

### Features

- MEAN WELL Patent Application Number: 202330347779.4
- Interchangeable AC plugs (I-Type)
- Global certificates in multi-fields (ITE 62368-1, Medical 60601-1, Household 60335-1, Industrial 61558-1/-2-16)
- 80~264Vac Universal AC input
- Ultra slim(30mm)
- No load power consumption < 0.075W
- Energy efficiency Level VI
- Class II power (no earth pin)
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Extremely low leakage current <100uA
- -30°C~+70°C wide range working temperature
- Various DC plug quick adapter accessory available (Plug kit sold separately, please refer to : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf))
- 3 years warranty

### Applications

- Consumer electronic devices
- Telecommunication devices
- Office facilities
- Industrial equipments
- Medical devices
- Household devices

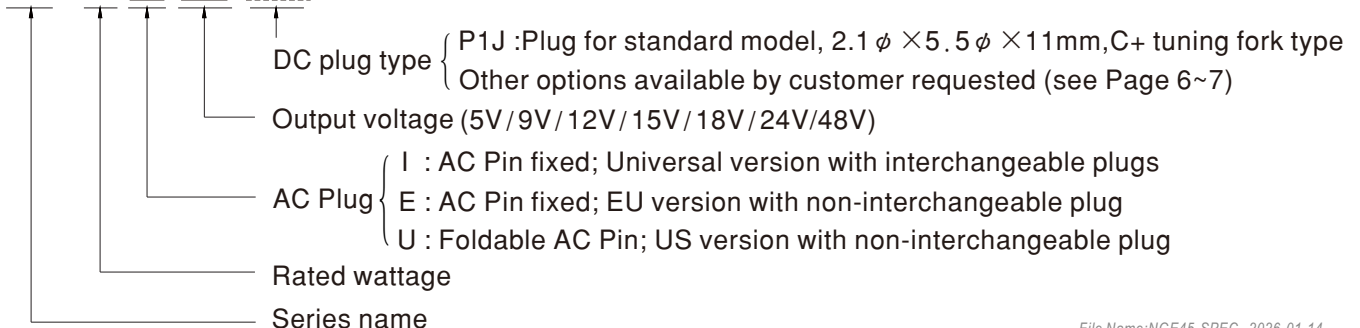
### Description

NGE45 is a highly reliable, 45W wall-mounted style single-output green adaptor series, which is compact and convenient for carry. This product is equipped with 7 types of interchangeable AC plug (European, USA, U.K., Australian, China, Korea and India type) that makes it very suitable for travel use. NGE45 is a Class II power unit (no FG), accepting the input range from 80VAC to 264VAC that it can satisfy the demands for various types of electrical devices.

With the working efficiency up to 91% and the extremely low no-load power consumption below 0.075W, NGE45 is compliant with the latest USA energy regulation EISA 2007/DoE, Canada NRCAN, Australia and New Zealand MEPS, Korea KMEPS, EU ErP and CoC version 5. The supreme feature allows the adaptor to save the energy when it is under either the operating mode or the standby mode. The entire series is approved for ITE, medical, household and industrial appliance safety regulations; moreover, it adopts the 94V-0 flame retardant plastic case that it can effectively prevent users from electric hazard.

