

# Rack PDUs

 Liebert MPX™
 2.4 to 2.11

 Liebert MPH™
 2.12 to 2.17

 Knürr DI-STRIP®
 2.18 to 2.57

 Inline Metering (IMS)
 2.58 to 2.64



# Safe, efficient and economical: Rack PDUs from Emerson Network Power

A reliable power supply is particularly important in a server rack! Emerson Network Power's "Power Distribution Units" (PDU) provide the highest possible level of **safety, security and availability** with their robust electro-mechanical setup.

The rack PDUs ensure a sound **eco-nomical benefit.** The Liebert MPX<sup>™</sup>'s modularity also enables requirements-oriented and constantly compatible expansion.

The rack PDUs provide the perfect economical solution for every specific requirement and exceptional efficiency with numerous technical features.



Interacting with rack PDUs, rack monitoring systems and cooling systems, Liebert NFORM guarantees the monitoring and controlling of all relevant infrastructure parameters in server rooms and data centers, alarms as required, and even intercepts controlling to prevent damages.

#### PDU product series overview:

#### **Features:**

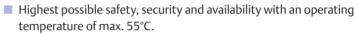
BASIC

MANAGED

**ADAPTIVE** 

- High stability and torsional strength provided with closed sheet steel extrusions and ideal integration into Knürr rack systems.
- Best possible conductivity: continuous brass busbars with many models.
- Double spring contacts for shock hazard-proof and low contact resistance.

#### **Additional features:**



- Extensive measurement functions (power, current, voltage and energy), with higher measurement accuracy of up to ± 1%.
- Remote-switchable outputs with many models.
- Same communication cards used as with Liebert MPX, which means same software interface as with administration.
- Up to 4 Liebert MPX/MPH can be controlled via one IP.
- External sensors and a display can also be connected.

#### **Additional features:**



- The Liebert MPX is a modular PDU; input and output modules can be flexibly equipped as required.
- Additional wiring between the module is not required; a fixed databus is integrated on a continuous busbar.
- Highest power density up to max. 3 x 63 A per bar possible.
- Possible failures can be detected early on with additional monitoring (N-conductor, apparent power, crest factor and power factor).
- Depending on the output module, measuring and remote switching is possible up to output level, which allows each server to be monitored.
- The output modules can be changed during running operation; there are no downtimes.

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# Emerson Network Power Rack PDUs Europe – product series overview

## **Overview: Emerson Network Power Rack PDUs Europe**

	Knürr DI-STRI	P Basic Rack PD	U®	Liebert MPH™ Managed Rac		Liebert MPX™ Adaptive Racl			
Features	Knürr DI-STRIP	Knürr DI-STRIP M	Knürr DI-STRIP RM	Liebert MPH Branch Monitored	Liebert MPH controlled	Liebert MPX Elementary	Liebert MPX Elementary Phase monitored	Liebert MPX Branch monitored	Liebert MPX Receptacle managed
Power distribution	•	•	•	•	•	•	•	•	•
Modular						•	•	•	•
Display		Fixed	Fixed	Modular	Modular		Modular	Modular	Modular
Remote interface			•	•	•		•	•	•
Measuring at input level		•	•	•	•		•	•	•
Measuring per group				•	•			•	•
Measuring per output									•
Switching per output					•				•
Measurement parameters		A	A	A,V,W,KWh, Hz	A,V,W,KWh, Hz		A,V,W,KWh, Hz	A,V,W,KWh, VA, Hz, power factor	A,V,W,KWh, VA, Hz, power factor, crest factor
Input power	1ph + 3ph max 32A	1ph + 3ph max 32A	1ph + 3ph max 32A	1ph + 3ph max 32A	1ph + 3ph max 32A	1ph + 3ph max 63A	1ph + 3ph max 63A	1ph + 3ph max 63A	1ph + 3ph max 63A
Outputs	IEC C13&C19 Schuko Switzerland France	IEC C13&C19 Schuko Switzerland France	IEC C13&C19 Schuko Switzerland France	IEC C13&C19	IEC C13&C19	IEC C13&C19 Schuko	IEC C13&C19 Schuko	IEC C13&C19 Schuko	IEC C13&C19 Schuko
Connection of different kinds of sensors				•	•		•	•	•

The Liebert MPX<sup>™</sup> and Liebert MPH<sup>™</sup> accessories are largely identical, which simplifies administration!

INFO

You will find further details and order numbers in our product catalog:

www.EmersonNetworkPower.eu

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## **Emerson Network Power Rack PDUs**

Liebert MPX™ 2.4 **Products** 2.8 Liebert MPH™ 2.12

Knürr DI-STRIP® 2.18

#### Knürr DI-STRIP®

**Products** 

DI-STRIP® RM 2.22 DI-STRIP® M 2.23 DI-STRIP HighPower® 2.24 TDI-STRIP® TriplePower® 2.26 DI-STRIP® BladePower® 2.28 DI-STRIP® PizzaPower® 2.29

DI-STRIP® Classic 2.29 DI-STRIP® Compact 2.30 DI-STRIP® Protector 2.31 DI-STRIP® Power Cleaner 2.33 DI-STRIP® Safety Basic 2.34 DI-STRIP® Safety Standard 2.35 DI-STRIP® Master-Slave 2.36 DI-STRIP® Combi 2.37 GST18, 1-phase 2.38 GST18, 3-phase 2.40

#### Knürr DI-STRIP®

Euro Plug System 2.42

### Knürr DI-STRIP®

for France 2.45

### Knürr DI-STRIP®

for Switzerland 2.55

## Inline Metering System (IMS)

Knürr DI-STRIP® IMS 2.62 Liebert MPX™ IMS 2.63 Knürr Modular IMS 2.64



#### INPUT POWER

- Configurable: 20 to 60 A (USA); 16 to 63 A (EU);
- Single-phase and three-phase
   Cable routing from above and below



#### **OUTPUT DISTRIBUTOR**

- Scalable, combination-compatible and swappable during operation
- Single-phase NEMA 5-20R, IEC-C13, IEC-C19, Schuko
   Load balance



#### MODULARITY

- Input modules
- Output modules
- External display
- External sensors



#### MONITORING

- Various levels: Input level, module level, output level
- Temperature and humidity
- Door contacts and floating break input contacts



#### REMOTE SOCKET CONTROL

■ Socket level



#### LOCAL MONITORING

- Display for user
- Can also be mounted outside the rack



#### REMOTE MONITORING

■ Secure web and SNMP interfaces Liebert Nform Avocent DSView



#### OVERLOAD PROTECTION

■ Physically and electrically insulated circuit breakers for every socket module



#### RACK PDU ARRAY™

- One IP for up to 4 rack PDUs
- Liebert MPX<sup>™</sup> and Liebert MPH<sup>™</sup> in the same private network



#### FORM FACTOR

- Vertical mounting (0 U)
   Fits into trade standard 23/42 U racks and/or 800 mm wide racks



# Liebert MPX<sup>TM</sup> Adaptive Rack PDU: Respond requirements-oriented to every change!

The Liebert MPX™ modular rack PDU system is particularly impressive with its maximum flexibility, highest possible availability and low operating costs. With the Liebert MPX™ user can quickly and specifically react to new requirements for power supply and rack management. The Liebert MPX™ gives users the ability to dimension their rack PDU system so that all current requirements are met first off. The system can be flexibly adjusted when requirements change later on. The Liebert MPX™ builds on a design that is based on a power supply/ communication bus and on input/ output modules.



#### Status display (RPC-BDM)

Can be easily positioned at the optimum spot for the individual rack; also functions outside the rack. This connected display can be mounted just as the user wishes

#### Highest possible security and availability with:

- Redundant control electronics power supply (with redundant tapping of various phase in the Power Entry Module).
- Fixed databus on the busbar (making cable breaks a thing of the past).
- With complete data tapping on the PEM (without any additional external monitoring devices).
- Additional neutral conductor measurement.
- Crest factor measurement (mains quality evaluation, allowing power supply failures to be identified early on).

#### Maximum flexibility and scalability with:

- Configuration of all modules according to their requirements (patented quick fixing for safe installation).
- One busbar for different networks and power levels – input module can be freely selected.
- All other components are "hot swappable" in running operation.
- Mobile display for reading all MPX<sup>™</sup> data on the rack.
- Optical slot space display (easy server slot space identification at the push of a button).

## Highest possible power levels in all areas with:

- Power illustration up to 28 kVA per bar and 55°C ambient temperature.
- Only one IP address for up to 4 bars with 24 modules.
- Plug&Play for numerous sensors.
- Extensive monitoring with a measuring accuracy of +/- 1% up to output level.
- Module and sensor autodetect function with operating software.
- Lowest possible MPX™ system power loss.

#### Perfect for blade servers and changing environments

Data centers work more and more with blade servers and require more processor power on low rack space; cabling must be simplified; power consumption must be reduced. With the Liebert MPX™ the data center can quickly react to changes, which is why our product is the right choice for you infrastructure's administration.

# Liebert MPX™: Four equipment models for different requirements

The Liebert MPX<sup>™</sup> modular rack PDU consists of various modules. The foundation stone is a busbar, which is responsible for the power and communication distribution to the individual modules. The input power is routed via the Liebert MPX<sup>™</sup> Power Entry Module (Liebert MPX<sup>™</sup> PEM) to the Liebert MPX<sup>™</sup> system. Different output modules (Liebert MPX<sup>™</sup> Branch Receptacle Modules, Liebert MPX<sup>™</sup> BRM) are available as required. Four different variants can be set up depending on the busbars' equipping:

#### 1. Liebert MPX™ Elementary

Modular basic power distribution without measurement and control function. An upgrade to another equipment model is no problem!

## 2. Liebert MPX™ Elementary Phase monitored

Modular power distribution with measurement on the input per output module. An upgrade to the next line up is possible by equipping with the respective output modules.

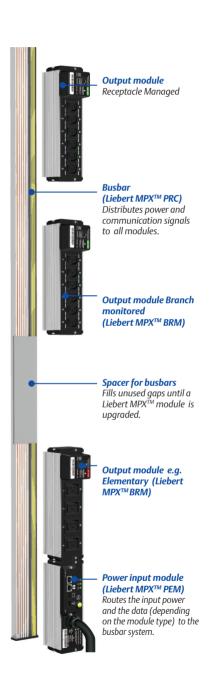
#### 3. Liebert MPX™ Branch monitored

Modular power distribution with measurement on the input per output module. An upgrade or downgrade to another line is possible by equipping with the respective output modules.

#### 4. Liebert MPX™ Receptacle managed

Modular power distribution with measurement on the input per output module and per output. The individual outputs can also be switched on and off remotely. A downgrade to another line is possible by equipping with the respective output modules.

A combination of the "Elementary Phase monitored", "Branch monitored" and "Receptacle managed" lines on a shared busbar is also possible and is one of the exceptional features of the **Liebert MPX**<sup>TM</sup>. Interfaces for the network communication, the sensors and/or the local display are provided by the Liebert Rack PDU Card (Liebert RPC) in the Liebert MPX<sup>TM</sup> PEM. The Liebert RPC Card enables connection to an optional RPC Basic Display Module (RPC BDM) to display the local status and alarms.



# Liebert MPX<sup>™</sup>, equipment models in Europe

				Four equipm	ent models	
		Order number	<b>Liebert MPX™</b> Elementary	<b>Liebert MPX™</b> Elementary Phase monitored	<b>Liebert MPX™</b> Branch monitored	<b>Liebert MPX™</b> Receptacle managed
Busbar	Length 1035	MPXPRC-V1035XXX	Х	X	х	X
DUSDAI	Length 1880	MPXPRC-V1880XXX	х	Х	х	Х
	1ph 32A fixed *	MPXPEM-EHAEXQ30	Х			
	I pn 32A fixed	MPXPEM-EHAAXQ30		X	X	X
	3ph 16A fixed	MPXPEM-EHAEXT30	Х			
Input modules	3pii 10A lixed	MPXPEM-EHAAXT30		X	х	X
input modules	3ph 32A fixed	MPXPEM-EHAEXR30	х			
	5pii 52A lixeu	MPXPEM-EHAAXR30		Х	х	х
	2ph 62A fived	MPXPEM-EHBEXZ30	х			
	3ph 63A fixed	MPXPEM-EHBAXZ30		х	х	х
	IEC-C13 L1	MPXBRM-EEBC7N1N	Х	Х		
	IEC-C13 L2	MPXBRM-EEBC7N2N	Х	х		
	IEC-C13 L3	MPXBRM-EEBC7N3N	Х	х		
	IEC-C19 L1	MPXBRM-EEBC4O1N	Х	х		
Output modules Elementary	IEC-C19 L2	MPXBRM-EEBC4O2N	Х	х		
Elementary	IEC-C19 L3	MPXBRM-EEBC4O3N	Х	X		
	Schuko L1	MPXBRM-EEBC3P1N	Х	X		
	Schuko L2	MPXBRM-EEBC3P2N	Х	X		
	Schuko L3	MPXBRM-EEBC3P3N	Х	X		
	IEC-C13 L1	MPXBRM-EBBC6N1N	<b>A</b>		х	
	IEC-C13 L2	MPXBRM-EBBC6N2N			х	
	IEC-C13 L3	MPXBRM-EBBC6N3N			х	
	IEC-C19 L1	MPXBRM-EBBC4O1N			х	
Output modules	IEC-C19 L2	MPXBRM-EBBC4O2N			х	
Branch monitored	IEC-C19 L3	MPXBRM-EBBC4O3N			х	
	Schuko L1	MPXBRM-EBBC3P1N			x	
	Schuko L2	MPXBRM-EBBC3P2N			х	
	Schuko L3	MPXBRM-EBBC3P3N			x	
	IEC-C13 L1	MPXBRM-ERBC6N1N	-			х
	IEC-C13 L2	MPXBRM-ERBC6N2N	<u>=</u>			х
	IEC-C13 L3	MPXBRM-ERBC6N3N	Upgrade possiblel			Х
	IEC-C19 L1	MPXBRM-ERBC4O1N	Sod			х
Output modules	IEC-C19 L2	MPXBRM-ERBC4O2N	de de			х
Receptacle managed -	IEC-C19 L3	MPXBRM-ERBC4O3N	gra			х
	Schuko L1	MPXBRM-ERBC3P1N	å å			x
	Schuko L2	MPXBRM-ERBC3P2N	1			x
	Schuko L3	MPXBRM-ERBC3P3N	-			x
	1xTemp.	SN-Z01	1	X	х	x
	3xTemp.	SN-Z02	1	X	x	x
	3xT. + 1xHum	SN-Z03	1	X	x	x
Sensors	1xTemp. Mod.	SN-T		X	x	x
555515	Temp/Hum Mod.	SN-TH		X	X	x
	2xDoor Mod.	SN-2D	1	X	X	X
		SN-3C	1	X	x	x
	3xInput Mod.	) JIV3C.				

<sup>\*</sup>When using 1ph input modules then only L1 output modules can be equipped.



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#### Liebert MPX™ - Input Module/Power Supply

#### **Elementary and Monitored type:**

- The MPX PEM is fixed on the MPX PRC and provides the connection to the power supply.
- Cable is connected fixed, 3 m long
- With IEC60309 plug, 1Ph/N/PE 6h blue, 3Ph/N/PE 6h red

#### Monitored type:

- The MPX PEM provides the connection to the databus for the data communication.
- Integrated Liebert RPC-1000 communication card enables remote monitoring and maintenance of MPH units.
- Provides the following measured values of the phase inputs: effective power, current, voltage, frequency and consumption.
- Power alarm functions for the individual phases and their operating status are also supported.
- Further important features: Three displays inform the user about the current status of each individual input.
- An acoustic alarm is activated with specific overload conditions.
- The communication card centralizes the Liebert MPX's local and remote administration.
- There is administration via web and SNMP for systems connected to the Ethernet.
- Also serves as the connection point for versatile support options and devices, such as the display module (RPC BDM), various sensors and connection to other Liebert MPX or Liebert MPH systems, for example.
- Has RJ-45 ports for all connections and does not require any special cabling.
  Supports 10 and 100 MBit Ethernet and provides
- on-site firmware upgrade.

#### **Technical data Interfaces:**

RJ-45 LAN port (10/100 MBit) - for connecting to the local network (LAN) via an Ethernet cable.

