

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 3/8/2013

P.O. NO.: CY29
Order/Line NO.: 20337 MN 100

TO:

Model Number: CY29
Catalog Number:
Corro-Duty Premium Eff. Config
CONF,MOTOR,CORRO-DUTY PRE EFF

REVISIONS:
(NONE)

ALL DOCUMENTS HEREIN ARE CONSIDERED CERTIFIED BY NIDEC MOTOR CORPORATION.
THANK YOU FOR YOUR ORDER AND THE OPPORTUNITY TO SERVE YOU.

Features:

Horsepower 00001.00 ~ KW: .746
Enclosure TEFC
Poles 04 ~ RPM: 1800
Frame Size 143~T
Phase/Frequency/Voltage.. 3~060~230/460 ~ Random Wound
Service Factor 1.15
Insulation Class Class "F" ~ Insulife 2000
Altitude In Feet (Max) .. 3300 Ft.(1000 M)
Ambient In Degree C (Max) +40 C
Assembly Position "F-1" Assembly Position
Efficiency Class Premium Efficiency
Application Unknown
Customer Part Number
"AK" Dimension (Inches).. NA
Temperature Rise (Sine Wave): "B" Rise @ 1.0 SF (Resist)
NEMA Design B
KVA Code Letter "N"
Starting Method Direct-On-Line Start
Duty Cycle Continuous Duty
Efficiency Value 85.5 % ~ NEMA Nominal
Load Inertia (lb-ft²): NEMA ~ NEMA Inertia: 5.80 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code TCE
Rotor Inertia (LB-FT²) .108 LB-FT²
Qty. of Bearings PE (Shaft) 1
Qty. of Bearings SE (OPP) 1
Bearing Number PE (Shaft) 6205-2Z-J/C3
Bearing Number SE (OPP) 6203-2Z-J/C3

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Accessories:

Corro-Duty
Clockwise Rotation FODE
Ground Lug In Conduit Box
Special Balance

.
Standard Leadtime: REFER TO OFFICE
Est. Weight (lbs ea): 65 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	1
Pole(s)	04
Voltage(s)	460-230
Frame Size	143T
Shaft U Diameter	0.875
Outlet Box AF	1.25
Outlet Box AA	0.75

