

Title (en)  
Optical unit

Title (de)  
Optische Einheit

Title (fr)  
Unité optique

Publication  
**EP 2639496 A2 20130918 (EN)**

Application  
**EP 13156737 A 20130226**

Priority  
JP 2012057598 A 20120314

Abstract (en)  
An optical unit (100) includes a shade (130,140), a motor (150), and a casing (170). The shade (130,140) is movable between an advanced position a retreated position. The motor (150) includes terminal connection parts (153A,153B), and an output shaft (152) connected to the shade (130,140). The motor (150) moves the shade (130,140) from one of the advanced position and the retreated position to the other by rotation of the output shaft (152). The casing (170) includes wall parts (172a,172b,172c,172d,172e), an opening part (176), a connector(178), and power supply terminals (180A,180B). The wall parts (172a,172b,172c,172d,172e) forms an accommodation space. The opening part is used to insert the motor into the accommodation space (174) therethrough. The power supply terminals (180A,180B) are electrically connected to the connector (178) and exposed to the accommodation space (174). The power supply terminals (180A,180B) are disposed in the accommodation space (174) so that the terminal connection parts (153A,153B) and the power supply terminals (180A,180B) are brought into physical contact with each other when the motor (150) is inserted into the accommodation space (174).

IPC 8 full level  
**F21S 8/12** (2006.01); **F21V 14/08** (2006.01); **F21W 107/10** (2018.01)

CPC (source: EP)  
**F21S 41/47** (2017.12); **F21S 41/686** (2017.12)

Citation (applicant)  
• JP 2007179969 A 20070712 - KOITO MFG CO LTD  
• US 2007147055 A1 20070628 - KOMATSU MOTOHIRO [JP]

Cited by  
CN107314338A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2639496 A2 20130918**; **EP 2639496 A3 20171220**; CN 103307531 A 20130918; CN 103307531 B 20151007; JP 2013191447 A 20130926; JP 5894474 B2 20160330

DOCDB simple family (application)  
**EP 13156737 A 20130226**; CN 201310081907 A 20130314; JP 2012057598 A 20120314