### Model Encoding

**NGE 45 I 12 -P1J**



### GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

SPECIFICATION		NGE45○05-P1J	NGE45○09-P1J	NGE45○12-P1J	NGE45○15-P1J	NGE45○18-P1J	NGE45○24-P1J	NGE45○48-P1J
		○ = I, U, E						
<b>OUTPUT</b>								
DC VOLTAGE	Note.2	5V	9V	12V	15V	18V	24V	48V
RATED CURRENT		5.63A	4.5A	3.75A	3A	2.5A	1.88A	0.94A
CURRENT RANGE		0 ~ 5.63A	0 ~ 4.5A	0 ~ 3.75A	0 ~ 3A	0 ~ 2.5A	0 ~ 1.88A	0 ~ 0.94A
RATED POWER		28.1W	40.5W	45W	45W	45W	45.1W	45.1W
RIPPLE & NOISE (max.)	Note.3	100mVp-p	100mVp-p	120mVp-p	150mVp-p	180mVp-p	240mVp-p	240mVp-p
VOLTAGE TOLERANCE	Note.4	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%
LINE REGULATION	Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
LOAD REGULATION	Note.6	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%
SETUP, RISE, HOLD UP TIME		1500ms, 50ms, 30ms / 230Vac		3000ms, 50ms, 10ms / 115Vac at full load				
<b>INPUT</b>								
VOLTAGE RANGE	Note.7	80 ~ 264Vac		113 ~ 370Vdc				
FREQUENCY RANGE		47 ~ 63Hz						
EFFICIENCY (Typ.)		84%	89%	90%	90%	90%	90%	91%
AC CURRENT		1A / 115Vac 0.6A / 230Vac						
INRUSH CURRENT (max.)		COLD START 35A / 115Vac 70A / 230Vac						
LEAKAGE CURRENT (max.)		Touch current < 100uA (rms) @264Vac						
<b>PROTECTION</b>								
OVERLOAD		110% ~ 150% rated output power						
		Protection type : 5~24V Hiccup mode, recovers automatically after fault condition is removed. 48V Shut down and latch off o/p voltage, re-power on to recover.						
OVER VOLTAGE		110% ~ 140% rated output voltage						
		Protection type : Clamp by zener diode						
<b>ENVIRONMENT</b>								
WORKING TEMP.		-30 ~ +70°C (Refer to "Derating Curve")						
WORKING HUMIDITY		20% ~ 90% RH non-condensing						
STORAGE TEMP., HUMIDITY		-20 ~ +85°C, 10 ~ 95% RH non-condensing						
TEMP. COEFFICIENT		±0.03% / °C (0 ~ 45°C)						
VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
<b>SAFETY &amp; EMC</b> <span style="float:right">Note.8</span>								
SAFETY STANDARDS		CB IEC62368-1, IEC60601-1/-1-11, IEC61558-1/-2-16, IEC60335-1;						
		UL UL62368-1, CSA C22.2 NO. 62368-1, ANSI/AAMI ES60601-1/-1-11(3.2 Version), CAN/CSA-C22.2 NO.60601-1/-1-11; ANSI/AAMI ES60601-1-11, CAN/CSA-C22.2 NO.60601-1-11(for U Type only)						
EMC EMISSION	Parameter	Standard						Test Level / Note
	Conducted emission	BS EN/EN55032(CISPR32)/EN55011, FCC Part15, CNS15936, GB/T 9254.1-2021, KS C 9832						Class B
	Radiated emission	BS EN/EN55032(CISPR32)/EN55011, FCC Part15, CNS15936, GB/T 9254.1-2021, KS C 9832						Class B
	Harmonic current	BS EN/EN61000-3-2						Class A
	BS EN/EN55035(CISPR35), BS EN/EN60601-1-2(IEC60601-1-2),KS C 9835							
	Parameter	Standard						Test Level / Note
	ESD	BS EN/EN61000-4-2						Level 4, 15KV air; Level 4, 8KV contact
RF field susceptibility	BS EN/EN61000-4-3						Level 2, 3V/m	
EFT bursts	BS EN/EN61000-4-4						Level 3, 2KV	
Surge susceptibility	BS EN/EN61000-4-5						Level 3, 1KV/L-N	
Conducted susceptibility	BS EN/EN61000-4-6						Level 2, 3V	
Magnetic field immunity	BS EN/EN61000-4-8						Level 2, 3A/m	
Voltage dips, interruption	BS EN/EN61000-4-11						>95% dip 0. 5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
<b>OTHERS</b>								
MTBF		749.9 Khrs min. MIL-HDBK-217F (25°C)		6361.6 Khrs min. Telcordia TR/SR-332(Bellcore) (25°C)				
DIMENSION		62*30*65mm (L*W*H)						
PACKING	MAIN BODY	196g; 60pcs/ 13.4Kg / 0.94CUFT for NGE45Ixx/Uxx-P1J			211g; 45pcs/ 11.4Kg / 1.06CUFT for NGE45Exx-P1J			
	AC PLUGS	Refer to Page 3						
<b>DC OUTPUT CONNECTOR</b>								
PLUG		See page 6~7 ; Other type available by customer requested						
CABLE		See page 6~7 ; Other type available by customer requested						
<b>NOTE</b>								
<p>1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</p> <p>2.DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</p> <p>3.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 μ F &amp; 47 μ F capacitor.</p> <p>4.Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5.Line regulation is measured from low line to high line at rated load.</p> <p>6.Load regulation is measured from 0% to 100% rated load</p> <p>7.Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>8.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</p> <p>9.Design meet US DoE Level VII (from Docket number EERE-2020-BT-STD-0006).</p>								
* Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>								



