.53	61.85	52.34	55.18
240	57.28	56.47	69.36	54.98	59.66
250	62.08	61.03	80.24	58.77	67.58
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.77	0.71	0.77	0.74
220	0.75	0.75	0.67	0.76	0.72
230	0.73	0.73	0.61	0.74	0.68
240	0.69	0.70	0.56	0.71	0.65
250	0.65	0.66	0.49	0.68	0.57
Ambient Temperature During Test (°C)			25.0		
PF Leading/Lagging			Lagging		

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Table 16. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 4				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	38.51	38.80	37.81	38.08	37.68
220	39.14	39.06	38.02	38.71	37.86
230	39.55	39.45	38.42	39.10	38.38
240	40.05	39.97	38.96	39.58	38.49
250	40.61	40.52	39.58	40.10	39.41
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	50.47	50.46	53.02	49.55	50.51
220	52.25	51.83	56.68	51.10	52.10
230	54.52	53.95	62.18	52.92	55.50
240	57.62	57.10	70.27	55.37	60.24
250	62.30	61.40	80.54	59.04	66.76
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.77	0.71	0.77	0.75
220	0.75	0.75	0.67	0.76	0.73
230	0.73	0.73	0.62	0.74	0.69
240	0.70	0.70	0.55	0.71	0.64
250	0.65	0.66	0.49	0.68	0.59
Ambient Temperature During Test (°C)			25.3		
PF Leading/Lagging			Lagging		

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Table 17. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 5				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	40.01	39.28	38.32	39.55	37.92
220	40.03	39.64	38.63	39.52	38.21
230	40.34	39.98	38.95	39.80	38.58
240	40.81	40.48	39.48	40.27	39.13
250	41.36	41.05	40.12	40.80	39.59
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	51.99	50.97	53.48	51.08	50.81
220	53.32	52.57	57.37	52.10	53.06
230	55.36	54.55	62.72	53.71	56.30
240	58.53	57.57	70.42	56.25	60.77
250	63.22	61.97	81.03	59.94	68.04
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.77	0.77	0.72	0.77	0.75
220	0.75	0.75	0.67	0.76	0.72
230	0.73	0.73	0.62	0.74	0.69
240	0.70	0.70	0.56	0.72	0.64
250	0.65	0.66	0.50	0.68	0.58
Ambient Temperature During Test (°C)			25.3		
PF Leading/Lagging			Lagging		

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Table 18. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 6				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	40.36	39.91	38.92	39.92	39.54
220	40.43	40.24	39.22	39.99	39.97
230	40.80	40.62	39.58	40.34	40.16
240	41.30	41.11	40.10	40.83	40.62
250	41.84	41.65	40.71	41.32	41.17
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	52.29	51.67	54.14	51.42	52.98
220	53.69	53.26	58.08	52.57	55.04
230	55.94	55.32	63.46	54.39	58.11
240	59.90	58.26	71.02	56.90	62.62
250	63.63	62.62	81.59	60.47	69.46
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.77	0.77	0.72	0.78	0.75
220	0.75	0.76	0.68	0.76	0.73
230	0.73	0.73	0.62	0.74	0.69
240	0.69	0.71	0.56	0.72	0.65
250	0.66	0.67	0.50	0.68	0.59
Ambient Temperature During Test (°C)			25.5		
PF Leading/Lagging			Lagging		

Continued on following page

Table 19. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 7				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	40.73	40.84	39.87	40.29	40.72
220	41.41	41.21	40.21	40.59	40.82
230	41.83	41.64	40.61	40.95	41.38
240	42.25	42.08	41.07	41.76	41.61
250	42.81	42.67	41.73	42.28	41.98
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	53.15	52.74	55.12	52.25	54.12
220	54.92	54.31	58.90	53.77	56.19
230	57.05	56.46	64.39	55.52	59.36
240	60.03	59.28	71.77	57.86	63.71
250	64.32	63.58	82.19	61.25	70.93
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.77	0.77	0.72	0.77	0.75
220	0.75	0.76	0.68	0.75	0.73
230	0.73	0.74	0.63	0.74	0.70
240	0.70	0.71	0.57	0.72	0.65
250	0.67	0.67	0.51	0.69	0.59
Ambient Temperature During Test (°C)			26.0		
PF Leading/Lagging			Lagging		

Continued on following page

Table 40. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 8				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	44.74	41.45	40.49	41.31	41.13
220	42.06	41.83	40.84	41.62	41.63
230	42.50	42.27	41.26	42.05	41.96
240	42.94	42.73	41.75	42.45	42.35
250	43.48	43.28	42.37	42.96	42.90
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	54.18	53.40	55.73	53.31	54.92
220	55.79	55.04	59.66	54.66	57.13
230	57.89	57.17	65.06	56.36	60.18
240	60.92	59.99	72.04	58.77	64.47
250	65.38	64.15	82.52	62.28	71.32
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.83	0.78	0.73	0.77	0.75
220	0.75	0.76	0.68	0.76	0.73
230	0.73	0.74	0.63	0.75	0.70
240	0.70	0.71	0.58	0.72	0.66
250	0.67	0.67	0.51	0.69	0.60
Ambient Temperature During Test (°C)			26.0		
PF Leading/Lagging			Lagging		

Continued on following page

Table 51. Wattage and VA results for Midustar

Operating Mode	Midustar Mode 9				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	42.69	42.45	41.51	42.27	42.49
220	43.09	42.80	41.82	42.66	42.63
230	43.50	43.25	42.25	43.06	43.18
240	44.00	43.74	42.77	43.53	43.48
250	44.54	44.30	43.39	44.03	44.09
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	55.23	54.54	56.87	54.40	56.50
220	57.01	56.06	60.50	55.92	58.17
230	58.98	58.21	65.86	57.52	61.41
240	62.05	60.98	73.04	59.96	65.96
250	66.33	65.13	83.11	63.33	72.68
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.77	0.78	0.73	0.78	0.75
220	0.76	0.76	0.69	0.76	0.73
230	0.74	0.74	0.64	0.75	0.70
240	0.71	0.72	0.59	0.73	0.66
250	0.67	0.68	0.52	0.70	0.61
Ambient Temperature During Test (°C)			24.8		
PF Leading/Lagging			Lagging		

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DEVIATION(S) FROM TEST STANDARD

No reported deviations from test standard.

MEASUREMENT UNCERTAINTY

The following expanded uncertainties apply to the measurements shown in the results;

True Power (W): $\pm 0.69\%$, Apparent Power (VA): $\pm 0.61\%$

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

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ILLUSTRATION



Figure 1 LED Boards

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Figure 2. *Power Supplies*

End