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EFFECTIVE:
26-FEB-13

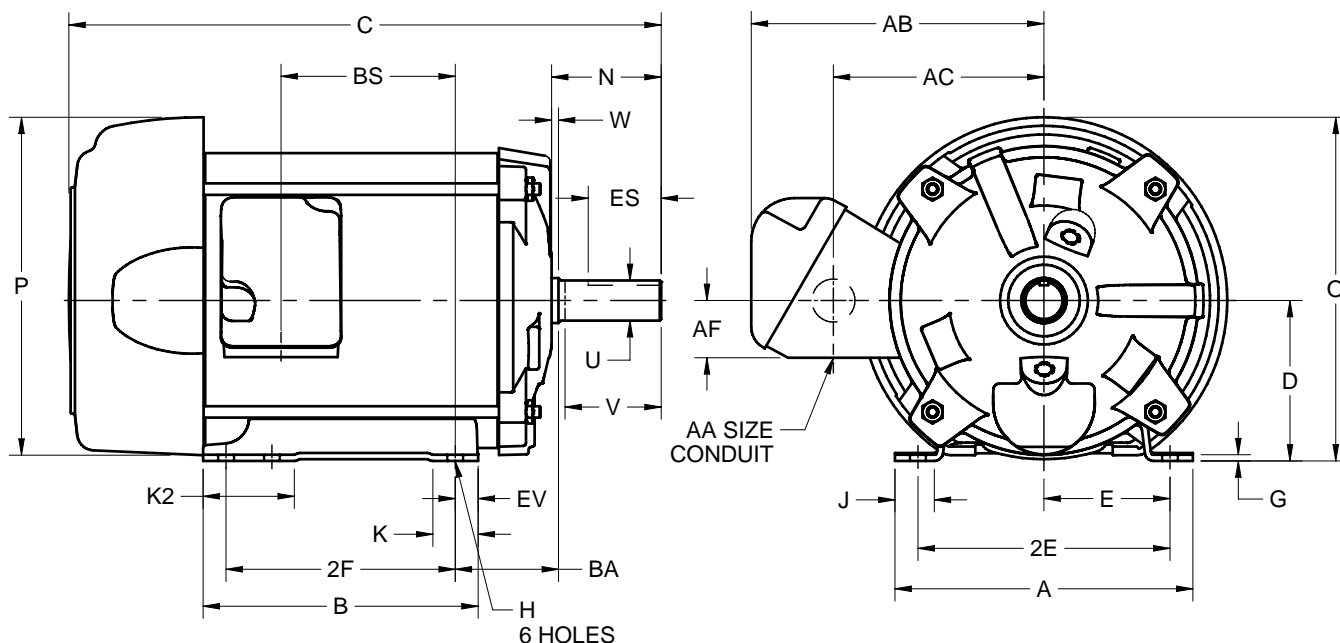
SUPERSEDES:
07-FEB-13

HORIZONTAL MOTORS

FRAME: 143, 145T
BASIC TYPE: TC

PRINT:
07-2104

SHEET:
1 OF 1



ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

	A	B	C	D -.06	E	2E ±.03	G	H +.05	J	K	K2	N	O
IN	6.50	6.00	12.98	3.50	2.75	5.50	.13	.34	1.00	1.00	2.00	2.38	7.50
MM	165	152	330	89	70	140	3	9	25	25	51	60	191

	P ²	U -.0005	V MIN	W	AA ³	AB	AC	AF	BA	BS	ES MIN	EV	SQ KEY
IN	8.00	.8750	2.00	.13	3/4 NPT	6.38	4.56	1.25	2.25	3.86	1.41	.50	.188
MM	203	22.225	51	3		162	116	32	57	98	36	13	4.78

FRAME	UNITS	2F ±.03
143T	IN	4.00
	MM	102
145T	IN	5.00
	MM	127

- DIMENSIONS MAY VARY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS
- LARGEST MOTOR WIDTH
- BASIC CONDUIT FITTING SIZE. HOLE OPENING ON THE SIDE OF THE CONDUIT BOX (REPRESENTED BY A DASHED CIRCLE) WILL ACCEPT A 3/4 BASIC CONDUIT FITTING
- THE CONDUIT BOX MAY BE LOCATED ON EITHER SIDE OF THE MOTOR. THE CONDUIT OPENING(S) MAY BE LOCATED IN STEPS OF 180° REGARDLESS OF LOCATION. STANDARD LOCATION IS SHOWN WITH THE CONDUIT OPENING DOWN
- TOLERANCES ARE SHOWN IN INCHES ONLY
- FRAME REFERENCE - 6.500"/143/145

07-2014/E

Nidec Motor Corporation
St. Louis, Missouri

INFORMATION DISCLOSED ON THIS DOCUMENT
IS CONSIDERED PROPRIETARY AND SHALL NOT BE
REPRODUCED OR DISCLOSED WITHOUT WRITTEN
CONSENT OF NIDEC MOTOR CORPORATION