- Expansion/administration port for local configuration using a computer/laptop, for setting up a link-up of several PDUs (Liebert MPX
- Display port for connecting the RPC BDM (display module).
- External sensor port for connecting optional

#### Supported technologies:

- Web support, provides Liebert MPX control and management. Authorized users can view status information via their network.
- SNMP support, provides Liebert MPX SNMP management.
- Easy integration in Liebert Nform, Avocent DSView and Nagios.

#### Material/finish

Housing: Aluminum Cover: Sheet steel Power contacts: Silvered Databus contacts: Gilded (only Monitored type)

#### Dimensions

Width: 75 mm Height: 65 mm Cable: 3 m

#### Color

Housing: Aluminum/RAL7021 dark gray

#### Approvals

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- BV GS

#### Supply schedule

1 MPX PEM power input module incl. connection cable incl. RPC-1000 communication card (only Monitored type)

L	w	Н	U	Feed	Load rating	Туре	Order no.	UP
220	75	65		Fixed	230VAC, max 32A	Elementary	MPXPEM-EHAEXQ30	1 unit
220	75	65		Fixed	230/400VAC, max 16A	Elementary	MPXPEM-EHAEXT30	1 unit
220	75	65		Fixed	230/400VAC, max 32A	Elementary	MPXPEM-EHAEXR30	1 unit
266	75	65		Fixed	230/400VAC, max 63A	Elementary	MPXPEM-EHBEXZ30	1 unit
220	75	65		Fixed	230VAC, max 32A	Monitored	MPXPEM-EHAAXQ30	1 unit
220	75	65		Fixed	230/400VAC, max 16A	Monitored	MPXPEM-EHAAXT30	1 unit
220	75	65		Fixed	230/400VAC, max 32A	Monitored	MPXPEM-EHAAXR30	1 unit
266	75	65		Fixed	230/400VAC, max 63A	Monitored	MPXPEM-EHBAXZ30	1 unit

 $\label{eq:Dimensions in mm: L = Length, W = Width, S = Switch, \\ n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging, IP = Unit of$ 



Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



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#### Liebert MPX™ BRM - Output Module

- The MPX BRM takes care of the power distribution to the individual consumers.
- Each module taps a phase; this is color-identified on the module.
- All modules are protected against overload with a 20A circuit breaker.
- Changing the modules during operation enables a user-defined installation, without having to shut down the Liebert MPX.
- Up to 3 BRM output modules can be installed on a 1,035 mm PRC busbar; up to 6 BRM output modules can be installed on a 1,880 mm PRC

**Type E - Elementary:**- Module for power distribution via respective outputs

#### Type B – Branch monitored:

- Module for power distribution via respective outputs with measuring function on module level
- The MPX BRMs have an LED-ID indicator, which clearly identifies every module with a number.
- The modules are administered in the software
- Provides the following measured values: power, current, voltage, apparent power, kWh and power
- Power alarm functions and the operating status are supported

#### Type R - Receptacle managed:

- Module for power distribution via respective outputs with measuring function on module level and output level

- The MPX BRMs have an LED-ID indicator, which clearly identifies every module with a number.
- The modules are administered in the software
- Provides the following measured values: power, current, voltage, apparent power, kWh, frequency, power factor and crest factor
- Power alarm functions and the operating status are supported
- The individual outputs can be switched on and off remotely

#### Material/finish

Housing: Aluminum Cover: Sheet steel Power contacts: Silvered

Databus contacts: Gilded (only type B and R)

#### **Dimensions**

Width: 75 mm Height: 65 mm

Housing: Aluminum/RAL7021 dark gray

#### Approvals

- ČE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- Innova GS

#### Supply schedule

1 MPX BRM Output Module Operating instructions

L	n	Outputs	Load rating per output	Phase tapping	Туре	Order no.	UP
266	7	IEC320 C 13	10A	L1	E	MPXBRM-EEBC7N1N	1 unit
266	7	IEC320 C 13	10A	L2	Е	MPXBRM-EEBC7N2N	1 unit
266	7	IEC320 C 13	10A	L3	E	MPXBRM-EEBC7N3N	1 unit
266	4	IEC320 C 19	16A	L1	Е	MPXBRM-EEBC4O1N	1 unit
266	4	IEC320 C 19	16A	L2	E	MPXBRM-EEBC4O2N	1 unit
266	4	IEC320 C 19	16A	L3	Е	MPXBRM-EEBC4O3N	1 unit
266	3	Schuko CEE 7/4	16A	L1	E	MPXBRM-EEBC3P1N	1 unit
266	3	Schuko CEE 7/4	16A	L2	E	MPXBRM-EEBC3P2N	1 unit
266	3	Schuko CEE 7/4	16A	L3	E	MPXBRM-EEBC3P3N	1 unit
266	6	IEC320 C 13	10A	L1	В	MPXBRM-EBBC6N1N	1 unit
266	6	IEC320 C 13	10A	L2	В	MPXBRM-EBBC6N2N	1 unit
266	6	IEC320 C 13	10A	L3	В	MPXBRM-EBBC6N3N	1 unit
266	4	IEC320 C 19	16A	L1	В	MPXBRM-EBBC4O1N	1 unit
266	4	IEC320 C 19	16A	L2	В	MPXBRM-EBBC4O2N	1 unit
266	4	IEC320 C 19	16A	L3	В	MPXBRM-EBBC4O3N	1 unit
266	3	Schuko CEE 7/4	16A	L1	В	MPXBRM-EBBC3P1N	1 unit
266	3	Schuko CEE 7/4	16A	L2	В	MPXBRM-EBBC3P2N	1 unit
266	3	Schuko CEE 7/4	16A	L3	В	MPXBRM-EBBC3P3N	1 unit
266	6	IEC320 C 13	10A	L1	R	MPXBRM-ERBC6N1N	1 unit
266	6	IEC320 C 13	10A	L2	R	MPXBRM-ERBC6N2N	1 unit
266	6	IEC320 C 13	10A	L3	R	MPXBRM-ERBC6N3N	1 unit
266	4	IEC320 C 19	16A	L1	R	MPXBRM-ERBC4O1N	1 unit
266	4	IEC320 C 19	16A	L2	R	MPXBRM-ERBC4O2N	1 unit
266	4	IEC320 C 19	16A	L3	R	MPXBRM-ERBC4O3N	1 unit
266	3	Schuko CEE 7/4	16A	L1	R	MPXBRM-ERBC3P1N	1 unit
266	3	Schuko CEE 7/4	16A	L2	R	MPXBRM-ERBC3P2N	1 unit
266	3	Schuko CEE 7/4	16A	L3	R	MPXBRM-ERBC3P3N	1 unit

#### Liebert MPX™ PRC - Power Distribution Unit/Communication Bus

- The MPX PRC is the foundation stone of the Liebert MPX PDU.
- Power and data transfer buses are integrated fixed over the entire length of the MPX PRC.
- The MPX BRMs (output modules) and the MPX PEM (Power Entry Module) are fixed on the MPX PRC and depending on the type take care of the modules' power feed, output, monitoring and management.

#### Material/finish

Busbars housing: Aluminum Busbars: Copper Databus: Gilded

Dimensions Width: 68 mm Height: 24 mm

#### Color

Housing: Aluminum

#### Approvals

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- BV GS

#### Load rating

Max. current intensity: 3 x 63 A Nominal voltage (L-N / L-L): 230 / 400 VAC

**Supply schedule** 1 MPXTM PRC - Power Distribution Unit/ Communication Bus 1 mounting set

1035 60 34 33 10514/320 1 3 5014 1 10710 1 4 10710 1	
1035 68 24 23 1 PEM (220 mm) + 3 BRM <b>MPXPRC-V1035XXX</b> 1 un	it
1880 68 24 42 1 PEM (220/266 mm) + 6 BRM <b>MPXPRC-V1880XXX</b> 1 un	it

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## Liebert MPX™/MPH™ Sensors

- The sensors are designed for tool-less installation in a Knürr Miracel Rack, but they can also be installed in any other rack.
- "Fixed" type sensors are fixed to a cable.
- "Modular" type sensors can be connected with the delivered cable.
- Are affixed to the RPC-1000 communication card
- Several sensors can be connected in rows (max. length: 20m)
- Are automatically displayed in the Liebert MPX/ MPH software
- Temperature measuring range: 5-55°C

- Accuracy: +/- 0.5°C
- Humidity measuring range: 10 95%
- Accuracy: +/- 3.5%



The sensors are not required for operating the Liebert MPX or MPH, but they require the Liebert RPC-1000 (communication card)

#### Supply schedule

1 sensor with connection cable Operating instructions

Cable length	Туре	Model	Order no.	UP
3660	Fixed	Single temp. sensor	SN-Z01	1 unit
5180	Fixed	Triple temp. sensor	SN-Z02	1 unit
5180	Fixed	Triple temp. sensor + single humidity	SN-Z03	1 unit
2000	Modular	Single temp. sensor	SN-T	1 unit
2000	Modular	Triple temp. sensor + single humidity	SN-TH	1 unit
2000	Modular	2 x door contact - input module*	SN-2D	1 unit
2000	Modular	3 x digital input	SN-3C	1 unit

<sup>\*</sup> Suitable door contact switch: Order no.: 06.108.115.9



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#### Liebert RPC BDM - 1000 Display Module

- Provides the local display of the monitored data for all connected Liebert MPX and Liebert MPH systems.
- Operated with the aid of a navigation switch.
- Connected via a cable with the Liebert RPC, which provides the user the option of placing the displays where they can be easily read in accordance with the local space conditions.
- An individual display can be used for up to four Liebert MPX or Liebert MPH PDUs, which are connected to a PDU array.

#### Note

The Display Module is not required for operating the Liebert MPX or MPH, but it itself requires the Liebert RPC-1000 (communication card)

**Supply schedule** 1 RPCBDM-1000 Display Module 1 connection cable, 2 m 1 mounting set

L	W	Н	U	Model Order no.	UP
				RPCBDM-1000	1 unit



### Liebert Power distribution BRM Elementary Safety bracket

- Safety brackets are available for strain relief for network equipment power supply cords.
- Safety brackets are sold in kits of 3 pieces.
- Supply schedule 3 safety brackets Mounting material
- How supplied flat-packed kit
  - Please note Suitable for MPXBRM-EEBC7NxN (x=1,2,3)

L	W	Н	U	Model Order no.	UP
				03.910.219.9	1 unit



#### Liebert Power distribution BRM Cable Restraints kit

- Cable restraints are available for strain relief for network equipment power supply cords.
- Cable restraints support most IEC C13 plug types with grip edge around the plug body (application confirmation required).
- Cable restraints are sold in kits of 18 pieces.
- Supply schedule 1 cable restraints kit (18 pieces).
- How supplied Flat-packed kit
  - Please note Optimum locking function only with connection cable 04.000.051.9.

Suitable only for MPXBRM-EBBC6NxN and MPXBRM-ERBC6NxN (x=1,2,3).

L	W	Н	U	Model Order no.	UP
				03.910.216.9	1 unit

# Liebert MPH<sup>™</sup> Managed Rack-PDU Systems monitoring and control

The Liebert MPH™ Managed Rack PDU is a power supply system with monitoring and control functions. The housing consists of a robust sheet steel enclosure, so that the PDU can be easily installed in a Knürr rack, or even into other enclosure systems. The Liebert MPH™ can be installed vertically or horizontally (19"), depending on the type. The PDU is delivered pre-installed with the same communication card (RPC-1000) as the Liebert MPX™. All Liebert MPX™ external modules can therefore be connected (e.g. sensors, display module). Up to four Liebert MPX™/MPH™ can be connected as rack PDU array to consolidate the user's IP connection and the device monitoring.

The Liebert MPH™ is available in two equipment models:

#### ■ 1. Liebert MPH<sup>TM</sup> Type RM

The Liebert MPH<sup>™</sup> Type RM is a monitored PDU that monitors the phase inputs. Measured per phase are: power, current, voltage and consumption. The power is also monitored per group (only 32A model). Different threshold values enable detailed alarm signals.

#### ■ 2. Liebert MPH<sup>™</sup> Type C

The Liebert MPH™ Type C can also switch the individual outputs on and off remotely.

## Highest possible security and availability with:

- Power illustration up to 22 kVA per PDU and 55°C ambient temperature
- N-conductor current display with 3-phase feed, which prevents feed cable overload.
- Overload protection can be extended per group with all 32A models; minimizes danger with cascaded PDU overload.
- Setting alarm threshold values, which means possible failures are detected early on.

#### **■** Flexibility with:

- Connection option for an external display, which is easy to mount and can also be combined with the Liebert MPX<sup>TM</sup>.
- Connection option for external sensors, which means temperatures and humidity can be monitored.
- Doors and alarm contacts can also be monitored and displayed via external input contacts.

- Versatile installation in the rack as 19" or space-saving vertical installation.
- Same, compatible monitoring platform for Liebert MPH™ and Liebert MPX™

#### Low operating costs with:

- Rack PDU array setup, which means up to 4 MPH/MPX can be controlled with one IP address; installation becomes quicker and easier.
- Extensive energy and current measurement, which provides data required for maximizing the power and cooling infrastructure.
- Special switching technology of the individual sockets, which reduces the rack PDU's power loss.
- Data interface with http and https protocol; no external software required for configuration and monitoring. The PDU can, however, also be integrated via SNMP into other management platforms.



- 20 to 30 A (USA); 16 to 32 A (EU);
- Single-phase and three-phase



#### **OUTPUT DISTRIBUTOR**

- NEMA 5-20R single-phase,
- IEC-C13 and IEC-C19;
- Combination systems



#### **MODULARITY**

- Communication card External display
- External sensors



#### MONITORING

- Input level
- Group level depending on typeTemperature and humidity
- Door contacts and floating break input contacts



#### REMOTE SOCKET CONTROL

■ Socket level



#### LOCAL MONITORING

- Display for userCan also be mounted outside the rack



#### REMOTE MONITORING

■ Secure web and SNMP interfaces Liebert Nform Avocent DSView



#### OVERLOAD PROTECTION

■ Circuit breakers for every group



#### RACK PDU ARRAY™

- One IP for up to 4 rack PDUs
   Liebert MPX™ and Liebert MPH™ in the same private network



- Vertical mounting (0 U)
- Rack installation
- Slimline 0 U form factor for positioning two PDUs in just one rack





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#### Liebert MPH™ Rack PDU

- The Liebert MPH® Type RM is a monitored power distribution unit that monitors the phase

Measured per phase are: power, current, voltage and consumption. The power is also monitored per group (only 32A model).

- The Liebert MPH® Type C can also switch the

individual outputs on and off remotely.

- Integrated Liebert RPC 1000 communication card enables remote monitoring and maintenance of MPH units.

- The RPC-1000 enables the interconnection of several MPH or MPX units and the connection of Liebert MPH® with the Liebert MPX® units for monitoring and administration.

- The Liebert MPH® can be monitored directly onsite with the RPC BDM-1000, an optional display module that is connected directly with the communication card. The monitoring unit can be flexibly mounted on the rack.

