



Similar to figure

Data sheet

Hydraulic data

Minimum efficiency index (MEI)	≥0.4
Maximum operating pressure PN	10 bar
Min. fluid temperature T_{min}	-20 °C
Max. fluid temperature T_{max}	120 °C
Max. ambient temperature T_{max}	40 °C

Motor data

Mains connection	3~400 V, 50 Hz
Number of poles	2
Voltage tolerance	±10 %
Motor efficiency class	IE3
Rated power P_2	4 kW
Rated current I_N	7.75 A
Rated speed n	2900 1/min
Power factor $\cos \varphi_{100}$	0.83
Motor efficiency 50% $\eta_M 50\%$	86.1 %
Motor efficiency 75% $\eta_M 75\%$	87.5 %
Motor efficiency 100% $\eta_M 100\%$	88.1 %
Motor winding up to 3 kW	-
Motor winding from 4 kW	-
Insulation class	F
Protection class motor	IP55
Integrated full motor protection	-

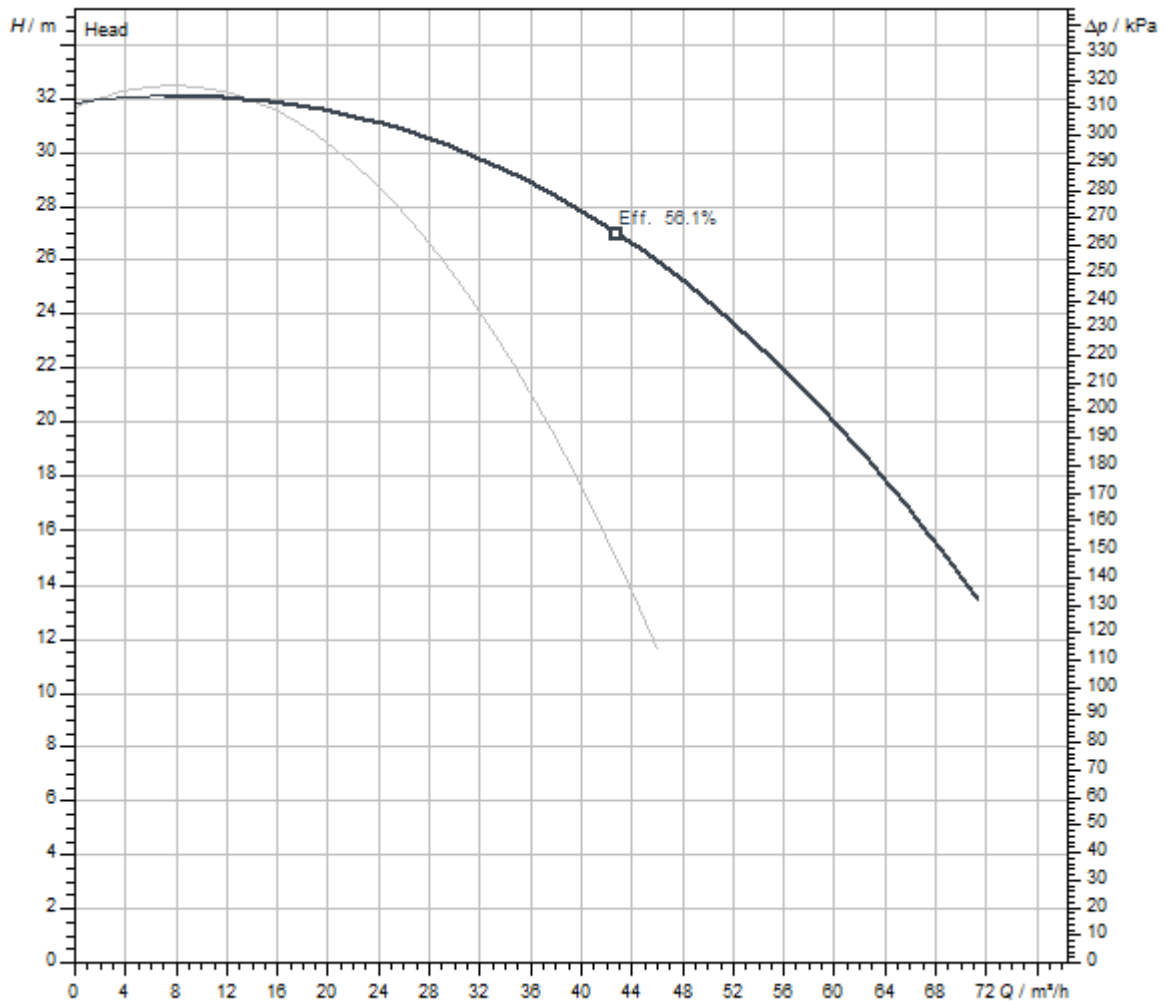
Materials

Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Mechanical seal	AQ1EGG
Lantern	Grey cast iron