ISSUED BY
R. TIMMERMANN
APPROVED BY
M. CULLEN

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER:				NAMEPLATE PART #:		431157-000	
MODEL	CY29	FR	143T	TYPE	TCE	ENCL	TE
SHAFT END BRG		6205-2Z-J/C3 - QTY 1		OPP END BRG		6203-2Z-J/C3 - QTY 1	
PH	3	MAX AMB	40 C	ID#			
INSUL CLASS	F	Asm. Pos	F1	DUTY	CONT		
HP	1	RPM	1755	HP		RPM	
VOLTS	460	230		VOLTS			
FL AMPS	1.5	3.0		FL AMPS			
SF AMPS	1.6	3.3		SF AMPS			
SF	1.15	DESIGN	B	CODE	M		
NEMA NOM EFFICIENCY	85.5	NOM PF	72.8	KiloWatt	.746		
GUARANTEED EFFICIENCY	82.5	MAX KVAR	.7	HZ	60		
UL DATA (IF APPLICABLE):							
DIVISION				CLASS I			
TEMP CODE				CLASS II			
VFD DATA (IF APPLICABLE):							
VOLTS				TORQUE 2			
AMPS				VFD LOAD TYPE 2			
TORQUE 1				VFD HERTZ RANGE 2			
VFD LOAD TYPE 1				VFD SPEED RANGE 2			
VFD HERTZ RANGE 1							
VFD SPEED RANGE 1							
SERVICE FACTOR				FL SLIP			
NO. POLES		4		MAGNETIZING AMPS		1.0	
VECTOR MAX RPM				Encoder PPR			
Radians / Seconds		1		Encoder Volts			
TEAO DATA (IF APPLICABLE):							
HP (AIR OVER)		HP (AIR OVER M/S)		RPM (AIR OVER)		RPM (AIR OVER M/S)	
FPM AIR VELOCITY		FPM AIR VELOCITY M/S		FPM AIR VELOCITY SEC			

ADDITIONAL NAMEPLATE DATA:

Decal / Plate	WD=158802	Customer PN	
Notes		Non Rev Ratchet	
Max Temp Rise	80C RISE/RES@1.00SF	OPP/Upper Oil Cap	GREASE
Thermal (WDG)		SHAFT/Lower Oil Cap	GREASE
Altitude			
Regulatory Notes		Regulatory Compliance	
COS		Marine Duty	
Balance	0.08 IN/SEC	Arctic Duty	
3/4 Load Eff.	84.7	Inrush Limit	
Motor Weight (LBS)	65	Direction of Rotation	
Sound Level		Special Note 1	
Vertical Thrust (LBS)		Special Note 2	
Thrust Percentage		Special Note 3	
Bearing Life		Special Note 4	
Starting Method		Special Note 5	
Number of Starts		Special Note 6	
200/208V 60Hz Max Amps		SH Max. Temp.	
190V 50 hz Max Amps		SH Voltage	
380V 50 Hz Max Amps		SH Watts	
NEMA Inertia		Load Inertia	
Sumpheater Voltage		Sumpheater Wattage	
Special Accessory Note 1		Special Accessory Note 16	
Special Accessory Note 2		Special Accessory Note 17	
Special Accessory Note 3		Special Accessory Note 18	
Special Accessory Note 4		Special Accessory Note 19	
Special Accessory Note 5		Special Accessory Note 20	
Special Accessory Note 6		Special Accessory Note 21	
Special Accessory Note 7		Special Accessory Note 22	
Special Accessory Note 8		Special Accessory Note 23	
Special Accessory Note 9		Special Accessory Note 24	
Special Accessory Note 10		Special Accessory Note 25	
Special Accessory Note 11		Special Accessory Note 26	
Special Accessory Note 12		Special Accessory Note 27	
Special Accessory Note 13		Special Accessory Note 28	
Special Accessory Note 14		Special Accessory Note 29	
Special Accessory Note 15		Special Accessory Note 30	

