



320D3 GC

Hydraulic Excavator

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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320D3 GC Hydraulic Excavator Specifications

Engine

Engine Model	ALUW06DTI	
Net Power		
ISO 9249	92 kW	123 hp
ISO 9249 (DIN)	125 hp (metric)	
Engine Power		
ISO 14396	100 kW	134 hp
ISO 14396 (DIN)	136 hp (metric)	
Bore	104 mm	4 in
Stroke	113 mm	4 in
Displacement	5.76 L	351 in ³
Biodiesel Capability	Up to B10	

- Noncertified emission engine.
- Recommended for use up to 4000 m (13,120 ft) altitude with engine power derate above 3000 m (9,840 ft).
- Advertised power is tested per the specified standard in effect at the time of manufacture.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system and alternator.

Swing Mechanism

Swing Speed	10.00 rpm	
Maximum Swing Torque	62 kN·m	45,581 lbf-ft

Weights

Operating Weight	19 800 kg	43,700 lb
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- 4.1 m (13'5") Standard undercarriage, 5.7 m (18'8") HD Reach boom, R2.25 (7'5") stick, 1.0 m³ (1.31 yd³) GD bucket, 600 mm (24") triple grouser shoes, and 3650 kg (8,050 lb) counterweight.

Track

Standard Track Shoes Width	600 mm	24 in
Number of Shoes (each side)	50	
Number of Track Rollers (each side)	7	
Number of Carrier Rollers (each side)	2	

Drive

Maximum Gradeability	35°/70%	
Maximum Travel Speed	5.6 km/h	3.5 mph
Maximum Drawbar Pull	152 kN	34,171 lbf

Hydraulic System

Main System – Maximum Flow – Implement	400 L/min (200 × 2 pumps)	106 gal/min (53 × 2 pumps)
Maximum Pressure – Equipment – Implement	35 000 kPa	5,075 psi
Maximum Pressure – Travel	35 000 kPa	5,075 psi
Maximum Pressure – Swing	25 000 kPa	3,625 psi
Pilot System – Maximum Pressure	3900 kPa	566 psi
Boom Cylinder – Bore	125 mm	5 in
Boom Cylinder – Stroke	1260 mm	50 in
Stick Cylinder – Bore	130 mm	5 in
Stick Cylinder – Stroke	1504 mm	59 in
Bucket Cylinder – Bore	115 mm	5 in
Bucket Cylinder – Stroke	1104 mm	43 in

Service Refill Capacities

Fuel Tank Capacity	350 L	92.5 gal
Cooling System	19 L	5 gal
Engine Oil (with filter)	18 L	4.8 gal
Swing Drive	6 L	1.6 gal
Final Drive (each)	5 L	1.3 gal
Hydraulic System (including tank)	230 L	60.8 gal
Hydraulic Tank	115 L	30.4 gal

Standards

Brakes	ISO 10265:2008
Cab	ISO 10262:1998 Level I
Operator Protective Guards (OPG) (optional)	ISO 10262:1998 Level II

Sound Performance

ISO 6395:2008 (external)	102 dB(A)
ISO 6396:2008 (inside cab)	72 dB(A)

- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in a noisy environment.

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Operating Weights and Ground Pressures

Base Machine Configurations	600 mm (24") Wide, 9.5 mm (0.4") Thick Triple Grouser Shoes		600 mm (24") Wide, 10.0 mm (0.4") Thick Triple Grouser Shoes	
	Weight	Ground Pressure	Weight	Ground Pressure
Base Frame with Track Rollers and Carrier Rollers				
3650 kg (8,050 lb) Counterweight + 4.1 m (13'5") Standard Undercarriage Base Machine				
HD Reach Boom + R2.25 (7'5") Stick + 1.0 m ³ (1.31 yd ³) GD Bucket	19 300 kg 42,500 lb	44.5 kPa 6.5 psi	19 800 kg 43,700 lb	45.6 kPa 6.6 psi
HD Reach Boom + R2.5 (8'2") Stick + 0.92 m ³ (1.20 yd ³) GD Bucket	19 300 kg 42,500 lb	44.5 kPa 6.5 psi	19 800 kg 43,700 lb	45.6 kPa 6.6 psi

All operating weights include a 90% fuel tank with 75 kg (165 lb) operator.