Installation dimensions

Pipe connection on the suction side DN_s	DN 40
Pipe connection on the discharge side DN_d	DN 40
Port-to-port length L_0	320 mm

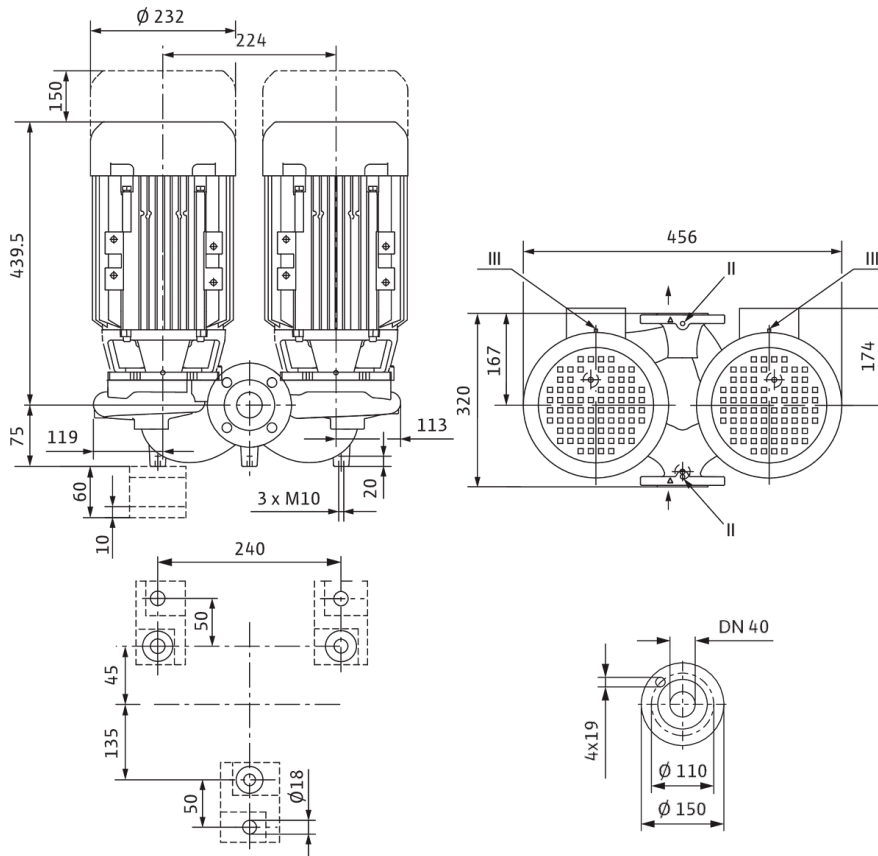
Pump curves



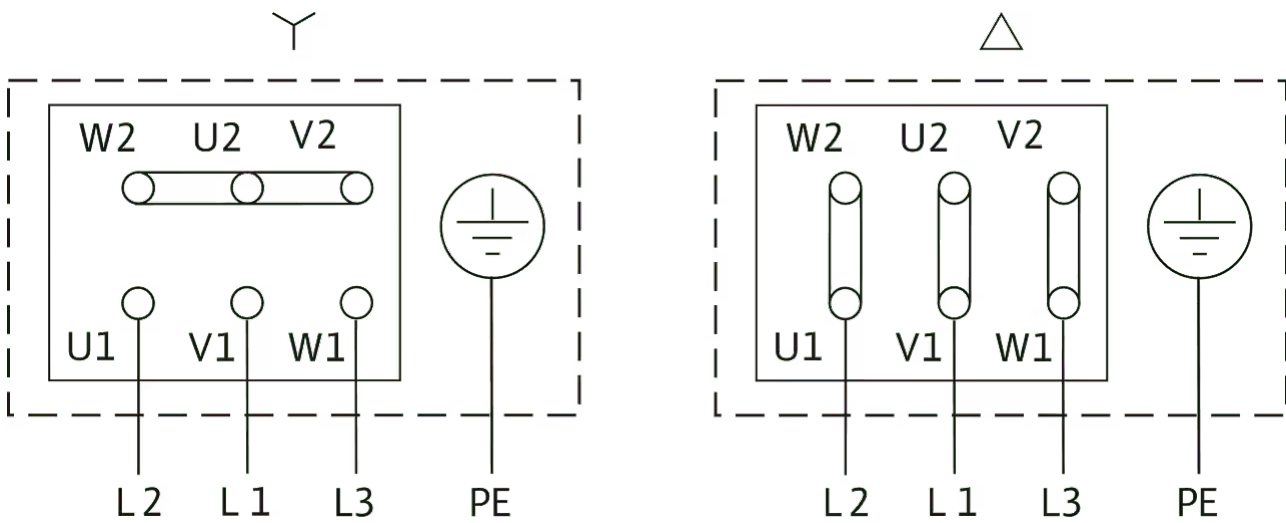
Fluid media	Water 100 %
Fluid temperature T	20.00 °C
speed at duty point $n_{hydr. @ OP}$	2,934 1/min
Impeller diameter $d_{imp.}$	156 mm