NIDEC MOTOR CORPORATION
ST. LOUIS, MO



TYPICAL NAMEPLATE DATA
ACTUAL MOTOR NAMEPLATE LAYOUT MAY VARY
SOME FIELDS MAY BE OMITTED

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MOTOR PERFORMANCE

MODEL NO.	CATALOG NO.	PHASE	TYPE	FRAME
CY29	NA	3	TCE	143T

ORDER NO.	20337	LINE NO.	
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MPI:	135429	135430
HP:	1	1
POLES:	4	4
VOLTS:	460	230
HZ:	60	60
SERVICE FACTOR:	1.15	1.15
EFFICIENCY (%):		
S.F.	85.8	85.8
FULL	85.5	85.5
3/4	84.7	84.7
1/2	81.3	81.3
1/4	71.1	71.1
POWER FACTOR (%):		
S.F.	76.4	76.4
FULL	72.8	72.8
3/4	63.9	63.9
1/2	50.9	50.9
1/4	32.6	32.6
NO LOAD	8.7	8.7
LOCKED ROTOR	65.3	65.3
AMPS:		
S.F.	1.6	3.3
FULL	1.5	3
3/4	1.3	2.6
1/2	1.1	2.3
1/4	1	2
NO LOAD	1	2
LOCKED ROTOR	13.7	27.4
NEMA CODE LETTER	M	M
NEMA DESIGN LETTER	B	B
FULL LOAD RPM	1755	1755
NEMA NOMINAL EFFICIENCY (%)	85.5	85.5
GUARANTEED EFFICIENCY (%)	82.5	82.5
MAX KVAR	0.7	0.7
AMBIENT (°C)	40	40
ALTITUDE (FASL)	3300	3300
SAFE STALL TIME-HOT (SEC)	20	20
SOUND PRESSURE (DBA @ 1M)	54	54
TORQUES:		
BREAKDOWN{% F.L.}	527	527
LOCKED ROTOR{% F.L.}	415	415
FULL LOAD{LB-FT}	3	3

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

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ST. LOUIS, MO

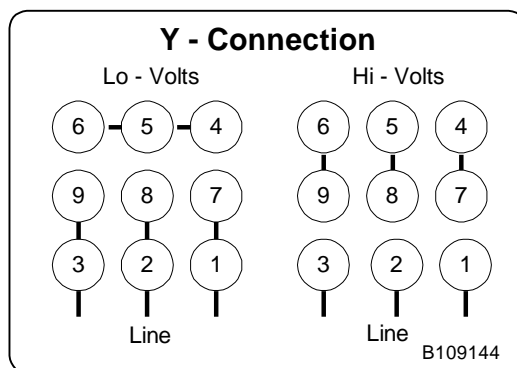
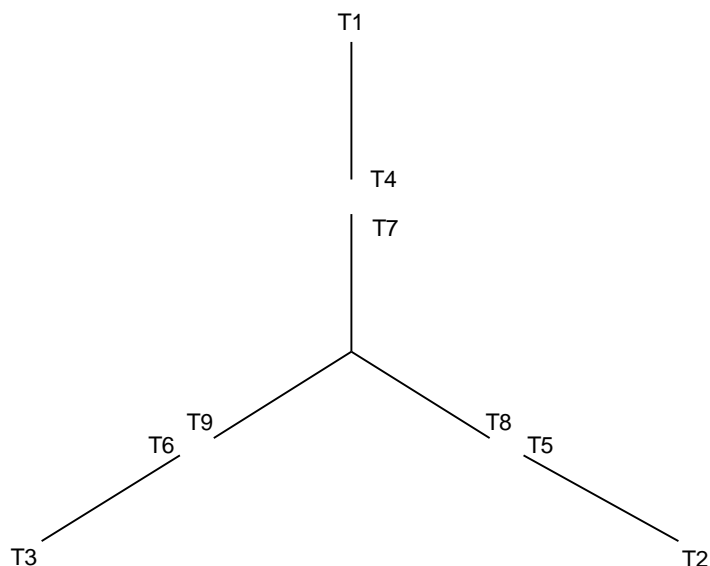


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B109144

Motor Wiring Diagram 9 Lead, Dual Voltage (WYE Conn.)