#### Material/finish

Housing: Sheet steel extrusion

#### **Dimensions**

Width: 50 mm (vertical), 178 mm (19") Height: 80 mm (vertical), 44 mm (19") Cable Length: 3 m

#### Color

Housing: RAL 7021 dark gray

- Approvals
   CE label in accordance with Low Voltage Directive 2006/95/EC
  - EMC Directive 2004/108/EC

#### Supply schedule

1 Liebert MPH® Socket Strip (PDU) 1 mounting brackets Operating instructions

L	Туре	Input values	Input plug	Outputs IEC320	Order no.	UP
438*	RM	230Vac, 16A	IEC320 Sheet I	9xC 13	MPH-EBR09NXXO30	1 unit
438*	RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	9xC 13	MPH-EBR09NXXQ30	1 unit
1730	RM	230Vac, 16A	IEC320 Sheet I	27xC 13	MPH-EBV27NXXO30	1 unit
1730	RM	230Vac, 16A	IEC320 Sheet I	21xC 13/6xC 19	MPH-EBV27NOXO30	1 unit
1730	RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	21xC 13/6xC 19	MPH-EBV27NOXQ30	1 unit
1730	RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	27xC 13	MPH-EBV27NXXQ30	1 unit
1730	RM	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	27xC 13	MPH-EBV27NXXT30	1 unit
1730	RM	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	21xC 13/6xC 19	MPH-EBV27NOXT30	1 unit
1730	RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	27xC 13	MPH-EBV27NXXR30	1 unit
1730	RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	21xC 13/6xC 19	MPH-EBV27NOXR30	1 unit
438*	C	230Vac, 16A	IEC320 Sheet I	9xC 13	MPH-ECR09NXXO30	1 unit
438*	C	230Vac, 32A	IEC60309 1ph/N/PE 6h	9xC 13	MPH-ECR09NXXQ30	1 unit
1730	C	230Vac, 16A	IEC320 Sheet I	27xC 13	MPH-ECV27NXXO30	1 unit
1730	C	230Vac, 16A	IEC320 Sheet I	21xC 13/6xC 19	MPH-ECV27NOXO30	1 unit
1730	C	230Vac, 32A	IEC60309 1ph/N/PE 6h	21xC 13/6xC 19	MPH-ECV27NOXQ30	1 unit
1730	С	230Vac, 32A	IEC60309 1ph/N/PE 6h	27xC 13	MPH-ECV27NXXQ30	1 unit
1730	С	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	27xC 13	MPH-ECV27NXXT30	1 unit
1730	C	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	21xC 13/6xC 19	MPH-ECV27NOXT30	1 unit
1730	С	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	27xC 13	MPH-ECV27NXXR30	1 unit
1730	С	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	21xC 13/6xC 19	MPH-ECV27NOXR30	1 unit



DOS20153

#### Liebert MPX™/MPH™ Sensors

- The sensors are designed for tool-less installation in a Knürr Miracel Rack, but they can also be installed in any other rack.
- "Fixed" type sensors are fixed to a cable.
- "Modular" type sensors can be connected with the delivered cable.
- Are affixed to the RPC-1000 communication card.
- Several sensors can be connected in rows (max. length: 20m).
- Are automatically displayed in the Liebert MPX/MPH software.
- Temperature measuring range: 5-55°C

- Accuracy: +/- 0.5°C
- Humidity measuring range: 10 95%
- Accuracy: +/- 3.5%

#### Note

The sensors are not required for operating the Liebert MPX or MPH, but they require the Liebert RPC-1000 (communication card).

#### Supply schedule

1 sensor with connection cable Operating instructions

Cable length	Туре	Model		Order no.	UP
3660	Fixed	Single temp. sensor		SN-Z01	1 unit
5180	Fixed	Triple temp. sensor		SN-Z02	1 unit
5180	Fixed	Triple temp. sensor + single humidity	SN-Z03	1 unit	
2000	Modular	Single temp. sensor		SN-T	1 unit
2000	Modular	Triple temp. sensor + single humidity	SN-TH	1 unit	
2000	Modular	2 x door contact - input module*		SN-2D	1 unit
2000	Modular	3 x digital input		SN-3C	1 unit

<sup>\*</sup> Suitable door contact switch: Order no.: 06.108.115.9



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#### **Liebert RPC BDM - 1000 Display Module**

- Provides the local display of the monitored data for all connected Liebert MPX and Liebert MPH systems.
- Operated with the aid of a navigation switch.
- Connected via a cable with the Liebert RPC, which provides the user the option of placing the displays where they can be easily read in accordance with the local space conditions.
- An individual display can be used for up to four Liebert MPX or Liebert MPH PDUs, which are connected to a PDU array.

#### Note

The Display Module is not required for operating the Liebert MPX or MPH, but it itself requires the Liebert RPC-1000 (communication card).

#### Supply schedule

1 RPCBDM-1000 Display Module 1 connection cable, 2 m

1 mounting se	et
---------------	----

L	W	Н	U	Model Order no.	UP
				RPCBDM-1000	1 unit

## Accessories and software application, Liebert MPX™ and Liebert MPH™

#### Infrastructure management



#### Secure web and SNMP interfaces

- User-configured alarm threshold (3 threshold values per measuring point).
- Socket status and delayed switching.
- Electrical measurement: V, A, kW and kW/h, crest factor, Hz, power factor.
- Rack PDU array: Device consolidation.
- PDU Explorer: intuitive hierarchical interface.
- PDU status display according to strip or socket.
- Device Explorer: search according to user-defined device names.
- Environment monitoring: temperature and humidity, floating contacts.



#### **Liebert Nform**

- Control technology for Liebert devices in the LAN.
- E-mail alarm and local notifications.
- Scalable software solution for IT environment.



#### **Web-based monitoring**

- PDU parameters monitoring via web browser.
- No application-specific software required.
- Simultaneous display of up to 4 PDUs.



#### **Avocent Rack Power Manager**

- Alarm and incident administration of all equipment at the site.
- Control technology in real-time.
- Individually adjustable user interface.
- Trend and alarm reports.



#### Network management system

- Open standard solution.
- For all SNMP devices.
- Scalable software solution for all company sizes.

#### **Optional hardware**



#### Local display module - RPC-BDM

- Electrical and ambient parameters.
- 1 RPC BDM for up to 4 PDUs in the array.
- PDU Explorer.
- Device Explorer:

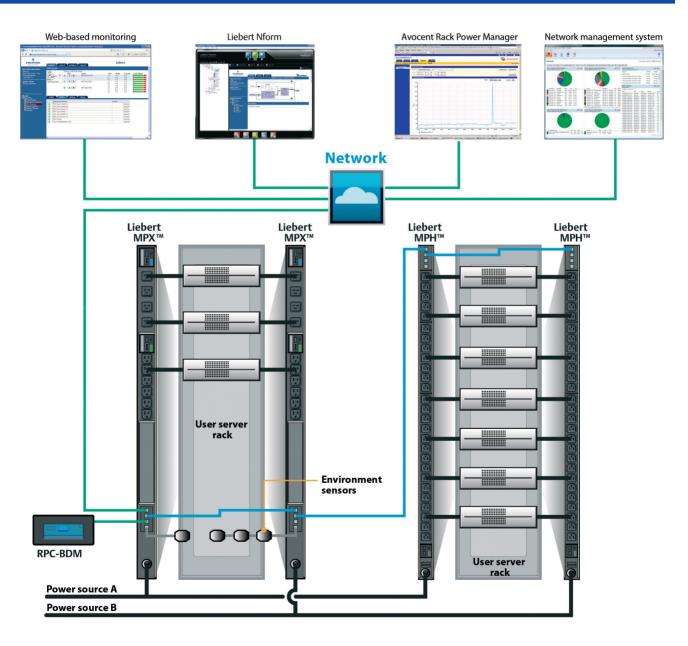


#### **Liebert SN product family: Rack Sensors**

- Temperature measurement with single or multiple sensors.
- Temperature and humidity measurement with multiple sensors.
- Door contact sensors and floating input contacts.

## Flexible power distribution

#### Easy integration of the rack PDUs into new or existing management platforms



Rack PDU array (up to four systems)

## **Emerson Network Power Rack PDUs**

## Knürr DI-STRIP®

DI-STRIP® RM	2.22
DI-STRIP® M	2.23
DI-STRIP HighPower®	2.24
TDI-STRIP® TriplePower®	2.26
DI-STRIP® BladePower®	2.28
DI-STRIP® PizzaPower®	2.29
DI-STRIP® Classic	2.29
DI CTDID® Compact	2 20

DI-STRIP® Classic	2.29
DI-STRIP® Compact	2.30
DI-STRIP® Protector	2.31
DI-STRIP® Power Cleaner	2.33
DI-STRIP® Safety Basic	2.34
DI-STRIP® Safety Standard	2.35
DI-STRIP® Master-Slave	2.36
DI-STRIP® Combi	2.37
GST18, 1-phase	2.38
GST18, 3-phase	2.40

#### Knürr DI-STRIP®

Euro Plug System 2.42

## Knürr DI-STRIP®

for France 2.45

## Knürr DI-STRIP®

for Switzerland 2.55



- Single-phase or three-phase■ Up to 22 kVa
- Easy input supply



#### **OUTPUT DISTRIBUTOR**

- NEMA 5-20R single-phase, IEC-C13 and C19, combination systems
- Schuko, France, Switzerland



#### MODULARITY

■ More connectivity with expansion unit for Basic Rack PDU GST18-PDUs



#### FORM FACTOR

- Vertical mounting (0 U)
- Rack installation



#### LOCAL MONITORING

■ Fixed display



#### REMOTE MONITORING

Secure web and SNMP interfaces Liebert Nform



#### OVERLOAD PROTECTION

■ Circuit breakers/fuses per branching cable/output as required



Fr TTTH

# Knürr DI-STRIP® Basic Rack PDU: Robust PDUs with helpful equipment features

Knürr's Basic Rack PDUs are the solution for every data center looking for robust, economical and flexible rack concepts.

For power distribution the Knürr DI-STRIP® product family meets the requirements of numerous IT applications and other areas. Specially configured for the growing number of electronic components in network switching racks of server racks. Available with different accessories, such as circuit breakers, overvoltage (surge) protection, mains filter, master-slave function, emergency off button, fault current circuit breaker, local and remote power measurement, for example.





All DI-STRIP M  $\,/\,$  RM with display rotation for better reading.

#### Highest possible safety, security and availability with:

- Closed sheet steel extrusion, which means high stability and torsional strength.
- Extensive certification in acc. with international standard.
- Double spring contacts for shock hazard-proof and low contact resistance.
- Unbalanced load monitoring with 3-phase feed prevents feed cable overload (only DI-STRIP versions M and RM).
- Optimum load monitoring with servers' installation (only DI-STRIP versions M and RM).
- Individual outputs backup with DI-STRIP BladePower and Pizza Power.

#### ■ Maximum flexibility with:

- Configurations and options with international compatibility

- 2.5 m or 4 m power cable for more spatial flexibility.
- Rotating display in 90° steps (only DI-STRIP versions M and RM).
- Tool-less installation, which means quick and easy extension in the rack (only DI-STRIP HighPower).

## Extremely low operating costs with:

- Quick and easy installation on the rack requires minimum space and shorter installation time.
- Automatic background light reduction extends the display's service life and reduces the rack PDU power loss (only DI-STRIP models M and RM).
- Especially flat housing extrusion, providing full accessibility to the 19" level with 600 mm wide server racks.

# Knürr DI-STRIP®: Three equipment models for precisely your requirements

#### **Knürr DI-STRIP® Elementary:**

Basic Rack PDU, Knürr DI-Strip Elementary® for simple power distribution requirements. The PDUs are available in different structures, depending on the rack installation requirements. Additional functions such as overvoltage (surge), mains filter, master-slave function, emergency off button and fault current circuit breaker are also



All DI-STRIP HighPower are equipped with especially flat housing extrusions and side cable entry. This enables installation without any loss of usable height units and cable entry from above and below. Full accessibility to the 19" level with 600 mm wide server racks is also a given.

#### Knürr DI-STRIP M® – local metered:

Basic Rack PDU Knürr DI-STRIP M® for simple power distribution requirements and local power measurement for your data center. Available in single and three-phase versions up to 22 kVa, with and without power measurement.

#### Local power measurement features:

- M = power measurement (local)
- Tried, tested and proven DI-STRIP® PDU with integrated local power measurement module.
- Large transparent LCD display.
- Meets the strictest EMC requirements with radiation and irradiation interference.
- Integrated unbalanced load monitoring with three-phase feed.
- Rotatable displays in 90° steps.
- Automatic background light reduction.
- Optimum load monitoring with servers' installation.

#### Knürr DI-STRIP RM® - remote metered:

Basic Rack PDU Knürr DI-STRIP RMRM® for simple power distribution requirements and remote power measurement for your data center. Available in single and three-phase versions up to 22 kVa, with local and remote power measurement. Knürr DI-STRIP RM® provides safe and reliable power supply in a robust, extruded enclosure.

## Remote power measurement module features:

- RM = power measurement (remote)
   Tried, tested and proven DI-STRIP®
   PDU with integrated local power measurement module.
- Large transparent LCD display.
- Meets the strictest EMC requirements with radiation and irradiation interference.
- Can be set for up to 3 threshold values and unbalanced load monitoring.
- Rotatable displays in 90° steps.
- Automatic background light reduction.
- Protocols: HTTP, SNMP, Syslog.

# Knürr DI-Strip® Equipment models in Europe

#### **Full overview:**



Sample mode



Sample mode



Sample model

ruii ovei view.			Knür	r DI-STRIP® equipment m	odels
Options	Input power	Outputs	Knürr DI-Strip Elementary®	Knürr DI-Strip M® local metered	Knürr DI-Strip RM® remote metered
1 Euro Plug System IEC 320	1x16A up to 3.68kVA	IEC60320 C13 & C19	х	х	х
1 Classic	1x16A up to 3.68kVA	Schuko, France, Switzerland	х		
1 Compact	1x16A up to 3.68kVA	Schuko, France, Switzerland	х	х	х
1 Protector FI	1x16A up to 3.68kVA	Schuko, France, Switzerland	х		
1 Protector LS	1x16A up to 3.68kVA	Schuko, France, Switzerland	х		
1 Protector FI / LS	1x16A up to 3.68kVA	Schuko, France, Switzerland	х		
Protector Emergency STOP	1x16A up to 3.68kVA	Schuko, France	х		
Protector 1 Emergency STOP FI/LS	1x16A up to 3.68kVA	Schuko, France	х		
1 Power Cleaner	1x16A up to 3.68kVA	Schuko, France	х		
1 Safety Basic	1x16A up to 3.68kVA	Schuko, France, Switzerland	х		
1 Safety Standard	1x16A up to 3.68kVA	Schuko, France, Switzerland	х		
1 Master Slave	1x16A up to 3.68kVA	Schuko, France	х		
1 Combi	1x16A up to 3.68kVA	Schuko, France	х		
1 GST18 Plug System	1x16A, 3x16A up to 11kVA	Schuko, France, IEC60320	х	х	x
1 TriplePower	3x16A up to 11kVA	IEC60320 C13 & C19 Schuko	х	x	x
2 BladePower	1x32A, 3x32A up to 22kVA	IEC60320 C13 & C19	х		
2 PizzaPower	1x32A, 3x32A up to 22kVA	IEC60320 C13 & C19 Schuko	х	х	х
3 HighPower	1x32A, 3x32A up to 22kVA	IEC60320 C13 & C19	х		х



DOS80002

#### **Knürr DI-STRIP® RM**

- Real RMS value display for the alternating current per phase
- LCD display rotation in 90° steps
- Display bright/dark switchover
- Warning display for unbalanced load
- Load changes signaling
- Automatic background light dimming
- Cable: 4 m H05VV-F5 G 4 mm² (Pizza Power)
- Cable: 2,5 m H05VV-F5 G / 2,5 mm<sup>2</sup> (Triple Power)
- Cable: 2,5 m H05VV-F36 / 1,5 mm<sup>2</sup> (others)

#### Data interface:

- The plug strip can be integrated into the network via an RJ45 plug.
- Access is possible without special software via a remote browser.
- Three variable limit values and a warning for unbalanced loads can be specified.
- The module enables access for up to 5 users or administrators; access is password-protected.
- The software displays the name and place of the PDU; this information can be entered by an administrator.
- The user can specify a static IP address or access using DHCP.
- Firmware updates can be made via a web browser.
- Supported protocols: HTTP, SNMP (Traps, SET, GET), Syslog

#### Material/finish

- PizzaPower model: Housing: sheet steel, zinc passivated, powder-coated
- Other models:
   Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture
   Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Width: 84 mm (PizzaPower), 44.4 mm (others) Height: 60 mm (PizzaPower), 44.4 mm (others)

#### Color

PizzaPower model: Housing: RAL 9005 black Other models: Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

#### Approvals

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS

#### Supply schedule

1 socket strip (PDU) with remote ampere meter 1 mounting bracket Operating instructions

L	Туре	Input values	Input plug	Outputs IEC60320			Order no.	UP
				C 13	C 19	Schuko		
733	DI-STRIP® Compact RM 8	230Vac, 16A	Schuko CEE 7/4			8	03.307.008.1	1 unit
1183	DI-STRIP® Compact RM 17	230Vac, 16A	Schuko CEE 7/4			17	03.307.017.1	1 unit
633	IEC320 RM9	230Vac, 16A	Schuko CEE 7/4	9			03.607.009.1	1 unit
933	IEC320 RM18	230Vac, 16A	Schuko CEE 7/4	18			03.607.018.1	1 unit
1133	DI-STRIP® TriplePower RM	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	24			03.607.825.1	1 unit
1833	DI-STRIP® TriplePower RM	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	45			03.607.845.1	1 unit
1233	DI-STRIP® TriplePower RM	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	18	6		03.607.824.1	1 unit
1833	DI-STRIP® TriplePower RM	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	36	6		03.607.842.1	1 unit
1111	DI-STRIP® PizzaPower® RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	24			03.637.023.1	1 unit
871	DI-STRIP® PizzaPower® RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	12	4		03.637.016.1	1 unit
1168	DI-STRIP® PizzaPower® RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	21	4		03.637.025.1	1 unit
563	DI-STRIP® PizzaPower® RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h		6		03.637.006.1	1 unit
995	DI-STRIP® PizzaPower® RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	6	12		03.637.018.1	1 unit
1022	DI-STRIP® PizzaPower® RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	21			03.637.021.1	1 unit
1157	DI-STRIP® PizzaPower® RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	18	6		03.637.024.1	1 unit
1751	DI-STRIP® PizzaPower® RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	36	6		03.637.042.1	1 unit