Dimensions and dimensions drawings

VeroTwin-DPL 40/160-4/2



Wiring diagram



Δ: Connection diagram delta connection

Y: Connection diagram star connection

Motor protection switch required on-site. Check the direction of rotation! To change the direction of rotation, exchange any two phases.

$P_2 \leq 3$ kW 3~400 V Y

3~230 V Δ

$P_2 \geq 4$ kW 3~690 V Y

3~400 V Δ

After removing the bridges, Y-Δ start is possible.

Tender text

In-line twin-head pump with two single-stage glanded centrifugal pumps in the same housing with switchover valve in the pressure port. Pump with compact in-line design with directly flanged three-phase current motor and one-piece shafts or with lanterns and standard motors (version N) rigidly connected by couplings.

The DPL series is suitable for pipe installation or installation on a base. Mounting brackets are available as accessories. With force-flushed circulation,

bidirectional bellows mechanical seals and cavitation-reducing plastic impeller.

Flanges with pressure measuring connections R 1/8. The pump housing and lantern are cathophoretic-coated.

The motor terminal box can be made of metal or plastic. If a metal terminal box is absolutely necessary, please order the appropriate special variant.

Operating Data

Min. fluid temperature T_{\min}	-20 °C
Max. fluid temperature T_{\max}	120 °C
Min. ambient temperature T_{\min}	-15 °C
Max. ambient temperature T_{\max}	40 °C
Maximum operating pressure PN	10 bar
Minimum efficiency index (MEI)	≥ 0.4

Motor data

Motor efficiency class	IE3
Mains connection	3~400 V, 50 Hz
Voltage tolerance	± 10 %
Rated power P_2	4000 W
Rated speed n	2900 1/min
Rated current I_N	7.75 A
Power factor $\cos \varphi_{100}$	0.83
Motor efficiency 50% $\eta_M 50\%$	86.1 %
Motor efficiency 75% $\eta_M 75\%$	87.5 %
Motor efficiency 100% $\eta_M 100\%$	88.1 %
Insulation class	F
Protection class	IP55


Materials

Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Shaft seal	AQ1EGG
Lantern	Grey cast iron

Installation dimensions

Pipe connection on the suction side DN_s	DN 40
Pipe connection on the discharge side DN_d	DN 40
Port-to-port length L_0	320 mm

Ordering information

Brand	Wilo
Product description	VeroTwin-DPL 40/160-4/2
Net weight, approx. m	90.5 kg
Article number	2121247 

Installation type

Continuous, infinitely variable control, differential pressure-sensitive CC-HVAC system

CC-HVAC system

CC-HVAC-System 1x10A-T34-DOL-FC-WM	2527824
CC-HVAC-System 2x10A-T34-DOL-FC-WM	2527825
CC-HVAC-System 3x10A-T34-DOL-FC-WM	2527826
CC-HVAC-System 4x10A-T34-DOL-FC-WM	2527827

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862
D-network tri-band antenna 10 m cable	2533863
D-network tri-band antenna 15 m cable	2533864

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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DDG impulse selector

DDG impulse selector	2533770
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BMS base module

BMS base module	2533800
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CC communication module BACnet

CC-communication module BACnet IP (slave)	2537051
CC-communication module BACnet MS/TP (slave)	2537050