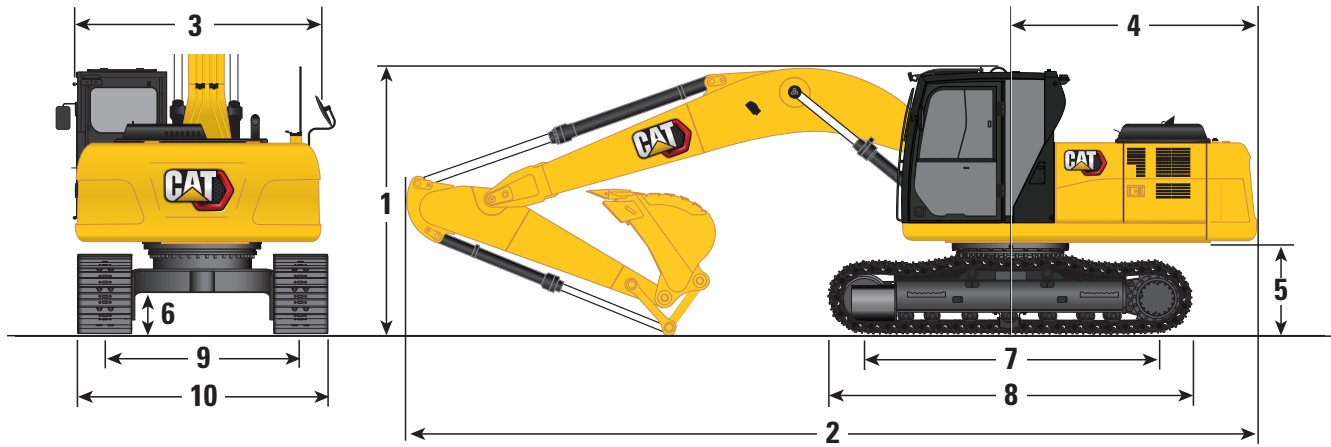
Major Component Weights

	kg	lb
Base machine with 3650 kg (8,050 lb) counterweight, swing frame, base frame with track rollers and carrier rollers, two boom cylinders, pins, fluids and 75 kg (165 lb) operator	14 020	30,910
Track Shoes:		
600 mm (24") Width, 9.5 mm (0.4") Thick, Triple Grouser Track Shoes	2000	4,410
600 mm (24") Width, 10 mm (0.4") Thick, Triple Grouser Track Shoes	2480	5,470
Two Boom Cylinders	360	780
Weight of 90% Fuel Tank and 75 kg (165 lb) Operator	380	830
Counterweight:		
3650 kg (8,050 lb) Counterweight	3650	8,050
Swing Frame:		
Standard Swing Frame	1700	3,750
Undercarriage:		
Base Frame with Standard Track Rollers and Carrier Rollers	3970	8,750
Boom (including lines, pins, stick cylinder):		
HD Reach Boom 5.7 m (18'8")	1570	3,460
Sticks (including lines, pins, bucket cylinder, bucket linkage):		
Reach Stick R2.25 (7'5")	890	1,950
Reach Stick R2.5 (8'2")	950	2,100
Buckets (without linkage, with tips and side cutters):		
0.92 m ³ (1.20 yd ³) General Duty Bucket	790	1,740
1.0 m ³ (1.31 yd ³) General Duty Bucket	800	1,770

320D3 GC Hydraulic Excavator Specifications

Dimensions

All dimensions are approximate and may vary depending on bucket selection.

