

Operation of LV-LED-Retrofit Lamps Reflector MR16 GU5.3  
with various Transformers



Legend: green works very well (without any problem)  
yellow works quite well (flickering possible)  
red does not really work (flickering and/or less light possible and likely)  
white / other not tested



ET: electronic tranformer  
HT: Halotronic  
OT: Optotronic

|            |                           |          |                  |                | MR16 Essence 20 | MR16 Star 35 | MR16 Essence 35 | MR16 Star 43 | MR16 Essence 50 |
|------------|---------------------------|----------|------------------|----------------|-----------------|--------------|-----------------|--------------|-----------------|
|            |                           |          |                  |                | 44122565        | 44122562     | 43520745        | 44020742     | 44120748        |
|            |                           |          |                  |                |                 | 44122563     | 44020746        | 43820743     | 43920749        |
|            |                           |          |                  |                |                 | 44122564     | 43920747        | 43820744     | 43920750        |
| Manufactur | Tranformer-Type, Model    | Type     | Mains voltage    | Load Range [W] | no. of lamps    | no. of lamps | no. of lamps    | no. of lamps | no. of lamps    |
| OSRAM      | HTM 70/230-240            | ET       | 230-240, 50-60Hz | 20-70W         | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | HTM 105/230-240           | ET       | 230-240, 50-60Hz | 35-105W        | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | ET-Parrot 70/220-240 I    | ET APAC  | 220-240, 50-60Hz | 20-70W         | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | ET-Parrot 105/220-240 I   | ET       | 220-240, 50-60Hz | 35-105W        | 1-4             | 1-4          | no              | 1-4          | 1-4             |
| OSRAM      | ET-A 60/220-240           | ET APAC  | 220-240, 50-60Hz | 20-60W         | 1-2             | 1-2          | 1               | 1-2          | 1-2             |
| OSRAM      | ET-L 30/220-240           | ET APAC  | 220-240, 50-60Hz | 2-30W          | 1-2             | 1-2          | 1-2             | 1-2          | 1-2             |
| OSRAM      | HTB 70/220-240            | ET       | 220-240, 50-60Hz | 20-70W         | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | HALOTRNIC HTN75/230-240 I | ET       | 230-240, 50-60Hz | 20-75W         | no              | 1-2          | no              | 1-4          | 1-4             |
| OSRAM      | HTM 150/230-240           | ET       | 230-240, 50-60Hz | 50-150W        | 1-4             | 1-4          | 1               | 2-4          | 2-4             |
| OSRAM      | HTL105/230-240            | ET       | 230-240, 50-60Hz | 35-105W        | 1-4             | no           | 1-4             | 3-4          | 2-4             |
| OSRAM      | IZ-A50/240                | ET India | 240,50-60Hz      | 50W            | 1-2             | 1            | no              | 1-4          | 1-4             |
| OSRAM      | IZ-HALD50/220-240         | ET APAC  | 220-240, 50-60Hz | 20-50W         | 1-2             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | HTB 105/220-240           | ET       | 220-240, 50-60Hz | 35-105W        | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | ET-Parrot 150/220-240 I   | ET       | 220-240, 50-60Hz | 50-150W        | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | ET-ZE 60/220-240          | ET       | 220-240, 50-60Hz | 20-60W         | no              | 1-4          | no              | 1-4          | 1-4             |
| OSRAM      | HTL225                    | ET       | 220-240,50-60Hz  | 50-225W        | 1-4             | 1-4          | 1-4             | 3-4          | 3-4             |
| OSRAM      | OT 15/220-240/12 P        | OT       | 220-240,50-60Hz  | 15W            | 1-2             | 1-2          | 1-2             | 1-2          | 1-2             |
| OSRAM      | OT 30/220-240/12 P        | OT       | 220-240,50-60Hz  | 30W            | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| OSRAM      | OT 60/220-240/ 12 P       | OT       | 220-240,50-60Hz  | 60W            | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| abi        | SET210(50-210VA) AL50476  | ET       | 220-240V, 50Hz   | 50-210VA       | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| Berker     | Igel 20-105w 2921         | ET       | 230-240,50-60Hz  | 20-105W        | no              | 4            | 1               | 2-4          | 2-4             |
