

# Lenovo PDU Quick Reference Guide -International

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A "cheat sheet" on Lenovo's currently available Power Distribution Unit offerings for worldwide

Provides a summary of the key specifications of the PDUs

Includes a reference of available line cords, with photos of the connectors

Includes links to additional power and cooling related resources

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# **Abstract**

This Power Distribution Unit (PDU) quick reference guide contains technical information on all currently available Lenovo® PDU offerings for worldwide using the International Electrical Convention. This includes the following countries/regions:

- ► Europe
- ► Africa
- ► Most of the Middle East
- Most of Asia
- Australia/New Zealand
- Most of South America

The PDUs in this guide are broken up into the following three categories:

- ▶ Basic PDUs: These do not have the ability to be monitored or switched (outlet on/off).
- Monitored PDUs: These have the ability to be monitored but not switched.
- Switched and Monitored PDUs: These have the ability of both monitoring and switching.

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## **Basic PDUs**

Table 1 shows all of the available International Basic PDU offerings from Lenovo and their technical specifications.

Table 1 Lenovo International Basic PDU offerings

PDU	Rack height	Input: Voltage / Phase / Frequency / Amperage	Output: Voltage (V) / Capacity per PDU (W) / Power Limit per PDU (A) <sup>a</sup> / Power Limit per Outlet (A) / Power Limit per Group (A) <sup>b</sup>	Outlets	Line cord
00YE443 Universal Rack PDU	1U half rack width	125-250VAC 1 Phase 50-60 Hz 13A-16A <sup>c</sup>	► 125VAC / 1875W / 15A / 10A / - ► 220VAC / 3520W / 16A <sup>c</sup> / 10A / - ► 230VAC / 2990W / 13A / 10A / - ► 230VAC / 3450W / 15A / 10A / - ► 230VAC / 3680W / 16A <sup>c</sup> / 10A / - ► 240VAC / 3840W / 15A / 10A / -	7x C13	Table 4 on page 6
Front End PDU <sup>d</sup>	1U half rack width	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	► 220VAC / 6600W / 30A / 16A / - ► 230VAC / 7360W / 32A / 16A / - ► 240VAC / 14490W / 63A / 16A / -	3x C19	Table 5 on page 7
39Y8941 DPI C13 Enterprise PDU	1U	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	► 220VAC / 6600W / 30A / 10A / - ► 230VAC / 7360W / 32A / 10A / - ► 240VAC / 14490W / 63A / 10A / -	12x C13	Table 6 on page 8
39Y8941 DPI C13 Enterprise PDU	1U	220-240VAC 3 Phase 50-60 Hz 32A	> 230VAC (380V-415V) / 22080W / 96A / 10A / 32A <sup>b</sup>	12x C13	Table 7 on page 9
39Y8948 DPI C19 Enterprise PDU	1U	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	► 220VAC / 6600W / 30A / 16A / - ► 230VAC / 7360W / 32A / 16A / - ► 240VAC / 14490W / 63A / 16A / -	6x C19	Table 6 on page 8
39Y8948 DPI C19 Enterprise PDU	1U	220-240VAC 3 Phase 50-60 Hz 32A	230VAC (380V-415V) / 22080W / 96A / 16A / 32A <sup>b</sup>	6x C19	Table 7 on page 9
71762NX Ultra Density Enterprise C19 / C13 PDU	1U	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	<ul> <li>220VAC / 6600W / 30A / 10A (C13), 16A (C19) / 20A (3 load groups)</li> <li>230VAC / 7360W / 32A / 10A (C13), 16A (C19) / 20A (3 load groups)</li> <li>240VAC / 14490W / 63A / 10A (C13), 16A (C19) / 20A (3 load groups)</li> </ul>	9x C19 3x C13	Table 6 on page 8
71762NX Ultra Density Enterprise C19 / C13 PDU	1U	220-240VAC 3 Phase 50-60 Hz 32A	► 230VAC (380V-415V) / 22080W / 96A / 10A (C13), 16A (C19) / 32A <sup>b</sup>	9x C19 3x C13	Table 7 on page 9