DOS80002

#### **Knürr DI-STRIP® M**

- With big transparent LCD display
- Effective value display of alternating currents per phase (1-phase or 3-phase, depending on model)
- LCD display rotation in 90° steps
- Display can be switched bright or dark Unbalanced-load warning display with 3-phase model

- Load changes signaling
   Automatic background light reduction
   Cable: 4m H05VV—F 5 G 4mm² (PizzaPower M)
   Cable: 2.5m H05VV—F 5 G 2.5mm² (TriplePower M)
- Cable: 2.5m H05VV-F 3G 1.5mm<sup>2</sup> (DI-STRIP Compact M, DI-STRIP IEC320 M)

#### Material/finish

PizzaPower®: model:

Housing: Sheet steel, zinc-passivated, powdercoated

Other models:

Housing: closed sheet steel extrusion, zinc-passivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC: EN61326-1, EN61000-3-2, EN61000-3-3
- FCC Class B
- CSA NRTL (PizzaPower m, TriplePower M, IEC320 M)
- CB-Scheme (TriplePower M, DI-STRIP compact M, IEC320M, ampere meter GST18i)

#### Color

PizzaPower M model: Housing: RAL 9005 black Other models: Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

#### Supply schedule

1 socket strip with ampere meter

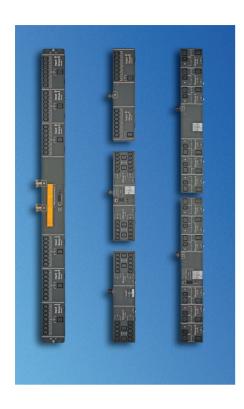
2 mounting brackets

2 19" mounting brackets (with 19" installation option)

#### Note

- Other models (e.g. 19" outputs) on request

L	Туре	Input values	Input plug	Outputs IEC60320			Order no.	UP
				C 13	C 19	Schuko		
483	DI-STRIP® PizzaPower® M	230Vac, 32A	IEC60309 1ph/N/PE 6h	7			03.636.007.1	1 unit
933	DI-STRIP® PizzaPower® M	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	21			03.636.021.1	1 unit
1033	DI-STRIP® TriplePower® M	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	21			03.606.821.1	1 unit
1833	DI-STRIP® TriplePower® M	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	45			03.606.845.1	1 unit
1133	DI-STRIP® TriplePower® M	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	18	6		03.606.824.1	1 unit
1733	DI-STRIP® TriplePower® M	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	36	6		03.606.842.1	1 unit
483	DI-STRIP® Compact M	230Vac, 16A	Schuko			6	03.306.006.1	1 unit
483	DI-STRIP® IEC320 M	230Vac, 16A	Schuko	9			03.606.009.1	1 unit
233	DI-STRIP® Ampere Meter	230Vac, 16A	GST18				03.606.200.1	1 unit



#### **Knürr DI-STRIP®**

# **HighPower®**

The **Knürr DI-STRIP® HighPower** is a solution for every data center with high power requirements and low space in the rack. The special shape enables space-saving installation in the rack. This means free access to the servers, even with 600 mm wide racks. Maintenance of the servers (e.g. power supply changes) is possible at no further expense.

The Knürr DI-STRIP® product family meets the power distribution requirements of many IT applications and other areas. Specially configured for the growing number of electronic components in network switching racks of server racks. The **DI-STRIP® HighPower** is available with and without remote power measurement (DI-STRIP® HighPower RM).







#### Knürr DI-STRIP® HighPower Strong points

#### Flexibility

With or without remote power measurement.

Easy expansion in the rack with toolless installation.

3 m power cable for more spatial flexibility.

#### RM model:

Current values can be read via a big transparent LCD display. Rotating display in 90° steps; the display can always be read the same regardless of the installation direction. The power measurement module can be integrated into different management programs via different protocols (SNMP, http, Syslog).

#### High availability

Meets the strictest EMC requirements with radiation and irradiation interference. Robust and stable with a closed sheet steel housing. Reliable, robust solution.

Extensive certification in acc. with international standard.

#### RM model:

Different threshold values can be flexibly specified; power values can therefore be monitored and load drops can be signaled. With 3-phase PDUs the unbalanced load can be monitored, which means the neutral conductor is protected from overloads.

#### Low operating costs

Especially flat housing extrusion, providing full accessibility to the 19" level with 600 mm wide server racks. Server power supply changes are very quick and easy.

Quick and easy installation on the rack requires minimum space and shorter installation time.

#### RM model:

Automatic background light reduction extends the display's service life and reduces power loss.



DOS20153

#### Knürr DI-STRIP® HighPower

- Flat design provides access to the 19" level, even with 600 mm wide racks.
- Individual backup for outputs (groups with 10 A). - Outputs divided into groups with max. 20 A per
- Modular expansion in the rack with tool-less PDU

installation.

Additional functions for HighPower RM type (remote metered)

- With big transparent LCD display
- Effective value display of alternating current
- LCD display rotation in 90° steps
- Display can be switched bright or dark
- Load changes signaling Automatic background light reduction
- See DI-STRIP RM for technical description for data interface

#### Material/finish

Housing: Sheet steel, zinc-passivated, powdercoated

#### Dimensions

Width: 134 mm Height: 47 mm Cable: 3 m

#### Color

Housing: RAL 9005 black

#### **Approvals**

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS

#### Supply schedule

1 socket strip (PDU) 1 integrated remote ampere meter (only HighPower RM) 2 mounting bracket Operating instructions

L	Туре	Input values	Input plug	Outpu	Outputs IEC60320		Order no.	UP
				C 13	C 19	Schuko		
540	DI-STRIP® HighPower	230Vac, 32A	IEC60309 1ph/N/PE 6h	20	4		03.632.100.8	1 unit
850	DI-STRIP® HighPower	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	6	12		03.632.102.8	1 unit
850	DI-STRIP® HighPower	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	18	6		03.632.103.8	1 unit
540	DI-STRIP® HighPower RM	230Vac, 32A	IEC60309 1ph/N/PE 6h	20	4		03.632.200.8	1 unit
850	DI-STRIP® HighPower RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	6	12		03.632.202.8	1 unit
850	DI-STRIP® HighPower RM	230/400Vac, 32A	IEC60309 3ph/N/PE 6h	18	6		03.632.203.8	1 unit

#### Three Phase Knürr DI-STRIP®

# **TriplePower®**

The **TriplePower**® name represents the performance of our latest development. Die **DI-STRIP® TriplePower®** supplies network racks with three times the normal power. This requirement is generated by the increasingly higher packing densities and constantly rising energy requirements in racks. which are often caused by aptly named "Blade Servers" or 1 U "Pizza Servers", more than 40 of which can be integrated into a Knürr Miracel rack.

The **DI-STRIP® TriplePower®** uses a classic 3-phase feed with 3x16A, which it optimally distributes throughout the whole rack. The 23 U and 41 U standard lengths cover the entire rack height range of the Knürr Smaract2 and Miracel rack families.

In the maximum configuration level, up to 48 users can now be connected to a **DI-STRIP® TriplePower®** (Euro socket strip). With redundant feed, 96A can consequently be provided in a 19" rack with only two DI-STRIP® Triple-Power®.



Dimensions in mm: E = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-safe

U = Standard height unit, UP = Unit of packaging



1 DOS20131



**2** DOS20147

#### Knürr DI-STRIP® TriplePower® Strong points

#### Cost-conscious

Quick and easy mounting on the rack extrusion. Costs reduction with mounting and wiring.

#### Feed

- 3x16A as standard
- Ideal for implementing redundancy (e.g. 96 A)

#### At a glance

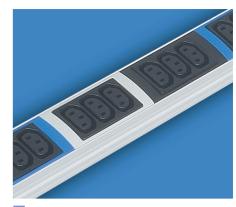
Phase assignment color coding (L1, L2, L3).

#### Installation

Optimum distribution over the entire rack height (standard: 23 U and 41 U).

#### Technical alternatives

- For 3-phase GST18 system (see page 2.36).



3 DOS20126



4 DOS20129

DOS20126

#### DI-STRIP® TriplePower® Euro Plug-In System, IEC 320 with cable

- Cable: H05VV-F 5 G 2.5 mm<sup>2</sup>
- Cable: 2.5 m

(optional with IEC60309 plug, 3Ph/N/PE 6h)

- Easy mounting on the rack extrusion
- 3x16A feed as standard
- Ideal for implementing redundancy (e.g. 96 A with redundant feed)
- Unmistakable phase assignment color-coding
- Optimum distribution over the entire rack height (23 U and 41 U)
- Alternative for 3-phase GST18 system (see page 170)

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS, CSA NRTL/C, CB-scheme

#### Color

Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

**Load rating** 100-240/173-415 Vac Input: 3x 16 A Output: 10 A (C 13) Output: 16 A (C 19)

#### Approval symbols for IEC 320 3-way Euro combinations

VDE, UR, CSA

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	19"	Input values	Input plug	Outputs IEC60320		Order no.	UP
							C 13	C 19		
1033		24	•		230/400Vac, 16A	Open end	24		03.600.024.1	€ 1 unit
1833		48	•		230/400Vac, 16A	Open end	48		03.600.048.1	€ 1 unit
1033		24	•		230/400Vac, 16A	IEC60309 3ph/N/PE 6h	24		03.600.824.1	€ 1 unit
1833		48	•		230/400Vac, 16A	IEC60309 3ph/N/PE 6h	48		03.600.848.1	€ 1 unit
1133		24	•		230/400Vac, 16A	IEC60309 3ph/N/PE 6h	18	6	03.600.524.1	1 unit
1733		42	•		230/400Vac, 16A	IEC60309 3ph/N/PE 6h	36	6	03.600.542.1	1 unit
483		6	•	•	230/400Vac, 16A	IEC60309 3ph/N/PE 6h	6		03.600.506.1	1 unit

Three Phase – Knürr DI-STRIP®

# BladePower® PizzaPower®

A new generation of the power distribution units of the DI-STRIP® range now ensures even more power: **BladePower®** and **PizzaPower®** for fail-safe power supply distribution in network racks.

Increasingly higher packing densities and therefore constantly increasing energy requirements in server racks caused by blade servers or 1 U pizza servers will now be handled electrically.

Up to 35 kW dissipated heat can be removed from modern CoolTherm® server racks. But how is the necessary power supplied into the rack, which can cause such power losses? The PDUs (3x32 A) optimally distribute the required power over the entire rack, with connection of up to 21 consumers possible in the highest configuration level. 192 A can be supplied to the rack with redundant feed.

#### Knürr DI-STRIP® Strong points

#### Cost-conscious

Quick and easy installation on the server rack's extrusion. Costs reduction with mounting and wiring.

#### Feed

- Single-phase 32 A and three-phase 32 A.
- ≤22 kVA
- Ideal for providing redundancy (e.g. 192 A)

#### Crystal clear assignment

Unmistakable phase assignment color-coding (L1, L2, L3).

#### Installation

Optimum distribution of blade center and pizza server supply with easy power distribution unit (PDU) installation.

#### Availability

Prevention of "Single Point of Failure" with individual fusing.

#### Certification









DOS20153



DOS20155

## Knürr DI-STRIP® BladePower® Technical data

- EC 320 sockets (10 A and 16 A).
- Individually fused via thermal circuit breaker that can be reset in acc. with IEC 60934
- Cable: H05VV-F 5 G 4 mm<sup>2</sup>
- Cable: 4 m
- With IEC60309 plug, 1Ph/N/PE 6h blue, 3Ph/N/PE 6h red

#### Material/finish

Housing: sheet steel, zinc passivated, powder-coated

#### Dimensions

Height: approx. 60 mm Housing width: 84 mm

#### Color

Housing: RAL 9005, black

#### Approval:

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CSA NRTL/C (only without plug)

#### Load rating

100-240 / 173-415 Vac Input: 1x32 A or 3x32 A Output: 10 A / 16 A

#### Supply schedule

1 socket strip (PDU) 2 mounting bracket

1 19" mounting bracket

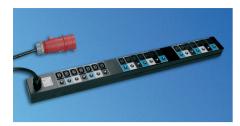
(additional with 19" installation option)
Operating instructions

L	S	n	F1	19"	Plug	Model	Order no.	UP
375		5	•	•	•	BladePower® PDU 1x 32 A	03.630.005.1	1 unit
740		15	•		•	BladePower® PDU 3x 32 A	03.630.015.1	🔰 1 unit
375		5	•	•		BladePower® PDU 1x 32 A	03.630.805.1	1 unit
740		15	•			BladePower® PDU 3x 32 A	03.630.815.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation. Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20158



DOS20159

## Knürr DI-STRIP® PizzaPower® Technical data

- Individually fused via thermal circuit breaker that can be reset in acc. with IEC 60934
- Cable: H05VV-F 5 G 4 mm<sup>2</sup>
- Cable: 4 m

#### Material/finish

Housing: sheet steel, zinc-passivated, powder-coated

#### Dimensions

Height: approx. 60 mm Housing width: 84 mm Height with cable: approx. 176 mm

#### Color

Housing: RAL 9005, black

#### Approvals

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CSA NRTL/C (only without plug)

#### Load rating

100-240 / 173-415 Vac Input: 1x32 A or 3x32 A Output: 10 A (C 13) Output: 16 A (C 19)

#### Supply schedule

Supply schedule

1 socket strip (PDU)

2 mounting bracket

1 19" mounting bracket

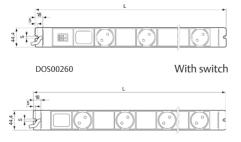
(additional with 19 installation option)

Operating instructions

L	S	n	F1	19"	Input values	Input plug	Outputs	IEC60320	Order no.	UP
							C 13	C 19		
400		7	•		230Vac, 32A	IEC60309 1ph/N/PE 6h	7		03.631.007.1	😉 1 unit
400		7	•		230Vac, 32A	Open end	7		03.631.807.1	1 unit
720		16	•		230Vac, 32A	IEC60309 1ph/N/PE 6h	12	4	03.631.124.1	1 unit
960		24	•		230Vac, 32A	IEC60309 1ph/N/PE 6h	24		03.631.240.1	1 unit
1017		25	•		230Vac, 32A	IEC60309 1ph/N/PE 6h	21	4	03.631.214.1	1 unit
933		21	•		230/400Vac, 32A	IEC60309 3ph/N/PE 6h	21		03.631.021.1	😉 1 unit
933		21	•		230/400Vac, 32A	Open end	21		03.631.821.1	1 unit
408		6	•		230/400Vac, 32A	IEC60309 3ph/N/PE 6h	6		03.631.006.1	1 unit
939		21	•		230/400Vac, 32A	IEC60309 3ph/N/PE 6h	9	12	03.631.912.1	1 unit
1362		36	•		230/400Vac, 32A	IEC60309 3ph/N/PE 6h	36		03.631.360.1	1 unit
1002		24	•		230/400Vac, 32A	IEC60309 3ph/N/PE 6h	18	6	03.631.186.1	1 unit



DOS00403



Without switch

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

DOS00261

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

Replace .x with the number of your color combination: .1 = RAL 7035, .6 = RAL 7035/RAL 2003

#### Knürr DI-STRIP® Classic Standard DIN 49 440

- Optionally with lit switch, 2-pole switching
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Optionally with Euro plug, IEC320 for UPS application

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94) Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 100 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme
- VDE

#### Color

RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting bracket

L S	n	F1	F2	19"	Safe	Model	Order no.	UP
1783	17	•					03.300.067.1	🚱 1 unit
1383	13	•					03.300.063.1	€ 1 unit
983	9	•					03.300.059.1	€ 1 unit
583	5	•					03.300.055.1	€ 1 unit
1733 •	16	•				With switch	03.302.066.1	1 unit
1333 •	12	•				With switch	03.302.062.1	€ 1 unit
933 •	8	•				With switch	03.302.058.1	€ 1 unit
533 •	4	•				With switch	03.302.054.1	1 unit