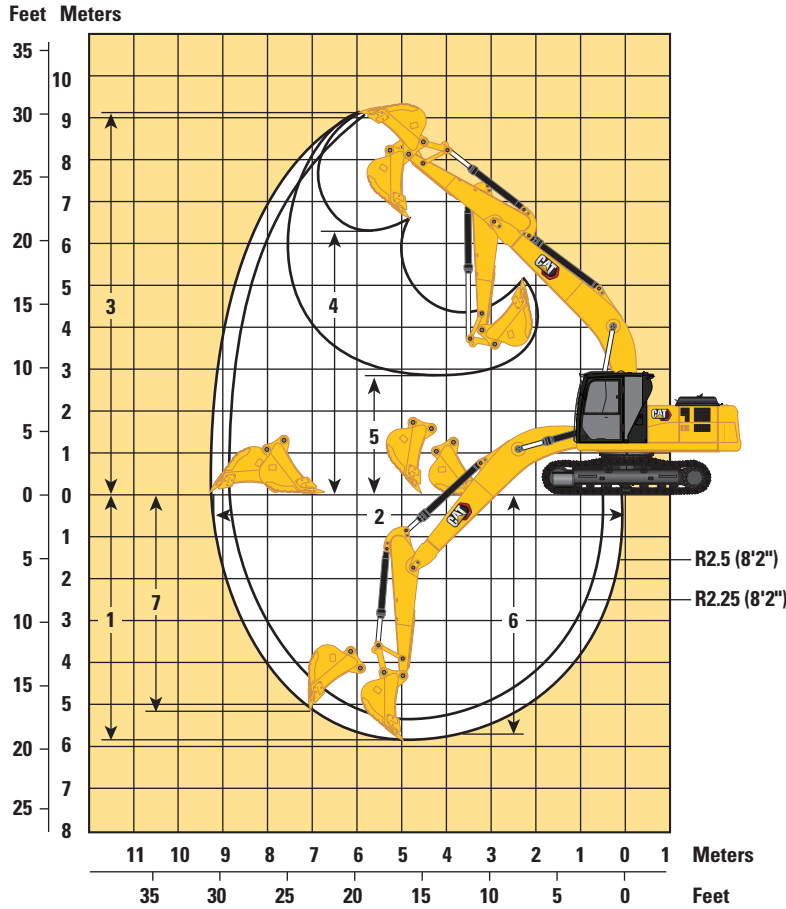


Boom Option	HD Reach Boom 5.7 m (18'8")			
	Reach Stick			
Stick Options	R2.25 (7'5")		R2.5 (8'2")	
1 Machine Height:				
Cab Height (including shoe lug height)	2970 mm	9'9"	2970 mm	9'9"
Shipping Height (including shoe lug height)	3100 mm	10'4"	3050 mm	10'0"
Handrail Height	2915 mm	9'7"	2915 mm	9'7"
2 Machine Length with Boom/Stick/Bucket Installed	9520 mm	31'3"	9460 mm	31'0"
3 Upperframe Width	2740 mm	9'0"	2740 mm	9'0"
4 Tail Swing Radius	2750 mm	9'0"	2750 mm	9'0"
5 Counterweight Clearance (without shoe lug height)	1020 mm	3'4"	1020 mm	3'4"
6 Ground Clearance (without shoe lug height)	450 mm	1'6"	450 mm	1'6"
7 Track Length to Center of Rollers – Length to Center of Rollers	3270 mm	10'9"	3270 mm	10'9"
8 Track Length	4080 mm	13'5"	4080 mm	13'5"
9 Track Gauge – Standard Undercarriage	2200 mm	7'3"	2200 mm	7'3"
10 Transportation Width – 600 mm (24") Shoes	2800 mm	9'2"	2800 mm	9'2"
Bucket Type	GD		GD	
Bucket Capacity	1.00 m ³	1.31 yd ³	0.92 m ³	1.20 yd ³
Bucket Tip Radius	1488 mm	4'11"	1488 mm	4'11"

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Working Ranges and Forces

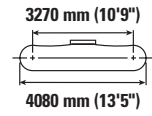
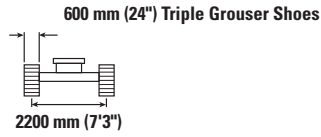
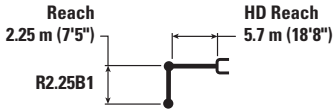
All dimensions are approximate and may vary depending on bucket selection.



Boom Option	HD Reach Boom 5.7 m (18'8")			
Stick Options	Reach Stick			
	R2.25 (7'5")		R2.5 (8'2")	
1 Maximum Digging Depth	5970 mm	19'7"	6300 mm	20'8"
2 Maximum Reach at Ground Line	9140 mm	30'0"	9470 mm	31'1"
3 Maximum Cutting Height	9110 mm	29'11"	9250 mm	30'4"
4 Maximum Loading Height	6250 mm	20'6"	6290 mm	20'8"
5 Minimum Loading Height	2920 mm	9'7"	2590 mm	8'6"
6 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	5640 mm	18'6"	5960 mm	19'7"
7 Maximum Vertical Wall Digging Depth	5350 mm	17'7"	5720 mm	18'4"
Bucket Digging Force (ISO)	134 kN	30,120 lbf	136 kN	30,570 lbf
Stick Digging Force (ISO)	112 kN	25,180 lbf	103 kN	23,250 lbf
Bucket Type	GD		GD	
Bucket Capacity	1.00 m ³	1.31 yd ³	0.92 m ³	1.20 yd ³
Bucket Tip Radius	1488 mm	4'11"	1488 mm	4'11"

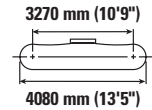
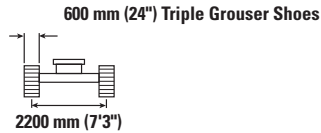
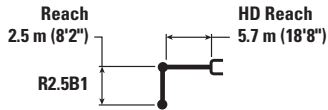
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HD Reach Boom Lift Capacities – Counterweight: 3650 kg (8,050 lb) – without Bucket