■ Interchangeable AC Plug Specifically for NGE12/18/30/45/65/90 (I-Type)

Order NO.	<p>NGE45Ixx-P1J (Universal Version)</p>							<p>NGE45Exx-P1J (EU Version)</p>	<p>NGE45Uxx-P1J (US Version)</p>
AC plug	Interchangeable Type (Unfoldable; AC Pin fixed)							Non-Interchangeable Type	
	<p>EU</p>	<p>US</p>	<p>UK</p>	<p>AU</p>	<p>CN</p>	<p>KR</p>	<p>IN</p>	Unfoldable AC Pin	Foldable AC Pin
Certificate									

■ AC Plugs Accessory (Sold Separately)

MW's order NO.	Per Unit	Per Bag	Per Carton	
		Q'Ty	Q'Ty	G.W.
AC PLUG-EU4		30 pcs	300 pcs (10 bags)	5.4Kg
AC PLUG-US4		30 pcs	300 pcs (10 bags)	4.7Kg
AC PLUG-UK4		30 pcs	300 pcs (10 bags)	7.1Kg
AC PLUG-AU4		30 pcs	300 pcs (10 bags)	5.2Kg
AC PLUG-CN4		30 pcs	300 pcs (10 bags)	4.8Kg
AC PLUG-KR4		30 pcs	300 pcs (10 bags)	6.3Kg
AC PLUG-IN4		30 pcs	300 pcs (10 bags)	7.7Kg
AC PLUG-MIX4	<p>(Per Set)</p>	30 pcs (5 Types*6 mixed bags)	300 pcs (5 Types*6 mixed bags) (10 bags)	5.45Kg
AC PLUG-MIX5	<p>(Per Set)</p>	35 pcs (7 Types*5 mixed bags)	315 pcs (7 Types*5 mixed bags) (9 bags)	6.13Kg

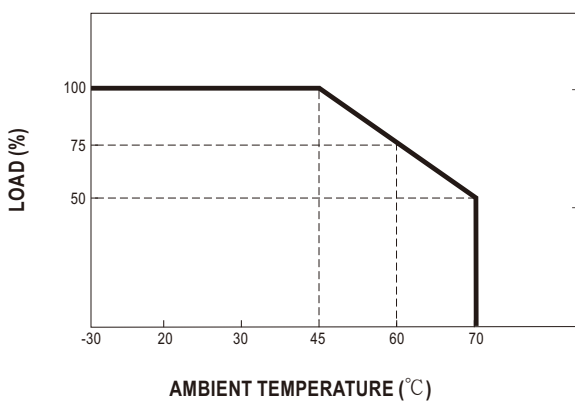
■ Interchangeable AC Plug Installation Steps (Convertible with I Type only)

Step1	Step2
	
<p>Slide in AC converter along the guided rail between the metal prongs until it is locked in (with a “click” sound).</p>	<p>Check if the new plug type is stable and correct before use.</p>