DOS00401

With switch



DOS00262

With switch



DOS20020

Without switch



DOS20021

With switch



DOS00263

Without switch

#### Knürr DI-STRIP® Compact Standard DIN 49 440

- Optionally with lit switch, 2-pole switching
- 19" installation option (with length 483 mm)
- 2 versions: Standard side panel or Design side panel
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug
- Optionally with Euro plug, IEC320 for UPS applications

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme
- VDE

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

**Load rating** 100-240 Vac/16 A

Supply schedule
1 socket strip

2 mounting bracket

883       15       •       03.300.015.x       •       1 unit         732       11       •       03.300.111.x       1 unit         683       11       •       03.300.011.x       •       1 unit         532       7       •       03.301.107.x       1 unit         483       7       •       03.300.007.x       •       1 unit         483       8       •       03.300.007.x       •       1 unit         382       4       •       03.301.104.x       1 unit         333       4       •       03.300.104.x       1 unit         883       14       •       With switch       03.302.014.x       1 unit         732       10       •       With switch       03.302.110.x       1 unit         532       6       •       •       With switch       03.302.106.x       1 unit         532       6       •       •       With switch       03.302.106.x       1 unit         483       7       •       •       With switch       03.302.006.x       1 unit         483       7       •       •       With switch       03.302.007.1       1 unit         483<	L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683       11       ●       03.300.011.x       € 1 unit         532       7       ●       03.301.107.x       1 unit         483       7       ●       03.300.007.x       € 1 unit         483       8       ●       03.300.008.1       € 1 unit         382       4       ●       03.301.104.x       1 unit         333       4       ●       03.300.004.x       € 1 unit         883       • 14       ●       With switch       03.302.014.x       € 1 unit         732       • 10       ●       With switch       03.302.110.x       1 unit         683       • 10       ●       With switch       03.302.010.x       € 1 unit         532       • 6       ●       • With switch       03.302.106.x       1 unit         532       • 6       • With switch       03.302.106.x       1 unit         483       • 6       • With switch       03.302.006.x       1 unit         483       7       • With switch       03.302.007.1       € 1 unit         382       3       • With switch       03.302.103.x       1 unit         382       3       • With switch       03.302.103.x       1 unit    <	883		15	•					03.300.015.x	🚱 1 unit
532         7         •         03.301.107.x         1 unit           532         7         •         03.300.107.x         1 unit           483         7         •         03.300.007.x         1 unit           483         8         •         03.300.008.1         1 unit           382         4         •         03.301.104.x         1 unit           333         4         •         03.300.104.x         1 unit           883         •         14         •         With switch         03.302.014.x         1 unit           732         •         10         •         With switch         03.302.110.x         1 unit           683         •         10         •         With switch         03.302.010.x         1 unit           532         •         6         •         With switch         03.302.106.x         1 unit           483         •         6         •         With switch         03.302.106.x         1 unit           483         7         •         With switch         03.302.006.x         1 unit           483         7         •         With switch         03.302.103.x         1 unit           382 <td>732</td> <td></td> <td>11</td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td>03.300.111.x</td> <td>1 unit</td>	732		11		•				03.300.111.x	1 unit
532       7       •       03.300.107.x       1 unit         483       7       •       03.300.007.x       1 unit         483       8       •       03.300.008.1       1 unit         382       4       •       03.301.104.x       1 unit         333       4       •       03.300.004.x       1 unit         883       •       14       •       With switch       03.302.014.x       1 unit         732       •       10       •       With switch       03.302.110.x       1 unit         683       •       10       •       With switch       03.302.010.x       1 unit         532       •       6       •       With switch       03.302.106.x       1 unit         483       •       6       •       With switch       03.302.006.x       1 unit         483       7       •       With switch       03.302.007.1       1 unit         382       3       •       With switch       03.302.103.x       1 unit         382       3       •       With switch       03.302.103.x       1 unit	683		11	•					03.300.011.x	😉 1 unit
483	532		7		•		•		03.301.107.x	1 unit
483 8	532		7		•				03.300.107.x	1 unit
382       4       •       03.301.104.x       1 unit         382       4       •       03.300.104.x       1 unit         333       4       •       03.300.004.x       1 unit         883       •       14       •       With switch       03.302.014.x       1 unit         732       •       10       •       With switch       03.302.110.x       1 unit         683       •       10       •       With switch       03.302.010.x       1 unit         532       •       6       •       With switch       03.303.106.x       1 unit         483       •       6       •       With switch       03.302.106.x       1 unit         483       7       •       With switch       03.302.006.x       1 unit         382       •       3       •       With switch       03.303.103.x       1 unit         382       •       3       •       With switch       03.302.103.x       1 unit	483		7	•		•			03.300.007.x	😉 1 unit
382       4       •       03.300.104.x       1 unit         333       4       •       03.300.004.x       1 unit         883       •       14       •       With switch       03.302.014.x       1 unit         732       •       10       •       With switch       03.302.110.x       1 unit         683       •       10       •       With switch       03.302.010.x       1 unit         532       •       6       •       With switch       03.303.106.x       1 unit         532       •       6       •       With switch       03.302.106.x       1 unit         483       •       6       •       With switch       03.302.006.x       1 unit         483       7       •       •       With switch       03.302.007.1       1 unit         382       •       3       •       With switch       03.302.103.x       1 unit         382       •       3       •       With switch       03.302.103.x       1 unit	483		8	•		•			03.300.008.1	🚱 1 unit
333	382		4		•		•		03.301.104.x	1 unit
883       14       With switch       03.302.014.x       1 unit         732       10       With switch       03.302.110.x       1 unit         683       10       With switch       03.302.010.x       1 unit         532       6       With switch       03.303.106.x       1 unit         532       6       With switch       03.302.106.x       1 unit         483       6       With switch       03.302.006.x       1 unit         483       7       With switch       03.302.007.1       1 unit         382       3       With switch       03.303.103.x       1 unit         382       3       With switch       03.302.103.x       1 unit	382		4		•				03.300.104.x	1 unit
732       • 10       • With switch       03.302.110.x       1 unit         683       • 10       • With switch       03.302.010.x       1 unit         532       • 6       • With switch       03.303.106.x       1 unit         532       • 6       • With switch       03.302.106.x       1 unit         483       • 6       • With switch       03.302.006.x       1 unit         483       7       • With switch       03.302.007.1       1 unit         382       • 3       • With switch       03.303.103.x       1 unit         382       • 3       • With switch       03.302.103.x       1 unit	333		4	•					03.300.004.x	😉 1 unit
683	883	•	14	•				With switch	03.302.014.x	😉 1 unit
532       6       •       With switch       03.303.106.x       1 unit         532       6       •       With switch       03.302.106.x       1 unit         483       6       •       With switch       03.302.006.x       1 unit         483       7       •       With switch       03.302.007.1       1 unit         382       •       3       •       With switch       03.303.103.x       1 unit         382       •       3       •       With switch       03.302.103.x       1 unit	732	•	10		•			With switch	03.302.110.x	1 unit
532       6       With switch       03.302.106.x       1 unit         483       6       With switch       03.302.006.x       1 unit         483       7       With switch       03.302.007.1       1 unit         382       3       With switch       03.303.103.x       1 unit         382       3       With switch       03.302.103.x       1 unit         382       3       With switch       03.302.103.x       1 unit	683	•	10	•				With switch	03.302.010.x	😉 1 unit
483       6       •       With switch       03.302.006.x       1 unit         483       7       •       With switch       03.302.007.1       1 unit         382       •       3       •       With switch       03.303.103.x       1 unit         382       •       3       •       With switch       03.302.103.x       1 unit	532	•	6		•		•	With switch	03.303.106.x	1 unit
483 7	532	•	6		•			With switch	03.302.106.x	😉 1 unit
382 ◆ 3 ◆ With switch 03.303.103.x 1 unit 382 ◆ 3 ◆ With switch 03.302.103.x 1 unit	483	•	6	•		•		With switch	03.302.006.x	😉 1 unit
382 • 3 • With switch <b>03.302.103.x</b> 1 unit	483		7	•		•		With switch	03.302.007.1	€ 1 unit
	382	•	3		•		•	With switch	03.303.103.x	1 unit
333 • 3 • With switch <b>03.302.003.x €</b> 1 unit	382	•	3		•			With switch	03.302.103.x	1 unit
	333	•	3	•				With switch	03.302.003.x	6 1 unit

#### **Knürr DI-STRIP® Compact UPS** Standard DIN 49 440 Outputs Order no. UP Input values Input plug Schuko CEE7/4 03.300.308.1 483 230Vac, 10A ICE60320 Sheet E 1 unit 8 483 8 230Vac, 16A ICE60320 Sheet I 03.300.408.1 1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20065

With fault current circuit breaker



With fault current circuit breaker DOS00264

#### **Knürr DI-STRIP® Protector FI** Standard DIN 49 440

#### Protector FI

RCCB for user protection

- Protection with indirect contact as error protection by switching off with inadmissible high contact voltage through contact with electrical equipment
- Protection with direct contact as back-up protection
- Residual operating current Ig = 10 mA for alternating and pulsating direct fault current
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), re-

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•					03.304.013.1	😉 1 unit
683		9	•					03.304.009.1	1 unit
483		5	•		•			03.304.005.1	😉 1 unit



DOS00692

With circuit breaker



DOS00264

With circuit breaker

#### **Knürr DI-STRIP® Protector LS** Standard DIN 49 440

#### Protector LS

- Circuit breaker for overload and short circuit
- Protects cables and feeds with rapid switching off with short circuit and defined delayed cutoff with overload
- Circuit breaker: 16 A
- Tripping characteristic, type B, 2-pole
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme
- VDE

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•					03.308.013.1	1 unit
683		9	•					03.308.009.1	😉 1 unit
483		5	•		•			03.308.005.1	😉 1 unit

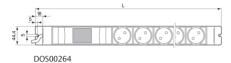
Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS00693



## Knürr DI-STRIP® Protector FI / LS Standard DIN 49 440

#### Protector FI / LS

- RCCB and circuit breaker
- Provides a combination of user, overload and short circuit protection
- Residual operating current Ig = 30 mA for alternating and pulsating direct fault current
- Circuit breaker: 16 A
- Tripping characteristic, type B, 2-pole
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: Closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

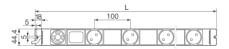
#### Supply schedule

1 socket strip 2 mounting bracket

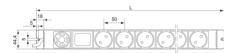
L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•					03.310.013.1	1 unit
683		9	•					03.310.009.1	😉 1 unit
483		5	•		•			03.310.005.1	🛃 1 unit



DOS20059



Classic with emergency stop switch DOS00486



Protector with emergency stop switch

## Knürr DI-STRIP® Protector Emergency STOP Standard DIN 49 440

- With 2-pole emergency stop switch for user protection
- For protecting operating personnel
- For manual emergency switching off of the connected consumers
- Phase and neutral conductors are safely separated
- Switch must be specifically unlocked to restart
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: Classic: 100 mm, Compact: 50

Height: 101 mm

Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme
- VDE

#### Color combinations

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683		10	•				Compact	03.326.010.1	1 unit
483		6	•		•		Compact	03.326.006.1	1 unit
1333		12	•				Classic	03.326.062.1	1 unit
933		8	•				Classic	03.326.058.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,



Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



#### DOS00456



DOS00488

#### Knürr DI-STRIP® Protector Emergency Stop FI /LS Standard DIN 49 440

- With 2-pole emergency stop switch for user protection
- For protecting operating personnel
- For manual emergency switching off of the connected consumers
- Phase and neutral conductors are safely separated
- Switch must be specifically unlocked to restart
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: Compact: 50 mm Height: 101 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combinations**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Additionally:

With 2-pole fault current switch and circuit

Provides a combination of user, overload and short circuit protection

#### Load rating

100-240Vac/16 A

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683		8	•					03.328.008.1	1 unit



#### DOS20061



DOS00266

#### Knürr DI-STRIP® Power Cleaner Standard DIN 49 440

- High-frequency glitches are generally caused by switching processes in an operation from 100 kHz to 5 MHz. This high-frequency rate overloads the mains frequency and affects adjacent electronic equipment. The mains filter attenuates this high-frequency rate.
- The attenuation behavior is harmonized with the typical interference spectrum.
- The mains filter works in both directions. This means that glitches from the equipment to the socket strip are also filtered from the mains.
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), re-

Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Technical data

Nominal voltage: max. 250 Vac, 50 Hz Nominal current: max. 16 A Filter in acc. with VDE 0565-3 (EN 60939-1)

#### Supply schedule

1 socket strip 2 mounting bracket

2 19" mounting bracket (additional with 19" installation option)

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging, 😉 = Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•					03.312.013.x	1 unit
683		9	•					03.312.009.x	1 unit
483		5	•		•			03.312.005.x 🦞	1 unit



DOS20068

With overvoltage protection



DOS00306

With overvoltage protection



DOS00270

With overvoltage protection

## Knürr DI-STRIP® Safety Basic Standard DIN 49 440

- For protecting against transient overvoltages from the mains, which, for example, are caused by switching machines on and off.
- With critical overvoltages the mains is separated.
- Once the safety arrester has been triggered the green function display goes out. The socket strip can then no longer be used.

Send the socket strip to the manufacturer for the safety arrester to be replaced!

The safety effect of the type 3 test category and requirements category "D" is to protect the equipment, i.e. precision protection.

The protection devices of the test and requirements categories 1 and 2 and B and C must be preconnected in the building installation to ensure optimum protection.

- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Technical data

Test category: Type 3

- In acc. with DIN EN 61643-11
- Requirements class: D
- In acc. with VDE 0675-6

Mains voltage: 230 VAC Nominal current: max. 16 A

Cut-off discharge current (8/20 µs): 10 kA

Response time: < 25 ns Protection level

(with 100 A varistor peak current):

- L with respect to N: < 800 V
- L/N with respect to PE: < 1500 V

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
732		10		•				03.316.110.1	1 unit
683		10	•					03.316.010.x	😉 1 unit
532		6		•		•		03.317.106.1	1 unit
532		6		•				03.316.106.1	1 unit
483		6	•		•			03.316.006.x	🚱 1 unit
432		4		•		•		03.317.104.1	1 unit
432		4		•				03.316.104.1	1 unit
383		4	•					03.316.004.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20069

With overvoltage protection and mains filter



DOS00307

With overvoltage protection and mains filter



DOS00271

#### **Knürr DI-STRIP® Safety Standard** Standard DIN 49 440

- The "Safety Standard" models consist of a combined overvoltage (surge) protection/mains filter element.
- For protecting against transient overvoltages from the mains, which, for example, are caused by switching machines on and off.
- With critical overvoltages the mains is separated.
- Once the safety arrester has been triggered the green function display goes out. The socket strip can then no longer be used. Send the socket strip to the manufacturer for the safety arrester to be replaced!
- The safety effect of the type 3 test category and requirements category "D" is to protect the equipment, i.e. precision protection. The protection devices of the test and requirements categories 1 and 2 and B and C must be preconnected in the building installation to ensure optimum protection.
- High-frequency glitches are generally caused by switching processes in an operation from 100 kHz to 5 MHz.
- This high-frequency rate overloads the mains frequency and affects adjacent electronic equipment. The mains filter attenuates this highfrequency rate.
- The attenuation behavior is harmonized with the typical interference spectrum.
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: HO5VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Technical data

Mains voltage: 230 VAC Nominal current: max. 16 A Cut-off discharge current (8/20 µs): 10 kA Response time: < 25 ns Protection level (with 100 A varistor peak current):

- L with respect to N: < 800 V
- L/N with respect to PE: < 1500 V Overvoltage protection
- Test category: Type 3 in acc. with DIN EN61643-11
- Feature class: D
- In acc. with VDE 0675-6

Mains filter

- In acc. with VDE 0565 (EN 60939)

#### Supply schedule

1 socket strip

2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883	•	13	•				With switch	03.318.013.x	1 unit
732	•	9		•		•	With switch	03.319.109.x	1 unit
732	•	9		•			With switch	03.318.109.x	1 unit
683	•	9	•				With switch	03.318.009.x 🎉	1 unit
532	•	5		•		•	With switch	03.319.105.x	1 unit
532	•	5		•			With switch	03.318.105.x	1 unit
483	•	5	•		•		With switch	03.318.005.x 🎉	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20070

With master-slave module



DOS00268

With master-slave module

#### Knürr DI-STRIP® Master-Slave Standard DIN 49 440

 If the master equipment is switched, the slave sockets are also switched (together, with a short delay to the master). This means convenient switching on and off of several hard to access devices. Switching thresholds can be set from outside via potentiometer.