PDU	Rack height	Input: Voltage / Phase / Frequency / Amperage	Output: Voltage (V) / Capacity per PDU (W) / Power Limit per PDU (A) <sup>a</sup> / Power Limit per Outlet (A) / Power Limit per Group (A) <sup>b</sup>	Outlets	Line cord
00YJ777 0U 36 C13/6 C19 32A 1 Phase PDU	OU	200-240VAC 1 Phase 50-60 Hz 32A	<ul> <li>220VAC / 7040W / 32A / 10A (C13), 16A (C19) /-</li> <li>230VAC / 7360W / 32A / 10A (C13), 16A (C19) /-</li> <li>240VAC / 7680W / 32A / 10A (C13), 16A (C19) /-</li> </ul>	6x C19 36x C13	Attached: 3.0m IEC-60309, 332P6 P+N+G
00YJ778 0U 21 C13/12 C19 32A 3 Phase PDU	OU	200-240VAC 346-415VAC 3 Phase 50-60 Hz 32A	<ul> <li>220VAC / 21120W / 96A / 10A (C13), 16A (C19) / 32A</li> <li>230VAC / 22080W / 96A / 10A (C13), 16A (C19) / 32A</li> <li>240VAC / 23040W / 96A / 10A (C13), 16A (C19) / 32A</li> </ul>	12x C19 21x C13	Attached: 3.0m IEC-309 P+N+G 32A
44T0966 Higher Voltage DC PDU	1U	240-380VDC - - 90A	► 240VDC / 21600W / 90A / 15A / -	6x RF- 203P	Attached: 4.3m Line Cord Hardwired to PDU

a. This number represents the maximum power rating of the PDU. This number can be due to certain PDU limitations.

### **Monitored PDUs**

Table 2 shows all of the available International Monitored PDU offerings from Lenovo and their technical specifications.

Table 2 Lenovo International Monitored PDU offerings

PDU	rack height	Input: Voltage / Phase / Frequency / Amperage	Capacity per PDU (W) / ncy / Power Limit per PDU (A) <sup>a</sup> /		Line cord
39M2816 DPI C13 Enterprise PDU+	1U	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	► 220VAC / 6600W / 30A / 10A / - ► 230VAC / 7360W / 32A / 10A / - ► 240VAC / 14490W / 63A / 10A / -	12x C13	Table 6 on page 8
39M2816 DPI C13 Enterprise PDU+	1U	220-240VAC 3 Phase 50-60 Hz 32A	> 230VAC (380V-415V) / 22080W / 96A / 10A / 32A <sup>b</sup>	12x C13	Table 7 on page 9

b. For additional information on grouping and breaker information, see the International PDU guide at: http://support.lenovo.com/au/en/documents/lnvo -powinf

c. Line current is limited to 15A due to the input circuit breaker of the PDU.

d. Refer to Table 5 on page 7 for Front End PDU part number information.

- a. This number represents the maximum power rating of the PDU. This number can be due to certain PDU limitations.
- b. For additional information on grouping and breaker information, see the International PDU guide at: http://support.lenovo.com/au/en/documents/lnvo-powinf

#### **Switched and Monitored PDUs**

Table 2 shows all of the available International Monitored PDU offerings from Lenovo and their technical specifications.

Table 3 Lenovo International Switched and Monitored PDU offerings

PDU	Rack height	Input: Voltage / Phase / Frequency / Amperage	Output: Voltage (V) / Capacity per PDU (W) / Power Limit per PDU (A) <sup>a</sup> / Power Limit per Outlet (A) / Power Limit per Group (A) <sup>b</sup>	Outlets	Line cord
46M4004 DPI C13 Switched and Monitored PDU	10	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	► 220VAC / 6600W / 30A / 10A / - ► 230VAC / 7360W / 32A / 10A / - ► 240VAC / 14490W / 63A / 10A / -	12x C13	Table 6 on page 8
46M4004 DPI C13 Switched and Monitored PDU	1U	220-240VAC 3 Phase 50-60 Hz 32A	> 230VAC (380V-415V) / 22080W / 96A / 10A / 32A <sup>b</sup>	12x C13	Table 7 on page 9
46M4002 DPI 9 C19 / 3 C13 Switched and Monitored PDU	10	220-240VAC 1 Phase 50-60 Hz 30A / 32A / 63A	► 220VAC / 6600W / 30A / 10A / - ► 230VAC / 7360W / 32A / 10A / - ► 240VAC / 14490W / 63A / 10A / -	9x C19 3x C13	Table 6 on page 8
46M4002 DPI 9 C19 / 3 C13 Switched and Monitored PDU	1U	220-240VAC 3 Phase 50-60 Hz 32A	► 230VAC (380V-415V) / 22080W / 96A / 10A (C13), 16A (C19) / 32A <sup>b</sup>	9x C19 3x C13	Table 7 on page 9
00YJ780 0U 20 C13/4 C19 Switched and Monitored 32A 1 Phase PDU	OU	220-240VAC 1 Phase 50-60 Hz 32A	<ul> <li>► 220VAC / 7040W / 32A / 10A (C13), 16A (C19) / -</li> <li>► 230VAC / 7360W / 32A / 10A (C13), 16A (C19) / -</li> <li>► 240VAC / 7680W / 32A / 10A (C13), 16A (C19) / -</li> </ul>	4x C19 20x C13	Attached: 3.0m IEC-60309, 332P6 P+N+G
00YJ782 0U 18 C13/6 C19 Switched and Monitored 32A 3 Phase PDU	OU	220-240VAC 3 Phase 50-60 Hz 32A	<ul> <li>220VAC / 21120W / 96A / 10A (C13), 16A (C19) / 32A</li> <li>230VAC / 22080W / 96A / 10A (C13), 16A (C19) / 32A</li> <li>240VAC / 23040W / 96A / 10A (C13), 16A (C19) / 32A</li> </ul>	6x C19 18x C13	Attached: 3.0m IEC-309 P+N+G 32A