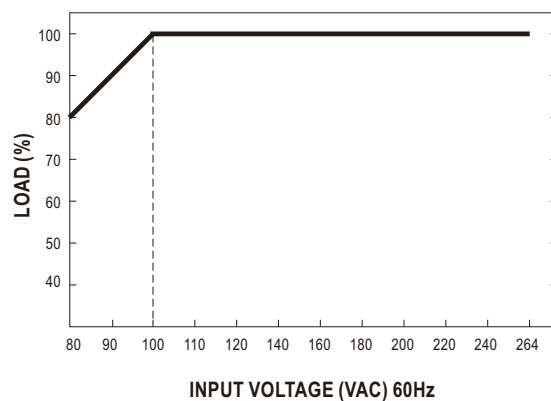
**Note:**

1. NGE45I main body unit and AC inlet plug should be ordered separately.
2. NGE45I needs to be used along with one of the AC inlet plug (EU,US,UK,AU,CN,KR,IN).

■ Derating Curve



■ Static Characteristics



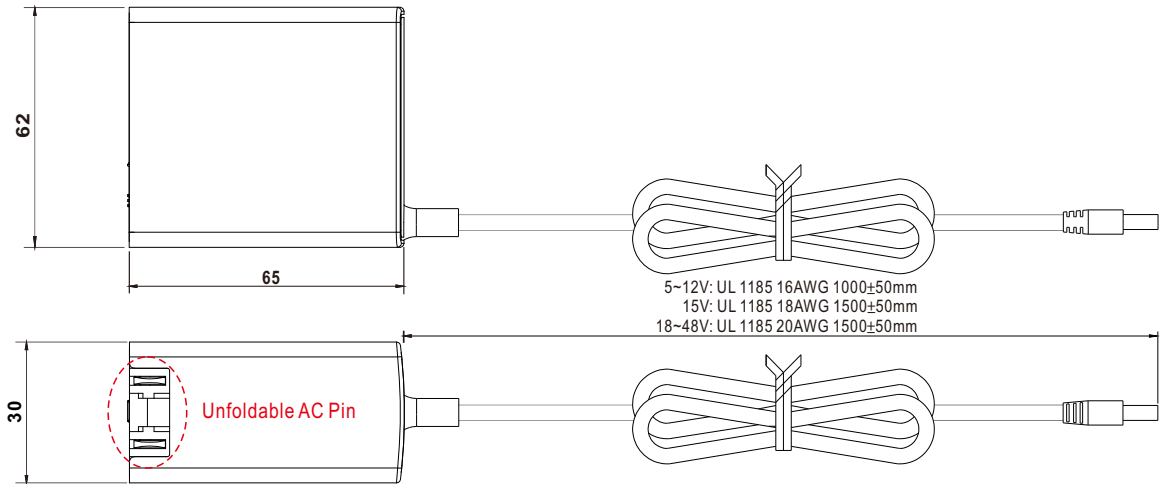
■ **Mechanical Specification**

(Unit: mm , tolerance  $\pm 1$ mm)