Communication module LON

Communication module LON	2533868
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Communication module ModBus

Communication module Modbus RTU	2533869
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Communication module Profibus

Communication module Profibus DP	2533866
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Communication module GSM

GSM module	2533861
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Pump signalling module

Signalling module pump 1-2	2533812
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Signalling module pump 3-6	2533836
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Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790
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Signalling modules connecting cable	2533890
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DDG (4-20mA)

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454
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Wilo-DDG 100 Signal Trans.(4-20mA)	2211740
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Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456
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Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458
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Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460
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PTC thermistor tripping unit

PTC thermistor tripping unit	509275993
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Continuous, infinitely variable control, temperature-dependent CC-HVAC system

CC-HVAC system

CC-HVAC-System 1x10A-T34-DOL-FC-WM	2527824
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CC-HVAC-System 2x10A-T34-DOL-FC-WM	2527825
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CC-HVAC-System 3x10A-T34-DOL-FC-WM	2527826
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CC-HVAC-System 4x10A-T34-DOL-FC-WM	2527827
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Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862
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D-network tri-band antenna 10 m cable	2533863
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D-network tri-band antenna 15 m cable	2533864
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Outdoor temperature sensor Pt 100

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BMS base module

BMS base module	2533800
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CC communication module BACnet

CC-communication module BACnet IP (slave)	2537051
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CC-communication module BACnet MS/TP (slave)	2537050
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Communication module LON

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Communication module ModBus

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Communication module Profibus

Communication module Profibus DP	2533866
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Communication module GSM

GSM module	2533861
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Pump signalling module

Signalling module pump 1-2	2533812
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Signalling module pump 3-6	2533836
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Signal converter retrofit kit

Signal converter 0-10 V / 0-20 mA	2534992
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Temperature module

Temperature module for systems with 1-3 pumps	2534991
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Temperature module for systems with 4-6 pumps	2533771
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Connection cable control modules/signalling modules

Control modules connecting cable	2533790
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Signalling modules connecting cable	2533890
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PTC thermistor tripping unit

PTC thermistor tripping unit	509275993
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Continuous, infinitely variable control, differential pressure-sensitive SC-HVAC system

SC/SC-FC-HVAC system

SC-FC-HVAC system 1x10A-FC-WM (direct starting)	2545442
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SC-FC-HVAC system 2x10A-FC-WM (direct starting)	2545443
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SC-FC-HVAC system 3x10A-FC-WM (direct starting)	2545444
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SC-FC-HVAC system 4x10A-FC-WM (direct starting)	2545445
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SC-HVAC system 1x10A-WM (direct starting)	2545326
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SC-HVAC system 2x10A-WM (direct starting)	2545327
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SC-HVAC system 3x10A-WM (direct starting)	2545328
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SC-HVAC system 4x10A-WM (direct starting)	2545329
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Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862
D-network tri-band antenna 10 m cable	2533863
D-network tri-band antenna 15 m cable	2533864

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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DDG impulse selector

DDG impulse selector	2533770
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Communication module LON (SC)

Communication module LON (SC)	2538243
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SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242
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Communication module GSM (SC)

Communication module GSM (SC)	2542216
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Pump signalling module

Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836

SC-HVAC signal board

SC-HVAC signal board	2119646
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DDG (4-20mA)

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460

PTC thermistor tripping unit

PTC thermistor tripping unit	509275993
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Continuous, infinitely variable control, temperature-dependent SC-HVAC system

SC/SC-FC-HVAC system

SC-FC-HVAC system 1x10A-FC-WM (direct starting)	2545442
SC-FC-HVAC system 2x10A-FC-WM (direct starting)	2545443

SC-FC-HVAC system 3x10A-FC-WM (direct starting)	2545444
SC-FC-HVAC system 4x10A-FC-WM (direct starting)	2545445
SC-HVAC system 1x10A-WM (direct starting)	2545326
SC-HVAC system 2x10A-WM (direct starting)	2545327
SC-HVAC system 3x10A-WM (direct starting)	2545328
SC-HVAC system 4x10A-WM (direct starting)	2545329

Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862
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D-network tri-band antenna 15 m cable	2533864

Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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Communication module LON (SC)

Communication module LON (SC)	2538243
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SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242
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Communication module GSM (SC)

Communication module GSM (SC)	2542216
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Pump signalling module

Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836

SC-HVAC signal board

SC-HVAC signal board	2119646
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PTC thermistor tripping unit

PTC thermistor tripping unit	509275993
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