Note:

- The master equipment power consumption must be continuously above the switching-on threshold. When switching off the master consumer, the power consumption must fall below the switch-off threshold.
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

Max. 250 Vac/16 A

#### Technical data

Switching threshold setting range On: 20 mA - 200 mA (approx. 55 mA delivery status) Off: 16 mA - 160 mA (approx. 44 mA delivery status) Switching delay: 550 ms +/- 20 % Electronic module: 2-pole switching

Liectronic module. 2-pois

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683		9	•					03.314.009.1	1 unit
483		5	•		•			03.314.005.1	😉 1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS00325

With master-slave overvoltage protection and mains filter



DOS00272



DOS00273

With master-slave overvoltage protection and mains filter

#### **Knürr DI-STRIP® Combi** Standard DIN 49 440

- Master-slave with overvoltage protection and mains filter
- Automatic consumer switching
- Combines Master-Slave (page 7.16) and Safety Standard (page 7.15) functions
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Technical data

Overvoltage protection and mains filter: Mains voltage: max. 250 Vac Nominal current: 16 A Requirements class: D (precision protection in acc. with VDE 0675) Protection level (8/20 µs wave): Max. 10 kA Protection level (1.5/50 μs wave): < 1500 V (L + N against PE) Master-slave function: Switching threshold setting range

On: 20 mA - 200 mA (approx. 55 mA delivery status)

Off: 16 mA - 160 mA (approx. 44 mA delivery status)

Switching delay: 550 ms +/- 20 % Electronic module: 2-pole switching

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
782		9		•				03.320.109.1	1 unit
733		9	•					03.320.009.1	1 unit
582		5		•		•		03.321.105.1	1 unit
582		5		•				03.320.105.1	1 unit
533		5	•					03.320.005.1	😉 1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

With switch

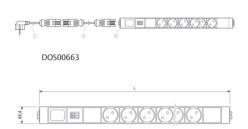
Without switch

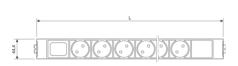


DOS20060

DOS20045

DOS20046





## Standard DIN 49 440

- Quick and efficient plug connection system
- Plug-in electro-installation in place of conventional wiring
- Speed:
- With easy pre-configured element plugging together
- Flexibility:
- With cable (cable length)
- Rational:
- Easy exchange of socket strips, without extensive cabling
- Safety:
- Faulty installations are ruled out with plug system
- Space-saving:
- Use of protection and switching functions can be extended with further cabling without and plug space loss (max. load rating 16 A)

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Knürr DI-STRIP® GST18 Plug System (Wieland) Compact

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme
- VDE

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
583	•	6	•				With switch	03.302.206.1	1 unit
433	•	3	•				With switch	03.302.203.1	1 unit
533		7	•					03.300.207.1	
383		4	•					03.300.204.1	😉 1 unit



DOS20072

## Knürr DI-STRIP® Safety Basic with GST18 plug system

- With overvoltage protection
- Technical description, see page 2.34

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
433		4						03.316.204.1	1 unit



DOS20073

## Knürr DI-STRIP® Safety Standard with GST18 plug system

- With overvoltage (surge) protection, with integrated mains filter and lit switch
- Technical description, see page 2.35

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
583		5						03.318.205.1	1 unit



with GST18 plug system

Knürr DI-STRIP® Master Slave

- Technical description, see page 2.36

I	L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
	533		5						03.314.205.1	1 unit



DOS20112



DOS20107



DOS20106 Output for further cabling

#### Knürr DI-STRIP® Euro Plug System, IEC 320 with GST18 plug system

- With 3-way Euro combinations of IEC 320 sockets
- Without fusing

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Socket spacing: 24 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS

Input

- CSA NRTL/C
- CB-scheme

Color
Housing: RAL 7
DI D.

035 light gray Plastic parts: RAL 7021 dark gray

## Load rating

100-240 Vac/10 A

#### Approval symbols for IEC 320 3-way Euro combinations VDE. UR. CSA

Supply schedule 1 socket strip

2 mounting bracket

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
383		6	•					03.600.206.1	1 unit



DOS20110

### Knürr DI-STRIP® Safety Basic Euro Socket System IEC 320 with GST18 plug system

- With overvoltage protection
- Technical description, see page 2.34

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
483		6						03.616.206.1	1 unit



DOS20109

## Knürr DI-STRIP® Safety Standard with GST18 Plug System

- With overvoltage (surge) protection with integrated mains filter
- Technical description, see page 2.35

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
483		6						03.618.206.1	1 unit



DOS20108

#### **Knürr DI-STRIP® Power Cleaner** with GST18 plug system

- Technical description, see page 2.33

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
483		6						03.612.206.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,



Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

#### 1 DOS20147

**3** DOS20142

# **3-phase in rack with GST18** Strong points



2 DOS20132



#### Requirement

Constantly increasing energy requirements in the rack caused by high packing densities (e.g. 1 U Pizza Servers, Blade Servers, etc.)

#### Solution

3-phase distributor with GST18 plug system, e.g. 96 A and more with redundant feed

#### Benefits

- Modularity
- Plug-in (no wiring required)
- Expandability
- Cascadability
- Easy provision of redundancies/UPS secured circuits
- Combination of DIN Schuko and IEC320, for example
- Installation position freely selectable
- Good alternative for 3-phase DI-STRIP Triple Power (see page 156)





- 5-pole (L1, L2, L3, N, PE) 250/400 V ~

- Cable: HO5VV-F 5G 2.5 mm<sup>2</sup>



Color

Black

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
2000	0							04.000.048.0	1 unit



DOS20104

DOS20103

## GST18i5 Distributor Block, 3-phase

- For individual connection at the customer
- Modular plug-in connection
- 3 phase distribution on various socket strips
- Including mounting panel

L S n F1 F2 19" Safe Model Order no. UP 04.000.038.9 1 unit





#### **Power Supply Cable, 1-Phase** Accessories for GST 18 plug system

- Mains plug CEE/VII - GST18 socket (Wieland) - Cable - H05VV-F3G 1.5 mm²

Color White

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
2000								04.000.040.0	1 unit
5000								04.000.041.0	1 unit

DOS00467



DOS00469



DOS20105

#### **Connection Cable** Accessories for GST 18 plug system

- GST 18 plug - GST 18 socket

- Cable - H05VV-F3G 1.5 mm<sup>2</sup>

Color

For color coding circuits (e.g. UPS)

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
200							White	04.000.042.0	1 unit
200							Black	04.000.042.9	1 unit
500							White	04.000.037.0	1 unit
500							Black	04.000.037.9	1 unit
1000							White	04.000.044.0	1 unit
1000							Black	04.000.044.9	1 unit
5000							White	04.000.045.0	1 unit



DOS00471

#### **GST18 Socket Part** Color - With screw terminal for cross-section White 1.5-2.5 mm<sup>2</sup> with cable strain relief - For individual connection at the customer

04.000.046.0



DOS00470

## **GST18 Plug Part**

- With screw terminal for cross-section 1.5-2.5 mm<sup>2</sup> with cable strain relief

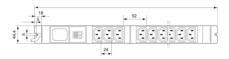
- For individual, further cabling at the customer

Color White

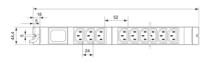
L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
								04.000.047.0	1 unit



DOS20062



DOS00498



DOS20042

## Knürr DI-STRIP® Euro Plug System, IEC 320 mit Winkelstecker

- Optionally with lit switch, 2-pole switching 19" installation option
- With Euro combinations of IEC 320 sockets C 13 and C 19
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Cable: 2.5 m
- Without fusing

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color

Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

#### Load rating

250 Vac/10 A, C 13 250 Vac/16 A, C 19

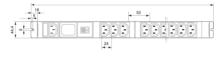
# Approval symbols for IEC 320 3-way Euro combinations VDE, UR, CSA

#### Supply schedule

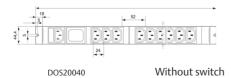
1 socket strip 2 mounting bracket

L	S	n	F1	19"	Input values	Input plug	Outpu C 13	ts C 19	Order no.	UP
333		6	•		230Vac, 16A	Schuko CEE7	6		03.600.006.1	😉 1 unit
483	•	9	•	•	230Vac, 16A	Schuko CEE7	9		03.602.009.1	🚱 1 unit
483		12	•	•	230Vac, 10A	IEC60320 Sheet E	12		03.600.312.1	1 unit
783		18	•		230Vac, 16A	IEC60320 Sheet I	15	3	03.600.418.1	1 unit
783		18	•		230Vac, 16A	IEC60309 1ph/N/PE 6h	15	3	03.600.518.1	1 unit

#### DOS00458



DOS20041 With switch



Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

Replace .x with the number of your color combination: .1 = RAL 7035, .6 = RAL 7035/RAL 2003

# Knürr DI-STRIP® Euro Plug System, IEC 320 Euro input in plug panel

- With fine-wire fuse 10A
- Optionally with lit switch, 2-pole switching
- 19" installation option
- With 3-way Euro combinations of IEC 320sockets

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Socket spacing: 24 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

- GS
- CSA NRTL/C
- CB-scheme

#### Color

Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

#### Load rating

100-240 Vac Input: (DC max. 10 A) Output: (DC max. 10 A)

## Approval symbols for IEC 320 3-way Euro combinations

VDE, UR, CSA

#### Supply schedule

1 socket strip 2 mounting bracket

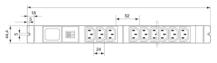
L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
383		6	•					03.622.006.1	😉 1 unit
483		9	•		•			03.622.009.1	😉 1 unit
433	•	6	•				With switch	03.624.006.1	1 unit



DOS00460



DOS00461



DOS20043 With switch

## Knürr DI-STRIP® Euro Plug System, IEC 320 Euro input on side panel

- With fine-wire fuse 10A
- Optionally with lit switch, 2-pole switching
- 19" installation option
- With 3-way Euro combinations of IEC 320sockets

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Socket spacing: 24 mm Height: 45.5 mm

Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CSA NRTL/C
- CB-scheme

#### Color

Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

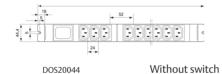
Load rating
100-240 Vac
Input: (DC max. 10 A)
Output: (DC max. 10 A)

## Approval symbols for IEC 320 3-way Euro combinations

VDE, UR, CSA

#### Supply schedule

1 socket strip 2 mounting bracket



L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
333		6	•					03.622.706.1	1 unit
433		9	•					03.622.709.1	😉 1 unit
383	•	6	•				With switch	03.624.706.1	1 unit
483	•	9	•				With switch	03.624.709.1	1 unit



DOS20102

## Knürr DI-STRIP® Euro Plug System, IEC 320 with cable and right angle plug

- With thermal overload protection, 10 A (can be reset)
- With lit switch, 1-pole switching
- 19" installation option
- With 2 5-way Euro combinations of IEC 320 sockets
- Cable: H05VV-F 3G 2.5 mm<sup>2</sup>
- Cable: approx. 5 m
- Molded right angle plug, CEE7/VII, optional blue 16 A-6h (2P+PE) CEE17 plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

#### Dimensions

Socket spacing: 24 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Colo

Housing: RAL 7035 light gray Plastic parts: RAL 7021 dark gray

#### Load rating

250 Vac/10 A

## Approval symbols for IEC 320 5-way Euro combinations

UR, CSA, VDE

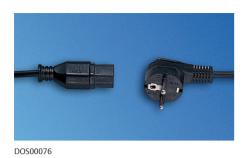
#### Supply schedule

1 socket strip 2 mounting bracket

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-Safe, U = Standard height unit, UP = Unit of packaging, Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
483	•	10	•		•		With switch	03.632.010.1	1 unit



# Mains cable for Euro socket strip For DIN 49 440 and French/Belgian standard

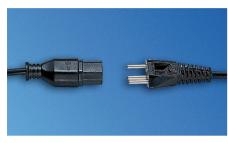
- Mains plug CEE/VII - Euro socket IEC 320

- Cable - H05VV-F 3G 1 mm<sup>2</sup>

Mains voltage 250 VAC

Nominal current

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
200	0							04.000.054.9	1 unit
600	0							04.000.053.9	1 unit



DOS00077

## Netzkabel für Kaltgeräte-Steckdosenleiste für Schweizer Standard

- Mains plug: Type 12 - Euro socket IEC320 - Cable - H05VV-F 3G 1 mm²

Mains voltage 250 VAC

Nominal current

L	2	n	FI	F2	19"	Sare	Model	Order no.	UP
2000								04.000.055.9	1 unit



DOS00078

#### Mains cable for Euro socket strip For British standard

- Mains plug: Type BS 1363 - Euro socket IEC 320 - Cable - H05VV-F 3G 1  $\mbox{mm}^2$ 

Mains voltage 250 VAC

Nominal current

ı	. S	n	F1	F2	19"	Safe	Model	Order no.	UP
-	2000							04.000.056.9	1 unit



DOS00519

#### **Euro Connection Cable**

- Mains plug: IEC 320 Euro socket IEC320
- Cable H05VV-F 3G 1 mm<sup>2</sup>
- USA: SJT AWG18 with USA approval

Mains voltage 250 VAC

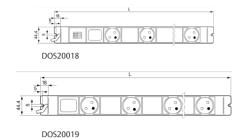
> **Nominal current** 10 A

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
900							EU	04.000.051.9	1 unit
900							USA	04.000.052.9	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



## Knürr DI-STRIP® Classic Standard CEE 7-V (UTE) / France

- Optionally with lit switch, 2-pole switching
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: Closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 100 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

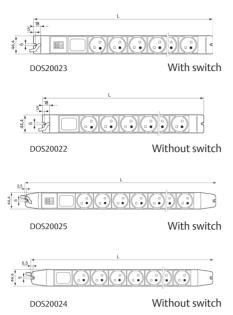
#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
1783		17	•			•		03.400.067.x	1 unit
1383		13	•			•		03.400.063.x	1 unit
983		9	•			•		03.400.059.x	1 unit
583		5	•			•		03.400.055.x	1 unit
1733	•	16	•			•	With switch	03.402.066.x	1 unit
1333	•	12	•			•	With switch	03.402.062.x	1 unit
933	•	8	•			•	With switch	03.402.058.x	1 unit
533	•	4	•			•	With switch	03.402.054.x	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-Safe, U = Standard height unit, UP = Unit of packaging, E2 = Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



#### Knürr DI-STRIP® Compact Standard CEE 7-V (UTE) / France

- Optionally with lit switch, 2-pole switching
- 19" installation option (with length 483 mm)
- 2 versions: Standard side panel or Design side panel
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

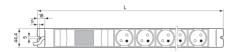
1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		15	•			•		03.400.015.x	1 unit
732		11		•		•		03.400.111.x	1 unit
683		11	•			•		03.400.011.x	1 unit
532		7		•		•		03.400.107.x	1 unit
483		7	•		•	•		03.400.007.x	😉 1 unit
382		4		•		•		03.400.104.x	1 unit
333		4	•			•		03.400.004.x	1 unit
883	•	14	•			•	With switch	03.402.014.x	1 unit
732	•	10		•		•	With switch	03.402.110.x	1 unit
683	•	10	•			•	With switch	03.402.010.x	😉 1 unit
532	•	6		•		•	With switch	03.402.106.x	1 unit
483	•	6	•		•	•	With switch	03.402.006.x	😉 1 unit
382	•	3		•		•	With switch	03.402.103.x	1 unit
333	•	3	•			•	With switch	03.402.003.x	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20026

#### **Knürr DI-STRIP® Protector FI** Standard CEE 7-V (UTE) / France

#### Protector FI

RCCB for user protection

- Protection with indirect contact as error protection by switching off with inadmissible high contact voltage through contact with electrical equipment
- Protection with direct contact as back-up protection
- Residual operating current Iq = 10 mA for alternating and pulsating direct fault current
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•			•		03.404.013.1	1 unit
683		9	•			•		03.404.009.1	1 unit
483		5	•		•	•		03.404.005.1	1 unit