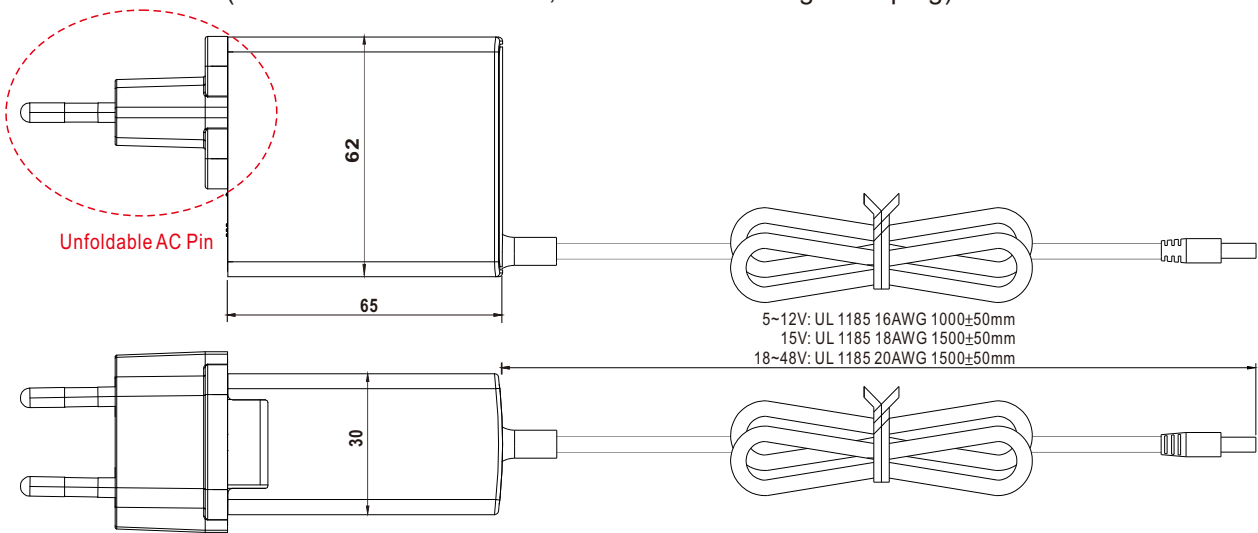
Case No. NGE65

※ **Cable connection**

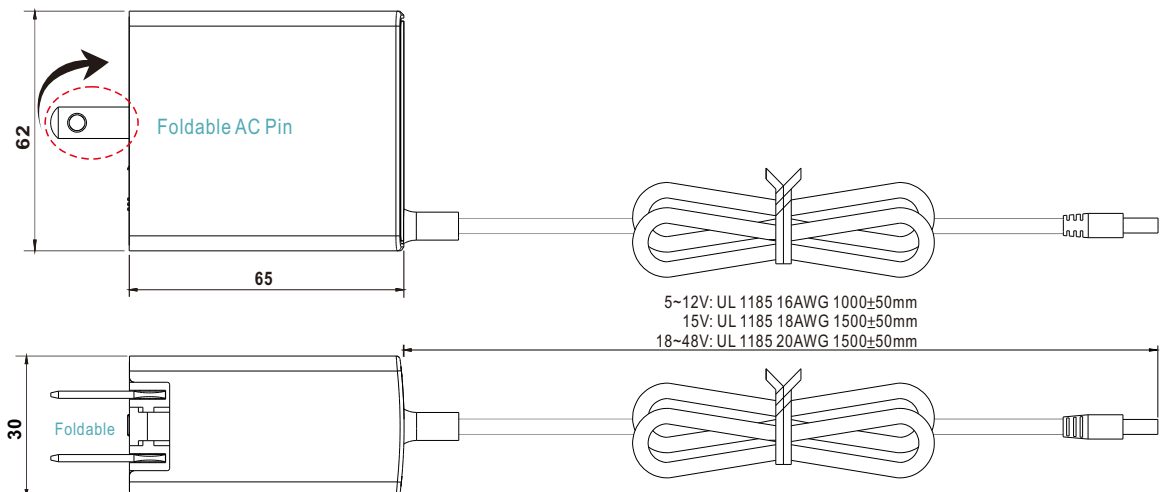
NGE45Ixx-P1J (Universal Version - AC Pin fixed; With interchangeable plugs) :



NGE45Exx-P1J (EU Version - AC Pin fixed; With non-interchangeable plug) :



NGE45Uxx-P1J (US Version - Foldable AC Pin; With non-interchangeable plug) :



■ DC Output Plug

◎ Standard plug: P1J

Unit:mm

P1J	Pin Assignment
	Outside   Inside

◎ DC plug changeable through:

- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)