a. This number represents the maximum power rating of the PDU. This number can be due to certain PDU limitations.

b. For additional information on grouping and breaker information, see the International PDU guide at: <a href="http://support.lenovo.com/au/en/documents/lnvo-powinf">http://support.lenovo.com/au/en/documents/lnvo-powinf</a>

# Line cord options

Table 4 lists the available country specific line cord options available for the DPI Universal Rack PDU (00YE443).

Table 4 DPI Universal Rack PDU Line Cord Options

Line cord description	Country	PDU Part number	From C19 to
4.3m SABS 164 single phase 16A / 230V	South Africa	40K9770	•
4.3m CEE7-VII single phase 16A / 230V	Europe	40K9766	••
4.3m BS 1363 / A single phase 13A / 230V	Hong Kong / UK	40K9767	••
4.3m AS / NZ 3112 single phase 15A / 230V	Australia / New Zealand	40K9773	
4.3m GB 2099.1 single phase 16A / 220V	China	40K9774	
4.3m 16A/250V C19 to NBR 14136 line cord	Brazil	69Y1989	••
4.3m IS6538 single phase 16A / 240V line cord	India	40K9776	
4.3m IRAM 2037 single phase 16A / 220V line cord	Argentina	40K9777	
4.3m SI 32 single phase 16A / 230V line cord	Israel	40K9771	$ \bullet $
4.3m CEI 23-16 single phase 16A / 230V line cord	Italy	40K9768	•••
4.3 meter Dmk/Swiss C19 - Dmk/Swiss line cord	Denmark/ Switzerland	40K9769	$\bigcirc$
4.3m 16A / 250V C19/SEV 1011 T23 line cord	Switzerland	81Y2391	•••
4.3m, 16A/125V, C19 to CNS 10917-3 line cord	Taiwan	41Y9229	
4.3m, 16A/250V, C19 to CNS 10917-3 line cord	Taiwan	41Y9230	••

Line cord description	Country	PDU Part number	From C19 to
4.3m, 15A/100V, C19 to JIS C-8303 line cord	Japan	41Y9232	1 1
4.3m 15A/200V, C19 to JIS C-8303 line cord	Japan	41Y9233	
39M5388 - 2.0m IEC320 C19 to C20 1phase 16A / 100-250VAC Optional: 39M5389 - 2.5m IEC320 C19 to C20 1phase 16A / 100-250VAC	All	All PDUs	

Table 5 lists the line cord options available for the Lenovo Front End PDU

Table 5 Line cord options for Front End PDU

Line cord description	PDU part number / Feature code	From UTG Connector to
DPI IEC 309 P+N+G (2.5m) line cord 32A / 220-240VAC 1 Phase	39Y8934 / A11V	L G
DPI IEC 309 P+N+G (2.5m) line cord 63A 220V-240VAC 1 Phase	39Y8935 / A11W	© 0
DPI KSC 8305 30A (2.5m) line cord 30A 230VAC 1 Phase	39Y8936 / A11Y	
DPI AS / NZS 3112 32A (2.5m) line cord 32A 220VAC 1 Phase	39Y8937 / A11X	

Table 6 and Table 7 lists the line cord options available for the 39Y8941, 39Y8948, 71762NX, 39M2816, 46M4004 and 46M4002 single phase PDU. Table 6 lists single-phase line cords and Table 7 lists the three-phase line cord.