Reach 2.25 m (7'5") R2.25B1	HD Reach 5.7 m (18'8")	3000 mm/10.0 ft		4500 mm/15.0 ft		6000 mm/20.0 ft		7500 mm/25.0 ft		3270 mm (10'9") 4080 mm (13'5")		
		kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	mm ft/in	
7500 mm 25'0"										*4300 *9,600	*4300 *9,600	5260 16'9"
6000 mm 20'0"						6100 *12,550	4150 8,900			*3900 *8,650	3550 7,950	6550 21'3"
4500 mm 15'0"				*7750 *16,650	6250 13,500	6000 12,850	4050 8,650			*3800 *8,400	2900 6,450	7320 23'11"
3000 mm 10'0"				9000 19,350	5750 12,450	5750 12,350	3850 8,250	4100 8,750	2750 5,850	3900 8,600	2600 5,750	7730 25'3"
1500 mm 5'0"				8550 18,350	5350 11,550	5550 11,900	3650 7,800	4000 8,600	2650 5,700	3750 8,250	2500 5,450	7820 25'7"
0 mm 0'0"				8350 17,950	5200 11,200	5400 11,600	3500 7,550	3950 2600		3850 8,450	2550 5,600	7620 24'11"
-1500 mm -5'0"		*10 000 *22,750	9950 21,250	8350 17,900	5200 11,150	5350 11,550	3500 7,500			4250 9,400	2800 6,150	7100 23'2"
-3000 mm -10'0"		*13 900 *30,150	10 100 21,700	8450 18,150	5300 11,400	5450 11,800	3550 7,700			5250 11,700	3450 7,650	6170 20'1"

HD Reach Boom Lift Capacities – Counterweight: 3650 kg (8,050 lb) – without Bucket



Reach 2.5 m (8'2") R2.5B1	HD Reach 5.7 m (18'8")	3000 mm/10.0 ft		4500 mm/15.0 ft		6000 mm/20.0 ft		7500 mm/25.0 ft		3270 mm (10'9") 4080 mm (13'5")		
		kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	mm ft/in	
7500 mm 25'0"										*3800 *8,400	*3800 *8,400	5600 17'11"
6000 mm 20'0"						*5850 *12,300	4200 9,000			*3450 *7,600	3350 7,500	6830 22'2"
4500 mm 15'0"				*7400 *15,900	6350 13,650	6050 12,950	4050 8,750	*3800 2850		*3400 *7,450	2800 6,150	7570 24'8"
3000 mm 10'0"				9100 19,550	5850 12,600	5800 12,450	3850 8,300	4100 8,800	2750 5,900	*3450 *7,600	2500 5,500	7960 26'0"
1500 mm 5'0"				8600 18,500	5400 11,700	5550 11,950	3650 7,850	4000 8,600	2650 5,700	3600 7,950	2400 5,250	8050 26'4"
0 mm 0'0"				8400 18,000	5200 11,250	5400 11,650	3500 7,550	3950 8,450	2600 5,600	3700 8,100	2450 5,350	7860 25'9"
-1500 mm -5'0"		*9700 *22,000	*9700 21,150	8350 17,900	5200 11,150	5350 11,550	3500 7,450			4050 8,900	2650 5,850	7350 24'0"
-3000 mm -10'0"		*14 600 *31,600	10 050 21,550	8450 18,100	5250 11,350	5450 11,700	3550 7,600			4900 10,900	3250 7,150	6470 21'0"
-4500 mm -15'0"				*7900 *16,550	5500 11,900					*6850 *15,000	4800 10,900	4980 16'0"



ISO 10567:2007



* Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

320D3 GC Hydraulic Excavator Specifications

Bucket Specifications and Compatibility

	Linkage	Width		Capacity		Weight		Fill	HD Reach Boom	
		mm	in	m ³	yd ³	kg	lb		%	R2.25 (7'5") Stick
Pin-On (No Quick Coupler)										
General Duty (GD)	B	1151	45	0.92	1.20	788	1,737	95		⊙
General Duty (GD)	B	1256	50	1.00	1.31	802	1,768	95	⊙	
Maximum load with pin-on (payload + bucket)								kg	2512	2361
								lb	5,538	5,206

The above loads are in compliance with hydraulic excavator standard EN474-5:2006 + A3:2013, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451:2007.

Maximum Material Density:

⊙ 1800 kg/m³ (3,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

Attachments Offering Guide

Not all attachments are available in all regions. Consult your Cat dealer for specific configurations available in your region.