DOS20026

## **Knürr DI-STRIP® Protector LS** Standard CEE 7-V (UTE) / France

#### Protector LS

- Circuit breaker for overload and short circuit
- Protects cables and feeds with rapid switching off with short circuit and defined delayed cutoff with overload
- Circuit breaker: 16 A
- Tripping characteristic, type B, 2-pole
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

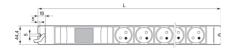
#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
88	33	13	•			•		03.408.013.1	1 unit
68	33	9	•			•		03.408.009.1	1 unit
48	33	5	•		•	•		03.408.005.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging, 😉 = Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS 20026

## Knürr DI-STRIP® Protector FI / LS Standard CEE 7-V (UTE) / France

#### Protector FI / LS

- RCCB and circuit breaker
- Provides a combination of user, overload and short circuit protection
- Residual operating current Ig = 30 mA for alternating and pulsating direct fault current
- Circuit breaker: 16 A
- Tripping characteristic, type B, 2-pole
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: Closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

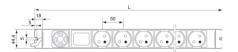
100-240 Vac/16 A

#### Supply schedule

1 socket strip
2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•			•		03.410.013.1	1 unit
683		9	•			•		03.410.009.1	1 unit
483		5	•		•	•		03.410.005.1	1 unit

DOS20027 Classic with emergency stop switch



DOS20028

Compact with emergency stop switch

## Knürr DI-STRIP® Protector Emergency STOP Standard CEE 7-V (UTE) / France

- With 2-pole emergency stop switch for user protection
- For protecting operating personnel
- For manual emergency switching off of the connected consumers
- Phase and neutral conductors are safely separated
- Switch must be specifically unlocked to restart
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: Classic: 100 mm, Compact: 50 mm Height: 101 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combinations

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/16 A

#### Supply schedule

1 socket strip

2 mounting brackets

2 19" mounting bracket (additional with 19" installation option)

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683	3	10	•			•	Compact	03.426.010.1	1 unit
483	3	6	•		•	•	Compact	03.426.006.1	1 unit
133	3	12	•			•	Classic	03.426.062.1	1 unit
933	3	8	•			•	Classic	03.426.058.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,



Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



With emergency Off switch DOS20029 and FI-/ LS circuit breaker

#### Knürr DI-STRIP® Protector Emergency Stop FI /LS Standard CEE 7-V (UTE) / France

- With 2-pole emergency stop switch for user protection
- For protecting operating personnel
- For manual emergency switching off of the connected consumers
- Phase and neutral conductors are safely separated
- Switch must be specifically unlocked to restart
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recvclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: Compact: 50 mm Height: 101 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combinations**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Additionally:

With 2-pole fault current switch and circuit breaker Provides a combination of user, overload and short circuit protection

#### Load rating

100-240Vac/16 A

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683		8	•			•		03.428.008.1	1 unit

# 

DOS20030

With mains filter

#### **Knürr DI-STRIP® Power Cleaner** Standard CEE 7-V (UTE) / France

- High-frequency glitches are generally caused by switching processes in an operation from 100 kHz to 5 MHz. This high-frequency rate overloads the mains frequency and affects adjacent electronic equipment. The mains filter attenuates this high-frequency rate.
- The attenuation behavior is harmonized with the typical interference spectrum.
- The mains filter works in both directions. This means that glitches from the equipment to the socket strip are also filtered from the mains.
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), re-

Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 45.5 mm

Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Load rating

Nominal voltage: max. 250 Vac, 50 Hz Nominal current: max. 16 A

#### Supply schedule

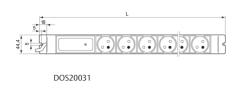
1 socket strip 2 mounting brackets

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound Replace .x with the number of your color combination: .1 = RAL 7035, .6 = RAL 7035/RAL 2003

😉 = Express item

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		13	•			•		03.412.013.x	1 unit
683		9	•			•		03.412.009.x	1 unit
483		5	•		•	•		03.412.005.x	1 unit





DOS20032

#### **Knürr DI-STRIP® Safety Basic** Standard CEE 7-V (UTE) / France

- For protecting against transient overvoltages from the mains, which, for example, are caused by switching machines on and off.
- With critical overvoltages the mains is separated.
- Once the safety arrester has been triggered the green function display goes out. The socket strip can then no longer be used. Send the socket strip to the manufacturer for the safety arrester to be replaced!

The safety effect of the type 3 test category and requirements category "D" is to protect the equipment, i.e. precision protection. The protection devices of the test and requirements categories 1 and 2 and B and C must be preconnected in the building installation to ensure optimum protection.

- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- · CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color

Final digit of order number .1: RAL 7035 light gray

#### Technical data

Test category: Type 3 - In acc. with DIN EN 61643-11 Requirements class: D - In acc. with VDE 0675-6 Mains voltage: 230 VAC Nominal current: max. 16 A Cut-off discharge current (8/20 µs): 10 kA Response time: < 25 ns Protection level (with 100 A varistor peak current): - L with respect to N: < 800 V

- L/N with respect to PE: < 1500 V

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
732		10		•		•		03.416.110.1	1 unit
683		10	•			•		03.416.010.1	1 unit
532		6		•		•		03.416.106.1	1 unit
483		6	•		•	•		03.416.006.1	1 unit
432		4		•		•		03.416.104.1	1 unit
383		4	•			•		03.416.004.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20033 With overvoltage protection and mains filter



DOS20034 With overvoltage protection and mains filter

## Knürr DI-STRIP® Safety Standard Standard CEE 7-V (UTE) / France

- The "Safety Standard" models consist of a combined overvoltage protection/mains filter element.
- For protecting against transient overvoltages from the mains, which, for example, are caused by switching machines on and off.
- With critical overvoltages the mains is separated.
- Once the safety arrester has been triggered the green function display goes out. The socket strip can then no longer be used. Send the socket strip to the manufacturer for the safety arrester to be replaced!
- The safety effect of the type 3 test category and requirements category "D" is to protect the equipment, i.e. precision protection.
  The protection devices of the test and requirements categories 1 and 2 and B and C must be preconnected in the building installation to ensure optimum protection.
- High-frequency glitches are generally caused by switching processes in an operation from 100 kHz to 5 MHz.
- This high-frequency rate overloads the mains frequency and affects adjacent electronic equipment. The mains filter attenuates this highfrequency rate.
- The attenuation behavior is harmonized with the typical interference spectrum.
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: HO5VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

#### Technical data

Mains voltage: 230 VAC
Nominal current: max. 16 A
Cut-off discharge current (8/20 μs): 10 kA
Response time: <25 ns
Protection level
(with 100 A varistor peak current):

- L with respect to N: < 800 V
- L/N with respect to PE: < 1500 V Overvoltage protection Requirements class: D
- In acc. with VDE 0675-6 Mains filter
- In acc. with VDE 0565 (EN 60939)

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883	•	13	•			•	With switch	03.418.013.x	1 unit
732	•	9		•		•	With switch	03.418.109.x	1 unit
683	•	9	•			•	With switch	03.418.009.x	1 unit
532	•	5		•		•	With switch	03.418.105.x	1 unit
483	•	5	•		•	•	With switch	03.418.005.x	€ 1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

E = Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20035 With master-slave module

## Knürr DI-STRIP® Master-Slave Standard CEE 7-V (UTE) / France

 If the master equipment is switched, the slave sockets are also switched (together, with a short delay to the master). This means convenient switching on and off of several hard to access devices. Switching thresholds can be set from outside via potentiometer.

- Note:

- The master equipment power consumption must be continuously above the switching-on threshold. When switching off the master consumer, the power consumption must fall below the switch-off threshold.
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

Max. 250 Vac/16 A

#### Technical data

Switching threshold setting range
On: 20 mA - 200 mA (approx. 55 mA delivery status)
Off: 16 mA - 160 mA (approx. 44 mA delivery status)
Switching delay: 550 ms +/- 20 %
Electronic module: 2-pole switching

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683		9	•			•		03.414.009.1	1 unit
483		5	•		•	•		03.414.005.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe - Child-safe, U = Standard height unit, UP = Unit of packaging, = Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



DOS20037 Master-slave, overvoltage protection and mains filter



DOS20036 Master-slave, overvoltage protection and mains filter

#### Knürr DI-STRIP® Combi Standard CEE 7-V (UTE) / France

- Master-slave with overvoltage protection and mains filter
- Automatic consumer switching
- Combines Master-Slave (page 7.32) and Safety Standard (page 7.31) functions
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Technical data

Overvoltage protection and mains filter: Mains voltage: max. 250 Vac Nominal current: 16 A Requirements class: D (precision protection in acc. with VDE 0675)

Protection level (8/20  $\mu$ s wave):

Max. 10 kA

Protection level (1.5/50  $\mu s$  wave): < 1500 V (L + N against PE)

Master-slave function:

Switching threshold setting range

On: 20 mA - 200 mA (approx. 55 mA delivery status)

Off: 16 mA - 160 mA (approx. 44 mA delivery status)

Switching delay: 550 ms +/- 20 % Electronic module: 2-pole switching

#### Supply schedule

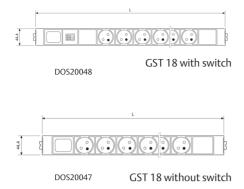
1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
782		9		•		•		03.420.109.1	1 unit
733		9	•			•		03.420.009.1	1 unit
582		5		•		•		03.420.105.1	1 unit
533		5	•			•		03.420.005.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

= Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



## Knürr DI-STRIP® Compact GST 18 Plug System (Wieland) Standard CEE 7-V (UTE) / France

- Quick and efficient plug connection system
- Plug-in electro-installation in place of conventional wiring
- Speed:
- With easy pre-configured element plugging together
- Flexibility:
- With cable (cable length)
- Rational:
- Easy exchange of socket strips, without extensive cabling
- Safety:
- Faulty installations are ruled out with plug system
- Space-saving:
- Use of protection and switching functions can be extended with further cabling without and plug space loss (max. load rating 16 A)

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable

Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U)

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

## **Load rating** 100-240 Vac/16 A

#### Supply schedule

1 socket strip 2 mounting brackets

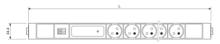
L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
583	•	6	•			•	With switch	03.402.206.1	1 unit
433	•	3	•			•	With switch	03.402.203.1	1 unit
533		7	•			•		03.400.207.1	1 unit
383		4	•			•		03.400.204.1	1 unit



# Knürr DI-STRIP® Safety Basic with GST18 plug system / France

- With overvoltage (surge) protection
- Technical description, see page 2.50

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
433		4				•		03.416.204.1	1 unit



#### DOS20052

## Knürr DI-STRIP® Safety Standard with GST18 plug system

- With overvoltage protection, with integrated mains filter and lit switch
- Technical description, see page 2.51

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
583		5				•		03.418.205.1	1 unit



## Knürr DI-STRIP® Master Slave with GST18 plug system

- Technical description, see page 2.52

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
533		5				•		03.414.205.1	1 unit



#### DOS00717



DOS00664

Classic with switch



DOS00665

Classic without switch

## Knürr DI-STRIP® Classic Standard CH SEV 1011

- With/without switch, socket spacing, 100 mm
- Optionally with lit switch, 2-pole switching
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 100 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Final digit of order number .6: Housing: RAL 2003 pastel orange Plastic parts: RAL 7035 light gray

## Load rating

100-240 Vac/10 A

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
1783		17	•					03.700.067.x	1 unit
1383		13	•					03.700.063.x	1 unit
983		9	•					03.700.059.x	1 unit
583		5	•					03.700.055.x	1 unit
1733	•	16	•				With switch	03.702.066.x	1 unit
1333	•	12	•				With switch	03.702.062.x	1 unit
933	•	8	•				With switch	03.702.058.x	1 unit
533	•	4	•				With switch	03.702.054.x	1 unit



#### DOS20074



DOS00666



DOS20038





DOS00667

#### **Knürr DI-STRIP® Compact Standard CH SEV 1011**

- Optionally with lit switch, 2-pole switching 19" installation option (with length 483 mm)
- 2 models, standard side or design side
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/10 A

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
883		15	•					03.700.015.1	1 unit
732		11		•				03.700.111.1	1 unit
683		11	•					03.700.011.1	1 unit
532		7		•				03.700.107.1	1 unit
483		7	•		•			03.700.007.1	😉 1 unit
382		4		•				03.700.104.1	1 unit
333		4	•					03.700.004.1	1 unit
732	•	10		•			With switch	03.702.110.1	1 unit
683	•	10	•				With switch	03.702.010.1	1 unit
532	•	6		•			With switch	03.702.106.1	1 unit
483	•	6	•		•		With switch	03.702.006.1	1 unit
382	•	3		•			With switch	03.702.103.1	1 unit
333	•	3	•				With switch	03.702.003.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound



#### DOS00719



DOSOO668

#### **Knürr DI-STRIP® Protector FI/LS** Standard CH SEV 1011

#### Protector FI / LS

- RCCB and circuit breaker
- Provides a combination of user, overload and short circuit protection
- Residual operating current Ig = 30 mA for alternating and pulsating direct fault current
- Circuit breaker: 10 A
- Tripping characteristic, type B, 2-pole
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded right angle plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), re-

Internal conductor: full-length busbar, brass

#### **Dimensions**

Socket spacing: 50 mm Height: 78 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS
- CB-scheme

#### **Color combination**

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Load rating

100-240 Vac/10 A

#### Supply schedule

1 socket strip 2 mounting brackets

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683		9	•					03.710.009.1	1 unit
483		5	•		•			03.710.005.1	1 unit



#### DOS00720



DOS00669

With overvoltage protection and mains filter

#### Knürr DI-STRIP® Safety Standard **Standard CH SEV 1011**

- With overvoltage protection and integrated mains filter
- With lit switch, 2-pole switching
- 19" installation option (with length 483 mm)
- Socket rotation: 45°
- Cable: H05VV-F 3G 1.5 mm<sup>2</sup>
- Molded plug

#### Material/finish

Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture Plastic parts: Vampamid 6 0024 VO (UL94), recyclable Internal conductor: full-length busbar, brass

#### Dimensions

Socket spacing: 50 mm Height: 45.5 mm Housing width: 44.4 mm (= 1 U) Cable 2.5 mm

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- -GS
- CB-scheme

#### Color combination

Final digit of order number .1: RAL 7035 light gray Plastic parts: RAL 7035 light gray

#### Description and technical data

(See page 165) Nominal current: 10 A

#### Supply schedule

1 socket strip

2 mounting brackets

2 19" mounting brackets (additional with 19" installation option)

L	S	n	F1	F2	19"	Safe	Model	Order no.	UP
683	•	9	•				With switch	03.718.009.1	1 unit
483	•	5	•		•		With switch	03.718.005.1	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19"= Suitable for 19" installation, Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound

# Inline Metering System (IMS) – Optimum upgrade solution for existing installations

Knürr DI-STRIP IMS

Liebert MPX IMS

Monitoring is already part of the everyday routine in most data centers when it comes to system availability. For this reason you decide with new systems for socket strips/ PDUs with integrated monitoring (Managed PDUs or Adaptive PDUs). But what do you do with existing systems in which socket strips/PDUs are usually installed without measuring functions?

Emerson Network Power's solution for this is called IMS (Inline Metering System). These modules allow existing racks with installed basic power distributors to be upgraded accordingly. As almost all server racks are supplied with an A and a B-feed, later installation is possible without interruption. The IMS modules can also be installed space-savingly inside or outside the rack, e.g. in the shelf. The Inline Metering Systems (IMS) are divided into three different product groups, with different features.

## Emerson Network Power Inline Metering Systems (IMS) benefits:

- Existing rack PDUs do not have to be swapped out, as the modules
- All consumers (where possible) can be integrated into the monitoring system, as numerous plug systems are provided (1ph – 3ph, max. 63A per phase).
- Flexible installation inside or outside the rack (e.g. in raised floor).

## **Inline Metering System (IMS)**

#### IMS model series overview:



#### **Features:**

- Fast installation and easy data recording with graphic and numerical power consumption overview; can be retrieved via web interface.
- The power value can be read directly on the rack, as a local display is installed in every module.
- An N-conductor overload with 3-phase systems can be prevented, as the phase symmetry is monitored.
- Alarm signal when incidents occur, as the threshold values (phase symmetry, bottom limit, pre-warning and alarm) can be set flexibly.