Table 6 Line cord options for 39Y8941, 39Y8948, 71762NX, 39M2816, 46M4004 and 46M4002 single phase

Line cord description	Part number	Feature code	From UTG Connector to
DPI IEC 309 P+N+G (4.3m) line cord 32A / 220-240VAC 1 Phase	40K9612	6014	N L

Line cord description	Part number	Feature code	From UTG Connector to
DPI IEC 309 P+N+G (4.3m) line cord 63A / 220V-240VAC 1 Phase	40K9613	6015	© 55 G
DPI AS / NZS 3112 32A (4.3m) line cord 32A / 220VAC 1 Phase	40K9617	6017	
DPI KSC 8305 30A (4.3m) line cord 30A / 230VAC 1 Phase	40K9618	6018	G G

Table 7 Line cord for 39Y8941, 39Y8948, 71762NX, 39M2816, 46M4004 and 46M4002 three phase

Line cord description	Part number	Feature code	From UTG Connector to
DPI IEC-309 3P+N+G (4.3m) line cord 32A (32A / Phase) 380-415VAC 3 Phase Wye 96A Total Circuit Capacity	40K9611	6016	N 1

#### Installation manuals

The following list contains links to the Installation Manuals for the UPS units.

- ► DPI Universal Rack PDU and DPI NEMA Rack PDU ftp://ftp.software.ibm.com/systems/support/system\_x\_pdf/02r2738.pdf
- ► Front End Rack PDU

  ftp://ftp.software.ibm.com/systems/support/system\_x\_pdf/02r2739.pdf
- ► DPI Enterprise C13 and C19 PDU and PDU+

  ftp://ftp.software.ibm.com/systems/support/system\_x\_pdf/43v6030.pdf
- ► Ultra Density Enterprise PDU
  http://www.ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5076527
- ► OU C13 C19 PDU http://www.ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5085549
- ► 1U Switched and Monitored PDU http://www.ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5084069

0U Switched and Monitored PDU

http://www.ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5086798

## Lenovo Press product guides

The following product guides contain more information about the PDU units.

Lenovo 0U Basic Power Distribution Units

http://lenovopress.com/TIPS0797

▶ 0U and 1U Switched and Monitored PDUs

http://lenovopress.com/TIPS0819

▶ 1U Switched and Monitored Power Distribution Units

http://lenovopress.com/TIPS0775

## Power and cooling support

To calculate the power draw of your configurations, download the Power Configurator tool:

http://support.lenovo.com/us/en/documents/LNVO-PWRCONF

For further details on power and cooling Lenovo systems, download the power and cooling guides from the following link:

http://support.lenovo.com/us/en/documents/LNVO-POWINF

For questions and support on all rack, stack and power products, please e-mail power@lenovo.com.

## **Change history**

#### Changes in the July 18, 2016 update

- ► Removed the following withdrawn PDU:
  - 46M4143, 0U 12 C13 / 12 C19 PDU
  - 46M4137, 0U 24 C13 Switched and Monitored PDU
- ► Added part number information for the Front End PDU in Table 1 on page 3

#### Changes in the June 14, 2016 update

- ► Added the following new PDUs:
  - 00YJ777, 0U 36 C13/6 C19 32A 1 Phase PDU
  - 00YJ778, 0U 21 C13/12 C19 32A 3 Phase PDU
  - 00YJ780, 0U 20 C13/4 C19 Switched and Monitored 32A 1 Phase PDU
  - 00YJ782, 0U 18 C13/6 C19 Switched and Monitored 32A 3 Phase PDU

#### Changes in the April 11, 2016 update

- ► Removed the following withdrawn PDUs:
  - 46M4119, 0U 24 C13 Switched and Monitored 32A PDU
  - 46M4122, 0U 24 C13 16A 3 Phase PDU
  - 46M4125, 0U 24 C13 30A 3 Phase PDU
  - 46M4128, 0U 24 C13 30A PDU
  - 46M4131, 0U 24 C13 32A PDU
  - 46M4140, 0U 12 C19/12 C13 50A 3 Phase PDU

#### Changes in the March 15, 2016 update

- Added part number information for the Universal Rack PDU
- Changed line cord part number information for the Universal Rack PDU
- Added additional international line cord options for the Universal Rack PDU
- ► Fixed a few broken links in the tables
- Updated web address for the Power Configurator tool and the power and cooling guides

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