| Berker     | SNT 70/QU 2918            | ET       | 230,50-60Hz      | 20-70W         | 1-4             | no           | 1-4             | no           | 1-4             |
| Berker     | SNTF II 35-105W 2927      | ET       | 230,50-60Hz      | 35-105W        | no              | 1            | 1               | 2-4          | 3-4             |
| BLOCK      | HES 70K                   | ET       | 230-240,50-60Hz  | 20-70W         | 1-4             | 1-3          | 1-4             | 1-4          | no              |
| BLOCK      | HES 105K                  | ET       | 230-240,50-60Hz  | 35-105W        | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| EVN        | TAB 70 (3310)             | ET       | 230,50-60Hz      | 20-70W         | 1-4             | 1-4          | no              | 1-4          | no              |
| EVN        | MINIJOKER 70(T27/10)      | ET       | 230-240,50-60Hz  | 10-60W         | no              | 4            | no              | 1-4          | 1-4             |
| EVN        | CLOU 60(T41/09)           | ET       | 230-240,50-60Hz  | 10-70W         | no              | no           | no              | 1-4          | 1-4             |
| FN LIGHT   | TL105S 20-105W 461107     | ET       | 230-240,50-60Hz  | 20-105W        | 1-4             | 1-4          | 1-4             | no           | no              |
| goodbay    | SET110LV(35-110W)         | ET       | 220-240,50Hz     | 35-110W        | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| JUNG       | SNT 70 F                  | ET       | 230,50-60Hz      | 20-70W         | 1-4             | 1-4          | 1-4             | 1-4          | 2-4             |
| JUNG       | SNT 105 F                 | ET       | 230,50-60Hz      | 20-105W        | 1-3             | 1-4          | 1-4             | 1-4          | 1-4             |
| nobile     | EN-80F                    | ET       | 230,50-60Hz      | 20-80W         | 1               | 1-4          | no              | 1-4          | 1-4             |
| nobile     | EN-60D2                   | ET       | 230,50-60Hz      | 20-60W         | no              | 1-3          | 1-4             | 1-4          | 1-4             |
| Paulmann   | Profi 80                  | ET       | 220-240,50Hz     | 20-80W         | 1-4             |              |                 |              | 1-4             |
| Paulmann   | Mipro 70                  | ET       | 230,50-60Hz      | 20-70W         | no              | 2-4          | 2-4             | 2-4          | 2-4             |
| PHILIPS    | Primaline 70 230-240      | ET       | 230-240,50-60Hz  | 20-70W         | 1-4             |              | 1-4             | 1-4          | 1-4             |
| PHILIPS    | ET-E 10 / 30              |          |                  |                | 1-2             |              |                 |              |                 |
| PHILIPS    | ET-E 60                   |          |                  |                | 1-2             |              |                 |              |                 |
| SLV        | 461060                    | ET       | 230,50-60Hz      | 10-60W         | 1-4             | 1-4          | 1-4             | 1-4          | 1-4             |
| TCI        | ROUND 70                  | EU       | 230,50-60Hz      | 20-70W         | 1-4             |              |                 |              |                 |
| TCI        | MW70 LED                  | ET       | 220-240,50-60Hz  | 10-60W         | no              | 2-4          |                 |              |                 |

Typical values. Test performed with regarded lamps named.  
The test results reflect the measurement of the individual devices that were used in tests.

Radium does not take over any responsibility, warranty or liability that this results can also be achieved by using the devices under other conditions or when using successor models of the tested devices or different models of the same manufacturer.  
The test results were achieved by using the above mentioned LED-lamp types.

Due to the big number of electronic components and many other influence factors noise can emerge in unfavourable condiditons, which may be well audible in the case of resonance.  
Radium does not take over any responsibility, warranty or liability that these results can also be achieved by using the devices under other conditions or when using other LED-lamp types. Installation and operational notes are to be observed.  
Changes, errors and omissions excepted.