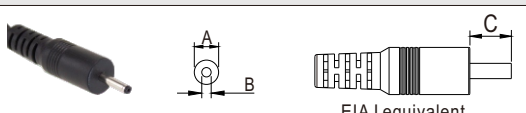
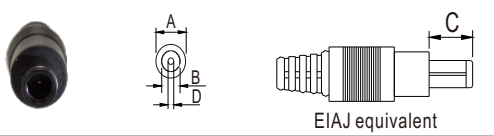
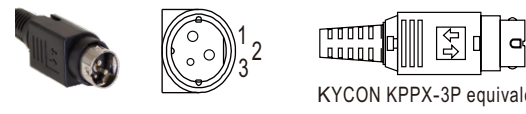

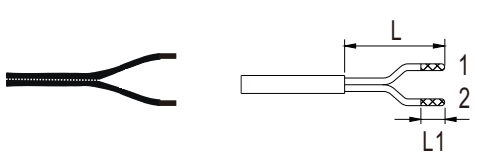
Please refer to below table and online selection guide : [https://www.meanwell.com/upload/pdf/DC\\_plug.pdf](https://www.meanwell.com/upload/pdf/DC_plug.pdf)

Example quick adapter accessory:



◎ Optional DC plug: (Available in customized cable or quick adapter)

Tuning Fork Style	Type No.	A	B	C	Quick Adapter Accessory
		OD	ID	L	
	P1I (Straight)	5.5	2.1	9.5	Available (Current rating: 7.5A max.)
	P1L (Straight)	5.5	2.5	9.5	
	P1M (Straight)	5.5	2.5	11.0	
	P1IR (Right-angled)	5.5	2.1	9.5	
	P1JR (Right-angled)	5.5	2.1	11.0	
	P1LR (Right-angled)	5.5	2.5	9.5	
	P1MR (Right-angled)	5.5	2.5	11.0	
Barrel Style	Type No.	A	B	C	None
		OD	ID	L	
	P2I (Straight)	5.5	2.1	9.5	
	P2J (Straight)	5.5	2.1	11.0	
	P2L (Straight)	5.5	2.5	9.5	
	P2M (Straight)	5.5	2.5	11.0	
	P2IR (Right-angled)	5.5	2.1	9.5	
	P2JR (Right-angled)	5.5	2.1	11.0	
	P2LR (Right-angled)	5.5	2.5	9.5	
P2MR (Right-angled)	5.5	2.5	11.0		
Lock Style	Type No.	A	B	C	None
		OD	ID	L	
	P2S(S761K)	5.53	2.03	12.06	
	P2K(761K)	5.53	2.54	12.06	
	P2C(S760K)	5.53	2.03	9.52	
	P2D(760K)	5.53	2.54	9.52	

Min. Pin Style	Type No.	A	B	C	Quick Adapter Accessory	
		OD	ID	L		
 <p>EIAJ equivalent</p>	P3A	2.35	0.7	11.0	Available (Current rating: 5A max.)	
	P3B	4.0	1.7	11.0		
	P3C	4.75	1.7	11.0		
Center Pin Style	Type No.	A	B	C	D	Available (Current rating: 7.5A max.)
 <p>EIAJ equivalent</p>	P4A	5.5	3.4	11.0	1.0	
	P4B	6.5	4.4	11.0	1.4	
	P4C	7.4	5.1	11.0	0.6	
Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
 <p>KYCON KPPX-3P equivalent</p>	R6B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
3	+Vo					
Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment		Available (Current rating: 7.5A max.)		
 <p>KYCON KPPX-4P equivalent</p>	R7B	PIN No.	Output			
		1	+Vo			
		2	-Vo			
		3	-Vo			
4	+Vo					
Stripped and tinned leads	Type No.	Pin Assignment		None		
 <p>Length of Land L1 by request (MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)</p>	by customer	PIN No.	Output			
		1 (Ribbed)	+Vo			
2 (Letter)	-Vo					

■ **Installation Manual**

Please refer to : <http://www.meanwell.com/manual.html>

 [www.simpex.ch](http://www.simpex.ch)

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