Match

PIN-ON ATTACHMENTS

Boom Type	Stick Length	HD Reach Boom	
		R2.25 m (7'5")	R2.5 m (8'2")
Hydraulic Hammers	H120GC S	✓	✓

320D3 GC Standard and Optional Equipment

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat® dealer for details.

	Standard	Optional		Standard	Optional
ENGINE			UNDERCARRIAGE AND STRUCTURES		
Diesel engine, ALUW06DTI/8 – mechanical governor – emits equivalent to U.S. EPA Tier 2, noncertified	✓		Grease lubricated track link	✓	
Two selectable power modes: Standard and Eco	✓		Tie down points on base frame	✓	
One-touch low idle with automatic engine speed control (AEC)	✓		Center track guiding guard	✓	
Two stage fuel filtration system with water separator and indicator	✓		Segmented track guiding guard		✓
4000 m (13,120 ft) altitude capability with derate from 3000 m (9,840 ft)	✓		3650 kg (8,050 lb) counterweight	✓	
52° C (126° F) high-ambient cooling capacity with derate above 48° C (118° F)	✓		4080 mm (13'5") Standard undercarriage	✓	
-18° C (0° F) cold start capability	✓		600 mm (24") triple grouser track shoes (9.5 mm/0.4" thick)	✓	
-32° C (-25° F) cold start capability		✓	600 mm (24") triple grouser track shoes (10 mm/0.4" thick)		✓
85 amp alternator	✓		BOOMS, STICKS AND LINKAGES		
Radial sealed double element air filter	✓		5.7 m (18'8") HD Reach boom	✓	
Air pre-cleaner		✓	2.25 m (7'5") Reach stick	✓	
Fuel flow meter		✓	2.5 m (8'2") Reach stick		✓
Mechanical fuel priming pump	✓		Bucket linkage, B1 family without lifting eye	✓	
Engine shutoff solenoid	✓		ELECTRICAL SYSTEM		
HYDRAULIC SYSTEM			2 × 750 CCA maintenance free batteries	✓	
Hydraulic boom and stick regeneration circuits	✓		Centralized electrical disconnect switch	✓	
Automatic two-speed travel		✓	90 seconds programmable time delay working lights (LED); storage box mounted (one), cab mounted (two), boom mounted Left Hand (LH) (one)	✓	
Boom and stick drift reduction valve	✓				
High performance hydraulic return filter (capsule filter type)	✓				
Medium-pressure auxiliary circuit		✓			
Two-speed travel	✓				

(continued on next page)

320D3 GC Standard and Optional Equipment

Standard and Optional Equipment *(continued)*

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
SERVICE AND MAINTENANCE			CAB		
Engine oil, fuel, and hydraulic oil filters grouped for ease of maintenance	✓		Sound suppressed cab with viscous mounts	✓	
Scheduled Oil Sampling (S·O·S SM) ports	✓		Openable skylight	✓	
Radiator screen for radiator/oil cooler to prevent plugging by debris	✓		Openable tempered front upper windshield	✓	
SAFETY AND SECURITY			Rear window emergency exit	✓	
Rearview mirrors; handrail mounted (one), cab handhold mounted (one)	✓		Removable tempered lower windshield with in cab storage bracket	✓	
Bolt free service platform with anti-skid plate	✓		Fully adjustable mechanical suspension seat, console and armrest	✓	
Neutral lever (lock out) for all controls	✓		51 mm (2 in) seat belt	✓	
Ground level accessible engine shutoff lever in cab	✓		Two gauge cluster (monitor)	✓	
Signaling/warning horn	✓		Automatic air conditioner with pressurized function	✓	
Right-hand handrail and hand hold	✓		Dual USB charging ports	✓	
			Roll down sun screen		✓
			Washable floor mat	✓	
			Interior utilities (interior lighting, cigar lighter type socket, coat hook, beverage holder, document holding space, rear storage compartment)	✓	
			Control pattern changer		✓
			CAT TECHNOLOGY		
			VisionLink®	✓	

320D3 GC Hydraulic Excavator Specifications

Dealer Installed Kit and Attachments

Attachments may vary. Consult your Cat dealer for details.

CAB <ul style="list-style-type: none">• Cab heater• AM/FM radio• Right Hand (RH) Floor pedal for hammer	SAFETY AND SECURITY <ul style="list-style-type: none">• Travel alarm LINES <ul style="list-style-type: none">• Hammer lines• Heater lines A/C	MAINTENANCE AND IMPROVEMENT <ul style="list-style-type: none">• Fuel flow meter
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GUARD

- Front mesh guard

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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AEXQ2880-03 (11-2023)
Replaces AEXQ2880-02
(India)