#### **Features:**

- Liebert Rack PDUs familiar software interface, as the same communication card as with Liebert MPX/MPH is used.
- Highest possible safety, security and availability with an operating temperature of max. 55°C.
- Extensive measurement functions (power, current, voltage and energy), with higher measurement accuracy of up to +-1%.
- An N-conductor overload with 3-phase systems can be prevented, as the N-conductor current is monitored.
- Easy connection to the network with only 1 IP address of up to 4 Liebert MPX IMS / MPH / MPX.
- External sensors and a display can also be connected.



#### **Features:**

- Extensive measurement functions (power, current, voltage, energy and power factor), with higher measurement accuracy of up to 0.17% referring to the end value.
- Very high input currents can be measured (up to 850A per phase via external transducer).
- The modular setup means the solution can be adjusted customer-specific (e.g. up to 4 in-feeds per module with different input plugs or even fixed.
- Up to 75 modules can be controlled via one IP address.
- Saving in external databases possible without additional software.

# Knürr MODULAR IMS



- Single-phase or three-phase 16A up to max. 63A



#### **OUTPUT DISTRIBUTOR**

- Single-phase or three-phase
- 16A up to max. 63A



MODULARITY
■ Depending on the type of communication card, external displays or external sensors



#### MONITORING

■ Input level



#### LOCAL MONITORING

■ Display for user (MPX IMS and DI-STRIP IMS)



#### REMOTE MONITORING

■ Secure web and SNMP interface



#### RACK PDU ARRAY™

- One IP address, up to 4 rack PDUs (MPX IMS)
   Liebert MPX, Liebert MPH and Liebert IMS in the same private network



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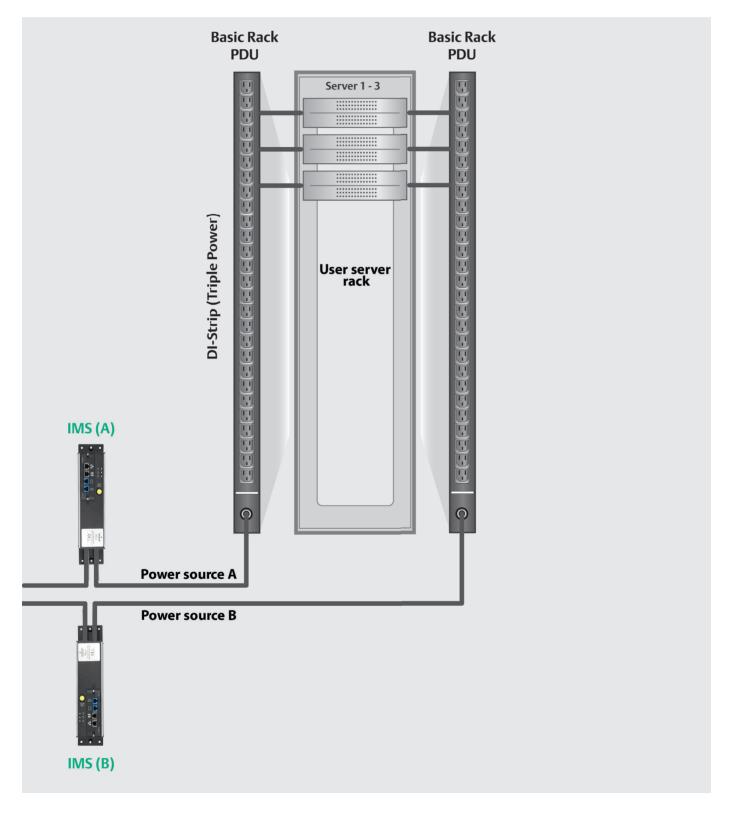
# Emerson Network Power IMS – product series

Features	Knürr DI-STRIP® IMS	<b>Liebert MPX™</b> IMS	<b>Knürr Modular</b> IMS
Measurement module	х	х	x
Modular			х
Display	Fixed	External	
Remote interface	х	x	х
Measuring at input level	х	х	х
Measurement modules per IP address	1	4	75
Max. measurement points per IP address	1	4	300
Visualization at PDU level	x	x	x
Visualization at rack level		х	х
Visualization at room level	Only with additional software Liebert Nform	Only with additional Liebert Nform or Avocent DSView	х
Measurement parameters	Α	A,V,W,kWh	A,V,W,VA, Var, kWh, cosphi.
Phase asymmetry analysis	х	x	x
Connection option for external sensors		х	х
Input power	1ph + 3ph, max 32A	1ph + 3ph, max 32A	1ph + 3ph, max 63A (max 4 feeds), max. 3ph 999A (via external transducer)
Connection option	IEC 60309, IEC60320, Schuko	IEC 60309	IEC 60309, GST18, fixed connection
Protocols	HTTP, SNMP, Syslog	HTTP, HTTPs, SNMP, Telnet	HTTP, HTTPs, SNMP v3,
Storage in external database	with additional software Liebert Nform	with additional software Liebert Nform or Avocent DSView	Oracle, MySQL, MSSQL

#### **Order numbers:**

Order number 1 ph. 16 A	036072001	MPXIMS-EHBAXS30	030145118
Order number 1 ph. 32 A	036072011	MPXIMS-EHBAXQ30	030145128
Order number 3 ph. 16 A	036072021	MPXIMS-EHBAXT30	030145138
Order number 3 ph. 32 A	036072031	MPXIMS-EHBAXR30	030145148
Control unit	not required	not required	030145108

# Easy upgrade from basic power distributor to measurement-enabled power distributor





#### **Knürr DI-STRIP® IMS** 16 A, single phase

- Quick and efficient plug connection system
- Plug-in electro-installation in place of conventional wiring
- Speed with easy preconfigured elements plugging together
- Cable flexibility (cable length) Easy socket strip swap-out, without costly
- Faulty installations are ruled out with plug system
- Space-saving use of protection and switching functions can be extended with further cabling without any plug space loss on additional socket strips (max. load rating 16 A)
- With big transparent LCD display
- Effective value display of alternating current
- LCD display rotation in 90° steps
- Display can be switched bright or dark
- Load changes signalingAutomatic background light reduction
- Meets the highest EMC requirements (interference Criterion A; radiated emission: Class

#### Data interface

- The plug strip can be integrated into the network via an RI45 plug.
- The sockets can be accessed directly and remotely with a web browser; extra software is not required.
- The power values are shown graphically and numerically in the software. Three threshold values and an unbalanced load warning can be variably set.
- Up to 5 users or administrators can access the module password-protected.
- The software displays the name and place of the PDU; this information can be entered by an administrator.

- The user can specify a static IP address or access via DHCP. Firmware updates can be made via a web browser.
- Supported protocols: HTTP, SNMP (Traps, SET, GET), Syslog

#### Material/finish

- Housing: Closed sheet steel extrusion, zinc-passivated, powder-coated fine texture
- Plastic parts: Vampamid 6 0024 V0 (UL94), recyclable, colored, fine textured

#### Dimensions

- Height: 45.5 mm
- Housing width: 44.4 mm (1 U)
- Length: 333 mm

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS Certificate
- CB-scheme

#### Color

- Housing: RAL 7035 light gray
- Plastic parts: RAL 7021 dark gray

#### **Load rating**

Nominal voltage: 230 VAC ± 10% Nominal current: 16 A

#### Supply schedule

1 plug adaptor module with ampere meter 2 mounting brackets Operating instructions

## How supplied

Flat-packed kit

L	Input	Output	Order no.	UP
333	GST18 inst. plug	GST18 inst. socket	03.607.200.1	1 unit

#### Knürr DI-STRIP® GST plug system Cable set for Knürr DI-STRIP® IMS, single phase

- Set consisting of one input and one output cable
- Cable H05VV-F3G 1.5 mm<sup>2</sup>

#### **Dimensions**

Input cable: Length, 2.5 m Output cable: Length, 0.5 m

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

#### Supply schedule

1 cable set

#### How supplied Flat-packed kit

Model	Input	Output	Order no.	UP
I/O Set GST18i / Schuko	Schuko CEE7/4 - GST18i	GST18i - Schuko CEE7/4	03.607.200.2	1 unit
I/O Set GST18i / IEC320 16 A	IEC60320 Sheet I - GST18i	GST18i - IEC60320 C 19	03.607.200.3	1 unit
I/O Set GST18i / IEC320 10 A	IEC60320 Sheet E - GST18i	GST18i - IEC60320 C 13	03.607.200.4	1 unit
I/O Set GST18i / IEC320 16 A	IEC60309 1ph/N/PE 6h - GST18i	GST18i - IEC60309 1ph/N/PE 6h	03.607.200.5	1 unit

Dimensions in mm: L = Length, S = Switch, n = Number of sockets, F1 = Standard side, F2 = Design side, 19" = Suitable for 19" installation Safe = Child-safe, U = Standard height unit, UP = Unit of packaging,

Express item

Conversion: 1 mm = 0.03937 inch 1 kg = 2.2046 pound







#### Knürr DI-STRIP® IMS 32 A single phase; 16 A and 32 A three phase

- Modules each have an IEC60309 input and IEC60309 output
- With big transparent LCD display
- Effective value display of alternating current
- LCD display rotation in 90° steps
- Display can be switched bright or dark
- Load changes signaling
- Automatic background light reduction
- Meets the highest EMC requirements (interference: Criterion A; radiated emission: Class B)

#### Data interface

- The plug strip can be integrated into the network via an RJ45 plug.
- The sockets can be accessed directly and remotely with a web browser; extra software is not required.
- The power values are shown graphically and numerically in the software. Three threshold values and an unbalanced load warning can be variably set.
- Up to 5 users or administrators can access the module password-protected.
- The software displays the name and place of the PDU; this information can be entered by an administrator.
- The user can set a static IP address or access via DHCP. Firmware updates can be made via a web browser.
- Supported protocols: HTTP, SNMP (Traps, SET, GET), Syslog

#### Material/finish

- Housing: closed sheet steel extrusion, zincpassivated, powder-coated texture
- Plastic parts: Vampamid 6 0024 V0 (UL94), recyclable, colored, fine textured

- **Dimensions** Height: 45.5 mm
- Housing width: 44.4 mm (1 U)
- Lenath: 389 mm
- Input cable length, 2.5 m
- Output cable length, 0.5 m

#### Approvals/certificates

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- GS Certificate
- CB-scheme

#### Color

- Housing: RAL 7035 light gray
- Plastic parts: RAL 7021 dark gray

#### Supply schedule

1 plug adaptor module with ampere meter 2 mounting brackets Operating instructions

#### How supplied Flat-packed kit

Model	L	Input values	Input plug	Output socket	Order no.	UP
DI-STRIP RM Inline 1x32A	389	230Vac; 32A	IEC60309 1ph/N/PE 6h	IEC60309 1ph/N/PE 6h	03.607.201.1	1 unit
DI-STRIP RM Inline 3x16A	389	230/400Vac; 16A	IEC60309 3ph/N/PE 6h	IEC60309 3ph/N/PE 6h	03.607.202.1	1 unit
DI-STRIP RM Inline 3x32A	389	230/400Vac; 32A	IEC60309 3ph/N/PE 6h	IEC60309 3ph/N/PE 6h	03.607.203.1	1 unit



#### Liebert MPX™ IMS

- Existing rack PDUs do not have to be swapped out, as the modules can be upgraded
- All consumers (where possible) can be integrated into the monitoring system, as numerous plug systems are provided (1ph - 3ph, max. 32 A per phase)
- Flexible installation inside or outside the rack (e.g. in raised floor)
- Liebert Rack PDUs familiar software interface, as the same communication card as with Liebert MPX/MPH is used
- Highest possible safety, security and availability with an operating temperature of max. 55  $^{\circ}\text{C}$
- Extensive measurement functions (power, current, voltage and energy), with higher measurement accuracy of up to ± 1%
- An N-conductor overload with 3-phase systems can be prevented, as the N-conductor current is
- Easy connection to the network with only 1 IP address of up to 4 Liebert MPX IMS / MPH / MPX
- External sensors and a display can also be connected.

#### Technical data Interfaces:

- RI-45 LAN port (10/100 MBit) for connecting to the local network (LAN) via an Ethernet cable (not included).
- Expansion/administration port for: local configuration using a computer/laptop, for setting up a link-up of several PDUs
- Display port for connecting the RPC BDM (display module)
- External sensor port for connecting optional sensors

#### Supported technologies:

- Web support, provides Liebert MPX network management and control. Authorized users can view status information via their network.
- SNMP support, provides Liebert MPX SNMP management.
- · Easy integration into Liebert Nform, Avocent DSView3 and Nagios

#### Material/finish

- Housing: Aluminum
- Cover: Sheet steel

#### Dimensions

- Height: 81 mm
- Width: 75 mm
- Length: 266 mm
- Input cable length, 3 m
- Output cable length, 0.5 m

#### Approvals

- CE label in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- BV GS

#### Color

- Housing: Aluminum/RAL 7021 dark gray

#### Supply schedule

1 MPXIMS Module / power supply

#### How supplied

Flat-packed kit

Model	L	Input values	Input plug	Output socket	Order no.	UP
Liebert MPX™ IMS 1x16A	266	230Vac; 16A	IEC60309 1ph/N/PE 6h	IEC60309 1ph/N/PE 6h	MPXIMS-EHBAXS30	1 unit
Liebert MPX™ IMS 1x32A	266	230Vac; 32A	IEC60309 1ph/N/PE 6h	IEC60309 1ph/N/PE 6h	MPXIMS-EHBAXQ30	1 unit
Liebert MPX <sup>™</sup> IMS 3x16A	266	230/400Vac; 16A	IEC60309 1ph/N/PE 6h	IEC60309 1ph/N/PE 6h	MPXIMS-EHBAXT30	1 unit
Liebert MPX™ IMS 3x32A	266	230/400Vac; 32A	IEC60309 1ph/N/PE 6h	IEC60309 1ph/N/PE 6h	MPXIMS-EHBAXR30	1 unit



#### **Knürr Modular IMS**

- Existing rack PDUs do not have to be swapped out, as the modules can be upgraded
- All consumers (where possible) can be integrated into the monitoring system, as numerous plug systems are provided (1ph - 3ph, max. 63 A per phase)
- Flexible installation inside or outside the rack (e.q. in raised floor)
- Extensive measurement functions (power, current, voltage, energy and power factor), with higher measurement accuracy of up to 0.17% referring to the end value.
- Very high input currents can be measured (up to 999A per phase via external transducer)
- The modular setup means the solution can be adjusted customer-specific (e.g. up to 4 in-feeds per module with different input plugs or even fixed feed are possible)
- Up to 75 modules can be controlled via one IP address
- Saving in external databases possible without additional software

#### Technical data

- The measurement modules can only be operated with a control unit
- Max. 75 measurement modules can be connected to a control unit
- 2 RJ 45 LAN ports 10/100MBit for connecting to local network (on the control unit)
- Visualization of all connected measurement modules via WEB
- Status information can be viewed via WEB
- Protocols: HTTP, HTTPs, SNMPv3
- Storage in external database possible (Oracle, MySQL, MSSQL)

- Integration into building systems also possible via potential-free contacts
- Temperature sensors can be connected

#### Dimensions

- Length/depth (control unit): 600 mm
- Length/depth (modules): 400 mm
- Width: 483 mm (19")
- Height: 88.8 mm (2 Ú)
- Power supply cable: Length, 2 m Output: Input socket fixed on device

#### Approvals/certificates

- CE Symbol in accordance with Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- FFO
- GS Certificate
- CB-scheme

#### Color

- RAL 7021 dark gray

#### Supply schedule

Measurement modules, control unit

#### How supplied

Flat-packed kit

Model	L	Input values	Input plug	Output socket	Order no.	UP
Knürr Modular IMS 1x16A		2x 230Vac; 16A	2x IEC60309 1ph/N/PE 6h	2x IEC60309 1ph/N/PE 6h	03.014.511.8	1 unit
Knürr Modular IMS 1x32A		2x 230Vac; 32A	2x IEC60309 1ph/N/PE 6h	2x IEC60309 1ph/N/PE 6h	03.014.512.8	1 unit
Knürr Modular IMS 3x16A		2x 230/400Vac; 16A	2x IEC60309 1ph/N/PE 6h	2x IEC60309 1ph/N/PE 6h	03.014.513.8	1 unit
Knürr Modular IMS 3x32A		2x 230/400Vac; 32A	2x IEC60309 1ph/N/PE 6h	2x IEC60309 1ph/N/PE 6h	03.014.514.8	1 unit
Knürr Modular Control Unit					03.014.510.8	1 unit