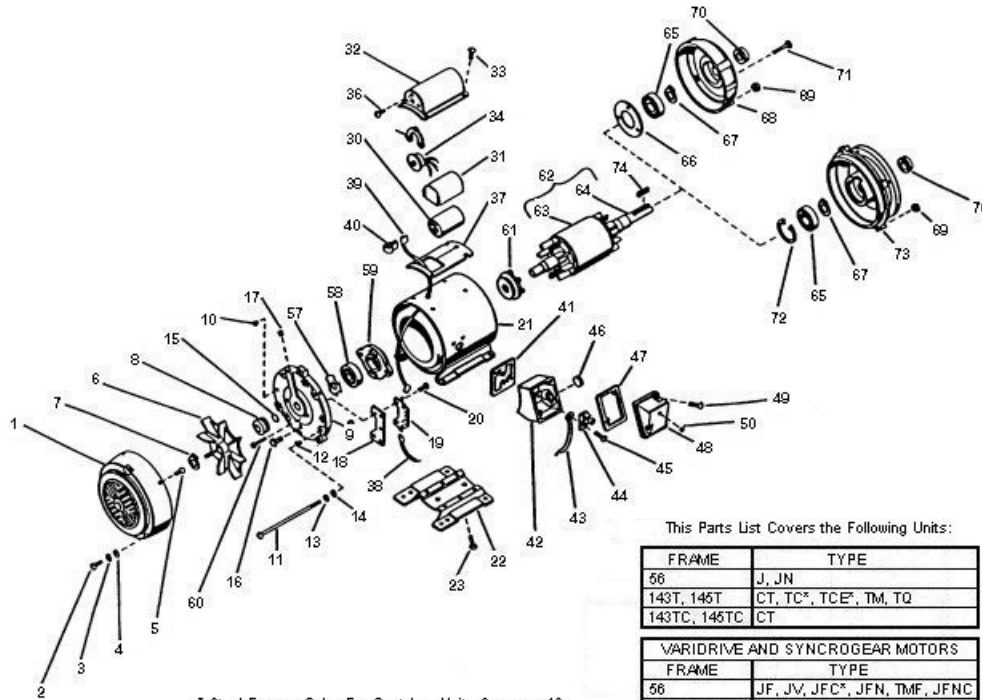
To reverse direction of rotation interchange connections L1 and L2.

Each lead may have one or more cables comprising that lead.
In such case each cable will be marked with the appropriate lead number.

RENEWAL PARTS

56 thru 145 - TOTALLY ENCLOSED MOTORS

Types: CE, CEF, CEF4, CT, CT4, CTC, CTE, CTE4, CTEF, CTF, CTFI, CTFNI, CTI, CTN, FCT, FCTF, FTC, FTCF, J, JCE, JF, JFC, JFN, JFNC, JFNI, JN, JV, TC, TC1, TC4, TCE, TCEF, TCEN, TCE1, TCF, TCF1, TCF4, TCFI, TCI, TCN, TF, TFN, TFNI, TM, TMF, TMQ



This Parts List Covers the Following Units:

FRAME	TYPE
56	J, JN
143T, 145T	CT, TC*, TCE*, TM, TQ
143TC, 145TC	CT

VARIDRIVE AND SYNCROGEAR MOTORS	
FRAME	TYPE
56	JF, JV, JFC*, JFN, TMF, JFNC
143T, 145T	TF, TFC, TMF

ITEM NO.	QTY	NAME OF PART
1	1	Fan Cover Guard (Not used on types JN, JFN & JFNC)
2	3	Self Tapping Screw (Used on frame 56 types J, JF, JFC, TMF & frames 143 & 145T, type TF, TM, TFC, TMF, TMQ) Round Head Machine Screw (Qty 2 frame 56 type J)
3	3	Lockwasher (Used on frame 56 types J, JF, JFC, TMF, and frames 143T & 145T, types TF, TM, TFC, TMF, TMQ) (Qty 2 frame 56 type J)
4	3	Plain Washer (Used on frame 56 types J, JF, JFC and frames 143T & 145T type TFC)
5	4	Hex Head Cap Screw (Types CT, TC, & TCE)
6	1	Fan (Not used on types JN, JFN, & JFNC)

ITEM NO.	QTY	NAME OF PART
7	1	Retaining Snap Ring (Not used on types J, JN, JV, JFN & JFNC)
8	1	Water Deflector (Types JFC & TFC only)
9	1	Bracket
10	4	Plastic Plug (Not used on types CT, JN, TC, JFN, TCE)
11	4	Screw
12	4	Bushing (Not used on types J, JV, CT, JN, TC, JFN, TCE)
13	4	Lockwasher (Used on types J, JN, JV, TMF)
14	4	Plain Washer (Used on type TMF)
15	1	Bracket Plug (Types JN & JFNC)
16	2	Vent Plug (Types TC & TCE)
17	4	Hex Countersunk Pipe Plug (Types TC & TCE)
18	1	Switch Insulator (Types TM, TMF, TMQ)

WARNING:

Any disassembly or repair work on explosionproof motors will void the Underwriters Laboratories, Inc. label unless done by the manufacturer, or a facility approved by the Underwriters Laboratories, Inc. Refer to your nearest sales office for assistance.

BEARINGS:

Refer to motor nameplate for the bearing numbers.

PRICES:

Parts stocking distributors: refer to renewal parts numerical index. All Others: refer to your nearest parts distributor.

reference: Renewal Parts Section 700, Pages 10 & 11

RENEWAL PARTS

56 thru 145 - TOTALLY ENCLOSED MOTORS

Types: CE, CEF, CEF4, CT, CT4, CTC, CTE, CTE4, CTEF, CTF, CTFI, CTFNI, CTI, CTN, FCT, FCTF, FTC, FTCF, J, JCE, JF, JFC, JFN, JFNC, JFNI, JN, JV, TC, TC1, TC4, TCE, TCEF, TCEN, TCE1, TCF, TCF1, TCF4, TCFI, TCI, TCN, TF, TFN, TFNI, TM, TMF, TMQ

ITEM NO.	QTY	NAME OF PART
19	1	Starting Switch Assembly (Types TM, TMF, TMQ)
20	3	Self Tapping Screw (Types TM, TMF, TMQ)
21	1	Wound Stator Assembly (Mounting Base Included on types CT, TC, TCE, TM, TMQ)
22	1	Mounting Bases (Types J & JN)
23	2	Screws (Types J & JN)
24-29	-	Not Used
30	1	Starting Capacitor (Types TM, TMF, TMQ)
31	1	Capacitor Insulator (Types TM, TMF, TMQ)
32	1	Capacitor Box (Types TM, TMF, TMQ)
33	4	Self Tapping Screws (Types TM, TMF, TMQ)
34	1	Thermal Protector (Type TMQ)
35	1	Clamping Plate (Type TMQ)
36	3	Self Tapping Screw (Type TMQ)
37	1	Gasket (Type TMQ)
38	1	Connection Lead Assembly No. 5 (Included with Wound Stator Assembly item 20) (Types TM & TMQ)
39	1	Connection Lead Assembly No. 10 (Included with Wound Stator Assembly item 20) (Types TM & TMQ)
40	4	Sleeving Insulation (Included with Items No. 38 & 39)
41	1	Gasket (Not used on J, JN, JV)
42	1	Outlet Box Base
43	1	Connection Lead Assembly Ground (Type TMQ)
44	1	Grounding Lug (Types TC, TCE)
45	2	Self Tapping Screw (Qty. 4 Round Head Screw on types J, JN, JV)
46	1	Plastic Plug (Types CT, TC, TCE)
47	1	Gasket (Types CT, TC, TCE)

ITEM NO.	QTY	NAME OF PART
48	1	Outlet Box Cover
49	2	Screw (Qty. 4 Round Head Screws on types J, JN, JV)
50	3	Plastic Plug (Types JFC, JFNC, TFC)
51-56	-	Not Used
57	1	Wave Spring Washer (Type CT without "C" Bracket, TC, TCE, TM, TMQ, TMF)
58	1	Ball Bearing
59	1	Bearing Cap (Type JV only)
60	2	Round Head Screw (Type JV only)
61	1	Rotary Actuator (Types TM, TMQ, TMF)
62	1	Rotor Assembly (Includes items 63 & 64)
63	1	Rotor Core
64	1	Rotor Shaft
ITEMS 65 THRU 74 ARE FOR TYPES J, CT, JN, TC, TCE, TM, TMQ		
65	1	Ball Bearing (Refer to section 775)
66	1	Retaining Cap (Type TMQ)
67	1	Retaining Snap Ring (Types CT with "C" Bracket, & TMQ)
68	1	Bracket (Not used with "C" Bracket)
69	4	Hex Nut
70	1	Water Deflector (Types CT with "C" Bracket, TC, TCE)
71	3	Round Head Machine Screw (Type TMQ)
72	1	Retaining Snap Ring (Type CT with "C" Bracket)
73	1	"C" Bracket
74	1	Square Key

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